

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

Storm Drain Pollution Preventing: It's Up to Us

In San Mateo County, storm drains transport water directly to local creeks, San Francisco Bay, and Pacific Ocean 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.

All of the cities in San Mateo County have joined together with San Mateo County and the City/County Association of Governments (C/CAG) to educate local residents and businesses and fight stormwater pollution. Join us, by following the practices described in this pamphlet.

What Can You Do?

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.
- Prevent sediment from migrating offsite and protect storm drain inlets, drainage courses, and streams, with appropriate BMPs (i.e., gravel rolls, silt fences, temporary swales, etc).
- Properly monitor and maintain all erosion and sediment controls and report failures of erosion and sediment controls to the local stormwater authority.

Storm Drain Pollution from Earth-Moving and Dewatering Activities

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.

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, and plant *temporary* vegetation for erosion control on slopes or 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 transfer it to dump trucks on site, not in the streets.

Dewatering Operations

Discharges of groundwater or captured runoff from dewatering operations must be properly managed and disposed. When possible send dewatering discharge to landscaped area or sanitary sewer. If discharging to the sanitary sewer call your local wastewater treatment plant. Divert run-on water from offsite away from all disturbed areas.

1. Check for Toxic Pollutants

- Check for odors, discoloration, or an oily sheen on groundwater.
- Call your local 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 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 agency for guidance.
- If the water is not clear, solids must be filtered or settled out by pumping to a settling tank prior to discharge. Filtering options 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 San Mateo County's Very Small Quantity Generator Program. Call (650) 655-6217 for a quote, more information or guidance on disposal.

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



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Spill Response Agencies:

Non-emergency calls:

1. San Mateo County Environmental Health Division's Household Hazardous Waste Hotline includes information for businesses: (650) 363-4718
2. For stormwater pollution prevention information and additional brochures visit the San Mateo Countywide Water Pollution Prevention Program's web site at www.flowstobay.org or contact local stormwater programs (see list below).

Town of Atherton	(650) 752-0541
City of Belmont	(650) 595-7425
City of Brisbane	(415) 508-2130
City of Burlingame	(650) 558-7230
Town of Colma	(650) 757-8888
City of Daly City	(650) 991-8200
City of East Palo Alto	(650) 853-3197
City of Foster City	(650) 286-3270
City of Half Moon Bay	(650) 726-8260
Town of Hillsborough	(650) 375-7411
City of Menlo Park	(650) 330-6740
City of Millbrae	(650) 259-2339
City of Pacifica	(650) 738-3767
Town of Portola Valley	(650) 851-1700
City of Redwood City	(650) 780-7464
City of San Bruno	(650) 616-7160
City of San Carlos	(650) 802-4261
City of San Mateo	(650) 522-7350
City of S. San Francisco	(650) 877-8555
Town of Woodside	(650) 851-6790
County of San Mateo	(650) 599-7310

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

Emergency calls only:

1. Dial 911
2. Governor's Office of Emergency Services Warning Center (24 hours): 1-800-852-7550.