

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 Cedar Rapids (City) requires a SWPPP for review, to be submitted by a certified design professional, for construction projects disturbing an acre or more and may require one for projects disturbing less than an acre in cases warranted by site conditions. (Illustrations of such conditions are listed in the Section 71.07(a).1. of the Cedar Rapids Ordinances.) Each SWPPP is evaluated, verifying all requirements of the Iowa DNR's NPDES General Permit #2 have been addressed by the City's Development Service Department. **To facilitate the public with the SWPPP composition, the City has provided the following outline upon request** (For additional clarification and exemplification, the Iowa DNR's NPDES General Permit #2 and Cedar Rapids Ch. 71 Ordinance have been referenced.):

- 1) **Contact Information** – (Section 71.08 (a).1. of the Cedar Rapids Ordinance)
 - a) Title Holder;
 - b) Contractor(s);
 - c) SWPPP Designer information; and
 - d) Twenty-four hour contact.

- 2) **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.

- 3) **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.))

SWPPP Outline

- 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.
- 4) **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).
- 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;

SWPPP Outline

- 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 Cedar Rapids requires underground detention facilities to be inspected and signed off by a Licensed Professional Engineer as a prerequisite to obtaining Final CO. (The inspection form is available at Public Works upon request.)

- 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) BMP and/or a group of them;
 - c) Provide an inspection form template;
 - 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.

SWPPP Outline

- 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** – (Section 71.08.3. of the Cedar Rapids Ordinance)
- a) 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 Cedar Rapids to maximize the efficiency of stabilization and runoff containment methods, which correlates with the City's National Pollution Elimination System MS4 requirements and Ch. 71 of the Cedar Rapids Ordinance.

Fulfilling

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 Erosion Control Officer within seven calendar days of any site contact information update, or the transference of the NPDES General

SWPPP Outline

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 #2 prior to developing the lot.)

- 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.

C) Monitoring

- 1) Inspections:
 - a) Designated site SWPPP inspector shall inspect the erosion and sediment control practices once every seven calendar days, and after a ½ inch or greater rain event.
 - 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) and their 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.

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;

SWPPP Outline

- 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.
- 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.

SWPPP Outline

- ii) Stockpiles and disturbed areas that will be inactive for more than 21 days shall be seeded and mulched within the first 14 days.
- iii) Erosion controls to divert uphill runoff shall be implemented prior to any land disturbance activity, and shall immediately execute proper stabilizing practices upon completion. (i.e. earth berms, dikes, drainage ways, temporary slope drains, mulch berms, etc.)

E) Stabilized Entrance Drives

- 1) For construction specs refer to Cedar Rapids Metropolitan Area Standard Specifications for Public Improvements
- 2) Stabilized construction entrance drives shall be maintained and inspected 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) No personnel shall allow concrete washout procedures to transpire onsite other than in a properly protected confined area.
 - b) 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) Grout and Mortar Waste Management
 - a) Onsite stationary mixers shall not be located near drainage ways, projected or existing storm inlets, basins, etc.
 - b) Sediment controls shall be placed on the downslope 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) 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 Cedar Rapids Fire Station 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.)

SWPPP Outline

- 2) Non-Hazardous Waste Management – A high-level of sanitation shall be sustained throughout the construction process.
 - a) 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.
 - b) Solid waste containers shall be maintained prior to debris protruding from the top of the unit.
 - c) All open top solid waste containers that are utilized onsite shall be inspected for leaks immediately after rain events.

- H) 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.)
 - 2) Fueling
 - a) All stationary onsite fuel tank/barrels shall be located in a designated area away from swales, drainage ways, storm inlets, basins, etc. and accessible from a hard surface.
 - b) A secondary confinement tank or barrier shall be installed/constructed around each individual tank/barrel or fueling station.