Stormwater Pollutant Factsheet

Total Phosphorus

Phosphorus is a naturally occurring nutrient essential to the growth of plants. It is a component of fertilizers, pesticides and detergents and it can also accumulate in high concentrations in septic systems. Phosphorus can be harmful when it is introduced into waterways due to its ability to cause algae blooms.

Potential Sources of Phosphorus

- Landscaping activities including:
  - Fertilizer or pesticide application
  - Surface erosion
  - Leaf and grass clipping disposal
- Construction and building maintenance activities including:
  - Surface erosion
  - Washing buildings
  - Prepping buildings for painting, particularly using trisodium phosphate (TSP)
- Septic systems

Best Management Practices

- Mulch grass clippings back into the ground or haul them away immediately. Do not allow them to accumulate on-site or be disposed of in natural areas.
- Remove leaves and other organic debris from parking lots and roadways in a timely manner, particularly following fall leaf drop.
- Use standard erosion prevention techniques for any soil disturbance.
- Use an Integrated Pest Management approach to minimize the use of pesticides for landscape maintenance. Pesticides, herbicides, and fungicides can be greatly reduced or possibly even avoided by creating environments that discourage pests, monitoring pest populations, and taking early action to prevent widespread

infestations. The goal is to keep pests at a level that is manageable and acceptable for the intended landscape use.

- Use native plants to minimize the need for chemicals.
- Use manual removal of weedy plants where possible.
- Avoid using fertilizer if possible. Select native plants which are more likely to survive with little to no fertilizer.
- If fertilizers are used:
    - Sample soil before applying fertilizers, and adjust application accordingly.
    - Follow the manufacturer's instructions for proper application.
    - Calibrate fertilizer spreaders to ensure application efficiency.
    - Select low or no phosphorus fertilizers.
    - Immediately cleanup spills.
    - Take care to keep fertilizers off of impervious surfaces when they are applied. For larger applications, use walk-behind spreaders and a blocker to prevent overspray along the edges of vegetated areas.

Additional Resources

Erosion and Sediment Control Manual, City of Portland

Stormwater and the Construction Industry, U.S. Environmental Protection Agency

Grass Clippings and Stormwater, Penn State University Extension

Industrial Stormwater Best Management Practices, Oregon Department of Environmental Quality