



Stormwater Management

Pollution Prevention for Nurseries and Landscape Industries

What is Stormwater Pollution?

The Town of Plainville, like many municipalities across the country operates a “municipal separate stormwater drainage system” or MS4, which is designed to convey discharges that are composed entirely of stormwater, and is separate from the wastewater sewer system that conveys discharges from individual homes or businesses. It is important to note that MS4 stormwater discharges receive no formal treatment and flow directly into our community’s stormwater drainage system and into our local waterways.

Poor training and material management practices at nurseries and by landscaping companies can cause pollutants such as detergents, cleansers, solvents, and paint waste to enter our storm water system. These pollutants can build up in storm water lines causing blockages, negatively impact the operation of storm water retention areas and drywells, or degrade water quality of our washes and rivers. Pathways of this pollution include the direct pouring or dumping by ill-trained employees, poor cleaning habits, improper storage of chemicals and waste, and poor maintenance of waste containers.

Recommended Practices for Nurseries and Landscape Industries

Most of the Best Management Practices (BMPs) identified below are non-structural and cost little or nothing to implement. This listing is not all inclusive and other non-structural and structural BMPs can be implemented to further reduce the potential of contributing to stormwater pollution.

Chemical, Waste and Material Management

Do

- Contain all leaves, branches, and grass cuttings in plastic yard bags or other suitable containers.

Don't

- Leave piles of leaves, branches, and grass cuttings in areas that would allow these materials to blow or wash into the storm water system.



Stormwater Management

Chemical & Waste Management *continued*

Do

- Pile and cover landscaping materials, such as crushed gravel or stone, or excavated soils on plastic sheeting.
- Use brooms, blowers, and low-water use cleaning devices to clean outdoor areas.*
- Inspect all chemical containers prior to and following transport and store in safe areas with secondary containment.
- Promptly transfer unused application materials into an appropriate container in a manner that reduces the chance of spilling.
- Cleanup chemical spills promptly using dry adsorbent materials.
- Keep absorbent cleanup materials readily accessible in all work areas.
- Properly contain and dispose of used absorbent materials as required.

Don't

- Pile landscape materials, such as crushed gravel or stone, or excavated soils directly on paved surfaces.
- Clean outdoor paved surfaces using a pressure sprayer, hose, and/or detergents.*
- Allow bulk chemical containers and associated valves to leak product or store containers in a manner in which they may be damaged.
- Store open containers of application materials where they can be knocked over or transfer in a manner that may create a spill.
- Allow spilled materials to be tracked into areas where they may enter the stormwater system.
- Waste time responding to a spill or leak by looking for the appropriate cleanup materials.
- Pile spent absorbent materials on the ground or dispose of them uncontained in a dumpster.



Stormwater Management

Chemical Application

Do

- Apply fertilizers, herbicides, and pesticides on individual plants. For lawns, limit spray only to those areas where treatment is required.
- Apply fertilizers, herbicides, and pesticides only during dry conditions and when rain is not forecasted for several days.
- Apply fertilizers, herbicides, and pesticides during calm or light breeze conditions.
- Apply fertilizers, herbicides, and pesticides in a manner that reduces overspray onto paved areas such as curbs, streets, or sidewalks.
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- Do all trimming and pickup debris and trimmings before applying fertilizers, herbicides, and pesticides.

Don't

- Spray fertilizers, herbicides, and pesticides over entire areas instead of directly targeting those areas that require treatment.
- Apply fertilizers, herbicides, and pesticides during rainfall or when rain is expected within the next few days.
- Apply fertilizers, herbicides, and pesticides during windy conditions.
- Allow cleaning supplies to leak and potentially enter the stormwater system.
- Apply these chemicals in a manner that causes product to be oversprayed onto paved areas such as curbs, streets, or sidewalks.
- Apply fertilizers, herbicides, and pesticides on to plants or grass before trimming or mowing.



Stormwater Management

Chemical Application *continued*

Do

- Allow all fertilizers, herbicides, and pesticides to do their job before watering these areas. Water only after these chemicals have been absorbed into the plant tissue or soil.
- Create small berms around plants so that any chemical overspray will be retained near the roots of the intended plants.
- Read labels and apply only what is necessary. Note: more is not always better.
- Use natural alternatives (i.e. organic material, beneficial insects, etc.) instead of expensive fertilizers, herbicides and pesticides.
- If natural alternatives are not available, purchase products that are biodegradable and/or contain no cautionary warnings.

Don't

- Irrigate areas after applying fertilizers, herbicides, and pesticides without providing enough time for these products to do their job.
- Grade landscape areas in such a manner that allows water or chemical applications to flow away from the plants.
- Over apply these chemicals causing an excess to directly runoff or be washed off by storm water.
- Ignore the benefit of utilizing natural alternatives and continue to solely use expensive fertilizers, herbicides, and pesticides.
- Purchase products that contain "caution," "danger", "toxic," or "poison" on the label when other alternatives are available.

Staff Training

Do

- Train employees on proper storage and spill cleanup procedures.

Don't

- Assume your staff knows or will remember these procedures without the proper training.



Stormwater Management

Staff Training *continued*

Do

- Make MSDS sheets available to your staff at all times. MSDS sheets available.
- Label and identify to staff all on-site stormwater inlet locations.
- Post a listing of Best Management Practices where all staff can view for reference.

Don't

- Expect your staff to "know" proper disposal requirements of all the chemicals that are used.
- Expect your staff to know which drains lead to the stormwater system.
- Expect your staff to remember the proper ways of cleaning and handling waste.

*See the *Recommended Practices for Cleaning Outdoor Areas* fact sheet.

Facts

- It is easier and cheaper to prevent stormwater pollution than to clean it up.
- Your facility is not "safe" from stormwater pollution regulations.
- Most stormwater structures require regular maintenance. Taking steps to reduce pollutants in stormwater will help keep stormwater structures in good operating condition.
- Allowing chemicals, trash, debris, sediment, and oil or grease wastes/residues to enter the stormwater system has a negative effect on the operation of stormwater structures.
- A malfunctioning stormwater structure is the problem of everybody who uses it.