CONSTRUCTION
STORM WATER
POLLUTION PREVENTION BULLETIN

Vol. 7 Issue: 5 / June, 2007

Maintenance of Sediment Controls

Inadequate maintenance of sediment controls has been identified as the number 5 most common storm water deficiency on construction sites. Proper controls must be used to prevent sediment from entering the storm drains or watercourses. This bulletin reviews common challenges and recommends corrective actions to improve the maintenance of sediment controls.

State Water Resources Control Board
Division of Water Quality

The National Pollutant Discharge Elimination System (NPDES) Construction General Permit for Storm Water Discharges Associated with Construction Activity requires maintenance, inspection, and repair of BMPs. (Section A.11)

Contract Documents

Contract documents can pave the way for effective storm water pollution prevention. The inclusion of specific requirements for maintenance, inspection and corrective action in the standard special provisions (SSPs) provides a mechanism for enforcing effective sediment control maintenance. Look for BMPs and SSPs that may apply to projects that require sediment controls.

- 07-340, Water Pollution Control
- 07-345, Water Pollution Control
- 07-360, Street Sweeping
- 07-415, Temporary Check Dams
- 07-420, Fiber Rolls
- 07-430, Silt Fence
- 07-460, Straw Bale Barrier
- 07-470, Gravel Bag Berm
- 07-490, Storm Inlet Protection
- SC-7, Street Sweeping
- S5-630, Relations with California Regional Water Quality Control Board

The shared risk payment provision between Caltrans and the contractor for the maintenance of sediment controls (that is, each paying 50% of maintenance costs) has been shown to improve the implementation of the required BMPs. It is recommended that the shared risk payment provision be included in the SSPs for all projects. Under the shared risk payment provision, it is important that the BMP installation be carefully inspected for compliance with the SSPs.

Storm Water Pollution Prevention Plan

Check the Storm Water Pollution Prevention Plan (SWPPP).

- Include sediment control BMPs.
- The resident engineer is responsible for reviewing and approving the SWPPP.
- Maintenance of sediment control practices is essential to sustain BMP effectiveness.
- The SWPPP inspection checklist should be tailored to include specific questions that prompt the contractor when maintenance is required.

Broken Sandbags and Gravel Bags

Gravel bags and sandbags are subject to damage and breakage.

- Gravel bags must be replaced when the fabric or stitching has failed and has allowed the contents to spill out
- Use warning cones to prevent vehicles from driving over gravel and sandbags
- Flexible dikes should be considered in areas where gravel bags and sandbags can be damaged by vehicles.

Degraded Gravel or Sandbags, Silt Fence and Fiber Rolls

Include maintenance thresholds for repair and replacement.

- Repair/replace when the BMP is unsuitable for its intended use.
- Increase sweeping frequency when sediment is tracked.

Sediment Accumulation

Managing sediment accumulation is more cost-effective than BMP replacement.

- Remove sediment as required by the SSP.
- Typically, remove sediment when the accumulated depth reaches one-third of the barrier height or original volume.

Sediment management following a storm event

Effective Inspections

Inspections are most effective when conducted jointly by the contractor and Caltrans inspectors.

- Minimum inspection frequency is defined in the project specifications.
- Inspect sediment control BMPs before, during, and after each rainfall event, and weekly throughout the rainy season.
- If a specific deficiency is found during the inspection, the inspection checklist should prompt corrective action and SWPPP amendment, if necessary.

Enforcement Procedures

If the contractor does not respond to requests for management of sediment control, the resident engineer should prepare a mandatory non-compliance letter. If the contractor is not responsive, execute appropriate contract enforcement mechanisms to ensure that the contractor complies.

Questions or comments may be directed to Hamid Hakim, HQ Construction Storm Water Coordinator, **hamid_hakim@dot.ca.gov, or your local Construction Storm Water Coordinator.**