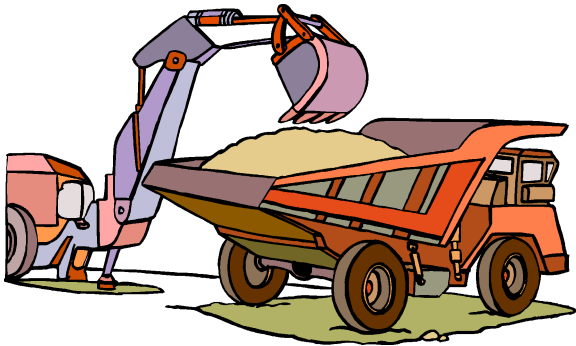


Earth-Moving and Dewatering Activities

Best Management Practices for the Construction Industry



Who should use this brochure?

- Bulldozer, back hoe, and grading machine operators
- Dump truck drivers
- Site supervisors
- General contractors
- Home builders
- Developers

Preventing Pollution: It's Up to Us

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 the 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 a street or storm drain.

Thirteen valley municipalities have joined together with Santa Clara County and the Santa Clara Valley Water District to educate local residents and businesses and fight stormwater pollution. Join us, by following the practices described in this pamphlet.

Doing the Job Right

General Business Practices

- Schedule excavation and grading work during dry weather.
- Perform major equipment repairs away from the job site.
- When refueling or vehicle/equipment maintenance must be done on site, designate a location away from storm drains.
- Do not use diesel oil to lubricate equipment parts, or clean equipment.

Storm Drain Pollution from Earth-Moving Activities and Dewatering

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. Effective erosion control practices reduce the amount of runoff crossing a site *and* slow the flow with check dams or roughened ground surfaces.

Contaminated groundwater is a common problem in the Santa Clara Valley. Depending on soil types and site history, groundwater pumped from construction sites may be contaminated with toxics (such as oil or solvents) or laden with sediments. Any of these pollutants can harm wildlife in creeks or the Bay, or interfere with wastewater treatment plant operation.

Discharging sediment-laden water from a dewatering site into any water of the state without treatment is prohibited.

Practices During Construction

- Remove existing vegetation only when absolutely necessary. Plant *temporary* vegetation for erosion control on slopes or where construction is not immediately planned.
- Protect downslope drainage courses, streams, and storm drains with wattles, or temporary drainage swales. Use check dams or ditches to divert runoff around excavations. Refer to the Regional Water Quality Control Board's *Erosion and Sediment Control Field Manual* for proper erosion and sediment control measures.
- Cover stockpiles and excavated soil with secured tarps or plastic sheeting.

Dewatering Operations

1. Check for Toxic Pollutants

- Check for odors, discoloration, or an oily sheen on groundwater.
- Call your local wastewater treatment agency and ask whether the groundwater must be tested.
- If contamination is suspected, have the water tested by a certified laboratory.
- Depending on the test results, you may be allowed to discharge pumped groundwater to the storm drain (if no sediments present) or sanitary sewer. OR, you may be required to collect and haul pumped groundwater offsite for treatment and disposal at an appropriate treatment facility.

2. Check for Sediment Levels

- If the water is clear, the pumping time is less than 24 hours, and the flow rate is less than 20 gallons per minute, you may pump water to the street or storm drain.
- If the pumping time is more than 24 hours and the flow rate greater than 20 gpm, call your local wastewater treatment plant for guidance.
- If the water is not clear, solids must be filtered or settled out by pumping to a settling tank prior to discharge. Options for filtering include:
 - Pumping through a perforated pipe sunk part way into a small pit filled with gravel;
 - Pumping from a bucket placed below water level using a submersible pump;
 - Pumping through a filtering device such as a swimming pool filter or filter fabric wrapped around end of suction pipe.
- When discharging to a storm drain, protect the inlet using a barrier of burlap bags filled with drain rock, or cover inlet with filter fabric anchored under the grate. OR pump water through a grassy swale prior to discharge.

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 Small Business Hazardous Waste Disposal Program. Call (408) 299-7300 for a quote, more information or guidance on disposal.

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

This brochure is one in a series of pamphlets describing storm drain pollution prevention measures for specific types of construction industry activities. Other pamphlets include:

General Construction and Site Supervision

Landscaping, Gardening, and Pool Maintenance

Fresh Concrete and Mortar Application

Painting and Application of Solvents and Adhesives

Roadwork and Paving

Heavy Equipment Operation

Home Repair and Remodeling

For additional brochures, call **1-800-794-2482**



Santa Clara Valley
Urban Runoff
Pollution Prevention Program

Spill Response Agencies:

1. In the City of Santa Clara, call (408) 984-3080.
2. In the City of Palo Alto, call (650) 329-2413.
3. In the City of San Jose, dial 9-1-1 if hazardous materials enter the storm drain system. For non-hazardous spills, call (408) 945-3000.
4. In other cities, **DIAL 9-1-1**
5. State Office of Emergency Services Warning Center (24 hours). **1-800-852-7550**
6. Santa Clara County Environmental Health Services.(408) 299-6930

Local Pollution Control Agencies

County of Santa Clara
Pollution Prevention Program. . (408) 441-1195

County of Santa Clara Integrated Waste
Management Program. (408) 441-1198

County of Santa Clara District Attorney
Environmental Crimes Hotline. . (408) 299-TIPS

Santa Clara County
Recycling Hotline. 1-800-533-8414

Santa Clara Valley Water
District. (408) 265-2600

Santa Clara Valley Water
District Pollution Hotline. 1-888-510-5151

San Jose/Santa Clara Water
Pollution Control Plant. (408) 945-3000

*Serving Campbell, Cupertino, Los Gatos,
Milpitas, Monte Sereno, San Jose, Santa
Clara, Saratoga*

Sunnyvale Water Pollution Control Plant
Serving Sunnyvale. (408) 730-7270

Regional Water Quality
Control Plant. (650) 329-2598
*Serving East Palo Alto Sanitary District, Los
Altos, Los Altos Hills, Mountain View, Palo
Alto, Stanford*

Regional Water Quality Control Board
San Francisco Bay Region. (510) 622-2300