

- Presentation:** "Erosion Sediments"
- Speaker:** Mr. Hossain Kazemi, San Francisco Bay Regional State Water Quality Control Board
- Handout:** "Simple Tools for Storm Water Compliance: New Development and Existing Construction Site Pollution Control Program" (Electronic copy not available)
- Notes:** Mr. Kazemi discussed best management practices (BMP) related to erosion and sediment controls for construction activities and water quality strategies implemented in California.

The Regional Water Quality Control Board (RWQCB) has achieved significant compliance with construction-related erosion and sediment controls by focusing on outreach, training, and strong enforcement. Enforcement has shifted from fines to shutting down projects.

Mr. Kazemi stressed the importance of combining erosion and sediment controls. Mr. Kazemi showed numerous examples of ineffective control measures, including the use of hay bales and the improper use of silt fences. He expressed his preference for straw hydromulch as the "best and cheapest" solution for erosion and sediment control. In his experience, the most effective way to apply straw hydromulch is as follows:

1. Apply seed and fertilizer
2. Apply mulch (approximately 2 tons per acre)
3. Apply tacitifier (glue)

Other effective control measures include erosion blankets, gravel bags, and fiber rolls.

Mr. Kazemi stated that construction budgets should include a separate line item for erosion and sediment controls, which CalTrans has found to be approximately 1 to 1.5 percent of the total construction budget.

Mr. Kazemi stated that the San Francisco Estuary Project (510/622-2419) has the following publications and videos related to construction site planning and management for water quality protection (see San Francisco Estuary website at <http://www.abag.ca.gov/bayarea/sfep/reports/construction.html>):

**Erosion and Sediment Control Field Manual** - \$25  
(126 pages, full color)

BMPs for construction site planning and management, erosion and sediment control and pollution prevention. Descriptions of BMPs are concise and include full-color graphics and installation information

including guidelines, timing and limitations. Recommended by the San Francisco Bay Regional Water Quality Control Board, the Home Builders Association of Northern California and the Engineering Contractors Association (Updated 1999).

**Guidelines for Construction Projects - \$10**

(130 pages, two color)

Incorporating the revised statewide NPDES General Permit for Construction Activity, including California state storm water regulations and responsibilities, a guide to the Regional Water Quality Control Board, step-by-step instructions on how to prepare a Storm Water Pollution Prevention Plan and a Notice of Intent to comply with that plan, 404 Permit and 401 Water Quality Certification requirements, recommendations for contract provisions, hydroseeding considerations and cost-comparisons between various hydraulic control practices.

**Start at the Source - \$42**

(154 pages, two color)

A Design Guidance Manual for Storm Water Quality Protection by the Bay Area Storm Water Management Agencies Association. Focuses on consideration of storm water issues in planning and designing land development and redevelopment projects. Includes case studies, frequently asked questions, zoning issues, and detailed information on design criteria, maintenance, and economics of including permanent storm water BMPs in planning and designing projects.

**Videos:**

**Hold on to Your Dirt - \$15**

(20 minutes)

BMPs for grading projects and for stabilizing disturbed land areas. "Hold on to Your Dirt" notes the environmental impacts of uncontrolled erosion from construction projects, documents proper installations of the most commonly used control practices, and contains lively interviews with site managers, contractors, builders and government staff. Winner of the Silver Apple 1998 (National Educational Media Network, formerly the National Educational Film Festival). Available in Spanish and English versions.

**Keep it Clean - \$15**

(20 minutes)

Picks up where "Hold on to Your Dirt" leaves off after mass grading and site stabilization. The highly effective BMPs recommended in the video are designed to prevent water pollution from construction-related activities such as painting, stucco, concrete washout facilities and saw cutting. Recipient of the 1998 Award of Distinction (Communicator Awards). Available in Spanish and English versions.

**Discussion:**

Regarding	Questions/Remarks	Response*
Construction Contracts	Any suggestions for construction contract specifications related to erosion and sediment control?	CalTrans has done a good job writing their contracts. Check their website, which has examples.
Firebreaks	How are you dealing with wildfire issues? How do you minimize erosion and sediment discharge in firebreak construction?	Mr. Kazemi replied that if the area is over 5 acres, you need to get a permit. If the area is a permitted firebreak, use a tactifier (glue) and not seed or straw, which should last a season.
Small MS4s	With the advent of the small MS4, will the Regional Water Quality Control Board be involved with post-construction best management practice requirements?	<p>The California RWQCB will start offering workshops on the Phase II storm water requirements.</p> <p>You can also review the post-construction section of the compact disk (CD) mentioned above for information about design features. You can also review the website for Lake Tahoe, which has the best design for erosion control.</p>
Burned areas	What are the control requirements for open areas where fires have occurred?	For large, open spaces, focus on the runoff and endpoints. Use erosion blankets and let nature take care of the rest. Use fiber roll (not cellophanes), which reduces runoff by 30%. Find ways to let the water sink into the ground.
Program Tools	Do you have a template or a good example of a storm water pollution prevention plan?	Mr. Kazemi recommended calling the Fairfield Suisun Sewer District at (707) 429-8930 for a boilerplate storm water pollution prevention plan.