



BUILDING AND CODES DEPARTMENT
350 PAGEANT LANE, SUITE 309
CLARKSVILLE, TN 37040

PHONE
931-648-5718

FAX
931-553-5121

Stormwater Pollution Prevention Best Management Practices (BMP's)

Preface

Since the passage of the Clean Water Act in 1972, the quality of our Nation's waters has improved dramatically. Despite this progress, degraded water bodies such as streams, rivers, and lakes still exist with the leading pollutant source attributed to contaminated stormwater runoff.

In Montgomery County, stormwater pollution prevention measures, also known as Best Management Practices are required to ensure that run-off is not polluted by chemicals/oils, washwater, dumping and sewage wastes. This sheet is designed to help Montgomery County businesses understand and implement proper work practices that protect water quality by preventing illegal discharges of waste.

Selection of Best Management Practices

BMPs may be selected from the options listed below or developed on a case-by-case basis as appropriate.

Basic BMPs for Employees (Good Housekeeping)

Goal

Promote efficient and safe practices which keep potential pollutants from either draining into or being transported offsite

Approach

1. Do not dispose wash-water to storm drain or pavement. It must be disposed of into the sanitary sewer. Wash-water can be defined as any liquid with residual cleaner, dirt and grime. Examples include mop-water, window cleaning water, and rinse water (rinsing after a cleaner was used). Plain (no residual cleaner) rinse water may be used for irrigating plants.
2. Promptly clean up any spill of liquid or solid wastes. Do not hose down an area to clean or handle a spill, unless the liquid will be completely contained, cleaned up and disposed of to sanitary sewer or offsite as appropriate for the waste type. Do not discharge to storm drains. Wastes, salvaged materials and recyclables must be properly contained.
3. Schedule regular cleaning of areas that collect debris in order to eliminate particulate and residue buildup. This applies to both exterior and interior areas. Keeping interior areas clean prevents the tracking of contaminants outdoors. Properly place trash containers to minimize littering.

4. Evaluate environmentally friendly products for any job that usually uses toxic or hazardous products. For instance, investigate alternative floor and window cleaners (specialized cleaners), general cleaners, adhesives, paints, and lubricants.
5. Use the proper drain to handle the disposal job. Do not use drains without knowing whether they flow to the sanitary sewer, storm sewer system or a self-contained internal sump.
6. Store equipment and supplies under cover whenever possible. Minimizing contact with storm water minimizes contaminants from getting into storm water run-off. Use exterior grade cabinets or containers when exposed to the weather; interior grade cabinets and containers will rust or deteriorate contributing contaminants to storm water run-off.
7. When washing vehicles or equipment, make sure there is a procedure protecting the waste water by containing and properly disposing of the wash water and debris. Utilize a commercial car wash that drains into the sanitary sewer system. Washing on a grassy area with biodegradable detergent is an acceptable option.
8. Place trash in disposal or recycling containers.
9. Have spill response equipment available when using or storing liquid or hazardous substances.
10. Leaking equipment should be equipped with drip-pans, appropriate clean-up materials, and have proper containment.
11. Any complaints received regarding the stormwater system should be addressed as soon as possible and documented.

Storm Drains & Catch Basins

Goal

To prevent the discharge of soil, debris, hazardous waste, and other pollutants that may hinder the designed conveyance capacity or damage stormwater quality or habitat in the storm drain system.

Approach

1. Inspect storm water drains, grates, inlets, ditches, swales and catch basins on a regular basis. Keep a log of areas and structures inspected and maintained.
2. Clean storm grates, inlets, drains, ditches, swales and catch basins to remove the accumulation of debris and sediment. Clean structures on a regular basis to keep debris from accumulating.
3. Promptly repair any damaged or deteriorating structure or any other problems that may compromise the integrity of the storm water drainage system. Keep a log of storm water system maintenance.
4. Update facility schematics with any change to the plumbing (to prevent cross connections) or storm water drain system. Discharges allowed according to the County's stormwater resolution are the only discharges allowed into the County storm water conveyance system.
5. Make sure employees know that storm drains, catch basins and culverts are part of the storm water collection system not part of the sanitary sewer system.
6. If filters are used on storm drains, ensure proper installation and maintenance. Document cleaning and maintenance activities.

Trash & Dumpster Management

Goal

Prevent or reduce the discharge of pollutants to stormwater system or natural streams using effective management of waste materials. Education and training, proper material

use, source reduction, tracking waste generation and disposal, proper material storage, recycling, preventing stormwater contact and runoff from waste management areas are good waste disposal procedures. Keep outside areas neat, clean, and orderly.

Approach

Solid Waste Management

1. Keep dumpsters, trashcans and recycling bins covered and properly contained, except when filling or emptying. Schedule pickup frequency to keep trash from holding the cover open. Open lids allow contact with storm water, which dissolves and transports contaminants into the storm water system. Open lids also invite pests to spread trash around.
2. Do not put liquid or grease in trash containers.
3. Check the dumpster or trashcan to ensure it is in good condition with no holes or accumulation of grime. Trash containers should be leak-free.
4. Regularly inspect the trash enclosure and general area for problems such as trash not in the container and accumulation of grease or food on the ground. Clean the trash enclosure as needed to remove any accumulations of grim and/or general trash.
5. Designate an area for trash collection away from storm drains. This allows problems at the trash container to be corrected before reaching the storm drain or flow offsite.
6. Minimize storage of scrap metal by disposing of it periodically. Cover the stockpile during rain to reduce the release of contaminants.

Hazardous Waste Management

1. Use the entire product before disposing of the container. Follow the manufacturer's direction on storage, usage and disposal. Do not remove the original product label as it contains important safety and disposal information. MSDS information should be consulted for each product that is stored or handled.
2. Use appropriate containment devices where the potential for spills exist. Keep hazardous waste in appropriate containers and under cover. Place hazardous waste containers in secondary containment. Do not allow hazardous materials to accumulate on the ground.
3. Keep hazardous and non-hazardous waste separate.
4. Check waste management areas for spills and leaks.
5. Check with the manufacturer, OSHA, TOSHA or poison control with questions or concerns.

Material & Waste Management

Goal

Prevent or reduce the discharge of pollutants to storm water from material delivery and storage by minimizing the storage of hazardous materials on-site, storing materials in a designated area, installing secondary containment, conducting regular inspections, and training employees and subcontractors.

Commonly Stored Materials

1. Sand, salt, rock, and top soil
2. Pesticides and herbicides
3. Fertilizers

4. Detergents
5. Petroleum products
6. Acids, lime, glues, paints, solvents, etc.
7. Spill response materials

Approach

1. Designated areas for material storage are found throughout the complex.
2. Refer to the MSDS binder to follow manufacturer's instructions regarding uses, protective equipment, ventilation, flammability, and mixing of chemicals.
3. Always store materials and wastes indoors or under cover whenever possible.
4. Minimize storage needs by purchasing smaller amounts of material more frequently and as needed for specific jobs.
5. Store chemicals away from doors and out of traffic pathways.
6. Use drip pans (or other containment device) under taps, nozzles, and spouts to catch drips.
7. If transferring the contents of a leaking container promptly to another container, properly label the new container.
8. Store parts (i.e., vehicle, electronic, mechanical, etc.) under cover to prevent the leaching of any materials into storm water runoff.
9. Stockpiles of gravel, asphalt, sand, salt, top soil, and other raw materials should be stored on a paved or concreted surface and contained in order to prevent storm water flowing through and off of the stockpile.
10. Conduct preventative maintenance on a routine basis on secondary containment structures, pipes, valves, pumps and other equipment to ensure proper operation and to identify potential leaks.
11. Return equipment and material to their proper storage place after use.
12. NEVER use storm drains/ditches/ground for waste disposal – avoid and report illegal dumping
13. Close the lid or place a cover on all waste containers
14. Provide an easily-accessible MSDS binder.

Vehicle & Equipment Fueling

Goal

Prevent fuel spills and leaks and reduce their impacts to stormwater by using off-site facilities, fueling in designated areas only, enclosing or covering stored fuel, implementing spill controls, and training employees and subcontractors. Ensure above-ground storage tanks have correctly functioning secondary containment.

Approach

1. Discourage topping-off of fuel tanks to reduce accidental spillage. Post “no topping-off” signs at the fuel islands. Encourage the use of ‘hold open latches’ on fuel nozzles.
2. Promptly clean up any spill of liquid or solid wastes. Do not hose down an area to clean or handle a spill, unless the liquid will be completely contained, cleaned up and disposed of appropriately for the waste type.
3. Do not discharge any clean-up liquid to storm drains.
4. Regularly inspect oil/water separator and sumps; conduct maintenance as needed.

Maintenance

1. Keep ample supplies of spill cleanup materials on site.

2. Pumps are on a routine monthly and annual inspection and maintenance program which is regulated by the State.

Washing & Cleaning

Goal

Prevent or reduce the discharge of pollutants to stormwater from vehicle and equipment cleaning by using off-site facilities, washing in designated, contained areas only, eliminating discharges to the storm drain by infiltrating or recycling the wash water, and training employees and subcontractors.

Approach

1. Use designated wash areas to prevent wash water from entering the storm sewer system.
2. Use phosphate-free, biodegradable soaps.
3. Do not use solvents.
4. When cleaning vehicles/equipment use a positive shutoff valve to minimize water usage.
5. Clean leaks, drips, and other spills with as little water as possible. Use rags for small spills and dry absorbent material for larger spills.
6. Keep equipment clean; don't allow excessive build-up of oil and grease.
7. Keep drip pans or containers under the areas that might drip.
8. If possible, eliminate or reduce the amount of hazardous materials and waste by substituting non-hazardous or less hazardous materials.

Leak & Spill Control

Goal

Prevent or reduce the discharge of pollutants to storm water by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees.

Approach

1. Perform fluid removal and changes inside or under cover on paved surfaces.
2. Properly store hazardous materials and waste.
3. Have spill cleanup supplies readily available.
4. Make sure incoming vehicles are checked for leaking oil and fluids.
5. Develop spill response plans BEFORE a spill occurs
6. Notify appropriate government agencies as soon as possible (when required)
7. Clean all spills as they occur
8. NEVER hose or wash down a spill into the street, ditch or storm drain
9. Use a "dry" clean-up method like sweeping or spreading an absorbent
10. Protect storm drains – place an absorbent or blockage between the spill and drain
11. Dispose of clean-up wastes properly – ensure hazardous wastes go in proper container

Vehicle and Equipment Maintenance

Goal

Prevent or reduce the discharge of pollutants to stormwater from vehicle maintenance. This BMP is likely to partially reduce sediment, nutrients, toxic materials, oil and grease, and heavy metals.

Approach

1. Perform maintenance using indoor facilities instead of outside whenever possible as to protect the stormwater runoff. If maintenance should be done outside, ensure correct procedures are followed where prevention practices for spills and leaks can be practiced if needed.
2. If an outdoor maintenance area is needed, it should be located on a paved concrete surface in order to facilitate cleanup. Use barriers to prevent stormwater runoff from entering the area.
3. Use a secondary containment such as a drain pan or drop cloth to catch spills or leaks. Keep a drip pan under the vehicle when removing hoses, filters, or other parts.
4. Have an ample supply of absorbent cleanup materials where they are readily accessible and properly stored.
5. Clean leaks and other spills using dry cleaning methods. Use rags for small spills and dry absorbent materials for larger spills.
6. Provide spill containment dikes or secondary containment around stored oil and chemical drums.

Sanitary Sewer Maintenance

Goal

Prevent or reduce the discharge of pollutants to stormwater system and natural streams from sanitary and septic waste. Provide convenient and well-maintained restroom facilities. Arrange for permanent connections to the sanitary sewer system or schedule for regular service and disposal. This management practice will significantly reduce nutrients, bacteria and viruses, and oxygen demanding substances.

Approach

Contact the Clarksville Gas and Water 931-654-7400 (for sewer problems) or the Tennessee Dept of Environment and Conservation 888-891-8332 (for septic issues)