



Boone County Stormwater Program

Stormwater Pollution Prevention Plan (SWPPP)

For Land Disturbance Projects Disturbing One (1) or More Acres

SWPPP TEMPLATE INSTRUCTIONS

Boone County Resource Management has created this electronic SWPPP template to help guide you through the SWPPP development process and help ensure that your SWPPP addresses all the necessary elements stated in the Missouri State General Permit and Boone County regulations. Customize this template based on your site requirements.

Erosion control measures protect the soil surface and prevent soil particles from being dislodged and carried away by wind or water. **Sediment control measures** remove soil particles after they have been dislodged. It is easier and less expensive to prevent erosion than it is to control sedimentation. As you develop your SWPPP, use erosion control Best Management Practices (BMPs) as the primary means to prevent sediment detachment, and sediment controls to capture any sediment that moves down slope.

SWPPP OBJECTIVES

- Stabilize the site as soon as possible
- Protect slopes and channels
- Reduce impervious surfaces to promote infiltration
- Control the perimeter of the site to prevent runoff
- Protect receiving waterbodies
- Follow pollution prevention measures
- Minimize the area disturbed and cover up bare soil

SWPPP REQUIREMENTS

- Cover Page
- Title Page
- Table of Contents
- I. Site Evaluation, Assessment and Planning
- II. Erosion and Sediment Control BMPs, Post Construction BMPs, Final Stabilization
- III. Good Housekeeping BMPs
- IV. Inspections
- V. Recordkeeping and Training
- VI. Final Stabilization
- VII. Certification and Notification
- Appendices

REMINDER

- The SWPPP must remain on site until the site has been closed out.
- A copy of the permit and/or Notice of Intent (NOI) needs to be attached to the SWPPP.
- Modifications and updates to Best Management Practices (BMPs) or drainage areas on the project site should be recorded in or attached to the SWPPP.
- Any additional Federal, State, or Local permits must be attached to the SWPPP.
- The SWPPP, as well as all supporting documentation (permits, inspection reports, addendums, to the SWPPP, location map, site plan, NOI/NOT etc.), must be retained for three (3) years.
- SWPPP's are meant to be changed during the course of the construction process. The goal of the SWPPP is to keep sediment on the project sites and assure water quality standards. If BMPs or procedures are not attaining this goal, then the SWPPP may be changed or updated in order to better address specific conditions.

COVER PAGE

Project Name

Company and individual who prepared the SWPPP

SWPPP Preparation Date

TITLE PAGE

STORMWATER POLLUTION PREVENTION PLAN FOR

Project Name: _____

Project Location/Address (Note: legal description of property must be attached or shown on site plan): _____

City/State/Zip: _____

Project Site Telephone Number (if applicable): _____

Parcel Number: _____

PREPARED FOR

Project Property Owner's Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Fax: _____

Email: _____

PREPARED BY

Consulting Company: _____

Consultant's Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Fax: _____

Email: _____

SWPPP Preparation Date: _____

TABLE OF CONTENTS

Section 1. Site Evaluation, Assessment, and Planning

- 1.1 Project/Site Information
- 1.2 Contact Information/Responsible Parties
- 1.3 Construction Site Estimates
- 1.4 Nature and Sequence of Construction Activity
- 1.5 Soils, Slopes, Vegetation, and Current Drainage Patterns
- 1.6 Receiving Waters
- 1.7 Site Features and Sensitive Areas to be Protected
- 1.8 Potential Sources of Pollution
- 1.9 Endangered Species Certification
- 1.10 Historic Preservation
- 1.11 Applicable Federal, State, Tribal, or Local Programs
- 1.12 Maps

Section 2. Erosion and Sediment Control Best Management Practices (BMPs)

- 2.1 Minimize Disturbed Area and Protect Natural Features and Soil
- 2.2 Phase Construction Activity
- 2.3 Permanent Structural BMPs
- 2.4 Temporary Structural BMPs
- 2.5 Permanent Non-Structural BMPs
- 2.6 Temporary Non-Structural BMPs

Section 3. Good Housekeeping BMPs

- 3.1 Material Handling and Waste Management
- 3.2 Establish Proper Building Material Staging Areas
- 3.3 Designate Washout Areas
- 3.4 Establish Proper Equipment/Vehicle Washing, Fueling and Maintenance Practices
- 3.5 Spill Prevention and Control Plan
- 3.6 Allowable Non-stormwater Discharge Management

Section 4. Inspections

Section 5. Recordkeeping and Training

- 5.1 Recordkeeping
- 5.2 Log of Changes to the SWPPP
- 5.3 Training

Section 6. Certification and Notification

TABLE OF CONTENTS

Appendices

- A. General Location Map
- B. Site Maps
- C. Permits
- D. NOI
- E. Inspection Report
- F. BMP Detail Sheets (or Section 2.3, 2.4, 2.5, 2.6)
- G. Corrective Action Log (or Section 5.3)
- H. SWPPP Amendment Log (or Section 5.2)
- I. Grading and Stabilization Activities Log (or Section 5.1)
- J. Training Logs (or Section 5.3)
- K. Additional Information (i.e. Endangered Species and Historic Preservation Documentation)

SECTION 1. SITE EVALUATION, ASSESSMENT, & PLANNING

1.1 PROJECT/SITE INFORMATION

Project/Site Name: _____

Project Street/Location: _____

City: _____ State: _____ Zip: _____

County or Similar Subdivision: _____

Latitude: _____⁰ _____['] _____["]

Longitude: _____⁰ _____['] _____["]

Is this project considered a federal facility? Yes No

(To check box, double click on box and select Checked under Default value)

State Operating Permit needed? Yes No

NPDES project or permit tracking number: _____

1.2 CONTACT INFORMATION/RESPONSIBLE PARTIES

General Contractor: _____

General Contractor Contact: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Fax: _____

E-mail: _____

Erosion Control Inspector: _____

Company: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Fax: _____

E-mail: _____

24-Hour Contact: _____

Contact Name: _____

Phone: _____

What is the function of the construction activity?

Residential/ Subdivision

Road Construction

Commercial/ Industrial

Linear/ Utility

IMPORTANT RECORDED DATES - to be filled in during construction activities:

Major grading activities begin and end (dates): _____

Construction temporarily or permanently ceased (dates): _____

Stabilization measures initiated (dates): _____

1.5 SOILS, SLOPES, VEGETATION AND CURRENT DRAINAGE PATTERNS

Instructions:

- Describe the existing soil conditions at the construction site including soil types, slopes and slope lengths, drainage patterns, and other topographical features that might affect erosion and sediment control.
- Note any historic site contamination evident from existing site features and known past usage of the site.

Soil Type(s): _____

Slopes (describe current slopes and note any changes due to grading or fill activities): _____

Drainage Patterns (describe current drainage patterns and note any changes due to grading or fill activities): _____

Vegetation: _____

Other: _____

1.6 RECEIVING WATERS

Instructions:

- List the waterbody(s) that would receive stormwater from your site, including streams, rivers, lakes, coastal waters, and wetlands. Describe each as clearly as possible, such as Mill Creek, a tributary to the Potomac River, and so on.
- Indicate the location of all waters, including wetlands, on the site map.
- Note any stream crossings, if applicable.
- List the storm sewer system or drainage system that stormwater from your site could discharge to and the waterbody(s) that it ultimately discharges to.
- If any of the waterbodies above are impaired and/or subject to Total Maximum Daily Loads (TMDLs), please list the pollutants causing the impairment and any specific requirements in the TMDL(s) that are applicable to construction sites. Your SWPPP should specifically include measures to prevent the discharge of these pollutants.

Name of Watershed: _____

Receiving Waterbody: _____ Class: _____

Distance from project outfall to receiving water: _____ feet Type of outfall: _____

How will velocity be reduced at the outfall? _____

NOTE: If outfall discharges to more than one receiving water body, attach information for each outfall. If discharge is to a sinkhole, list **groundwater** as the receiving water and submit a **Sinkhole Evaluation** report.

Description of storm sewer/drainage system: _____

Will work be done in a Jurisdictional stream or creek? Yes No

If so, what steps will be taken to address the impact of construction? _____

NOTE: A **Limited Stream Assessment** must be submitted if work is done in the stream buffer.

NOTE: Include a copy of the 404/401 Permit or Nationwide Permit

Are there any impaired waters on the site? Yes No

If so, what is the name of the waterbody, and list the impairment: _____

NOTE: For a list of impaired waters, please visit www.showmeboone.com

If the above answer is yes, has a Total Maximum Daily Load (TMDL) been developed? Yes No

If a TMDL has been developed, list any specific requirements that are applicable to the construction site.

1.7 SITE FEATURES AND SENSITIVE AREAS TO BE PROTECTED

Instructions:

- Describe unique site features including streams, stream buffers, wetlands, specimen trees, natural vegetation, steep slopes, or highly erodible soils that are to be preserved.
- Describe measures to protect these features.
- Include these features and areas on your site maps.
- **NOTE:** If you have any environmentally sensitive areas on your site pertaining to wetlands, caves, or sink-holes, please keep the following in mind. These requirements can be found in Section 4.7 of the proposed Boone County Stormwater Ordinance.

Environmentally sensitive areas on or near the project? Yes No

If yes, describe of environmentally sensitive area: _____

Steps taken to address the impact of construction: _____

STREAM BUFFER MEASUREMENTS – MDNR requires a 25 ft. buffer of undisturbed natural vegetation between the disturbed portion of the site and surface water. If there will be construction taking place along a stream and this project has been platted after June 1, 2009, Boone County’s stream buffer requirements may apply.

Will there be any stream buffer delineations on site? Yes No

Width:

- Type 1 (not to disturb within 100 ft.)
- Type 2 (not to disturb within 50 ft.)
- Type 3 (not to disturb within 30 ft.)
- DNR Buffer Requirement (25 ft. min.)

Slope Modifications (% slope):

- 0-14% (no change in outer zone width)
- 15-25% (add 25 ft. to outer zone width)
- >25% (add 50 ft. to outer zone width)

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

- The average width of the stream buffer must meet the minimum requirement specified in both the width and slope requirements above.
- There is no reduction in the width of the Streamside Zone.
- No new structures are to be built in the 100-year flood plain.
- For Outstanding Resource Waters/Losing Streams, the buffer zone shall be twice that of the regulatory stream buffer.

1.9 ENDANGERED SPECIES CERTIFICATION

Instructions:

- Before beginning construction, determine whether endangered or threatened species or their critical habitats are on or near your site.
- Adapt this section as needed for state or tribal endangered species requirements and, if applicable, document any measures deemed necessary to protect endangered or threatened species or their critical habitats.

Endangered or threatened species/critical habitats on or near the project? Yes No

Description of species and/or critical habitat: _____

1.10 HISTORIC PRESERVATION

Instructions:

- Before you begin construction, you should review federal and any applicable state, local, or tribal historic preservation laws and determine if there are historic sites on or near your project. If so, you might need to make adjustments to your construction plans or to your stormwater controls to ensure that these historic sites are not damaged.

Historic Sites on or near the project? Yes No

Description of species and/or critical habitat: _____

1.11 APPLICABLE FEDERAL, STATE, TRIBAL, OR LOCAL PROGRAMS

Instructions:

- Note other applicable federal, tribal, state or local soil and erosion control and stormwater management requirements that apply to your construction site.

1.12 MAPS

Site maps should show the construction activities and stormwater management practices for each major phase of construction (e.g., initial grading, infrastructure, construction, and stabilization). Site maps should identify the following features:

- Stormwater flow and discharges
- Areas and features to be protected
- Disturbed areas (locations and timing of activities)
- Clearing limits
- Identify locations of structural and non-structural BMPs
- Identify locations of Post-construction BMPs
- Areas of stabilization
- Indicate locations of material, waste, borrow, or equipment storage

The site map should show changes that have been made to the construction site, BMPs and stabilization methods as the site progresses. The Missouri State Operating Permit requires that the SWPPP and site map be kept up to date, so mark up the site map with the locations and dates of any changes being made. Also include the current locations of the following:

- Portable toilets
- Material storage, vehicle and equipment fueling and maintenance areas
- Concrete, paint and stucco washouts
- Dumpster containers
- Spill kits
- Stockpiles
- Any other non-structural non-stormwater BMPs, temporarily removed structural BMPs or changes to the structural BMPs
- Environmentally Sensitive Areas
- Stream Buffers

2.3 PERMANENT STRUCTURAL BMPs

Instructions:

- Describe permanent structural practices (e.g., diversions, berms, ditches, storage basins, etc.) including design specifications and details used to divert flows from exposed soils, retain or detain flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site.
- Examples of permanent structural BMPs include the following:
 - Biofilters
 - Detention/retention devices
 - Earth dikes, drainage swales, and lined ditches
 - Infiltration basins
 - Porous pavement
 - Other proprietary permanent structural BMPs
 - Outlet protection/velocity dissipation devices
 - Slope protection
 - Vegetated strips and/or swales
- For each major activity identified, do the following:
 - Clearly describe appropriate control measures.
 - Describe the general sequence during the construction process in which the measures will be implemented.
 - Identify any applicable federal, state, local or tribal requirements for design or installation.
 - Describe the maintenance and inspection procedures that will be used for that specific BMP.
 - Describe how low-impact designs or smart growth considerations have been incorporated into the design.
 - Include protocols, thresholds, and schedules for cleaning, repairing, or replacing damaged or failing BMPs.
 - Identify staff responsible for maintaining BMPs. (If your SWPPP is shared by multiple operators, indicate the operator responsible for each BMP.)
- Note the location of each BMP on your site map(s).
- Provide design specifications and details and refer to them. Attach them as appendices to the SWPPP or within the text of the SWPPP.
- Consult Boone County's Stormwater Design Manual for approved construction details.
- Repeat as necessary.

BMP: _____

Description: _____

Maintenance and Inspection Procedures: _____

2.4 Temporary Structural BMPs

Instructions:

- Describe temporary structural practices (e.g., silt fence, fiber rolls, sediment traps, pipe slope drains, inlet protection, etc.) including design specifications and details to filter and trap sediment before it leaves the construction site.
- For each major activity identified, do the following:
 - Clearly describe appropriate control measures.
 - Describe the general sequence during the construction process in which the measures will be implemented.
 - Describe the maintenance and inspection procedures that will be used for that specific BMP.
 - Include protocols, thresholds, and schedules for cleaning, repairing, or replacing damaged or failing BMPs.
 - Identify staff responsible for maintaining BMPs.
 - (If your SWPPP is shared by multiple operators, indicate the operator responsible for each BMP.)
- Note the location of each BMP on your site map(s).
- Provide design specifications and details and refer to them. Attach them as appendices to the SWPPP or within the text of the SWPPP.
- Consult Boone County's Stormwater Design Manual for approved construction details.
- Repeat as necessary.

BMP: _____

Description: _____

Maintenance and Inspection Procedures: _____

2.5 PERMANENT NON-STRUCTURAL BMPs

Instructions:

- Describe permanent non-structural practices (e.g., tree and vegetation preservation, vegetated buffer strips, geotextiles, permanent seeding, sodding, etc.) including design specifications and details used to divert flows from exposed soils, retain or detain flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site.
- For each major activity identified, do the following:
 - Clearly describe appropriate control measures.
 - Describe the general sequence during the construction process in which the measures will be implemented.
 - Describe the maintenance and inspection procedures that will be used for that specific BMP.
 - Include protocols, thresholds, and schedules for cleaning, repairing, or replacing damaged or failing BMPs.
 - Identify staff responsible for maintaining BMPs.
 - (If your SWPPP is shared by multiple operators, indicate the operators responsible for each BMP.)
- Note the location of each BMP on your site map(s).
- Provide design specifications and details and refer to them. Attach them as appendices to the SWPPP or within the text of the SWPPP.
- Consult Boone County's Stormwater Design Manual for approved construction details.
- Repeat as necessary.

BMP: _____

Description: _____

Maintenance and Inspection Procedures: _____

2.6 TEMPORARY NON-STRUCTURAL BMPs

Instructions:

- Describe temporary non-structural practices (e.g., construction entrance/exits, temporary seeding, mulching, etc.) including design specifications and details used to divert flows from exposed soils, retain or detain flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site.
- For each major activity identified, do the following:
 - Clearly describe appropriate control measures.
 - Describe the general sequence during the construction process in which the measures will be implemented.
 - Describe the maintenance and inspection procedures that will be used for that specific BMP.
 - Include protocols, thresholds, and schedules for cleaning, repairing, or replacing damaged or failing BMPs.
 - Identify staff responsible for maintaining BMPs.
 - (If your SWPPP is shared by multiple operators, indicate the operator responsible for each BMP.)
- Note the location of each BMP on your site map(s).
- Provide design specifications and details and refer to them. Attach them as appendices to the SWPPP or within the text of the SWPPP.
- Consult Boone County's Stormwater Design Manual for approved construction details.
- Repeat as necessary.

BMP: _____

Description: _____

Maintenance and Inspection Procedures: _____

SECTION 3. GOOD HOUSEKEEPING BMPs

3.1 MATERIAL HANDLING AND WASTE MANAGEMENT

Instructions:

- Describe measures (e.g., trash disposal, sanitary wastes, recycling, and proper material handling) to prevent the discharge of materials identified in Section 1.8 to receiving waters, except as authorized by a permit issued under section 404 of the CWA.
- Note the location of each BMP on your site map(s).
- Repeat as necessary.

BMP: _____

Description: _____

Maintenance and Inspection Procedures: _____

3.2 ESTABLISH PROPER BUILDING MATERIAL STAGING AREAS

Instructions:

- Describe construction materials from Section 1.8 expected to be stored on-site and procedures for storage of materials to minimize exposure of the materials to stormwater.
- Note the location of each BMP on your site map(s).
- Repeat as necessary.

BMP: _____

Description: _____

Maintenance and Inspection Procedures: _____

3.3 DESIGNATE WASHOUT AREAS

Instructions:

- Describe location(s) and controls to eliminate the potential for discharges from washout areas for concrete mixers, paint, stucco, and so on.
- Note the location of each BMP on your site map(s).
- Repeat as necessary.

BMP: _____

Description: _____

Maintenance and Inspection Procedures: _____

3.4 ESTABLISH PROPER EQUIPMENT/VEHICLE WASHING, FUELING AND MAINTENANCE PRACTICES

Instructions:

- Describe equipment/vehicle washing, fueling and maintenance practices that will be implemented to control pollutants to stormwater (e.g., secondary containment, drip pans, and spill kits)
- Note the location of each BMP on your site map(s).
- Repeat as necessary.

BMP: _____

Description: _____

Maintenance and Inspection Procedures: _____

3.6 ALLOWABLE NON-STORMWATER DISCHARGE MANAGEMENT

Instructions:

- Identify all allowable sources of non-stormwater discharges that are not identified. The allowable non-stormwater discharges identified might include the following (see your permit for an exact list):
 - Waters used to wash vehicles where detergents are not used
 - Water used to control dust
 - Potable water including uncontaminated water line flushing
 - Routine external building wash down that does not use detergents
 - Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used
 - Uncontaminated air conditioning or compressor condensate
 - Uncontaminated ground water or spring water
 - Foundation or footing drains where flows are not contaminated with process materials such as solvents
 - Uncontaminated excavation dewatering
 - Landscape irrigation
- Identify measures used to eliminate or reduce these discharges and the BMPs used to prevent them from becoming contaminated.
- Repeat as necessary.

BMP: _____

Description: _____

Maintenance and Inspection Procedures: _____

SECTION 4. INSPECTIONS

Instructions:

- Identify the individual(s) responsible for conducting inspections and describe their qualifications. Reference or attach the inspection form that will be used.
- Describe the frequency that inspections will occur at your site including any correlations to storm frequency and intensity.
- Note that inspection details for particular BMPs should be included in Sections 2 and 3.
- You should also document the repairs and maintenance that you undertake as a result of your inspections.

Duly Authorized Representative(s):

Company or Organization Name: _____

Name: _____

Position: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Fax: _____

Email: _____

Qualifications: _____

Describe the inspection schedules and procedures you have developed for your site (include frequency of inspections for each BMP or group of BMPs, indicate when you will inspect, e.g., before/during/and after rain events, spot inspections): _____

Describe the general procedures for correcting problems when they are identified. Include responsible staff and time frames for making corrections: _____

SECTION 5. RECORDKEEPING AND TRAINING

5.1 RECORDKEEPING

Instructions:

- The following is a list of records you should keep at your project site available for inspectors to review:
 - Dates of grading, construction activity, and stabilization
 - A copy of the construction general permit (attach)
 - The signed and certified NOI form or permit application form (attach)
 - A copy of the letter from EPA or/the state notifying you of their receipt of your complete NOI/ application (attach)
 - Inspection reports (attach)
 - Records relating to endangered species and historic preservation (attach)
 - Check your permit for additional details.

Date(s) when major grading activities occur: _____

Date(s) when construction activities temporarily or permanently cease on a portion of the site: _____

Date(s) when an area is either temporarily or permanently stabilized: _____

SECTION 6. CERTIFICATION AND NOTIFICATION

OWNER'S CERTIFICATION

I hereby certify that I am the owner of the property described in this plan, or their legally authorized agent, and that I assume full responsibility for the performance of the operation stated in this plan.

Owner: _____

By: _____

Title: _____ Date: _____

Owner's Signature: _____

CONSULTANT'S DECLARATION

I hereby declare that the site plan, location map, and information contained in Part III of this SWPPP has been prepared under my direction or supervision in accordance with Boone County's Regulations, and applicable State and Federal Regulations and that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Consultant: _____

By: _____

Title: _____ Date: _____

Consultant's Signature: _____

Place Seal Here

GENERAL CONTRACTOR'S CERTIFICATION

I hereby certify that I understand the requirements stated in this plan, that I am responsible for completing the requirements set forth in this SWPPP and shown on the site plan, and that I am responsible for the performance of the subcontractors listed in the plan.

General Contractor: _____

By: _____

Title: _____ Date: _____

Contractor's Signature: _____

SUBCONTRACTOR'S CERTIFICATION

I hereby certify that I understand the requirements stated in this SWPPP, that I am responsible for completing the requirements which have been listed in the plan as being a part of my scope of work.

Subcontractor: _____

Title: _____ Date: _____

Responsible for: _____

Subcontractor's Signature: _____

Subcontractor: _____

Title: _____ Date: _____

Responsible for: _____

Subcontractor's Signature: _____

Subcontractor: _____

Title: _____ Date: _____

Responsible for: _____

Subcontractor's Signature: _____

Subcontractor: _____

Title: _____ Date: _____

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Title: _____ Date: _____

Responsible for: _____

Subcontractor's Signature: _____