

STORMWATER BMPS: CONCRETE POURING & FINISHING

AFFECTED FACILITIES

These BMPs apply during concrete repair, construction and maintenance projects where wet concrete is poured or finished.

BACKGROUND

Concrete mixers, trucks and pumpers must be cleaned after discharging a batch. Shovels and finishing tools must be cleaned at the end of each job. The cleaning process is usually done with water. The wastewater from this "wash out" contains calcium carbonate and other components of concrete that can contaminate surface waters. Finishing of concrete by "aggregate washing" can also direct wastewater and concrete into surface waters.

BEST MANAGEMENT PRACTICES

- Never wash out over a storm drain inlet or into a drainage ditch.
- If equipment must be washed out at the job site, designate a "Wash Out Area" that is as far as possible from any surface waters storm drain inlets or drainage ditches. The "Wash Out Area" should also be located in a low area where wash water and storm water will pool and soak into the ground.
- If no suitable "Wash Out Area" can be located at the job site, then wash out will have to be done into a bucket or container. The container will have to be taken to a suitable place for disposal.
- If there is a small amount of excess wet concrete remaining at the end of a job (less than 1 cubic yard) and it cannot be used elsewhere, discharge it in the wash out area. Larger volumes of excess concrete must be returned to the batch plant or disposed as solid waste.
- When performing "aggregate washing" (washing off the top layer of wet concrete to expose a rough finish), channel and collect the wash water in a pit (or pits) in the soil. Back fill the pit(s) with soil after the water has soaked in or evaporated.
- Limit the amount of fresh concrete or cement mortar mixed to only what is needed for that job.

REQUIRED STRUCTURES AND EQUIPMENT

- All job sites where concrete is poured (excluding sites using less than 2 cubic yards) must have a designated "Wash Out Area". If no Wash Out Area can be located, then wash out must be done into a bucket or container.

INSTALLATIONS REQUIRED FOR NEW CONSTRUCTION OR RENOVATIONS

- None

REQUIRED EMPLOYEE AND CONTRACTOR TRAINING

- Train all current employees including all street maintenance workers, batch truck drivers and pumper truck operators who pour or finish concrete on this BMP.
- Train all new hires and job transferees who will pour or finish concrete on this BMP.
- Conduct refresher training for all employees including all street maintenance workers, batch truck drivers and pumper truck operators as needed.
- Contracts should stipulate that all contracted employees have been trained in proper stormwater management BMPs.

REQUIRED MAINTENANCE

- None

RECORDS

- Keep records of employees trained and the date of training.
- Keep records of contracts and language that states that all employees have been trained in proper stormwater management BMPs.

REFERENCES

1. Colorado's Phase II Municipal Guidance, October 2001
2. *California Stormwater BMP Handbook*, January 2003
3. *Knoxville (TN) BMP Manual, Activities & Methods*, January 2001
4. *City of Tacoma: Surface Water Management Manual (Vol. IV Source Control BMPs)*, January 2003
5. *Municipal Facility Runoff Control Plan* (City of Lakewood, CO)
6. *Best Management Practices for Industrial Storm Water Pollution Control* (Santa Clara Valley, CA)