

SWPPP Outline

Storm Water Pollution Prevention Plan (SWPPP) for construction projects are established and enforced to protect the quality of the receiving waters, prevent local flooding, reduce storm water facilities maintenance projects, and prevent potential hazardous surface conditions. A SWPPP comprises of a description and the implementation of Best Management Practices (BMPs) over the course of a construction project to limit/eliminate sediment discharge. The SWPPP is a living document subject to evolve parallel to the progression of the project's construction activity.

The City of Iowa City (City) requires a SWPPP for review, to be submitted by a certified design professional, for construction projects disturbing an acre or greater. Each SWPPP is evaluated, verifying all requirements of the Iowa DNR's NPDES General Permit #2 have been addressed by the City's Engineering Department. **To facilitate the public with the SWPPP composition, the City has provided the following outline:** (For additional clarification and exemplification, the Iowa DNR's NPDES General Permit #2 and Iowa City Code of Ordinance Title 17 have been referenced.)

- 1) **City Requirements** – (Ch 8, Title 17-8-15, A, (4) of the Iowa City Code)
 - a) Copy of Applicants Notice of Intent (NOI)
 - b) Copy of the permittee's NPDES General Permit No.2
- 2) **Contact Information** –
 - a) Title Holder;
 - b) Contractor(s);
 - c) SWPPP Designer information; and
 - d) Twenty-four hour contact.
- 3) **Site Description** – (NPDES GP2 Part IV.D.1.A-C.) Provide a description of:
 - a) Proposed construction activity;
 - b) Estimate total site/lot area;
 - c) Estimate total projected land disturbance to occur during construction activity;
 - d) Estimate of projected green space;
 - e) Soil description;
 - f) List of receiving waters;
 - g) Evaluation of potential source of pollution.

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4) **Site Plan/Map** – (NPDES GP2 Part IV.D.1.D.) An Erosion Control Plan shall display: a)

Anticipated contours;

b) Placement of erosion and sediment control practices;

i. Stabilization Practices (NPDES GP2 Part IV.D.2. A.(1).) ii.

Structural Practices (NPDES GP2 Part IV.D.2.A. (2).(a-c.)) iii.

Construction entrance iv. Concrete washout

v. Stockpiles

vi. Fueling area

vii. Staging area

viii. Portable restroom facility(s)

ix. SWPPP Box

x. Contractor Trailers

xi. Etc.

c) Drainage patterns;

d) Locations of current and projected drainage ways;

e) Locations of current and projected surface water;

f) Sensitive and/or protected areas;

g) Location where storm water will be discharge from the site; and

h) Current and projected vegetated areas.

5) **Drainage Plan** – (Accompanied by a Drainage Report) – (NPDES GP2 Part IV.D.1.C.)

a) Provide existing runoff data for the site ; and

b) Estimate post-construction runoff coefficient.

5) **Erosion and Sediment Control Practices** – (NPDES GP2 Part IV.D.2.A-B.)

a) Description and specifications of control devices, structures, and practices that will be utilized on site to contain or prevent sediment runoff;

b) Sequence of events regarding construction activity and its association with the implementation of erosion and sediment controls/practices on site;

c) Description of the implementation of the topsoil preservation requirement; and

d) (Additional BMP requirements listed in D 2. A. of the IDNR's NPDES General Permit #2 may apply).

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- 6) **Maintenance** – Description of standard procedures for maintaining onsite sediment and erosion control devices, structures, and practices. (NPDES GP2 Part IV.D.3.)

- 7) **Good Housekeeping** – (NPDES GP2 Part IV.D.2.C.) Describe procedures for:
 - a) Waste disposal;
 - b) Proper staging areas and practices;
 - c) Concrete washout procedures;
 - d) Spill prevention and containment plan;
 - e) Proper secondary confinement/vehicle fueling and maintenance practices;
 - f) Vehicle tracking sediment off site practices;
 - g) Sanitary waste disposal management;
 - h) List and define control method(s) for allowable onsite non-storm water discharges (See NPDES GP2 Part III.A.2 for authorized non-storm water discharges); and
 - i) List and define additional BMPs regarding Good housekeeping practices.

- 8) **Post-Storm Water Management Features/Practices** – (NPDES GP2 Part IV.D.5.)
 - a) Description of post-construction measures (BMPs) to be constructed during the construction process to handle storm water discharges post-construction (volume & flow rate);
 - b) Description of post-construction measures (BMPs) to be constructed during the construction process to treat storm water discharges post-construction. (Hydrocarbon treatment, etc.); and
 - c) Procedures for final inspection of inaccessible/confined-space structures prior to Final CO approval.

The City of Iowa City requires underground detention facility's model number and a copy of its maintenance manual be submitted with the project's SWPPP.

- 9) **Inspections** – (NPDES GP 2 Part IV.D.4)
 - a) Identify personnel to perform inspections and list their qualifications;
 - b) Provide a detailed description of standard inspection procedures, documentation practices, inspection frequencies for individual (hotspots, i.e. oil/grease separators) BMP and/or a group of them;
 - c) Provide an inspection form template;

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- d) Procedures for documenting and informing the appropriate personnel to implement corrective actions;
 - e) SWPPP plan revision and updating procedures;
 - f) Description of proper logging procedures of site activity; and
 - g) Weekly SWPPP report contents.
- 10) **Record Keeping** – Description of where the Notice of Intent (NOI), (NPDES GP 2 Part V), and the required contents to attain the NOI, the SWPPP documents, and weekly inspection reports are to be located on site.
- 11) **Certifications and Notifications** – The owner, contractor(s) and/or subcontractor(s) who are responsible for the permit requirements, the implementation of erosion and sediment control practices, execution of land disturbance activity, and/or generating onsite runoff activity shall identify each measure they are to be responsible for implementing on a signed certification statement. (NPDES GP 2 Part IV.7.)
- 12) **Additional Permits and Regulations** – If the area of disturbance is subject to additional statutes and regulations, provide information regarding these requirements and responsibilities. These can include, but are not limited to, Historical Preservation, Endangered Species, Environmental Law, etc.

The permit applicant is responsible for addressing all of the Iowa DNR's General Permit #2 regulations within the SWPPP, regardless of whether it is specified in the outline. Any misrepresentation or circumventing will be in violation of the City's Ordinance and subject to fines and penalties.

Special Conditions for Stormwater Prevention Plan

The following design criteria and special conditions are mandated by the City of Iowa City to maximize the efficiency of stabilization and runoff containment methods, which correlates with the City's National Pollution Elimination System MS4 requirements and Title 17 of the Iowa City's Code of Ordinance.

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It is the Applicant's, Owner's, and Contractor's responsibility to comply, validate, and enforce the following requirements:

A) SWPPP REQUIREMENTS

- 1) An updated SWPPP and site plan documenting the construction progress, and the implementation of scheduled and unscheduled sediment & erosion measures on site shall be made available for all regulatory inspections.
- 2) Weekly SWPPP reports and signed copies of the Contractor Certification Statement obtained by each of the contractors and sub-contractors implementing identified measures stated in the SWPPP shall be made available for all regulatory inspections.
- 3) The SWPPP Plan shall be amended when construction activity, operations, or maintenance has a substantial effect on sediment discharge from the site which was not addressed in the original plan, or if the original plan proved to be ineffective.
- 4) The Applicant shall inform the Stormwater Specialist within seven calendar days of any site contact information update, or the transference of the NPDES General Permit #2. (For residential lots located in a larger common plan of development where the owner has the buyer sign an agreement stating sole responsibility. The Buyer is required to produce a SWPPP and obtain a NPDES General Permit No.2 prior to land disturbance.)
- 5) The Applicant shall comply with all other applicable state and federal permit requirements.

B) Scheduling

- 1) Land disturbance activity shall not take place on site until it is essential for construction to initiate, at which time sediment and erosion controls shall be implemented preceding any activity other than grubbing and clearing along the site's perimeter.
- 2) Phase construction shall be implemented on sites where feasible. The contractor has the responsibility to limit the exposure time of a disturbed area prior to its development.
- 3) The contractor(s) is responsible for integrating the implementation of the SWPPP's erosion and sediment practices with the construction schedule during site development, as well as, additional measures warranted by site conditions.

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C) Monitoring

1) Inspections:

- a) Designated site SWPPP inspector shall inspect the erosion and sediment control practices once every seven calendar days.
- b) A report documenting at minimum the seven day inspection, which shall incorporate the status of the site's BMPs, a description of current deficiency(ies), their location, and corrective action(s) implementation schedule.
- c) Applicant has three days to implement corrective actions, unless additional measures are required, at which time they will have seven days to modify the SWPPP and implement BMPs. If Applicant detects sediment leaving the site, they shall immediately implement proper sediment and erosion practices.
- d) Unless otherwise approved by the city, construction shall not occur on the site at any time when the city has identified conditions of noncompliance.
- e) Unless approved by the city, construction activities undertaken by an applicant prior to resolution of all discrepancies specified in the written report shall constitute a violation.

Site Activity Specific Requirements

D) Erosion and Sediment Controls - Refer to Cedar Rapids Metropolitan Area Standard Specifications for Public Improvements for proper controls and practices/construction procedures.

1) Structural Controls:

- a) Sediment Basin Requirements;
 - i) Refer to IDNR's NPDES General Permit #2 (Part IV.D.2.A.(2).(c). to determine if a temporary or permanent sediment basin is required.
 - ii) Construction of the structure shall commence prior to or during initial site work, and made functional prior to upslope land disturbance activity.
 - iii) When feasible, the use of outlet devices that withdraw water from the surface of the detained body of water shall be utilized.
 - iv) Stabilization of the basin's slopes shall be implemented immediately after it is constructed.
 - v) Maintenance shall be performed once sedimentation has compromised the structure's holding capacity by 50%.
 - vi) Dewatering filtering practices for sediment traps and basins shall be utilized to obtain a 300 or less NTU (Nephelometric Turbidity Units) prior to discharging offsite or into the City's MS4 system.

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- b) Inlet Protection;
 - i) Protection devices shall be installed around existing onsite inlets prior to land disturbance activity.
 - ii) Inlet protection devices shall be installed around projected inlets once connected to an existing storm sewer system or once the storm system becomes operational.
 - iii) Routine inspections shall be performed prior to and following rain events and once every seven days.
 - iv) Inlet protection displaying sediment accumulation and/or are damaged shall be maintained or replaced immediately.

- c) Sediment Controls;
 - i) Perimeter controls and diversion control practices shall be implemented prior to the commencement of land disturbance activities.
 - ii) Perimeter control application shall be scheduled and implemented immediately following the completion of clearing and grubbing activity.
 - iii) Control measures shall be maintained to their original condition once sediment accumulation has succeeded $\frac{1}{2}$ of the control's holding capacity or has sustained damage rendering it nonfunctional.
 - iv) Erosion and sediment control practices shall be implemented in accordance with the sequence of construction as called out in the SWPPP plan.
 - v) All temporary sediment controls shall be removed within 30 days of achieving final stabilization as called out in the IDNR's NPDES General Permit #2.

- d) Erosion Controls;
 - i) Stabilization measures shall be implemented through drainage ways and on stream/river banks immediately following their completion.
 - ii) Stockpiles and disturbed areas that will be inactive for 14 days or more shall be seeded and mulched immediately upon dormancy.
 - iii) Erosion controls to divert uphill runoff shall be implemented and stabilized prior to any land disturbance activity. (i.e. earth berms, dikes, drainage ways, temporary slope drains, mulch berms, etc.)

E) Stabilized Entrance Drives

- 1) For construction specs refer to SUDUS Standard Specifications

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- 2) Stabilized construction entrance drives shall be inspected and maintained daily to prevent tracking or the flow of sediment offsite.
- 3) No material shall be swept or rinsed into the storm sewer system. Any sediment tracked offsite shall be immediately cleaned up utilizing proper equipment and removal procedures, and corrective actions addressing the origin of the issue shall be implemented prior to continuing the instigating activity.

F) Concrete, Grout, and Mortar Waste Management

- 1) Concrete Management
 - a) Material Management – Contractor shall store concrete grout, and mortar away from drainage areas and ensure that these materials do not enter the storm drain system; cove and protect from rainfall and to prevent run-off.
 - b) No personnel shall allow concrete washout procedures to transpire onsite other than in a designated confined area.
 - c) A designated washout facility shall be installed/constructed onsite prior to any foundation or flatwork, located on level ground accessible from a hard surface, and properly maintained once its holding capacity is $\frac{3}{4}$ full or has sustained damage rendering it nonfunctional.
- 2) Paving Operations and Saw Cutting Activities
 - a) Project Site Management - All nearby catch basins shall be cover or barricade using control measures, such as filter fabric, straw waddles, and sand bags, as necessary to keep paving material or cutting slurry out of the storm drain system.
 - b) Waste Management – Contractor shall not sweep or wash down excess materials or new surfaces into gutter, storm drains, or creeks.
- 3) Grout and Mortar Waste Management
 - a) Onsite stationary mixers shall not be located near drainage ways, existing storm inlets, basins, etc.
 - b) Sediment controls shall be placed on the downhill side of the facilities to contain runoff.
 - c) Loose aggregate shall be swept or scooped up and disposed of properly in a solid waste container.

G) Painting

- 1) Project Site Management - All nearby catch basins shall be cover or barricade using control measures, such as filter fabric, straw waddles, and sand bags, as necessary to keep paving material or cutting slurry out of the storm drain system.
- 2) Oil-based Paint – All waste thinner and solvent, and sludge from cleaning of equipment and tools shall be disposed as hazardous waste.
- 3) Waste Management-

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- a. All paint, solvents, chemicals, and waste materials shall be stored in compliance with the requirements of of the Owner and all applicable Federal, State and County regulations. Contractors shall store these materials in a designated area that will not allow run-on of storm water or runoff of spills.
- b. All **dry**, empty paint can/buckets, old brushes, rollers, rags and cloths shall dispose of in the trash.

H) Hazardous and Non-Hazardous Waste Management

1) Hazardous Waste

- a) All onsite hazardous material shall be stored and properly disposed of according to the substance's MSDS specifications. (For additional disposal assistance please contact the Linn County Solid Waste Agency)
- b) In case of spill contact the Johnson County - IA Region IX HazMat Team (319) 356-5260 for control assistance and/or spill response. For emergencies call 911.
- c) Report any "Release of Excess of Reportable Quantities" within 6 hrs of the spill to the county sheriff's office. (IDNR's NPDES General Permit #2 Part III.B.)

2) Non-Hazardous Waste Management – A high-level of sanitation shall be sustained throughout the construction process.

a) Solid Waste

- i Solid waste containers shall be located onsite within the designated storage area(s). If additional containers are necessary elsewhere onsite they shall be located on and accessible from a hard surface.
- ii Solid waste containers shall be maintained prior to debris protruding from the top of the unit.
- iii All open top solid waste containers that are utilized onsite shall be inspected for leaks immediately after rain events.

b) Granular Material – (i.e. any excavated or imported earth, and, aggregate base, etc.)

- i Granular material storage shall be at least ten feet away from catch basins or curb returns, and kept clear of gutter, swales, and drainage channels. No stockpiling is allowed in the street.
- ii When rain is forecasted within the next 24-hours and stored granular material is a potential point source for an illicit discharge material must be covered with tarpaulin or plastic sheeting and surrounded with sandbags to prevent run-off.

c) Street Sweeping – At the end of the day or as directed by the City, all public roadways and public-right-of-wat sidewalks shall be clean and sweep of all

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material attributed to site work. No water shall be utilized for any type of cleaning practice.

l) Vehicle & Equipment Maintenance and Fueling

1) Vehicle & Equipment Maintenance

- a) Onsite vehicles and equipment shall be inspected daily for leaks. If leaks are detected proper cleanup procedures shall be implemented.
- b) If vehicle or equipment maintenance is necessary on site proper preventive measures/equipment shall be used. (Drip pan, spill kit, etc.)
- c) Daily cleaning of vehicle or equipment shall be performed with water only, in a designated, bermed area that will not allow waste water to flow offsite into streets, gutters, storm drains, or creeks.
- d) All vehicle or equipment fluid leaks and spills shall be cleaned up immediately and disposed of waste and cleanup material as hazardous waste.

2) Fueling

- a) A secondary confinement tank or barrier shall be installed/constructed around each individual tank/barrel or fueling station.
- b) All stationary onsite fuel tank/barrels shall have a designated area away from swales, drainage ways, storm inlets, basins, etc. and accessible from a hard surface.
- c) Report any "Release of Excess of Reportable Quantities" within 6 hrs of the spill to the county sheriff's office. (IDNR's NPDES General Permit #2 Part III.B.)