

Stormwater Best Management Practices Utility Installation and Operations

Affected Facilities

Municipal utility employees, as well as their contracted service providers, install and maintain infrastructure. This work may involve saw-cutting and breaking pavement, trenching, pole placement, dewatering, backfilling, transformer repair and replacement, and road repair.

Best Management Practices (BMPs)

The following best management practices (BMPs) aim to ensure that utilities are installed and maintained with stormwater protection in mind. These practices apply to any utility service providers, as well as their contracted service providers. All employees and contractors involved with utility installation and maintenance must review these BMPs as part of their training and incorporate them into practice to keep pollutants from entering the storm drain.

Good Housekeeping and Waste Management

- Ensure that all waste areas and dumpsters are covered and are not leaking.
- Keep all container lids closed at all times unless adding or removing material.
- Arrange for waste to be picked up regularly and disposed of at approved disposal facilities. If the amount of generated waste exceeds the capacity of waste containers, obtain more containers or increase frequency of pickups.
- Protect or block storm drain inlets, open manholes, and roadside ditches during utility activities with rock socks, wattles or covers. Always check that these BMP's are in place before starting work on a construction site.
- Only wash concrete mixing and pouring equipment in designated concrete washout areas at each job site. Never wash into a storm drain inlet.

Materials Storage and Handling

- Contain water and waste generated during saw-cutting and equipment cleanup. Use booms, inlet protection, and wet vacuums, or allow the area to dry before uncovering storm drain inlets.
- Provide secondary containment and cover for materials stored outside.
- Store maintenance supplies, including cement bags, sand, sealants, and asphalt undercover (e.g. tarp) and away from drainage areas.
- Do not store materials in the street or near storm drains or gutters unless BMPs are used to protect storm drains from sediment runoff.
- Cover stockpiles and contain them within berms.
- Place excavated material on the uphill side of trenches when possible and safe.

Dewatering

- Trench or vault dewatering devices must discharge in a manner that will not affect streams, wetlands, drainage systems, or off-site property. See: <https://www.colorado.gov/pacific/sites/default/files/Vault%20Dewatering%20Guidance.pdf>.
- Discharge from the trench shall be free of any sediment.
- A riprap pad shall be placed at the discharge end of the hose to prevent any additional erosion.

- Scrape or sweep any debris or residues incidentally left behind, and dispose of it properly.
- Electrical equipment contained in vaults may contain mineral and insulating oils (possible PCBs); therefore, water should be checked for cloudiness, discoloration, unusual odors, sediment turbidity, visible floating materials, or oil sheen. If any of these are present, water must be containerized and disposed of properly.
- Follow BMPs if water is uncontaminated and can be discharged to landscaping. Visit: [Low Risk Discharge Guidance: Discharge of Uncontaminated Groundwater to Land](#).
- If water will enter “waters of the state,” then a permit must be obtained from the Colorado Department of Public Health and Environment (CDPHE). Visit: <https://www.coloradowaterpermits.com> for more information.

Erosion Control during Construction

- Block storm drain inlets within 25 feet and down gradient from work involving excavating. Place covers, rock wattles, sand bags, filter fabric, or bags around or over inlets to protect them from sediment, wastes, dusts, overspray, or slurry.
- Inspect sediment controls daily, as well as during and after any storm, and make repairs or clean out (as necessary).
- Designate a concrete washout area at each job site. (A concrete washout area is a shallow excavation with a small perimeter berm to isolate concrete truck washout operations.)
- Control erosion to the maximum extent possible. Provide permanent erosion control that will remain effective for the life of the street.
- Inspect and maintain all erosion or sediment control devices daily.
- Ensure that projects over 1 acre have the proper Stormwater Discharge Permits See: <https://www.colorado.gov/pacific/cdphe/wq-commerce-and-industry-permits>.
- Utilize BMPs to reduce erosion from the site. (See [UDFCD Volume 3](#) and [KICP's Erosion Control Field Manual](#)).

Sanitary Facilities

- Sanitary facilities (“port-a-potties”) shall be located in the stabilized area, away from drainage ways. Sanitary facilities must always be staked down and never be placed near storm drain inlets.

Street Sweeping

- Keep streets clean throughout the project. In the event of accidental tracking of mud on streets, the mud must be cleaned immediately. DO NOT wash materials into the storm sewers.
- Sweep (manually or mechanically) mud tracked onto paved areas daily.

Spill Response and Reporting

- Develop and implement a spill prevention and control plan. Post the spill response procedure information in a noticeable place(s), and ensure that staff is trained in spill handling on-site and/or on-call at all times. Spill control plans should include instructions on how to:
 1. Identify and stop the source of the spill.
 2. Contain any liquid.
 3. Cover spills with absorbent material (e.g. kitty litter or sawdust).
 4. Dispose of the used absorbent properly.

- Be prepared to notify dispatch (or 911 in an emergency) if a spill enters the storm drain system.
- Keep materials for cleaning up spills on-site and in all vehicles. Spills should be cleaned up immediately and the contaminated material disposed of properly.
- Report a release of any chemical, oil, petroleum product, sewage, etc., that may enter waters of the state of Colorado, including surface water, groundwater, dry gullies, and storm sewers leading to surface water. Contact CDPHE immediately at 1-877-518-5608.
- Immediately report any accidental discharge into the sanitary sewer system to the appropriate local sewer authority and affected wastewater treatment plant.
- For additional information regarding releases to water, please review “Guidance for Reporting Spills under the Colorado Water Quality Control Act and Colorado Discharge Permits at <https://www.colorado.gov/pacific/cdphe/wq-environmental-spills>.
- Report releases of petroleum products and certain hazardous substances listed under the Federal Clean Water Act (40 CFR Part 116) to the National Response Center, as well as CDPHE. Spills that pose an immediate risk to human life must be reported to 911. Failure to report and clean up any spill will result in the assessment of a fine.

Required Employee and Contractor Training

- Provide training for any employees and contractors who will be doing any road or utility construction work.
- Insert language in all construction or maintenance contracts that requires contractors to implement all applicable BMPs when working on any municipal project.
- Train all new hires and job transferees on BMPs.
- Conduct BMP refresher training for employees and contractors, as needed.
- Ensure that all contracts stipulate that contracted employees must be trained in stormwater pollution prevention BMPs.
- Ensure that all contracts include stormwater pollution prevention language.
- Train all employees and contractors who may be required to clean up a spill or leak on proper spill cleanup procedures (See *Spill Cleanup BMPs*).
- Train all employees and contractors who work outdoors on good housekeeping and proper materials storage (See: *Good Housekeeping & Outdoor Materials/Container Storage BMPs*).
- Keep records of all stormwater-related training that employees have received.

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)*
7. *City of Centennial Grading, Erosion, and Sediment Control Manual (City of Centennial, CO)*
8. *Partners for a Clean Environment (PACE) Stormwater BMPs:*
<http://pacepartners.com/stormwater/municipal-operations>.