

Managing Storm Water Run-on

Storm water run-on is simply runoff that flows from another property onto the Caltrans construction site. Uncontrolled run-on increases the volume of storm water to be managed on the project.

Additional storm water on the construction site can impact the deployment of Best Management Practices (BMPs) and increase the costs associated with erosion and sediment control. For this reason, the methods for managing run-on should be addressed fully in the project Storm Water Pollution Prevention Plan (SWPPP).

This bulletin reviews National Pollutant Discharge Elimination System (NPDES) General Construction Permit requirements and Caltrans BMPs for controlling storm water run-on to construction projects.

NPDES Permit Requirements

The NPDES General Construction Permit requires the following:

- Run-on should be prevented from flowing through areas that have been disturbed by construction, unless appropriate conveyance systems are in place.
- The project SWPPP must show all calculations for anticipated storm water run-on based on size of drainage area, rainfall intensity, and run-off coefficient (see Bulletin Vol. 4, No. 12).
- The SWPPP must describe the BMPs to be implemented to divert run-on around or through the project site.

BMPs for Controlling Run-on

The Caltrans Storm Water Quality Handbooks, Construction Site Best Management Practices (BMPs) Manual provides guidance and techniques to divert run-on around or appropriately convey run-on through the site.

The following BMPs can be used alone or in combination to manage run-on flows:

- **SC-4 - Check Dam:** Used in temporary ditches to reduce scour and channel erosion to properly convey storm water through the construction site.
- **SC-8 - Sandbag Barrier:** Used to divert run-on away from disturbed slopes and as temporary curbs or dikes to convey concentrated surface flows around DSAs.
- **SS-9 - Earth Dikes/Drainage Swales & Lined Ditches:** Structures that intercept, divert, and convey surface run-on (generally sheet flow) around DSAs to prevent erosion.
- **SS-10 - Outlet Protection/Velocity Dissipation Devices:** Used at outlets for pipes, drains, culverts, slope drains, diversion ditches, swales, or channels to prevent scour and reduce discharge velocity.
- **SS-11 - Slope Drains:** Used with lined ditches/swales to intercept and properly convey concentrated surface flows (run-on or runoff) through DSAs from slope areas.

Practical Tips

Divert water from offsite around the project site or directly to an interior drain so that it does not impact disturbed soil or material storage areas. Within the project limits, to enhance the effectiveness of other BMPs:

- Divert water away from areas of soil disturbance.
- Divert water from the top of disturbed slopes. This aids greatly in reducing erosion of slopes.
- Divert water around stockpiles, material storage areas or other sensitive areas.

Place BMPs so that diverted water is safely directed to an inlet, temporary conveyance, or infiltrated into a vegetated area.

Keep Up the Good Work



Run-on from this golf course must be diverted around or properly conveyed through disturbed soil areas (DSAs).



This diversion channel with gravel bag berms conveys run-on through the project site.

As with any construction site BMP, diversion and conveyance systems for managing run-on require regular inspection and maintenance to ensure proper functioning.

