Caltrans

Construction Storm Water Pollution Prevention Bulletin

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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.

Construction Projects Located Over Bodies of Water

Caltrans construction projects are often located directly over creeks, rivers, flood control channels, and bays. These areas may be designated as environmentally sensitive, which makes water pollution control even more critical. Preventing contaminants and debris from entering receiving waters is the number one priority for reducing pollutant discharges during construction. The purpose of this bulletin is to identify potential problems and offer appropriate Best Management Practices (BMPs) for implementation.

Work platforms and barges used for the retrofit of bridge columns over the San Francisco Bay.

Construction Activities and Associated Pollutants

Construction activities can take place within a creek or riverbed, on barges, over bodies of water, or on platforms suspended from a structure. Typical activities (and their associated potential pollutants) include:

- Sandblasting (lead contaminated paint, construction joint prep, and curing compound)
- Structural Steel Painting (paint and solvents)
- Pile driving and maintenance of associated equipment (fuels, oil, grease and hydraulic fluids)
- Concrete work (fresh concrete and grout, slurry from coring and drilling, cement, and curing compounds)
- Dredging (increased sediment load and contaminated soils)
- Temporary material storage on barges, platforms, and within limits of creeks and rivers (petroleum, cement, cure compounds)
- Dewatering operations (silt-laden water)
- Welding operations (slag metals)

Implementing Appropriate BMPs

Care should be taken with materials and waste stored or used over or near bodies of water. Some essential practices that can reduce the potential for discharges are as follows:

- If flooding of the storage areas is possible, remove the materials or waste to safer locations.
- Provide secondary containment for stored materials.
- Install containment systems for sandblasting and painting.
- Keep spill-kit materials available.
- Use toe-boards and barriers to keep tools, materials and debris from falling into the water from scaffolds, platforms, and barges.
- Consider using less toxic products.
- Minimize when possible, the use and storage of materials and waste products on the site.

The following BMPs should be considered for construction over water:

- CD7 – Dewatering
- CD9 – Structure Construction and Painting
- CD10 – Material Delivery and Storage
- CD11 – Material Use
- CD12 – Spill Prevention and Control
- CD13 – Solid Waste Management
- CD14 – Hazardous Waste Management
- CD15 – Contaminated Soil Management
- CD16 – Concrete Waste Management
- CD28 – Temporary Stream Crossing

Containment systems for sandblasting and painting operations may be addressed separately in the project Special Provisions.

Additional Agency Permits which may apply to Construction Projects over Bodies of Water:

Bridge Construction over a live creek. The proximity of the gas and oilcans to the creek is a potential water pollution problem.

In addition to the National Pollutant Discharge Elimination System (NPDES) permit, other federal, state, and local permits may apply. They include:

- Department of Fish and Game
- Army Corp of Engineers
- Regional Water Quality Control Board

These permits usually have zero tolerance for any contaminant or debris discharges, and may contain requirements for stream diversions and temporary stream crossings. The permit may also restrict the time that the contractor is allowed to work within a body of water to a certain time of the year. Familiarity with these permits is essential to implementing and maintaining a quality water pollution control program.

Additional information is available in the Caltrans Storm Water Quality Handbooks.
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