

The Storm Water Pollution Prevention Bulletin is prepared by the Storm Water Compliance Review Task Force to aid all projects and operations in maintaining compliance with the National Pollutant Discharge Elimination System (NPDES) permit requirements.

## Preparing for a Major Storm Event



A well-placed sediment trap protects the channel.

Recent Storm Water Compliance Task Force reviews revealed that many contractors and Resident Engineers were unprepared for the significant storms that moved through the area. This bulletin presents a guide on how to prepare for and what to expect during a major storm.

### MANAGEMENT CONCERNS

- The following are key items to successful storm water management during major storm events:
- Resident Engineers need to be aware of expected weather conditions. Resident Engineers who were aware of weather forecasts were generally prepared.
- Resident Engineers should personally supervise the planning for major storms. A review of the site with the Contractor often results in available resources being used more effectively.
- Resident Engineers in need of a hydraulic and hydrology specialist should contact the District Office for support prior to the winter season.
- Resident Engineers' inspectors are responsible for site maintenance and emergency response coordination. Resident Engineers can prepare their inspectors by reviewing critical maintenance locations and updating the project emergency phone list.

- The Contractor's emergency response team must be available to handle problems during evenings and weekends.

### FIELD REVIEW AND PREPARATION

Resident Engineers and Contractors should conduct pre-storm reviews to include the following:

- Locate areas likely to flood and assess the possibility of opening up key drainage paths and inlets, or constructing additional ones to accommodate the floodwaters.
- Check drop inlets located in sumps or low spots and construct or clear the emergency overflow paths to ensure proper functioning. These inlets will be critical if located adjacent to traffic or private property.
- Examine the drainage area for debris and material that could block drainage. Have the site trash picked up and trash receptacles emptied prior to the storm.
- Determine if necessary to remove construction equipment and clear water diversion and

dewatering measures from streambeds. Most clear water diversions and dewatering operations will be flooded.

- Expect high winds and plan for them. Typical problems include damaged plastic sheeting (which can clog drains) and overturned chemical toilets, hazardous waste containers and storage sheds.
- Plan the placement of temporary soil stabilization measures considering the consequences of failure and the ease of maintenance. For example, heavy mulch subject to concentrated flows can fail and clog downstream sediment controls while a quick setting polymer will not.



Workers removing sediment the morning after a major storm.

### MAINTENANCE

Most construction BMPs are not designed for a specific "design storm" due to the diverse rainfall intensities statewide and different installation conditions. The exceptions to this are hydraulic structures such as temporary and permanent basins. For this reason, the Resident Engineer should expect the contractors to perform maintenance on all in-place BMPs after most rain events to ensure that they can continue to function properly. A discharge to a storm drain or water course is non-compliant when it is the result of improper implementation of a required BMP. Therefore, if the site has implemented the BMPs required in the Handbook, that element of the storm water pollution prevention program is in compliance.

Additional information is available in the Caltrans Storm Water Quality Handbooks. Questions or comments may be directed to:

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