

Best Management Practices (BMPs): *Pollution Prevention*

LAND AND DRAINAGE ALTERATION PROGRAM (LDAP)

Managing soil erosion and sediment runoff is a priority on any construction site, but an effective site management plan should account for sources of pollution introduced to the site during construction. This includes anything from domestic garbage and construction debris to hazardous materials that are stored on site.

SOLID WASTE MANAGEMENT

Solid waste on construction sites can be anything from scrap material produced by demolition, construction related debris, and domestic wastes such as food and drink containers.

Each construction site must select a designated site for storing solid waste materials, preferably in a watertight container and under cover if possible.



The materials should be properly disposed of at regular intervals or as the containment area fills.

HAZARDOUS MATERIAL STORAGE AND SPILL PREVENTION

Hazardous materials on construction sites typically include items like paint, thinners, petroleum products, concrete curing agents, and solvents. These items pose a threat to the groundwater if spilled. That is significant because most of Springfield's drinking water comes from groundwater, collected from wellheads spaced throughout the city.



Hazardous items must be stored in a watertight containment area that is at least double the volume of the material being stored. The containment must be covered or placed in an area that is protected from rain.

Dense non-aqueous phase liquids (DNAPLs) are liquid compounds that have a density higher than that of water and are slightly soluble in water. That means that the spilling of a DNAPL may cause the liquid to travel down through the soil and through the water

table. These materials should never be stored on site and they are prohibited from use on any site within a wellhead protection zone.

Although the prevention of spills through proper handling and storage of hazardous materials should be the primary goal, spill kits should always be kept on any site where such materials are in use. The spill kit should include a variety of materials such as booms, pads, and litter that can absorb spilled material. All workers on the site should know the location of the kit and be trained in the proper use of the materials.



DEWATERING

Excavations during the rainy season or in any location with a high water table may encounter groundwater that will need to be removed.

Dewatering using a pump and hoses is an effective way to remove water from an excavation, but presents a problem if the water is contaminated with sediment or other pollutants.

Contaminated water must be treated before it enters the stormwater system or any drainage way. Filter bags, filter tanks, and sediment traps are effective methods for removing sediment from the water source prior to discharging to the public system.



On larger projects, pumping water to undisturbed, vegetated areas can be an effective way to allow the water to naturally filter and infiltrate back into the groundwater supply.