

BMP: Concrete Waste Management CWM

NOTES:
 1. ACTUAL LAYOUT DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY

DESCRIPTION:
 Prevent or reduce the discharge of pollutants to storm water from concrete waste by conducting washout off-site, performing on-site washout in a designated area, and training employees and subcontractors.

APPLICATIONS:
 This technique is applicable to all types of sites.

INSTALLATION/APPLICATION CRITERIA:
 > Store dry and wet materials under cover, away from drainage areas.
 > Avoid mixing excess amounts of fresh concrete or cement on-site.
 > Perform washout of concrete trucks off-site or in designated areas only.
 > Do not wash out concrete trucks into storm drains, open ditches, streets, or streams.
 > Do not allow excess concrete to be dumped on-site, except in designated areas.
 > When washing concrete to remove fine particles and expose the aggregate, avoid creating runoff by draining the water within a bermed or level area. (See Earth Berm Barrier information sheet.)
 > Train employees and subcontractors in proper concrete waste management.

LIMITATIONS:
 > Off-site washout of concrete wastes may not always be possible.

MAINTENANCE:
 > Inspect subcontractors to ensure that concrete wastes are being properly managed.
 > If using a temporary pit, dispose hardened concrete on a regular basis.

OBJECTIVES:

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion

TARGETED POLLUTANTS:

- Sediment
- Nutrients
- Toxic Materials
- Oil & Grease
- Floatable Materials
- Other Waste

IMPLEMENTATION REQUIREMENTS:

- Capital Costs
- O&M Costs
- Maintenance
- Training

IMPACT:

- High Impact
- Medium Impact
- Low or Unknown Impact

BMP: Inlet Protection IP

DESCRIPTION:
 Silt fencing or sand bags placed around inlet to storm drain system.

APPLICATION:
 Construct at inlets in paved and unpaved areas where upgradient area is to be disturbed by construction activities.

INSTALLATION/APPLICATION CRITERIA:
 > Place geotextile filter fabric around inlet grate extending two feet past the grate in all directions with fencing.
 > Place geotextile filter fabric around and under inlet grate extending two feet past the grate in all directions with sand bags around grate.

LIMITATIONS:
 > Recommended for maximum drainage area of one acre.
 > Excess flows may bypass the inlet requiring down gradient controls.
 > Ponding will occur at inlet.

MAINTENANCE:
 > Inspect inlet protection after every large storm event and at a minimum of once monthly.
 > Remove sediment accumulated when it reaches 4-inches in depth.
 > Replace filter fabric and clean if clogging is apparent.

OBJECTIVES:

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IMPLEMENTATION REQUIREMENTS:

- Capital Costs
- O&M Costs
- Maintenance
- Training

IMPACT:

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- Medium Impact
- Low or Unknown Impact

BMP: Inlet Protection Curb IPC

DESCRIPTION:
 Filter fabric and sand bags placed around inlet to storm drain system.

APPLICATION:
 Construct at inlets in paved and unpaved areas where upgradient area is to be disturbed by construction activities.

INSTALLATION/APPLICATION CRITERIA:
 > Place geotextile filter fabric around and under inlet grate extending two feet past the grate in all directions with sand bags around grate.

LIMITATIONS:
 > Recommended for maximum drainage area of one acre.
 > Excess flows may bypass the inlet requiring down gradient controls.
 > Ponding will occur at inlet.

MAINTENANCE:
 > Inspect inlet protection after every large storm event and at a minimum of once monthly.
 > Remove sediment accumulated when it reaches 4-inches in depth.
 > Replace filter fabric and clean if clogging is apparent.

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BMP: Portable Toilets PT

DESCRIPTION:
 Temporary on-site sanitary facilities for construction personnel.

APPLICATION:
 All sites with no permanent sanitary facilities or where permanent facility is too far from activities.

INSTALLATION/APPLICATION CRITERIA:
 < Locate portable toilets in convenient locations throughout the site.
 < Prepare level, gravel surface and provide clear access to the toilets for servicing and for on-site personnel.
 < Construct earth berm perimeter (See Earth Berm Barrier Information Sheet), control for spill/protection leak.
 < Stake toilets to prevent them from tipping.

LIMITATIONS:
 No limitations.

MAINTENANCE:
 < Portable toilets should be maintained in good working order by licensed service with daily observation for leak detection.
 < Regular waste collection should be arranged with licensed service.
 < All waste should be deposited in sanitary.

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BMP: Stabilized Construction Entrance & Wash Area SCEWA

DESCRIPTION:
 A stabilized pad of crushed stone located where construction traffic enters or leaves the site from or to paved surface. The area can be used to spray off vehicles before they leave the site.

APPLICATIONS:
 At any point of ingress or egress at a construction site where adjacent traveled way is paved. Generally applies to sites over 2 acres unless special conditions exist.

INSTALLATION/APPLICATION CRITERIA:
 < Clear and grub area and grade to provide maximum slope of 2%.
 < Compact subgrade and place filter fabric if desired (recommended for entrances to remain for more than 3 months).
 < Place coarse aggregate, 1 to 2-1/2 inches in size, to a minimum depth of 8 inches.
 < Provide water to the area that can be used to spray off vehicles as needed to prevent the tracking of mud off of the construction site. This may not be needed during dry periods of work, but is needed when construction is proceeding under wet conditions.
 < Provide berming as needed to prevent sediment laden wash water from entering storm water facilities or other water bodies, or leaving the site.

LIMITATIONS:
 < Requires periodic top dressing with additional stones.
 < Should be used in conjunction with street sweeping on adjacent public right-of-way.
 < Must be situated such that waste water does not run off site.

MAINTENANCE:
 < Inspect daily for loss of gravel or sediment buildup.
 < Inspect adjacent roadway for sediment deposit and clean by shoveling and sweeping.
 < Repair entrance and replace gravel as required to maintain control in good working condition.

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BMP: Sediment Control on Small Construction Sites SCSCS

DESCRIPTION:
 Control the perimeter, vehicular access, and the delivery of materials to small construction sites so that sediment, landscaping materials and other construction debris is not in the street. This BMP is intended to be applied to residential construction sites and small nonresidential sites.

APPROACH:
 > Prior to any building construction on a site, identify the point of access to the property. This should generally be the location of the future driveway. Fence the remainder of the street frontage of the property, as well as side lot lines (as far as necessary to prevent access) with temporary fencing (silt fence may be used where silt fence is needed). This fencing is to remain in place until all construction or landscape material deliveries are complete. No access is to be made at any point other than the designated point of access.
 > Control the perimeter of the site so that sediment-laden storm water does not leave the site during construction. This may involve sediment control measures such as silt fences, drainage swales or berms, straw or hay bale barriers, or rock check dams.
 > Either utilize the curb cut or leave the curb, gutter and sidewalk in place (and replace it if needed when work is complete). Do not place anything in the gutter, including dirt ramps.
 > Excavate for and place a bed of gravel or drain rock the full width of the future driveway (16' minimum), a distance of 27 feet back from the back of sidewalk. Place the rock to the depth necessary to prevent material delivery vehicles from contacting the on-site soils.
 > At the proper time, the gravel or rock bed can be modified to serve as the base for concrete driveway placement. At that point, the concrete driveway will prevent delivery and other vehicles from coming into contact with on-site soils.

LIMITATIONS:
 > It may be necessary to pump concrete to locations away from the bed of gravel or rock.
 > Repair workers' vehicles may require that the bed of gravel or rock be enlarged to make space for vehicle parking that keeps the vehicles from contacting the on-site soils.
 > Builders, subcontractors, material suppliers, vendors and other visitors to the site must be educated to adhere to the practices outlined.
 > Landscaping and construction materials must be placed on the lot, not the street or walk.

MAINTENANCE:
 > Repair fencing as needed to maintain control of access.
 > Repair sediment control measures as needed during construction.
 > Replenish and dress up the gravel/rock area as needed during the course of construction.
 > Any tracking of soil onto the adjacent street indicates inadequate performance of this BMP. Remove soil tracked onto the street at the end of any day that it occurs and take corrective measures to prevent soil tracking onto the street from recurring.

APPLICATIONS:

- Manufacturing
- Material Handling
- Vehicle Maintenance
- Construction
- Commercial Activities
- Roadways
- Waste Containment
- Housekeeping Practices

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BMP: Spill Clean Up SCU

DESCRIPTION:
 Practices to clean-up leakage/spillage of on-site materials that may be harmful to receiving waters.

APPLICATION:
 All sites

GENERAL:
 > Store controlled materials within a storage area.
 > Educate personnel on prevention and clean-up techniques.
 > Designate an Emergency Coordinator responsible for employing preventative practices and for providing spill response.
 > Maintain a supply of clean-up equipment on-site and post a list of local response agencies with phone numbers.

METHODS:
 > Clean-up spills/leaks immediately and remediate cause.
 > Use as little water as possible. NEVER HOSE DOWN OR BURY SPILL CONTAMINATED MATERIAL.
 > Use rags or absorbent material for clean-up. Excavate contaminated soils.
 > Dispose of clean-up material and soil as hazardous waste.
 > Document all spills with date, location, substance, volume, actions taken and other pertinent data.
 > Contact local Fire Department and State Division of Environmental Response and Remediation (Phone #801-536-4100) for any spill of reportable quantity.

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BMP: Silt Fence SF

DESCRIPTION:
 A temporary sediment barrier consisting of entrenched filter fabric stretched across and secured to supporting posts.

APPLICATION:
 > Perimeter control: place barrier at downgradient limits of disturbance
 > Sediment barrier: place barrier at top of slope or soil stockpile
 > Protection of existing waterways: place barrier near top of stream bank
 > Inlet protection: place fence surrounding catch basins

INSTALLATION/APPLICATION CRITERIA:
 > Place posts 6 feet apart on center along contour (or use preassembled unit) and drive 2 feet minimum into ground. Excavate an anchor trench immediately upgradient of posts.
 > Secure wire mesh (14 gage min. With 6 inch openings) to upslope side of posts. Attach with heavy duty 1 inch long wire staples, tie wires or hog rings.
 > Cut fabric to required width, unroll along length of barrier and drape over barrier. Secure fabric to mesh with twine, staples, or similar, with trailing edge extending into anchor trench.
 > Backfill trench over filter fabric to anchor.

LIMITATIONS:
 > Recommended maximum drainage area of 0.5 acre per 100 feet of fence
 > Recommended maximum upgradient slope length of 150 feet
 > Recommended maximum uphill grade of 2:1 (50%)
 > Recommended maximum flow rate of 0.5 cfs
 > Ponding should not be allowed behind fence.

MAINTENANCE:
 > Inspect immediately after any rainfall and at least daily during prolonged rainfall.
 > Look for runoff bypassing ends of barriers or undercutting barriers.
 > Repair or replace damaged areas of the barrier and remove accumulated sediment.
 > Reanchor fence as necessary to prevent shortcutting.
 > Remove accumulated sediment when it reaches 1/2 the height of the fence.

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Architect / Engineer:

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Stamp:

Project for:
THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS

Project Number: *
 Plan Series: *
 Property Number: *

Sheet Title:
SWPPP DETAILS

Sheet:
SD1.5

SPANISH FORK 3 PARKING LOT EXPANSION
 55 SOUTH 300 EAST SPANISH FORK, UTAH

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