



THE *Outfall*

VOL 1, ISSUE 2 DECEMBER 2005

This issue's focus: **CONSTRUCTION**

Inside this issue:

Problems at Construction Sites	1
Mandatory Training	5
Reporting Discharges	5
Construction General Permit	6
Preventing Pollution	6

Presented by the:

Sacramento County Stormwater Quality Program

Information and updates on stormwater quality training, regulations, and approaches for Sacramento County employees

Top Ten Problems at Construction Sites

This wet season, the County and State inspectors will be looking for an effective combination of erosion and sediment control on all construction sites in Sacramento County. The following series of photographs illustrate the top 10 problems observed by inspectors in this area last year. The State inspectors will be issuing Notice of Violations (NOVs) more readily this year to sites that have these types of problems.

Problem #1: Lack of an Effective Combination of Erosion and Sediment Control

BAD EXAMPLES:



At this site, the silt fence (sediment control) is being used, however; erosion control is also important, especially for steep slopes.



Without proper erosion and sediment control, pollutants such as sediment can enter our local waterways and harm aquatic life.

GOOD EXAMPLE:



Here is an effective combination of sediment and erosion control using fiber rolls and mulch.

Make sure that all BMP's (Best Management Practices) are installed and maintained per specifications. Without correct installation, they have the potential to be just as bad as none at all.

Problem #2: Ineffective Maintenance of BMPs

BAD EXAMPLE:



What a mess! Don't let your site look like this. Is this fiber roll properly maintained?

GOOD EXAMPLES:



Make sure fiber rolls are staked into the ground properly and maintained regularly. In addition, erosion control such as straw mulch can be used on slopes to protect soil.



Good use of erosion control blankets.

Problem #3: Lack of Good Housekeeping Practices

BAD EXAMPLE:



Many sites like this are not cleaned up regularly and are hazardous to employees and the environment.

GOOD EXAMPLE:



Utilize covered dumpsters to minimize trash exposure to wind and rain.

Sediment and Erosion Control: What's the Difference?

Erosion controls prevent soils from being detached and carried away by wind or water; whereas sediment controls trap and filter out sediment that has already been introduced to site runoff. Erosion controls should always be your first line of defense in the wet season, followed by sediment controls. An effective combination of both types is required during the wet season (October 1 - April 30). During the dry season,

typically sediment controls alone will suffice.

Examples of erosion controls include 3-step hydroseeding, tackified straw mulch, soil stabilizers, and blankets. Examples of sediment controls include storm drain inlet protection (e.g., gravel bags), fiber rolls (aka straw wattles), and silt fences.

Problem #4: Tracking on Roadways

BAD EXAMPLE:



Sediment on streets is one of the biggest problems in the Sacramento area.

GOOD EXAMPLES:



Create stabilized construction site entrances to remove mud from tires.

Problem #5: Improper Cleaning of Streets

BAD EXAMPLE:



The dirt that is being blown on this street can do more harm than good.

GOOD EXAMPLE:



Sweep streets, sidewalks, and driveways regularly using dry methods or vacuum sweepers.

Problem #6: Stockpile Management

BAD EXAMPLE:



The stockpile shown here can easily erode, sending sediment into the gutter and down the storm drain.

GOOD EXAMPLE:



Keep long-term stockpiles covered at all times. Cover short-term stockpiles with plastic (weighted down with rock bags) and surround with staked wattles at the end of each workday and before predicted rain.

Problem #7: Ineffective Concrete Washout Areas

BAD EXAMPLE:



It is important to pay attention to the level of concrete in the washout area before each use.

GOOD EXAMPLE:



Line concrete washout areas with impervious material like plastic. Maintain and periodically remove hardened solids.

Problem #8: Placement and Condition of Toilets

BAD EXAMPLE:



This portable toilet is too close to the storm drain. Toilets must be kept at least 50 ft. away from storm drains and staked down to inhibit tipping or vandalism.

Did you Know?

Last year, concrete discharges were a big issue, according to Rich Muhl, an inspector from the Central Valley Regional Water Quality Control Board. This year, inspections on concrete waste management will occur more frequently.

Problem #9: Ineffective Drain Inlet Protection and Maintenance

BAD EXAMPLE:



Rock or gravel bags in this condition are useless and can clog storm drain inlets.

GOOD EXAMPLE:



Extend filter bags across the entire gutter apron width. Inspect daily. Keep water flowing through bags. Replace torn bags.

Problem #10: Paint/Stucco/Concrete/and Related Discharges

BAD EXAMPLE:



This stucco was left uncovered and is too close to the road.

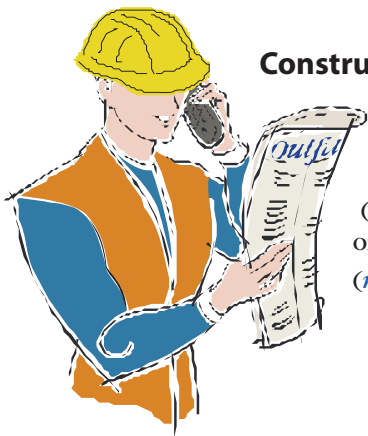
GOOD EXAMPLE:



Make sure to put plastic under equipment, cover open bags of concrete, and have drain inlet protection in place.

Other things to remember about BMPs:

- Train your staff about proper installation of BMPs and the importance of regular inspection and maintenance. Contact DWR's Stormwater Quality staff to schedule project-specific training for the entire construction team.
- Make sure silt fences are trenched all the way to the ground and are regularly maintained.
- Store liquids indoors (e.g., sheds, garages) in proper labeled and closed containers. Whenever possible, store packaged cement and similar materials under cover. If not possible, cover completely with plastic and place on pallets away from storm drains. Locate stockpiled bulk materials (e.g., landscaping bark, gravel, sand) away from storm drains and cover with plastic (weigh down).
- Fix leaks from concrete mixers and other construction equipment.
- If you power wash or hose down driveways, you must protect the storm drain with BMPs such as rock, weighted fiber rolls, or berms to pond the water and then pump it to the side or back of the lot using a pump or shop vacuum system.
- Avoid landscaping in the rain.
- If applicable, prepare a dewatering plan for your project. Use a media filter such as a portable sand filter unit or sediment filter bag. When using a detention basin, size the basin large enough to hold all expected site runoff and any run-on. Remember that some soils in this area will not settle out in basins, regardless of length of time stored. In these cases, chemical treatment will likely be required, including compliance with State monitoring requirements.
- Apply hydroseed with mulch and tackifier.



Construction-Related Questions?

Contact Archie Wright
(wrightar@SacCounty.net);
Summer Christensen
(christensens@SacCounty.net);
or Brett Nichols
(nicholsb@SacCounty.net)

Mandatory Training for County Construction Projects

A two-hour in-house stormwater pollution prevention training session is required before breaking ground on County construction projects. The goal is to make everyone on the project aware of the requirements and avoid the possibility of notices of violation being issued to your project. Call Archie Wright at 874-8396 to get more information and schedule training for your project team.

The training should include the County's Project Manager/Resident Engineer and his/her staff, CMID inspector(s) assigned to the project, the contractor's superintendent and other staff as needed, the contractor's erosion and sediment control staff (i.e., those persons responsible for installing, inspecting and maintaining BMPs, and updating the SWPPP), and representatives of major subcontractors.

Reporting Discharges to Waters of the State

As project owner, the County is responsible for notifying the regulators in the event of a spill or discharge to a local creek, river, wetland or other protected water body (Waters of the State). This notification should not be made by a consultant or contractor working for the County. Failure to file the proper reports can result in a notice of violation and fine for your project.

Project inspectors should frequently check the discharge points from your project to the storm drain system and local waterways for signs of problems. If problems are observed at the drain inlet, block the inlet, find the source and correct the problem. Clean out the storm drain line if necessary so that pollutants do not travel downstream to a creek or river. If water at a discharge point to a Water of the State is sediment-laden, visibly oily, greasy, or has a strong odor, it may have exceeded water quality standards. If this happens, the following steps should be taken:

- Find/fix the problem ASAP to stop the discharge.
- Verbally notify the County's Project Manager ASAP and email/fax/deliver them a written summary of what happened, cause, extent of pollution and how it was cleaned up/disposed of.
- After receiving/reviewing information from construction managers, the County's Project Manager must telephone the Regional Board within 48 hours of the incident.
- The County's Project Manager must follow up with a written report to the Regional Board within 14-calendar days of the violation.

The State's Construction General Permit

All construction projects disturbing one acre or more must obtain coverage under the State's General Permit for Stormwater Discharges Associated with Construction Activities (Construction General Permit). When calculating the area disturbed for your project, be sure to include staging, stockpiling and parking areas. If your estimate is just under the one acre threshold, it is best to obtain permit coverage if you think the disturbed area could be increased. The first step in obtaining General Permit coverage is to file a Notice of Intent (NOI) and applicable fee with the State Water Resources Control Board. Your project will then be assigned a unique Waste Discharge Identification (WDID) number. You must prepare a stormwater pollution prevention plan (SWPPP) for your project and keep it on site at all times for review by the State inspector. You cannot break ground on your project until you have your WDID number and have completed the SWPPP. For more information about the Construction General Permit program, see the State's web site: www.waterboards.ca.gov/stormwtr/construction.html.

Preventing Pollution on Small Projects

Many people mistakenly believe that if their project is small (i.e., disturbs less than one acre) they do not need to implement erosion and sediment controls. While it is true that projects of this size do not need coverage under the State's Construction General Permit, these projects ARE required

to implement BMPs. It is a violation of the County's Stormwater Ordinance to discharge sediment and other construction-related pollutants into the storm drain system or local waterways from projects of any size. To ensure that County employees and contractors working on small jobs are aware of the requirements, prepare a simple Water Pollution Control Plan (WPCP) for your project. For projects that are publicly bid, ideally the simple plan is part of your bid specifications. For other projects, prepare and distribute the plan to all parties before the job begins. The 2001 County of Sacramento Construction Specification (Section 10-4.06) outlines the minimum WPCP requirements for projects under an acre.

Additional Resources:

1. Erosion and Sediment Control for Small Building Sites (www.sactostormwater.org/documents/brochures/ErosionControl-smallsites.pdf)
2. CASQA BMP Handbook for Construction, 2003 (www.cabmpbandbooks.com/construction.asp)
3. Caltrans Stormwater Manuals (www.dot.ca.gov/hq/construc/stormwater/CSBMMPM_303_Final.pdf)

Check out our website!

www.SacCounty.net (search: stormwater)

for local regulations and training. Comments, ideas, questions? Please Contact Jeanette Watson, (916) 874-4711, watsonj@saccounty.net



**Cleaner Storm Drains
Cleaner Rivers**

SACRAMENTO COUNTY STORMWATER QUALITY PROGRAM
DEPARTMENT OF WATER RESOURCES • STORMWATER UTILITY

The Outfall is published by the County of Sacramento, Department of Water Resources, Stormwater Quality Program (www.SacCounty.net (search: stormwater)). The Outfall's goal is to provide timely and relevant information to County employees regarding storm water related training, updates, and approaches.

Comments, ideas, questions? Please contact Jeanette Watson, (916) 874-4711, watsonj@saccounty.net

Contributors: Jeanette Watson, Jessica Langston, Diane Margetts, Summer Christensen, Janet Paris, Archie Wright, and Carmel Brown