



Targeted Constituents

● Significant Benefit		▮ Partial Benefit		○ Low or Unknown Benefit	
○ Sediment	○ Heavy Metals	○ Floatable Materials	○ Oxygen Demanding Substances		
○ Nutrients	▮ Toxic Materials	▮ Oil & Grease	○ Bacteria & Viruses	▮ Construction Wastes	

Description Prevent or reduce the discharge of pollutants to stormwater systems and natural streams from concrete waste by conducting truck and equipment washout offsite or in a designated area.

Approach Portland cement concrete is a very common building material which is used in road and street construction, drainage structures, retaining walls, footings and foundations, building construction and many other applications. Asphalt concrete is a common building material for road and street construction, walking trails and parking lots.

Both materials have the potential to pollute stormwater runoff, especially when conducted next to natural drainage channels or storm drain inlets. This BMP is primarily concerned with Portland cement concrete because:

- It has a liquid component.
- It requires immediate cleaning due to the short time period required for Portland cement concrete to harden.

Improperly disposed concrete may set up in the storm drain system and severely reduce the capacity of the system. Instruct drivers and equipment operators on proper disposal and equipment washout practices. Designate a foreman or supervisor to oversee and enforce concrete waste management procedures. Make supervisors aware of the potential environmental and consequences of improperly handled concrete wastes.

Asphalt Concrete Placement

Asphalt concrete also generates waste material that needs to be managed carefully; however, it is much more likely that a specialized asphalt paving contractor will be conducting the work. Paving and hauling vehicles need to be cleaned regularly; this should generally occur at an offsite location. Use dry methods of removing hardened asphalt before using water or solvents. Recycle asphalt pavement (new and used) whenever possible. Small amounts of asphalt concrete waste may be incorporated into fill areas as allowed by the construction specifications. Do not allow asphalt waste material to leach pollutants into stormwater.

Portland Cement Concrete Placement

The following steps will help reduce stormwater pollution from Portland cement concrete wastes:

- Store dry materials under cover in areas protected from stormwater runoff. Conduct concrete operations during dry weather and monitor weather forecasts throughout the workday.
- Avoid mixing excess amounts of fresh concrete or cement onsite. Do not allow excess concrete to be poured, which generates extra waste material that must then be cleaned up immediately.
- Perform washout of concrete trucks offsite or in designated areas only – such as a specially designed soil-mixing sump protected by a sediment trap. Do not wash out concrete trucks into storm drains, open ditches, streets or streams.
- For onsite washout:
 - Locate washout area at least 50 feet from storm drains, open ditches, or water bodies. Make sure that access to the washout area does not impact stormwater channels. Washout locations may be flagged as necessary to ensure that concrete truck drivers utilize proper areas.
 - Contain runoff by constructing a temporary pit or bermed area large enough to handle for liquid and solid waste. Allow adequate freeboard for structural stability.
 - Wash out wastes into the temporary pit where the concrete can set, be broken up, and then disposed of properly. Be sure that the stormwater collection system is protected by a sediment trap or similar practice.
 - The temporary pit containing waste concrete may be incorporated into fill areas as needed. The waste concrete may be broken into smaller pieces to allow proper soil compaction.
- Do not wash sweepings from exposed aggregate concrete into the street or storm drain system; collect and return sweepings to aggregate base stockpile or dispose as waste.

Portland Cement Concrete Demolition

- Monitor weather conditions and wind direction to ensure that concrete dust is not entering storm drains, watercourses or surface waters. Sweep or vacuum as necessary to collect and control concrete dust. Construct sediment traps or other types of sediment detention devices downstream of demolition activities.
- Segregate and handle demolition materials such as reinforcing bars, roof shingles, lumber and wood framing, bricks, blocks, wires and cables, etc. Recycle materials whenever possible.

Maintenance

- Inspect subcontractors to ensure that concrete wastes are being properly managed. Foreman or construction supervisor shall monitor onsite concrete waste storage and disposal procedures continuously.

References

30, 31, 33, 34, 35, 43, 100, 137 (see BMP Manual Chapter 10 for list)