

Stormwater Management

A Guide for Lawn Care Professionals For a Cleaner Environment



Storm Water Pollution...

Stormwater runoff occurs when precipitation from rain flows over the ground. This runoff picks up chemicals, pesticides, nutrients, organic materials and other pollutants and flows into storm drains.

The water from the storm drains is directly discharged into local waterbodies without any treatment, resulting in the pollution of water we use for swimming, fishing and as a source of drinking water.

Problems...

- Lawn and garden activities can result in contamination of storm water through pesticide, soil, yard wastes and fertilizer runoff.
- Pesticides and herbicides don't just kill garden pests, they also harm beneficial insects, aquatic plants and fish that live in our waterways.
- Leaves, grass and tree trimmings that are washed into storm drains clog the drain and cause flooding on the streets.
- Leaves and grass during decomposition absorb oxygen essential for fish and aquatic animals to survive.

BEST MANAGEMENT PRACTICES

1. Reduce Landscape Maintenance Requirements

- Where feasible, retain and/or plant native vegetation that usually requires less maintenance than planting new vegetation.
- When planting or replanting consider using low water use flowers, trees, shrubs, and groundcovers.
- Consider alternative landscaping techniques such as xeriscaping.

2. Properly Store and Dispose of Waste

- Properly dispose of grass clippings, leaves, or other collected vegetation at a permitted landfill or by composting.
- Do not dispose gardening wastes in streets, waterways, or storm drainage systems.
- Place temporarily stockpiled material away from watercourses and storm drain inlets, and berm and/or cover.

3. Properly Manage Irrigation and Runoff

- Install landscaping that does not require permanent irrigation systems.
- Design a landscape that reduces runoff and encourages natural infiltration of rain.
- Minimize impervious areas.
- Do not allow bare soil areas in the landscape.
- Protect streams and waterways and reduce erosion by leaving an undisturbed vegetative buffer along stream banks.

4. Applying Pesticides and Herbicides

- Follow all federal, state, and local laws and regulations governing the use, storage, and disposal of pesticides and herbicides and training of applicators and pest control advisors.
- Follow manufacturers' recommendations and label directions.
- Use pesticides only if there is an actual pest problem (not on a regular preventative schedule). When applicable use less toxic pesticides that will do the job.
- Do not apply pesticides if rain is expected or gusty wind prevails.
- Do not mix or prepare pesticides for application near storm drains.
- Whenever possible, use mechanical methods of vegetation removal rather than applying herbicides. Use hand weeding where practical.
- Do not apply any chemicals directly to surface waters, unless the application is approved and permitted by the state. Do not spray pesticides within 100 feet of open waters.
- Employ techniques to minimize off-target application (i.e. spray drift) of pesticides, including consideration of alternative application techniques.
- Careful soil mixing and layering techniques using a topsoil mix or composted organic material can be used as an effective measure to reduce herbicide use and watering.



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5. Applying Fertilizer

- Follow all federal, state, and local laws and regulations governing the use, storage, and disposal of fertilizers.
- Follow manufacturers' recommendations and label directions.
- Employ techniques to minimize off-target application (i.e. spray drift) of fertilizer, including consideration of alternative application techniques. Calibrate fertilizer distributors to avoid excessive application.
- Fertilizers should be worked into the soil rather than dumped or broadcast onto the surface.
- Immediately sweep pavement and sidewalk if fertilizer is spilled on these surfaces.
- Use slow release fertilizers whenever possible to minimize leaching.



6. Integrated Pest Management Techniques

- Integrated Pest Management (IPM), a practice used by leading professional landscape companies, integrates a regular monitoring program with correct diagnosis of pest problems. It promotes the use of cultural, biological and mechanical means of controlling pests. And, it advocates intervention with pesticides only when necessary to avoid serious damage.
- Mulching can be used to prevent weeds where turf is absent.
- Remove insects by hand and place in soapy water or vegetable oil. Alternatively, remove insects with water or vacuum them off the plants.
- Sprinkle the ground surface with abrasive diatomaceous earth to prevent infestations by soft-bodied insects and slugs.
- In cases where microscopic parasites, such as bacteria and fungi, are causing damage to plants, the affected plant material can be removed and disposed of (pruning equipment should be disinfected with bleach to prevent spreading the disease organism).
- Small mammals and birds can be excluded using fences, netting, and tree trunk guards.

- Promote beneficial organisms, such as bats, birds, ladybugs, praying mantis, ground beetles, spiders, that prey on detrimental pest species.
- The key to a successful IPM program is frequent inspection and accurate diagnosis of pests.

7. Consumer Education

- Tell your client the benefits of grass clipping recycling. Lawn clippings left on the ground can provide nutrients and lower the amount of fertilizer required.
- After each service visit, leave a ticket telling the customer what pests were detected, any other problems and recommendations for management. Explain in detail the corrective actions taken to ensure approval of the management practices used.
- Maintain membership(s) in a professional landscaping organization(s) to stay current on maintenance methods and the newest plant varieties available. Become a certified professional and advertise this fact to your customers.



Professional Landscaping Associations

- National Association of Landscape Professionals (www.landscapeprofessionals.org)
- Mississippi Nursery and Landscape Association (MSNLA) (www.msnla.org)