

Pollution Prevention BMPs for Construction Site Storm Water Runoff Control

Some people are unaware of the problems storm water runoff creates. Storm water runoff causes pollution in our streams, rivers, bays and ocean by carrying pollutants from the earth's surface. Bacteria from animal and pet waste, oil and fluids from cars and equipment, fertilizer and pesticides from lawns and farms and many other pollutants contribute to storm water pollution.

At construction sites, erosion and sediment control measures are not the only areas of concern when it comes to storm water pollution. All new development and redevelopment projects that could possibly contribute to storm water pollution should also consider the use of the following Best Management Practices:

- **Spill Prevention and Control** will minimize or eliminate the discharge of hazardous and non-hazardous materials into storm drains and watercourses.
 - *Application:*
 - Hazardous and non-hazardous materials include but are not limited to fuels, lubricants, paints, solvents, cement, mortar, herbicides and fertilizers.
 - Storage areas for all of these materials must be provided on-site.
 - An on-site fueling area for equipment and vehicles needs to be provided.
 - Sufficient spill control clean up materials should be located near material storage, use areas and fueling areas.
 - Containment structures for storage and fueling areas need to be inspected regularly.
 - Spill prevention and control plans should be updated regularly and appropriate clean up materials should be stocked whenever a new type of chemical comes on site.
 - When a hazardous spill occurs, notify the State Office of Emergency Service (OES) at 1.800.852.7550.
 - *Limitation:*
 - The procedures and practices contained in this pamphlet are general.
 - Contractors need to identify appropriate practices for the materials used on-site.
- **Vehicle and Equipment Maintenance** is necessary to prevent and control leaks from equipment and vehicles.
 - *Application:*
 - All major maintenance, fueling and washing of construction vehicles and equipment should be conducted off-site whenever feasible.
 - Regularly maintain and inspect equipment and vehicles for damaged hoses, leaky gaskets and other service problems.
 - All equipment and vehicle service and storage areas should be located away from watercourses and storm drains.
 - Service and storage areas should be properly contained with berms, sandbags or other barriers.
 - Do not use soaps, solvents, degreasers, steam cleaning or other similar methods for on-site cleaning.
 - Always use drip pans or cloths if draining or replacing fluids on-site.
 - Wash out areas should use a sump to pump wash out water into the sewer.
 - Inspect all containment structures to ensure they are intact.
 - Make sure all waste fluid containers are leak proof.
 - Any sumps used in wash areas need to be regularly serviced.
 - *Limitation:*
 - Some wash water discharges may need to be pretreated before being discharged into the sewer.
 - All discharges into the sewer must have a pH range of 5-10.
 - Any discharge below or above that pH range needs to be treated. Any discharge with a pH of less than 2.0 or greater than 12.5 is a hazardous waste and must be dealt with accordingly.
- **Concrete and Cement Disposal** is important because concrete and cement mortars are toxic to fish and the aquatic environment.
 - *Application:*
 - When using cement or concrete, avoid mixing excess amounts.
 - Keep wet and dry cement and concrete away from storm drains and watercourses.
 - When storing concrete and cement, make sure they are contained and covered in order to protect them from rain and prevent runoff.
 - Identify a location for a waste water pit away from storm drains and watercourses. The pit must be large enough to hold the amount of waste created.
 - When possible, recycle the wash out water by pumping it back into the mixer. Waste water should be pumped to the sewer. If neither practice is feasible, let water percolate through the soil and then dispose of the hardened concrete into the trash.
 - Never dispose of the waste water into the streets, storm drains, drainage ditches or waterways.
 - Wash out mixers only in designated areas where the water will drain into a waste water pit or a location away from storm drains and waterways to allow for hardening.
 - On-site concrete wash out, waste storage and disposal procedures should be monitored at least weekly.
 - *Limitation:*
 - Wash out area takes away space that could be used for other construction purposes.
- **Water Conservation Practices** on construction sites reduces the potential for erosion and the transport of pollutants off site.
 - *Application:*
 - All water equipment should be kept in good working condition.
 - All water equipment should be inspected at least twice weekly. Repair all water leaks immediately.
 - Irrigation controllers need to be reset according to seasonal needs. Avoid using water to clean construction areas.
 - Sweep paved areas whenever practical.
 - All construction water runoff should be directed to areas where it can be soaked into the ground.
 - When washing vehicles and equipment, a commercial washing facility should be used whenever possible.
 - Washing of equipment on the construction site should be discouraged. If vehicle and equipment washing is done on site, minimize water use, retain all runoff on-site and do not use soaps or chemicals.
 - *Limitation:*
 - None

Pollution Prevention BMPs (continued)

- **Landscape Management** can reduce erosion, decrease sediment runoff and prevent pollution. The proper use of soil, materials and chemicals used in landscaping can decrease the discharge of pollutants and sediment into the storm drains and waterways.
 - *Application:*
 - Native, non-invasive, drought tolerant and pest tolerant vegetation should be used whenever possible.
 - Minimize the use of chemicals by purchasing less toxic alternatives and using only the minimum amount necessary.
 - Landscaping materials should be stored under tarps to protect them from wind and rain.
 - All landscape related grading and excavation should be scheduled for dry weather.
 - All areas being revegetated should be inspected for establishment of new vegetation and replanted when necessary.
 - Check dams or ditches should be used to divert runoff away from storm drains.
 - Storm drains inlets should be protected with sediment control measures.
 - *Limitation:*
 - Native, non-invasive, drought tolerant and pest tolerant vegetation may not be readily available from suppliers.