The City of Merced welcomes all construction projects and we look forward to working with you!

This Construction & Stormwater brochure has been brought to you by the City of Merced Water Quality Control Division. If you have any questions, please contact us at (209) 385-6204.

The City of Merced thanks you for your efforts in protecting our storm drains, creeks and rivers with all your pollution prevention practices.



For more information please visit :

www.cityofmerced.org

www.epa.gov/npdes/npdes-stormwater-program

## City of Merced Ordinance

The Division III-Storm Water System, Chapter 15.50.120 (B) Storm Water Management and Discharge Control Code states "any person performing construction activities in the City shall prevent pollutants from entering the storm water conveyance system and comply with all the applicable Federal, State and local laws, ordinances, or regulations, including but not limited to, the current California NPDES General permit for storm water discharges associated with construction activity (Construction General Permit) and the City Storm Water Management and Discharge Control Chapter. All construction projects, regardless of size, having soil disturbance or activities exposed to storm water must, at a minimum, implement BMPs for erosion and sediment controls, soil stabilization, dewatering, source controls, pollution prevention measures, and prohibited discharges. Any person subject to a construction activity NPDES storm water discharge permit shall comply with all provisions of such permit."





## **CITY OF MERCED**



## **CONSTRUCTION** & STORMWATER

The construction industry is a critical participant in the nation's efforts to protect streams, rivers, lakes, wetlands, and oceans. Through the use of best management practices (BMPs), construction site operators are the key defense against erosion and sedimentation.

## **BMPs and General Info**

- Dispose of hazardous materials properly.
- Cover or seed all dirt stockpiles.
- Keep potential sources of pollution out of the rain as practicable (e.g., inside a building, covered with plastic or tarps, or sealed tightly in a leak-proof container).
- Park, refuel, and maintain vehicles and equipment in one area of the site to minimize the area exposed to possible spills and fuel storage. This area should be well away from streams, storm drain inlets, or ditches. Keep spill kits close by and clean up any spills or leaks immediately, including spills on pavement or earthen surfaces.
- Clearly identify a protected, lined area for concrete truck washouts. This area should be located away from streams, storm drain inlets, or ditches and should be cleaned out periodically.
- Practice good housekeeping. Keep the construction site free of litter, construction debris, and leaking containers. Keep all waste in one area to minimize cleaning.
- Never hose down paved surfaces to clean dust, debris, or trash. Sweep up materials and dispose of them in the trash.

As stormwater flows over a construction site, it picks up pollutants like sediment, debris, and chemicals. High volumes of stormwater can also cause stream bank erosion, and destroy downstream aquatic habitat. Preventing soil erosion and sedimentation is an important responsibility at all construction sites.

In addition to the environmental impact, uncontrolled erosion can have a significant financial impact on a construction project. It costs money and time to repair gullies, replace vegetation, clean sediment clogged storm drains, replace poorly installed BMPs, and mitigate damage to other people's property or natural resources.



**Soil erosion and sediment control tips** • Design the site to infiltrate stormwater into the ground and to keep it out of storm drains. Eliminate or minimize the use of stormwater collection and conveyance systems while maximizing the use of stormwater infiltration and bioretention techniques.

• Minimize the amount of exposed soil on site. To the extent possible, plan the project in stages to minimize the amount of area that is bare and subject to erosion. The less soil exposed, the easier and cheaper it will be to control erosion. Vegetate disturbed areas with permanent or temporary seeding immediately upon reaching final grade. Vegetate or cover stockpiles that will not be used immediately.

• Reduce the velocity of stormwater both onto and away from the project area. Interceptors, diversions, vegetated buffers, and check dams are a few of the BMPs that can be used to slow down stormwater as it travels across and away from the project site. Diversion measures can also be used to direct flow away from exposed areas toward stable portions of the site. Silt fences and other types of perimeter filters should never be used to reduce the velocity of runoff.

• Protect defined channels immediately with measures adequate to handle the storm flows expected. Sod, geotextile, natural fiber, riprap, or other stabilization measures should be used to allow the channels to carry water without causing erosion. Use softer measures like geotextile or vegetation where possible to prevent downstream impacts.

• Keep sediment on site. Place aggregate or stone at construction site vehicle exits to accommodate at least two tire revolutions of large construction vehicles. Much of the dirt on the tires will fall off before the vehicle gets to the street. Regular street sweeping at the construction entrance will prevent dirt from entering storm drains. Do not hose paved areas. Sediment traps and basins are temporary structures and should be used in conjunction with other measures to reduce the amount of erosion.

• Maintaining all BMPs is critical to ensure their effectiveness during the life of the project. Regularly remove collected sediment from silt fences, berms, traps, and other BMPs. Ensure that geotextiles and mulch remain in place until vegetation is well established. Maintain fences that protect sensitive areas, silt fences, diversion structures, and other BMPs.