

Best Management Practices for Construction Sites

NPD-007

❖

 ❖

Purpose: To provide information on Best Management Practices that construction site managers shall implement to keep pollutants from entering the storm drain system or nearby waterways.

Background: The term Best Management Practices (BMPs) refers to devices, operational activities, or physical controls that are applied to prevent, control, or reduce the discharge of pollutants to storm drain inlets, drainage swales, and waterways.

BMPs are required for all construction permits including, but not limited to: grading, building, septic, drainage, and encroachment. Construction site operators are required to keep pollutants from entering the storm drain system or nearby waterways in order to protect surface water quality. Typical pollutants to be kept out of the drainage system include: sediment, paint, concrete waste, vegetative material, and spilled dry materials. In addition, the construction site manager is responsible for ensuring that adequate sediment control measures (fiber rolls, gravel bags, silt fence, etc.) are available to control sediment discharges at the downslope perimeter of the construction site, and operational storm drain inlets in the event of a sudden rainstorm.

Most Common Best Management Practices Include but are not Limited to:

Inlet Protection – Protect all inlets and storm drains if there is a threat of discharge from construction activities. Sediment, oil, and other pollutants that enter the storm system can be washed into creeks and drainage swales during line flushing or the first rains. Inlet protection devices can include filter fabric, sediment traps, gravel bag barriers, and fiber rolls.

Concrete Washout – Designate a concrete washout area to avoid wash water from entering inlets, drainage swales, or storm drains. Dispose of concrete waste on a regular basis. Contact the solid waste facility for proper disposal or recycling of concrete waste. Concrete is highly toxic and has the potential to bind with soil particles that can be tracked or washed offsite and enter creeks or storm drains.

Trash and Good Housekeeping – Have trash cans and dumpsters available for disposal of trash or other items and empty them when full. Trash, insulation, and other floatable materials can blow around on windy days and end up in drainage swales and creeks.

Sanitary Waste – Locate portable toilets on a vegetated or dirt surface at least 30 feet away from any roads, storm drains, or drainage swales. The potential to discharge highly toxic effluent during routine maintenance or if tipped over poses a threat to storm water quality.

Landscaping Materials – Apply fertilizer and pesticides at a proper rate and avoid spills that can get into the storm drain system as pollutants. Irrigation runoff that enters storm drains or waterways is also a concern. Sweeping up any excess material and avoiding over-watering is recommended.

Rocked Entry/Exits – Provide a stabilized construction access to reduce tracking of sediments and other pollutants onto paved roads. A stabilized access usually consists of a pad of 3-5 inch rock approximately 50 ft. long by 30 ft. wide and can be placed over geotextile fabric for greater longevity. Road sweeping may also be necessary to protect storm drains and prevent airborne dust. An encroachment permit shall be required if the stabilized construction access is within a county right of way.

Material Storage – Use a trailer or shed to store materials such as paints and petroleum products, or cover materials with a tarp when not in use to reduce the potential for pollutants to spill or blow around.

Dust Control – Implement dust control measures such as spraying water, or covering stockpiles on all construction sites where there will be major soil disturbances or heavy equipment activity. Airborne particles pose a dual threat to the environment and human health.

De-watering Activities – Discharge sediment laden water from de-watering sites or sediment basins in an appropriate manner to prevent sediment from entering waterways or storm drains. Typical methods used to filter sediment include a de-watering tank, or gravity bag filters. De-watering activities should be performed by a qualified person and monitored for effectiveness. (Note: A Low Threat Discharge permit may be required from the State Regional Water Board for de-watering activities.)

Additional BMP Resources:

The Stormwater Best Management Practice Handbooks by the California Stormwater Quality Association.
<http://www.bmpdatabase.org>

National Menu of Stormwater Best Management Practices by the Environmental Protection Agency.
<http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm>

Caltrans Water Pollution Control Manuals
<http://www.dot.ca.gov/hq/construc/stormwater/stormwater1.htm>