

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.

If an annual prize was given for the least appreciated storm water Best Management Practice (BMP), it would be awarded hands down to **CD22(2) – Scheduling**. One of the most overlooked storm water BMPs in the *Caltrans Storm Water Quality Handbooks, Construction Contractors Guide and Specifications*, CD22(2) is perhaps the most effective practice for reducing construction-related pollutant discharges to storm water.

The idea behind CD22(2) is simple—schedule soil-disturbing activities to avoid the rainy season and rain events. Although simple in concept, applying CD22(2) to a construction project quickly turns into a complex task of juggling costs, deadlines, construction sequencing, public convenience, and storm water concerns. This bulletin reviews the basics of CD22(2) and the benefits scheduling can provide to your storm water protection program.

Schedule for When the Time is Right

The primary purpose of scheduling is to coordinate the timing of earth-disturbing operations to minimize soil erosion that could be introduced into storm and natural water systems by storm runoff or wind erosion.

Specific activities that should be considered for scheduling include clearing and grubbing, grading and excavating.

The logic that you use to schedule your everyday activities is the same logic to apply to scheduling construction activity to reduce storm water pollution. You shouldn't schedule earth moving activities when rain or high winds are forecast anymore than you should fly a kite in a thunder and lightning storm.

CD22(2) Practices

Work out the sequencing for the start and completion of site clearing and grubbing, grading, and excavation to minimize the time that disturbed soils are exposed to rainfall, run-on and run-off.

- Stabilize non-active areas as soon as possible.
- Minimize soil-disturbing activities during the winter season.
- When rainfall is predicted, modify the work schedule to ensure that BMPs for protecting exposed soil-disturbed areas are implemented before the rain begins.
- Consider the relative increase in cost of performing soil-disturbing operations in smaller increments to the increase in the cost of implementing soil stabilization and sediment control measures for larger operations.



This slope was permanently seeded soon after the roadway embankment was completed.

Project-Specific Considerations

Consider site-specific conditions, such as geographic location and local weather patterns, to identify periods for avoiding earth-moving activity. Schedule activities around seasons of intense rainfall, or minimize the amount of soil-disturbing activity that is performed during these periods.

Clearing, grubbing, grading, and excavations have the least impact on drainage systems and watercourses if done during the months of May through September.

The project Special Provisions may include schedule requirements related to storm water protection, such as:

- Winter season limits on the size of the active and non-active soil disturbed areas.
- A defined order of work that ensures that initial earthwork is completed and permanent erosion controls are installed prior to the start of the winter season.
- Seasonal restraints on soil disturbing activities, which may disallow any such work during the winter season.

Standard Specifications for Scheduling

Section 7-1.01G of the *Standard Specifications* identifies several scheduling requirements to minimize or prevent storm water discharges:

- Schedule operations to minimize or prevent discharges to streams, lakes, and storm drainage systems.
- If necessary, perform work in small or multiple units on an out-of-phase schedule, and with modified construction procedures.
- Submit an erosion control schedule for temporary and permanent erosion control systems to be implemented.
- Abide by the size limits approved for the erodible areas of the project.
- As the project progresses, schedule permanent erosion control systems for installation concurrently with, or immediately following, grading operations.

JANUARY						
MON	TUES	WED	THURS	FRI	SAT	SUN
		1	2 NTP Installation	3		
			4	5	6 Land clearing	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Scheduling Construction Activity to Minimize Storm Water Pollution



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

Ken Keaton • Caltrans HQ Environmental Engineering (916) 653-4947

or

Melinda McCoy

Storm Water Task Force Team • (714) 567-2588