



Earth-Moving and Heavy Equipment Operations

In the Santa Clara Valley, storm drains transport water directly to local creeks and San Francisco Bay, without treatment. Stormwater pollution is a serious problem for wildlife dependent on our waterways and for people who live near polluted streams or baylands. Some common sources of this pollution include spilled oil, fuel, and fluids from vehicles and heavy equipment; construction debris; sediment created by erosion, landscaping runoff containing pesticides or weed killers; and materials such as used motor oil, antifreeze, and paint products that people pour or spill into street or storm drain.

Thirteen valley municipalities have joined together with Santa Clara County and Valley Water to educate local residents and businesses to prevent stormwater pollution. Join us in protecting the Bay and local creeks by following these Best Management Practices (BMPs).

Storm Drain Pollution from Earth-Moving Activities and Heavy Equipment Operation

Soil excavation and grading operations loosen large amounts of soil that can flow or blow into storm drains when handled improperly. Sediments in runoff can clog storm drains, smother aquatic life, and destroy habitats in creeks and the Bay. Poorly maintained vehicles and heavy equipment that leak fuel, oil, antifreeze or other fluids on the construction site are common sources of storm drain pollution.



Never allow spills and leaks to enter storm drains. Federal, state, and local regulations prohibit any discharges other than rain into the storm drain.

Who should use this brochure?

- Bulldozer, backhoe, and grading machine operators
- Dump truck drivers
- Site supervisors
- General contractors
- Home builders
- Developers
- Property owners hiring contractors

Doing the Job Right

GENERAL BUSINESS PRACTICES

- Schedule grading and excavation work during dry weather.
- Perform major maintenance, repair jobs, and vehicle/equipment washing offsite. If refueling or vehicle/equipment maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan or drop cloths big enough to collect fluids.
- Prevent sediment from migrating offsite and protect storm drain inlets, drainage courses, and creeks by installing and maintaining appropriate BMPs tailored to the site's specific characteristics and conditions. Examples of such BMPs may include silt fences, gravel bags, fiber rolls, temporary swales, compost socks, etc. Ensure that BMPs are installed in accordance with manufacturer's specifications and properly maintained throughout the duration of construction activities.
- Properly monitor and maintain all erosion and sediment controls and report failures of erosion and sediment controls to the local stormwater authority.
- Remove construction equipment from the site as soon as possible.
- Use of water for dust control MUST not result in sediment runoff leading to any unprotected storm drains or to nearby water bodies.



Doing the Job Right

SITE PLANNING AND PREVENTIVE VEHICLE/EQUIPMENT MAINTENANCE

- Designate an area of the construction site equipped with appropriate BMPs, well away from creeks or storm drain inlets, for auto and equipment parking and storage.
- Maintain all vehicles and heavy equipment. Inspect frequently for leaks. Use drip pans to catch leaks until repairs are made.
- Do not use diesel oil to lubricate equipment or parts onsite.
- If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or creeks. Do not clean vehicles or equipment onsite using soaps, solvents, degreasers, or steam cleaning equipment.
- If you must drain and replace motor oil, radiator coolant, or other fluids on site, use drip pans or drop cloths to catch drips and spills. Collect all spent fluids, store in separate containers, and recycle whenever possible, or dispose of fluids as hazardous waste.



PRACTICES DURING CONSTRUCTION

- Remove existing vegetation only when necessary. Plant temporary vegetation to prevent erosion on slopes or in areas where construction is not immediately planned.
- Use check dams or ditches to divert runoff around excavations. Refer to the CASQA Construction BMP Online Handbook (www.casqa.org/resources/bmp-handbooks) for proper erosion and sediment control measures.
- Cover stockpiles and excavated soil with secured tarps or plastic sheeting.
- Keep excavated soil on-site and/or transfer it to dump trucks onsite, not in the streets.
- Maintain streets to be free of sediment tracking through daily maintenance (dry clean up, street sweeping, etc.).

SPILL CLEANUP

- Always keep spill cleanup materials (e.g., rags, absorbents and cat litter) available at the construction site. All fueling trucks and fueling areas should have spill kits or other spill protection devices.
- Clean up leaks, drips and other spills immediately using dry cleanup methods whenever possible (absorbent materials, cat litter and/or rags) and dispose of cleanup materials properly.
- Never hose down “dirty” pavement or impermeable surfaces where fluids have spilled. If you must use water, use just enough to clean the spill without runoff. Any wash water runoff must be captured.
- Sweep up spilled dry materials immediately. Never attempt to “wash them away” with water or bury them.
- Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.

Small Business Hazardous Waste Disposal Program

Businesses that generate less than 27 gallons or 220 pounds of hazardous waste per month are eligible to use Santa Clara County’s Conditionally Exempt Small Quantity Generator Program. Call (800) 207-8222 to learn about proper disposal options and hazardous waste disposal.

Palo Alto operates a similar program, with a monthly collection, for small businesses. Call the City of Palo Alto, (650) 496-6980, or Clean Harbors, 1-800-433-5060 for information or to schedule an appointment.

STORMWATER POLLUTION CONTROL AGENCIES

For spills or materials entering a creek, pond or reservoir call Valley Water’s 24/7 Pollution Hotline: 1-888-510-5151

For more information on preventing stormwater pollution, contact your local agency during regular business hours:

Campbell, Los Gatos, Monte Sereno, Saratoga (West Valley Communities)	(408) 354-4734	Mountain View	(650) 903-6378
Cupertino	(408) 777-3354	Palo Alto.....	(650) 329-2122
Los Altos	(650) 947-2770	San José	(408) 945-3000
Los Altos Hills.....	(650) 941-7222	Santa Clara	(408) 615-3080
Milpitas.....	(408) 586-3365	Unincorporated Santa Clara County.....	(408) 918-4609
		Sunnyvale.....	(408) 730-7260