



# City of East Grand Forks

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Public Works Department · 1001 2nd St NE · East Grand Forks, MN 56721

## **STORMWATER BMPs – APPLICATION/HANDLING OF CHEMICALS**

### AFFECTED FACILITIES

These Best Management Practices (BMPs) apply to all municipal facilities where chemicals are handled, stored or applied.

### BACKGROUND

The primary pollutants of concern are herbicides, pesticides and fertilizers. These pollutants, if allowed to enter into a stormwater system or surface water, can be toxic to aquatic life. Utilizing these guidelines and Best Management Practices (BMPs) will help reduce the chances of these pollutants making their way into the city's stormwater system and waterways.

### INTEGRATED PEST MANAGEMENT

Integrated pest management (IPM) is a pest control system that employs mechanical, biological, cultural, and/or chemical mechanisms as determined by a thorough evaluation of the conditions rather than addressing every condition with chemicals. IPM strategies are employed only when pest populations reach an unacceptable economic or aesthetic threshold.

The following are example IPM strategies:

- Cultural control – selected timing and location of plantings to avoid pests
- Host resistance – planting vegetation that is resistant to pests
- Mechanical control – weeding; setting insect traps
- Biological control – stocking beetles to attack purple loosestrife; protecting naturally-occurring insect predators, parasites, and pathogens
- Chemical control – using the least toxic pesticides available wherever possible

### CHEMICAL PREPARATION AND HANDLING BEST MANAGEMENT PRACTICES

- Select the least toxic products available to minimize waste and applicator exposure.
- Use products only as directed, reading and following all labels.
- Inspect, maintain, and calibrate equipment used for mixing and application.
- Prepare only as much product as is needed.
- Be prepared with cleanup materials to cleanup spills immediately; use dry cleanup methods (e.g. squeegee and dust pan) rather than hosing down the spill site.

- Close containers tightly after each use, even if planning to reopen them soon.
- Store chemicals safely in a ventilated, well lit area that is away from drinking water wells or any other permanent or intermittent water bodies.
- Dispose of rinse water properly and recycle containers properly. For pesticides, triple rinsing or pressure rinsing with reuse of rinse water for future pesticide applications is recommended by the University of Minnesota. Proper rinsing of pesticide containers is also a requirement of Minnesota State and federal law.
- Monitor all fertilizer/pesticide application quantities and sites in order to provide guidance for future treatments.
- Keep products in their original containers and mark the date of purchase on each container. Use older materials first.

#### CHEMICAL APPLICATION BEST MANAGEMENT PRACTICES

- Employ an IPM, if an alternative is available.
- Consider having the soil tested before applying fertilizer in order to determine what nutrients must be added.
- Avoid application over impervious surfaces; sweep granular fertilizer back onto the grass to prevent it from washing into the storm sewer system.
- Apply when sufficient calm, dry weather is in the forecast to prevent drift and wash off. Lawn fertilization programs should begin in fall, not in spring; this will prevent shallow root growth. Tree and shrub fertilization programs should occur in late fall or early spring when the plants are dormant.
- Do not apply to bare or eroding soil.
- Do not apply near water systems such as streams and lakes unless the product is specifically designed for use in shoreline or aquatic environments.
- Do not apply near wells.
- Do not over fertilize. Too much nitrogen will cause plants to grow shallow roots creating a less hardy landscape (e.g. especially bad for athletic fields and parks) that requires more watering. Healthy trees and shrubs do not require annual fertilizing.
- Consider causes such as poor soils, insects, disease, or current weather patterns before applying fertilizer as a remedy for poor growth.

#### NEW CONSTRUCTION OR RENOVATION REQUIREMENTS

- Do not install storm drains near (or at a lower elevation than) material loading or unloading areas unless they are equipped with shut-off valves.
- Grade and slope material loading and unloading areas to avoid run-on to the area.
- All loading and unloading areas should be paved.
- Loading and unloading areas should be under a roof, canopy or overhang to avoid exposure.
- Design new or remodeled facilities so that all work involving industrial materials or wastes is conducted indoors or under a roof or inside of containment.

- If work with materials must be conducted outdoors, construct impervious berms or secondary containment around areas where materials are stored, handled, or transferred routinely. Make sure these berms or dikes are adequate to contain the maximum quantity of the single largest probable spill or leak plus a simultaneous heavy rain fall.

#### REQUIRED TRAINING

Train all current employees who handle or apply chemicals on these BMPs, on the Spill Clean-up BMP and the importance of Personal Protection Equipment (PPE) annually.

Train all new hires and job transferees who will handle or apply chemicals on these BMPs, on the Spill Clean-up BMP and the importance of Personal Protection Equipment (PPE) before they are assigned to their new duties.

All contracts must stipulate that contracted employees are trained in these BMPs.

#### ADDITIONAL INFORMATION

Household Hazardous Waste can be disposed of at:

**Polk County Environmental Services Transfer Station**

320 Ingersoll Ave

Crookston, MN 56716

Monday - 7:00am to 7:00pm

Tuesday through Friday - 7:00am to 5:30pm

Used motor oil and other waste automotive fluids can be disposed of at:

**Public Works Department**

1001 Second St. N.E.

East Grand Forks, MN 56721

(218) 773-1313

To report an Illicit Discharge, clogged sewer or for answers to questions regarding these stormwater BMPs please contact:

**Public Works Stormwater/Wastewater Department**

1001 Second St. N.E.

East Grand Forks, MN 56721

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