

Storm Water Systems

In undeveloped areas, rain water and snowmelt is absorbed into the ground and naturally filtered by soil. In developed urban areas, paved and other hard surfaces prevent rain and snow from being absorbed into the ground, causing the water to runoff and necessitates storm water systems. Storm water systems (inlet grates and underground storm sewers) are designed to remove excess water that collects in urban areas. Heavy rain also causes pollutants like construction sediment, trash, chemicals, and leaves to be washed into storm sewers and then to surrounding natural water bodies creating pollution in our lakes, rivers and oceans.

Proper storage, maintenance, and chemical use helps to significantly decrease pollution in the waterways. Adequate communication and education ensures that each facility knows how to operate and also prevent pollution.

Winterization

Illinois winters require effective means of ice removal for sidewalks and roadways. The current most common removal method is road salt. Due to the chemical and physical composition, road salt is a contributor to storm water pollution in winter months:



- Chloride used in road salt is not removed by the natural processes in the environment so accumulation of chloride occurs. Accumulated chloride settles to the bottom of water bodies and creates an oxygen-void. The bottom of the water body then becomes uninhabitable for aquatic life.
- Road salt causes dehydration of plants and wildlife which leads to foliage damage and loss. It also disrupts nutrient uptake. Loss of plants along roadways decreases the natural buffer between road pollutants and the storm water system.

Ice removal is a matter of safety. Although it is difficult to reduce the road salt application frequency, reducing and monitoring the amount applied can help avoid negative impacts to waterways. Suggested practices include:

- Do not apply excess salt - Use equipment with calibrated spreaders.
- Apply salt to the correct areas - Target only roads and areas that require clearing. Curved areas, shadowed areas, bridges and intersections are typically the most affected.
- Apply at the right time – Salt application before a storm can reduce the amount needed.
- Properly store road salt covered and away from drains to prevent unnecessary runoff.

Trainer: _____

Date: _____

Attendees Printed Name:
