



Best Management Practices for Construction Sites & Home Remodeling Projects



Stormwater Program
Department of Public Works
City of Aliso Viejo
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Aliso Viejo, CA 92656

Construction Sites – Best Management Practices

Storm water pollution is a major concern to water quality. Water when mixed with contaminants such as litter, sediment, construction debris, paints and chemicals creates storm water pollution.

Why are Construction Sites a Problem?

Construction activities have the potential to impact water quality. Pollutants including trash, metals, solvents, vehicle fluids, as well as pesticides, nutrients and bacteria from landscaping activities are associated with construction activities. Sediment is the most common pollutant washed from work sites, which creates multiple problems when it enters natural water bodies. Sediment also carries with it other work site pollutants such as pesticides, cleaning solvents, cement wash, asphalt, and car fluids like motor oil, grease, and fuel.

How do Construction Activities Affect You?

The Storm Water Permit requires cities, including Aliso Viejo, to implement a development construction program. Aliso Viejo's Building and Safety inspectors must ensure that storm water pollution controls are in place on construction sites.

The City of Aliso Viejo has developed this Construction Pamphlet to provide guidance to contractors, developers and homeowners on best management practices (BMPs) for construction sites and remodels.

The following are some general principles that can significantly reduce pollution from construction activity and help make compliance with storm water regulation easy.

Construction Sites a Threat to Water Quality?

How often do you see construction activities occur in your neighborhood? It is safe to say most of us do. But do we know that these activities can pose a threat to water quality? The photos below illustrate some of the most common activities that are found at many construction sites, remodels, and redevelopment projects and should be avoided.

Practices to Avoid...



Don't stockpile dirt and other materials in the street.

Don't track dirt and mud to the streets.



Don't overfill
the trash
dumpsters.



Don't expose
construction
materials to
the rain.

Don't hose down
the pavement. Do
use a broom to
clean up spilled
materials.



Best Management Practices for Construction Sites

DON'Ts

- Ø Do not wash out concrete chutes into the street or storm drains.
- Ø Do not throw food wrappers on the ground. Use a trash can to dispose of food waste and wrappers.
- Ø Never clean brushes or rinse paint containers into a storm drain, gutter or street.
- Ø Never clean a dumpster by hosing it down on-site!
- Ø Never hose down dirty pavement or surfaces where materials have spilled. Use dry cleanup methods (e.g. absorbent materials such as kitty litter, sawdust, or cornmeal) whenever possible.
- Ø Never throw debris and waste or wash sweepings into the storm drain.
- Ø Do not use asphalt rubble or other demolition debris on slopes to trap sediments.
- Ø Never use the street to stockpile dirt, sand and other construction materials that can contribute to storm water pollution.
- Ø Do not allow vehicles exiting construction sites to track dirt and mud to the street.

Best Management Practices (BMPs) at Work

These photos depict construction sites implementing best management practices (BMPs). You will observe that stock piles are covered by a tarp and/or sandbags are utilized around the perimeter of the disturbed soil.



Sandbags and fabrics to protect catch basins and storm drains



Sandbag barriers along a catch basin are used as a sediment control measure

On the steep slope, matting in combination with permanent vegetation are used for erosion control





Spill containment for portable toilets



Sidewalk closure signs to ensure public safety



Sandbags and straw fiber rolls for runoff, erosion and sediment control

Best Management Practices for Construction Sites

DO's

- √ Protect stockpiles and materials from wind and rain by storing them under secured plastic sheeting or temporary roofs.
- √ Whenever possible schedule grading and excavation projects for dry weather.
- √ Avoid contaminating clean runoff from areas adjacent to your site by using berms and temporary check dams to divert water flow around the site.
- √ Always cover and maintain dumpsters. Check thoroughly and frequently for leaks.
- √ Clean up leaks, drips and other spills immediately. This will prevent contaminated soil or residue on paved surfaces from blowing or washing into the storm drains.
- √ Identify all storm drains, drainage swales and creeks located near the construction site and make sure all subcontractors are aware of their locations to prevent pollutants from entering them.
- √ Use terracing, rip rap, sand bags, rocks, straw bales, and/or temporary vegetation on slopes to reduce runoff velocity and trap sediments.
- √ Dispose of all waste properly. Many construction materials, including solvents, water-based paints, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation can be recycled.
- √ Train your employees and subcontractors in erosion and runoff control procedures.

Water Quality Permit Requirements

Application for a Water Quality Permit is required for all construction activities, landscaping projects, tile work, and hardscaping projects. Prior to permit issuance, a Water Quality Site Plan must be submitted to the City to ensure that the following items are included in the Plan:

- ◆ Lot size is accurately scaled
- ◆ Show downstream storm drain inlets in relation to the project size
- ◆ Provide checklist for activities affecting water quality
- ◆ Include homeowner compliance statement along with contractor signature(s)
- ◆ Path of travel for workers
- ◆ Indicate construction parking (i.e. cement trucks or delivery trucks)
- ◆ Show material storage and stockpiles
- ◆ Show sanitation facilities (port-o-potties)
- ◆ Show location of trash bins and type of bins
- ◆ Identify protection measures for all local and downstream storm drain inlets and property line

Best Management Practices (BMP)s Reference Guides for Construction Activities

For more information about BMPs to prevent storm water and non-storm water pollution from construction related activities, please refer to the following construction activities BMPs reference guides/handbooks:

- ◆ **California Storm Water Quality Association. California Stormwater BMP Handbook – Construction.**
Website address: <http://www.cabmphandbooks.com>
- ◆ **Orange County Stormwater Program Construction Runoff Guidance Manual.** Orange County Stormwater Program.
Website address: <http://www.ocwatershed.com/StormWater/>
- ◆ **Urban Runoff Quality Management.** Water Environment Federation/American Society of Civil Engineers.
Website address: <http://ww.wef.org>
- ◆ **Stormwater Managers Resource Center.**
Website address: <http://www.stormwatercenter.net>



PERMIT # _____

Homeowner/Contractor Water Quality Compliance Statement

My signature below indicates I, the homeowner/contractor, understand it is prohibited for any pollutant to enter the storm drains of this City while performing this job. Furthermore, I shall take full responsibility for this task and enforce any and all Best Management Practices (BMPs) for the duration of this project. Equally important, I understand that the City of Aliso Viejo shall inspect the Best Management Practices for this municipality and, if required, shall cite any offenses due to my negligence.

Address

Owner (Print)

Owner (Signature)

Date

Contractor (Print)

Contractor (Signature)

Date

For more information about BMPs for construction activities or additional brochures, please contact:

City of Aliso Viejo - Water Quality Division

(949) 425-2530

www.cityofaliso Viejo.com/living_and_working/environmental_conservation.php

Building & Safety Department

To Report Illegal Dumping

Building Official
(949) 425-2542 (Mon.-Fri.)

Aliso Viejo Public Works Dept.
(949) 425-2530 (Mon.-Fri.)

Inspection Hotline
(949) 425-2545 (24 hrs)

Orange County Sheriff's Dept.
(949) 770-6011 (Sat.-Sun, Holidays)

