

Construction Dewatering Operations Part I: Management Options and NPDES Permit Requirements

For Caltrans construction projects, dewatering operations are used to manage removal of water from excavations, cofferdams, diversions, barges, and areas of ponding (accumulated precipitation). Proper dewatering management prevents discharge of pollutants from these operations to a storm drain or water of the U.S.

This is the first of a series on dewatering operations management. This bulletin summarizes management options and National Pollutant Discharge Elimination System (NPDES) permit requirements. Subsequent bulletins will address Caltrans requirements for discharge to a storm drain or water of the U.S. and possible sediment treatment options.

Dewatering Management Options

In considering management of dewatering operations, assess the following options prior to deciding to discharge to a storm drain or water of the U.S.:

If the water is free of pollutants other than sediment, consider the following management options:

- Reuse the water on site for dust control, compaction during earthwork activities, or irrigation.
- Retain the water on site in a grassy or porous area and allow to infiltrate/evaporate.
- Discharge to a neighboring property (by agreement) that may have irrigation needs or sufficient land for infiltration.
- Discharge (by permit) to a sanitary sewer.

If the water contains pollutants other than sediment, contact your Construction Storm Water Coordinator for guidance. Water from areas of known or suspected soil contamination, or that has unusual visual features or odor, may contain pollutants other than sediment. If other pollutants are suspected, water quality testing may be required. Depending on the quality of the water, possible management options include:

- Discharge to a sanitary sewer (by permit with or without treatment).
- Transportation off site for disposal at a commercial recycling or disposal facility.

NPDES Permit Requirements

If discharge to a storm drain or water of the U.S. is the only feasible option, ascertain the proper permitting and discharge procedures. Waters discharged to a storm drain or water of the U.S. must comply with NPDES permit requirements. The specific NPDES permit governing the discharge, and the associated requirements, are determined by the type, quality, and volume of water to be discharged. Typical scenarios are described here.

#1 Dewatering of accumulated precipitation free of pollutants other than sediment. These discharges must comply with the Construction General NPDES Permit (No. CAS000002) and Caltrans Statewide NPDES Permit (No. CAS000003).

In the North Coast Regional Water Quality Control Board (RWQCB) Region 1, a separate dewatering permit is required.

#2 Dewatering of accumulated precipitation commingled with groundwater or other non-storm water. Dewatering from mixed sources may require a regional NPDES dewatering permit.

#3 Dewatering groundwater free of pollutants other than sediment. Typically, groundwater dewatering must be authorized under a regional dewatering NPDES permit and managed in a manner consistent with the Regional Basin Plan if discharged to a storm drain or water of the U.S.

#4 Dewatering any water containing pollutants other than sediment. These waters cannot be discharged to a water of the U.S. or storm drain without specific authorization from the RWQCB. Discharge will require site-specific treatment, testing, and monitoring. This type of discharge is typically only viable for long-term, large quantity discharges that cannot be discharged elsewhere.



Prior to dewatering ponded water to a storm drain or water body permitting requirements and sediment treatment measures must be considered.

#5 Dewatering of cofferdams or diversions. Construction of diversions or cofferdams in a streambed requires an Army Corps of Engineers 404 permit, RWQCB 401 Water Quality Certification, and compliance with the Construction General NPDES Permit. A separate dewatering permit may also be required by the RWQCB.

