

# CONTRACTOR GUIDE

December 2018

## STORMWATER POLLUTION PREVENTION

FOR SMALL CONSTRUCTION PROJECTS

### PURPOSE OF THIS GUIDE

Erosion and runoff from construction sites can enter storm drains and carry sediment and other pollutants to Iowa's waterways. This guide is directed toward contractors involved with excavation and construction of small projects, defined as less than one acre, and provides guidance on how to prevent stormwater pollution and protect Iowa's waterways (streams, lakes, and rivers). Construction site regulatory requirements are included as they pertain to small projects.

### STATE LAW & LOCAL ORDINANCES

General Permit No. 2 requirements impact projects with soil disturbance of one acre or more requiring a Stormwater Pollution Prevention Plan (SWPPP). Soil disturbance includes clearing and grubbing, grading, excavation and filling activities. Practices to prevent erosion and minimize sediment transport, and other pollution prevention practices are recommended to prevent illicit discharges of pollutants to waterways. Practices may be required by local ordinances or company policies.

Additionally, there are 47 municipalities and universities within the state of Iowa that hold individual Municipal Separate Storm Sewer System (MS4) permits from the Iowa Department of Natural Resources (IDNR). These MS4 permits require the cities to create and enforce ordinances and conduct educational efforts to protect stormwater quality within their jurisdictions. A municipality may have stand-alone ordinances called "Construction Site Erosion and Sediment Control Ordinance," general building, grading permit regulations, or right-of-way permits, which may require erosion and sediment control best management practices (BMPs) and good housekeeping practices at construction projects with less than one acre of soil disturbance. Contact the local municipality to determine applicable rules or permits.

All MS4 permitted communities are also required to enforce illicit discharge ordinances, which prohibit the discharge of anything other than stormwater to the storm sewer system, including areas draining to the storm sewer system. The storm sewer system can include all street surfaces, storm drains, storm sewers, ditches, and drainage ways within a city's jurisdiction.



### MS4 CITIES & UNIVERSITIES

#### Cities

Altoona  
Ames  
Ankeny  
Asbury  
Bettendorf  
Bondurant  
Buffalo  
Carter Lake  
Cedar Falls  
Cedar Rapids  
Clive  
Coralville  
Council Bluffs  
Davenport  
Des Moines  
Dubuque  
Eldridge

Elk Run Heights  
Ely  
Evansdale  
Grimes  
Hiawatha  
Hudson  
Iowa City  
Johnston  
Le Claire  
Marion  
Marshalltown  
North Liberty  
Norwalk  
Ottumwa  
Pleasant Hill  
Raymond  
Riverdale  
Robins

Sergeant Bluff  
Sioux City  
Storm Lake  
University Heights  
Urbandale  
Waterloo  
Waukee  
West Des Moines  
Windsor Heights

#### Universities

Uni. of Iowa  
Iowa State Uni.  
Uni. of Northern  
Iowa



# STANDARD OPERATING PROCEDURES

## FOR STORMWATER POLLUTION PREVENTION

### KNOW LOCAL REGULATIONS

#### *Construction Site Erosion Control Policy*

Municipalities require stormwater pollution prevention plans for construction all sites disturbing one or more acre. However, cities may also require BMPs with a much smaller disturbed area, these could be requirements placed in a zoning approval, a right-of-way access permit, or a grading permit.

#### *Common Pollutants From Construction Sites*

The following is a list of common pollutants that are generated at construction sites:

- Sediment from grading operations and bare soil
- Concrete washout from tools and trucks, and wet/dry saw cutting
- Sanitary waste from porta-potties
- Debris from discarded building materials
- Oil and grease from equipment and vehicles
- Paint, chemicals and solvents
- Litter

#### *Differences Between Erosion & Sediment Control BMPs*

Erosion control practices are used to prevent erosion from occurring at construction sites with bare soils. These practices are proactive in comparison to sediment controls that are used to capture eroded or eroding sediments and keep them on-site and away from surface waters. Both erosion and sediment control practices are required on construction sites to prevent excessive sediment from leaving the site. Examples of erosion controls include: keeping existing vegetation, mulching with straw or hydro-mulch, erosion control blankets, seeding, and sodding. Sediment controls include silt fences, filter socks, and wattles. Good housekeeping controls should also be in place to contain sanitary wastes, concrete washout and cuttings, debris, and other wastes.

### VENDORS

Need help finding resources for wattles, tarps, inlet protection, and other practices? Check out some of the websites below. ISWEP does not endorse any of the following companies nor is the list exhaustive.

- [www.colemanmoorecompany.com](http://www.colemanmoorecompany.com)
- [www.erosioncontrol-products.com](http://www.erosioncontrol-products.com)
- [www.landmsupplyco.com](http://www.landmsupplyco.com)
- [www.brockwhite.com](http://www.brockwhite.com)
- [www.acfenvironmental.com](http://www.acfenvironmental.com)





# STANDARD OPERATING PROCEDURES

## FOR STORMWATER POLLUTION PREVENTION

### PHASE 1: CLEARING, GRUBBING, EXCAVATION

Maintain as much existing vegetation as possible. Even for projects under one acre, the excavation and construction footprint should be as small as possible to complete work. Install perimeter controls (such as silt fences and filter socks) and stabilized exit before any soil disturbance

#### *Stockpile & Spoils Management*

Unless infeasible or work will be completed in a single day, stockpiles and spoils should not be placed on hard surfaces. The stockpile should be located as far back from curb as possible. The pile should be covered with a tarp or mulched and wattles or filter socks should be located on the downslope side of the stockpile to contain eroded soil and be positioned to allow water to pond behind the wattle or sock.

### PHASE 2: CONSTRUCTION

#### *Storm Inlet Protection and Other Controls*

Install inlet protection on the exterior of the drain or use inserts. Additional sediment controls may be added. Add erosion controls such as mulch or erosion control blankets immediately if no soil disturbance will occur for 14 days.

#### *Dewatering*

Filter discharge before releasing to the stormwater system. If possible, divert flow from dewatering to well vegetated area. Aquatic life-safe flocculants can be used with a settling basin or tank.

#### *Other Construction Activities*

If boring or excavation will occur, all bore slurry/mud or spoils should be placed back into the bore pit/excavation or taken off-site. Slurry and spoils should not be discharged into waterways, storm sewer inlets, or onto street surfaces, or storm sewer inlets. It should not be put into areas that will allow it to be washed back into waterways. If concrete is being cut, drilled, ground or poured, ensure that concrete washout or slurry is contained in a lined containment system and not allowed to enter any nearby waterways, storm drains or street surfaces. Absorbent gels can be used to contain wet saw cuttings. Vacuums can be used as well.



*Stabilized Exit*



*Storm drain inlet protection*



*Dewatering bag used to remove sediment*



*Installation of silt fence for perimeter control*

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### PHASE 3: FINAL STABILIZATION

The site should be fully stabilized with permanent perennial vegetation at the completion of the project by placing sod or seeding. New sod needs to be watered at least twice per day for two weeks depending on weather conditions. Newly seeded areas should be mulched and protected from vehicular and foot traffic. Consult the the Statewide Urban Design and Specifications or the Iowa DOT manual for recommended urban and rural seed mixes.

SUDAS: <http://www.iowasudas.org/manuals/specs/div9/9010.pdf>  
IDOT: <https://www.iowadot.gov/erl/current/GS/content/2601.htm>

### INSPECTION & ENFORCEMENT

Inspect BMPs on a weekly basis and maintain them when needed. Clean up any sediment tracked onto street on a daily basis.

Exposed soil with no controls is the primary source of sediment leaving construction sites. Lack of site BMPs can result in water pollution and enforcement action, including monetary fines and a possible stop work order fines. Fines for non-compliance with local ordinances are usually several hundreds to thousands of dollars and can go higher depending on the severity of the situation.

If you are required to have a SWPPP, keep it updated. What is on the plan should be in place on the site and vice versa.

City staff, regional EPA inspectors, other contractors, and the general public may raise concerns over ineffective best management practices, which can lead to further investigation and potential enforcement.

## STREETS TO STREAMS, NO TREATMENT IN BETWEEN

