

## Storm Drain Pollution Prevention: It's Up to Us

In San Mateo County, storm drains flow directly to local creeks, San Francisco Bay, and the Pacific Ocean with no treatment. Stormwater pollution is a serious problem for wildlife dependent on our waterways and for the people who live near polluted streams or wetlands. Some common sources of this pollution include spilled oil, fuel, and fluids from vehicles and heavy equipment; 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 fight storm drain pollution. We hope you will join us, by using the practices described in this pamphlet.

## Pollution from New and Re-Development Site Design

Land development can significantly alter natural drainages and can lead to increases in storm drain pollution and other water quality problems. Development can intrude on sensitive areas within a watershed and result in increases in impervious surface areas such as rooftops and roadways. Increased impervious surface areas cause increased amounts of rainwater to runoff at faster rates than would occur naturally. The added quantity and velocity of this runoff can cause problems such as erosion and flooding in our creeks, the Bay, or ocean. As the rainwater crosses impervious areas it also picks up pollutants, such as those described above. The runoff is then carried to our natural waterways without treatment, contributing to water quality and habitat degradation.

## Who should use this brochure?

- Property Owners
- Project Applicants
- Home builders
- Developers
- Landscape Architects

### What Can You Do?

Working to design your project with the natural environment in mind, breaking up directly connected impervious surface areas to allow the runoff to slow down and receive some treatment through infiltration, and encouraging less-polluting forms of transportation will benefit our natural waterways and can add value to your investment.

Before you come to your development site conceptual review meeting with planning and engineering staff, have you first considered the following?

### Identification of Protected Areas, Setbacks, and Easements

- Have you *included adequate protective setbacks* from creeks, wetlands, or riparian habitats?
- Have you *preserved significant trees and native vegetation* to protect soil structure, aid in soil permeability, and provide aesthetics?
- Have you *avoided erosive soils and slopes* (such as steep or long continuous slopes, soils high in silt or fine sand, or soils lacking vegetative cover)?

### Options for Mobility

- Does your subdivision or site plan include bicycle lanes and paths; secure bicycle parking at community centers, businesses, and shops; direct, safe pedestrian connections; and transit facilities?

## Use of Drainage as a Design Element

- Have you examined the natural drainage system on your site to suggest optimum locations for parks and play areas, pathways, and potential building sites?
- Have you considered using clustered housing to preserve open space; infiltration areas; pathways that follow the natural contours? Have you considered play areas that serve as temporary, shallow water retention basins; a community garden area that serves as an infiltration area; vegetated swales to provide water filtration, street buffers, connectivity, and landscape interest?
- Have you considered site design elements to reduce the amount of runoff and pollution draining from the site after construction?

## Minimization of Directly Connected Impervious Areas (DCIA)

DCIA is any impervious surface that drains directly into a storm drain or other conveyance structure without filtration.

- Have you *limited the overall impervious land coverage* of your site?
- Have you *directed runoff from impervious areas to pervious areas* and/or small depressions (especially from the first 1/3 to 1/2 inch of rain\*)?
- Have you considered incorporating any of these techniques into your site plan:
  - paving with permeable pavement materials (e.g. unit paver-on-sand patio),
  - clustered buildings or shared driveways
  - reduced land coverage by building taller and narrower building footprints,
  - installation of parking bays or pull-outs?

## Consideration of Treatment Controls

- Have you considered what stormwater treatment controls may be required?

\* According to BASMAA's "Start at the Source" (1999). Check with your municipal planning staff for the latest Regional Water Quality Control Board requirements.

## The Following Materials are Also Available:

### Site Design

- Bay Area Stormwater Management Agencies Association (BASMAA), *Start at the Source: Design Guidance Manual for Stormwater Quality Protection*, 1999. To order, call: (510) 622-2453.
- California Storm Water Best Management Practices Handbooks (set of 3—Municipal, Construction, Industrial/Commercial). To order, call: (510) 444-6771.
- STOPPP, “Checklist for Permanent Stormwater Quality Controls.”

### Construction/ Permitting

- Association of Bay Area Governments (ABAG), *Manual of Standards for Erosion & Sediment Control Measures*, May 1995.
- BASMAA, “Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction-Related Activities,” 1999.
- BASMAA, “San Francisco Bay Area Recyclers and Disposal Services for Construction Sites,” 1999.
- San Francisco Bay Regional Water Quality Control Board, *Erosion and Sediment Control Field Manual*, July 1999. Contact: Friends of the San Francisco Estuary: (510) 622-2419.
- STOPPP, “Checklist for Construction Requirements.”
- STOPPP, “Guide to Creek and Wetland Project Permitting.” 1999.
- STOPPP “Pollution Prevention—It’s Part of the Plan” Construction Plan Sheet, 1998.
- STOPPP Construction Activity Trifold Brochures, 2000:
  - General Construction and Site Supervision
  - Earth-Moving Activities
  - Fresh Concrete and Mortar Application
  - Heavy Equipment Operation
  - Landscaping, Gardening, and Pool Maintenance
  - Painting and Application of Solvents and Adhesives
  - Roadwork and Paving
  - Dewatering Activities

## Local Stormwater Programs:

|                             |                |
|-----------------------------|----------------|
| Town of Atherton            | (650) 802-4370 |
| City of Belmont             | (650) 595-7427 |
| City of Brisbane            | (415) 508-2130 |
| City of Burlingame          | (650) 558-7230 |
| Town of Colma               | (650) 757-8895 |
| City of Daly City           | (650) 991-8200 |
| City of East Palo Alto      | (650) 853-3189 |
| 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) 858-3420 |
| 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) 802-4370 |
| City of San Mateo           | (650) 522-7340 |
| City of South San Francisco | (650) 877-8634 |
| Town of Woodside            | (650) 851-6790 |
| County of San Mateo         | (650) 363-4161 |

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

For more information about the countywide storm drain protection program, and additional brochures, call:



San Mateo Countywide Stormwater Pollution Prevention Program (STOPPP)  
New Development Subcommittee  
555 County Center  
Redwood City, CA 94063  
(650) 599-1406 Fax (650) 361-8227  
<http://stoppp.net/>

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of this brochure.

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# Conceptual Review Checklist for Stormwater Considerations



## Best Management Practices for the Construction Industry



San Mateo Countywide Stormwater Pollution Prevention Program (STOPPP)