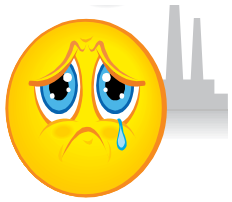
Failure to Meet or Maintain Design or Maintenance Standards

If a responsible party fails or refuses to meet the design or maintenance standards, the Stormwater Manager, after reasonable notice, may choose to begin levying fines of not less than $50.00, or more than $5,000.00, assessed each day the violation continues or may choose to correct a violation of the design standards or maintenance needs by ordering corrective action to be performed by the city or others until all necessary work to place the facility in proper working condition is completed.



STORMWATER

- SLOW IT DOWN
- SPREAD IT OUT
- SOAK IT IN

City of Millersville

CLEAN WATER
IS
EVERYONE'S BUSINESS!

City of Millersville
Stormwater Dept.

INFORMATIONAL BROCHURE

PERMANENT BMP'S

Contact Information:

Phone: 615-859-0880

Fax: 615-851-1825

1246 Louisville Highway

Millersville, TN 37072

What are Permanent BMP's?

"BMP" is an acronym for Best Management Practices. "Permanent" simply means these practices will remain on the site even after it is stable. One type BMP may be an erosion prevention practice, or a sediment control practice, or it may serve both purposes at the same time. BMP's are designed to remove pollutants from urban runoff and control water quantity before it reaches our streams.

Examples of permanent BMP's are:

1. **Buffer Zone**—A strip of undisturbed, original vegetation, enhanced or restored existing vegetation, or the re-establishment of vegetation surrounding an area of disturbance or bordering streams, ponds, wetlands, or lakes.
2. **Diversion**—a channel of compacted soil constructed above, across, or below a slope, with a supporting earthen ridge on the lower side. A diversion consists of two components: the ridge and the channel.
3. **Gabion**—Large, multi-celled, welded wire or rectangular revetments, retaining walls, abutments, check dams, etc.
4. **Riprap**—Erosion-resistant ground cover of large, loose angular stone with a geotextile or granular underlining.
5. Storm Drain Outlet Protection—paved and/or riprapped channel treatment, placed below storm drain outlets.
6. **Rain Garden**—a planted depression that allows rainwater runoff from impervious urban areas like roofs, driveways, walkways, parking lots, etc.
7. **Stormwater filtration systems**—consist mainly of a pre-treatment, or sedimentation area, and the filter area. Runoff first enters the sedimentation area where the runoff velocity is reduced allowing larger pollutant particles to drop out. When the stormwater leaves the sedimentation area, it is spread evenly over the filter bed, where it flows downward through the filter media. As the stormwater flows through the filter, the filtration media trap and absorb pollutants present in the stormwater.
8. **Dry Extended Detention Basin**—Underground detention facilities are structural BMPs designed to provide temporary storage of stormwater runoff for quantity control purposes. The systems are typically installed beneath parking lots, streets, and parks
9. **Wet Detention ponds**—consists of a permanent pool, temporary pool, and a forebay. The permanent pool prevents particles that have settled to the pond bottom from re-suspending when runoff flows into the pond. The temporary pool is storage above the permanent pool which is utilized to control runoff during a storm event. A separate smaller pond, called a forebay, is placed upstream of the main pond to trap suspended solids in the runoff before it enters the main pond.

As Built Plans

All applicants are required to submit actual as built plans for any structures located on-site after final construction is completed along with any changes to the Operations and Maintenance Plan submitted with the application. Significant changes must be approved by the Stormwater Manager. The plan must show the final design specifications for all stormwater management facilities and must be sealed by a registered professional engineer licensed to practice in Tennessee.

Recorded Plat

The location of the Stormwater facilities and best management practices, the recorded location of the Covenants document, and inspection and maintenance guidance that outlines the property owners responsibility shall be shown on a plat that is recorded in the Office of the County Register of Deeds.

Landscaping Operations and Maintenance Plan

Must be submitted with the final design describing the vegetative stabilization and management techniques to be used at a site after construction is completed. This plan will explain not only how the site will be stabilized after construction, but who will be responsible for the maintenance of vegetation at the site and what practices will be employed to ensure that adequate vegetative cover is preserved.

Inspections

Routine inspections are the responsibility of the property owner, or the owner/s of the Stormwater management facilities.

Records

Parties responsible for the operation and maintenance of a stormwater management facility shall make records of the installation of the stormwater facility, and of all maintenance and repairs to the facility, and shall retain the records for at least ten years. These records shall be made available to the Stormwater Manager during inspection of the facility and at other reasonable times upon request.

Appeal Process

There is an appeal process if you feel that you have been unfairly accused.

Industrial Stormwater

Fact Sheet Series

Sector M: Automobile Salvage Yards

U.S. EPA Office of Water
EPA-833-F-06-028
December 2006

What is the NPDES stormwater permitting program for industrial activity?

Activities, such as material handling and storage, equipment maintenance and cleaning, industrial processing or other operations that occur at industrial facilities are often exposed to stormwater. The runoff from these areas may discharge pollutants directly into nearby waterbodies or indirectly via storm sewer systems, thereby degrading water quality.

In 1990, the U.S. Environmental Protection Agency (EPA) developed permitting regulations under the National Pollutant Discharge Elimination System (NPDES) to control stormwater discharges associated with eleven categories of industrial activity. As a result, NPDES permitting authorities, which may be either EPA or a state environmental agency, issue stormwater permits to control runoff from these industrial facilities.

What types of industrial facilities are required to obtain permit coverage?

This fact sheet specifically discusses stormwater discharges from automobile salvage yards as defined by Standard Industrial Classification (SIC) and includes battery reclaimers, salvage yards, and automobile recyclers (Primary SIC 5015). Facilities and products in this group fall under the following categories, all of which require coverage under an industrial stormwater permit:

- Activities related to dismantling of used motor vehicles for the purpose of selling parts
- Wholesale or retail distribution of used motor vehicle parts

What does an industrial stormwater permit require?

Common requirements for coverage under an industrial stormwater permit include development of a written stormwater pollution prevention plan (SWPPP), implementation of control measures, and submittal of a request for permit coverage, usually referred to as the Notice of Intent or NOI. The SWPPP is a written assessment of potential sources of pollutants in stormwater runoff and control measures that will be implemented at your facility to minimize the discharge of these pollutants in runoff from the site. These control measures include site-specific best management practices (BMPs), maintenance plans, inspections, employee training, and reporting. The procedures detailed in the SWPPP must be implemented by the facility and updated as necessary, with a copy of the SWPPP kept on-site. The industrial stormwater permit also requires collection of visual, analytical, and/or compliance monitoring data to determine the effectiveness of implemented BMPs. For more information on EPA's industrial stormwater permit and links to State stormwater permits, go to **www.epa.gov/npdes/stormwater** and click on "Industrial Activity."

What pollutants are associated with my facility's activities?

Pollutants conveyed in stormwater discharges from automobile salvage yards will vary. There are a number of factors that influence to what extent industrial activities and significant materials can affect water quality.

- Geographic location
- Topography
- Hydrogeology
- Extent of impervious surfaces (i.e., concrete or asphalt)
- Type of ground cover (e.g., vegetation, crushed stone, or dirt)
- Outdoor activities (e.g., material storage, loading/unloading, vehicle maintenance)
- Size of the operation
- Type, duration, and intensity of precipitation events

The activities, pollutant sources, and pollutants detailed in Table 1 are commonly found at automobile salvage yards.

Table 1. Common Activities, Pollutant Sources, and Associated Pollutants at Automobile Salvage Yards

Activity	Pollutant Source	Pollutant
Vehicle Dismantling	Oil, anti-freeze, batteries, gasoline, diesel fuel, hydraulic fluids, electrical switches	Oil and grease, ethylene glycol, heavy metals, mercury
Used Parts Storage	Batteries, chrome bumpers, wheel balance weights, tires, rims, filters, radiators, catalytic converters, engine blocks, hub caps, doors, drivelines, galvanized metals, mufflers	Sulfuric acid, galvanized metals, oil and grease, heavy metals, petroleum hydrocarbons, total suspended solids (TSS)
Outdoor Vehicle and Equipment Storage	Leaking engines, chipping/corroding bumpers, chipping paint, galvanized metal	Oil and grease, arsenic, organics, heavy metals, total suspended solids (TSS)
Vehicle and Equipment Maintenance	Parts cleaning	Chlorinated solvents, oil and grease, heavy metals, acid/alkaline wastes
	Waste disposal of greasy rags, oil filters, air filters, batteries, hydraulic fluids, transmission fluids, radiator fluids, degreasers	Oil, heavy metals, chlorinated solvents, acid/alkaline wastes oil, heavy metals, chlorinated solvents, acid/alkaline wastes, ethylene glycol
	Spills of oil, degreasers, hydraulic fluids, transmission fluid, and radiator fluids	Oil, arsenic, heavy metals, organics, chlorinated solvents, ethylene glycol
	Fluids replacement, including oil, hydraulic fluids, transmission fluid, and radiator fluids	Oil, arsenic, heavy metals, organics, chlorinated solvents, ethylene glycol
Vehicle, Equipment, and Parts Washing Areas	Washing and steam cleaning waters	Oil and grease, detergents, heavy metals, chlorinated solvents, phosphorus, salts, suspended solids
Liquid Storage in Above Ground Storage Tanks	External corrosion and structural failure	Fuel, oil and grease, heavy metals, materials being stored
	Installation problems	
	Spills and overfills due to operator error	
Illicit Connection to Storm Sewer	Sanitary water	Bacteria, biochemical oxygen demand (BOD), suspended solids
	Floor drains	Oil and grease, heavy metals, chlorinated solvents, fuel, ethylene glycol
	Vehicle washwaters	Oil and grease, detergents, metals, chlorinated solvents, phosphorus, suspended solids
	Radiator flushing wastewater	Ethylene glycol
	Leaking underground storage tanks	Materials stored or previously stored

What BMPs can be used to minimize contact between stormwater and potential pollutants at my facility?

A variety of BMP options may be applicable to eliminate or minimize the presence of pollutants in stormwater discharges from automobile salvage yards. You will likely need to implement a combination or suite of BMPs to address stormwater runoff at your facility. Your first consideration should be for pollution prevention BMPs, which are designed to prevent or minimize pollutants from entering stormwater runoff and/or reduce the volume of stormwater requiring management. Prevention BMPs can include regular cleanup, collection and containment of debris in storage areas, and other housekeeping practices, spill control, and employee training. It may also be necessary to implement treatment BMPs, which are engineered structures, intended to treat stormwater runoff and/or mitigate the effects of increased stormwater runoff peak rate, volume, and velocity. Treatment BMPs are generally more expensive to install and maintain and include oil-water separators, wet ponds, and proprietary filter devices.

The management practices discussed herein are well suited mechanisms to prevent or control the contamination of stormwater discharges associated with automobile salvage yards. In general, it is important to develop a stormwater management policy statement, review the policy with employees, and keep it posted. Additionally, identifying weaknesses in current facility practices will aid the permittee in determining appropriate BMPs that will achieve a reduction in pollutant loadings.

All facilities should implement BMPs in the following areas of the site:

- Vehicle dismantling and maintenance areas
- Vehicle, parts, and equipment storage areas
- Material storage areas
- Vehicle, parts, and equipment cleaning areas

Mercury switch used in vehicle. Be aware: specific permit requirements may vary according to permitting authority so it is important to reference the requirements applicable of the state in which your facility is located. For instance, many states are now addressing the issue of mercury switch removal to prevent mercury releases that occur from automobile recycling. Mercury switches have been used until recently for hood, trunk, or door lights.

BMPs must be selected and implemented to address the following:

Good Housekeeping Practices

Good housekeeping is a practical, cost-effective way to maintain a clean and orderly facility to prevent potential pollution sources from coming into contact with stormwater. It includes establishing protocols to reduce the possibility of mishandling materials or equipment and training employees in good housekeeping techniques. Common areas where good housekeeping practices should be followed include trash containers and adjacent areas, material storage areas, vehicle and equipment maintenance areas, and loading docks. Good housekeeping practices must include a schedule for regular pickup and disposal of garbage and waste materials and routine inspections of drums, tanks, and containers for leaks and structural conditions. Practices also include containing and covering garbage, waste materials, and debris. Involving employees in routine monitoring of housekeeping practices has proven to be an effective means of ensuring the continued implementation of these measures.

Minimizing Exposure

Where feasible, minimizing exposure of potential pollutant sources to precipitation is an important control option. Minimizing exposure prevents pollutants, including debris, from coming into contact with precipitation and can reduce the need for BMPs to treat contaminated stormwater runoff. It can also prevent debris from being picked up by stormwater and carried into drains and surface waters. Examples of BMPs for exposure minimization include covering materials or activities with temporary

structures (e.g., tarps) when wet weather is expected or moving materials or activities to existing or new permanent structures (e.g., buildings, silos, sheds). Even the simple practice of keeping a dumpster lid closed can be a very effective pollution prevention measure.

Erosion and Sediment Control

BMPs must be selected and implemented to limit erosion on areas of your site that, due to topography, activities, soils, cover, materials, or other factors are likely to experience erosion. Erosion control BMPs such as seeding, mulching, and sodding prevent soil from becoming dislodged and should be considered first. Sediment control BMPs such as silt fences, sediment ponds, and stabilized entrances trap sediment after it has eroded. Sediment control BMPs should be used to back-up erosion control BMPs.

Management of Runoff

Your SWPPP must contain a narrative evaluation of the appropriateness of stormwater management practices that divert, infiltrate, reuse, or otherwise manage stormwater runoff so as to reduce the discharge of pollutants. Appropriate measures are highly site-specific, but may include, among others, vegetative swales, collection and reuse of stormwater, inlet controls, snow management, infiltration devices, and wet retention measures.

A combination of preventive and treatment BMPs will yield the most effective stormwater management for minimizing the offsite discharge of pollutants via stormwater runoff. Though not specifically outlined in this fact sheet, BMPs must also address preventive maintenance records or logbooks, regular facility inspections, spill prevention and response, and employee training.

Specific runoff management practices for automobile salvage facilities include the installation/use of:

- Berms or drainage ditches on the property line (to prevent run-on from neighboring properties
- Berms for uncovered outdoor storage of soiled parts, engine blocks, and above-ground liquid storage
- Detention ponds
- Filtering devices and oil/water separators

All BMPs require regular maintenance to function as intended. Some management measures have simple maintenance requirements, others are quite involved. You must regularly inspect all BMPs to ensure they are operating properly, including during runoff events. As soon as a problem is found, action to resolve it should be initiated immediately.

Implement BMPs, such as those listed below in Table 2 for the control of pollutants at automobile salvage yards, to minimize and prevent the discharge of pollutants in stormwater. Identifying weaknesses in current facility practices will aid the permittee in determining appropriate BMPs that will achieve a reduction in pollutant loadings. BMPs listed in Table 2 are broadly applicable to automobile salvage yards; however, this is not a complete list and you are recommended to consult with regulatory agencies or a stormwater engineer/consultant to identify appropriate BMPs for your facility.

Table 2. BMPs for Potential Pollutant Sources at Automobile Salvage Yards

Activity	BMPs
Dismantling and vehicle maintenance	Minimize exposure ❑ Installation of a consolidated processing area, including a covered and bermed impermeable concrete surface equipped with a drain, where all fluids are drained. Fluid and Parts Removal ❑ Drain all fluids from vehicles upon arrival at the site. Segregate the fluids and properly store or dispose of them. ❑ Drain oil filters (and all vehicle parts) before disposal or recycling.

Table 2. BMPs for Potential Pollutant Sources at Automobile Salvage Yards (continued)

Activity	BMPs
Dismantling and vehicle maintenance (continued)	Fluid and Parts Removal (continued) ❑ Inspect vehicles for leaks as soon as possible once they arrive on-site. Inspect vehicles quarterly for signs of leakage. Check for unwanted material that could have been placed in the vehicle. ❑ When pulling parts from vehicles in the yard, employ a catch sled or tray to recover the majority of fluids which will be released. Place drip pans, large plastic sheets, or canvas under vehicles or equipment during maintenance and dismantling activities. Where drip pans are used, they should not be left unattended to prevent accidental spills. ❑ Engine oil should be drained and stored in clearly labeled tanks or containers. Tanks and containers must be kept in good operating condition, free of any visible spills or leaks, structural damage, or deterioration. ❑ Remove battery as soon as feasible after vehicle enters the facility. ❑ Promptly transfer used fluids to the proper container. ❑ Empty and clean drip pans and containers; do not leave full drip pans or other open containers around the shop. ❑ Remove all mercury switches as soon as possible making sure not to puncture the mercury container during removal. Ship switches to End of Life Vehicle Solutions (ELVS). Vehicle Processing ❑ Maintain an organized inventory of materials used in the maintenance shop. ❑ Designate one person to keep track of parts in the yard. As soon as a hulk is salvaged to its minimum extent, it should be processed for shredding to minimize the dripping of fluids and clutter in the yard. Material Storage ❑ Nonhazardous substances that are contaminated with a hazardous substance are considered a hazardous substance. ❑ Store cracked batteries in a nonleaking secondary container. ❑ Keep waste streams separate (e.g., waste oil and mineral spirits). Recycling and Disposal ❑ Recycle anti-freeze, gasoline, used oil, mineral spirits, windshield washer fluid, and solvents. ❑ Label and track the recycling of waste material (e.g., used oil, spent solvents, and batteries). ❑ Dispose of greasy rags, oil filters, air filters, batteries, spent coolant, and degreasers properly. Discharges ❑ Know where your sumps and drains discharge to. Do not pour liquid waste down floor drains, sinks, or outdoor storm drain inlets. ❑ Plug floor drains that are connected to the storm or sanitary sewer. If necessary, install a sump that is pumped regularly. ❑ Screen out sludges and solids before they reach the waste sump. Use an absorbent pad around the perimeter of sumps to prevent unwanted hazardous materials from entering. ❑ Prohibit the practice of hosing down the shop floor, using dry cleanup methods, and/or collecting the stormwater runoff from the maintenance area and providing treatment. ❑ Treat stormwater discharges with devices such as oil-water separators.
Outdoor vehicle, equipment, and parts storage	Minimizing Exposure ❑ Cover all storage areas with a permanent cover (e.g., roofs) or temporary cover (e.g., canvas tarps). ❑ Store lead parts in a covered container that is capable of handling the excessive weight of lead. If storing lead tire weights with batteries, make sure weights are not placed under batteries or allowed to roll around as that could puncture batteries.

Table 2. BMPs for Potential Pollutant Sources at Automobile Salvage Yards (continued)

Activity	BMPs
Outdoor vehicle, equipment, and parts storage (continued)	Runoff Minimization ❑ Install curbing, berms, or dikes around storage areas. ❑ Install berms or drainage ditches on the property line. ❑ Install berms for uncovered outdoor storage of oily parts, engine blocks, and above ground liquid storage. ❑ Install filtering devices and oil/water separators. ❑ Use drip pans, large sheets of plastic, or canvas under all vehicles and equipment waiting for and during maintenance. ❑ Store mercury switches in covered, leak-proof containers in a way that prevents the glass capsule from breaking. (Manage mercury switches as hazardous waste. Containers should be labeled with "Hazardous Waste - Spent Mercury Switches") ❑ Use secondary containment for stored liquids such as oil, gas, and antifreeze, as well as for lead acid batteries. Good Housekeeping ❑ Tank storage should be secured and locked. ❑ Do not stockpile old tires as they are both a fire hazard and a breeding ground for mosquitoes and rodents. Use indoor tire racks. ❑ Confine storage of parts, equipment, and vehicles to designated areas. ❑ Vehicles of similar make and model should be located in a common area. Vehicles whose parts have higher demand should be in a common area and easily accessible. ❑ Repair malfunctioning equipment that is responsible for any leak or spill as soon as possible. ❑ Store batteries on impervious surfaces. Store batteries inside on a pallet or outside in a leak proof container. Curb, dike, or berm this area.
Vehicle, equipment, and parts washing areas	❑ Designate an area for cleaning activities. ❑ Perform all parts cleaning operations indoors or cover and berm outside cleaning areas. ❑ Clean parts using minimal amounts of solvents or detergents. ❑ Recycle and reuse cleaning fluids where practical. ❑ Use phosphate-free biodegradable detergents. ❑ Use detergent-based or water-based cleaning systems in place of organic solvent degreasers. ❑ Contain steam cleaning washwaters or discharge under an applicable NPDES permit. ❑ Ensure that washwaters drain well. ❑ Inspect cleaning area regularly. ❑ Install curbing, berms, or dikes around cleaning areas. ❑ Remove or deploy airbags prior to crushing or other maintenance activities. ❑ Be certain all fluids have been drained from vehicle prior to crushing. ❑ Fluid should be collected in a covered container, tested, and disposed of accordingly.
Vehicle crushing activities	❑ Capture crusher fluids to prevent spillage. Collect this mixture of fluids in a spill-proof covered container and dispose of it properly. It should not be allowed to drain onto the ground. Keep the drain within the crusher clean so that the fluids do not collect and overflow from the crusher onto the ground.

Table 2. BMPs for Potential Pollutant Sources at Automobile Salvage Yards (continued)

Activity	BMPs
Vehicle crushing activities (continued)	❑ Installation of an engineering fabric, such as geotextiles, followed by gravel, or a bermed impermeable concrete surface would be ideal as a foundation under the crusher. ❑ Develop a preventative maintenance program that involves timely inspections and/or maintenance of the crusher and facility equipment and vehicles. ❑ Keep the crusher equipment clean.
Automotive wastes	❑ Fuel - Drain fuel tanks, using air or hand pumps, into double-walled storage tanks. "Good" fuels can be reused on-site; "bad" fuels must be disposed of. ❑ Antifreeze - Reclaim and re-use, if possible. ❑ Freon (CFCs) - Voluntarily recapture, in anticipation of new regulations. ❑ Used motor oil - Drain and store in double-walled tanks. Re-use on-site or send offsite for refining/fuel blending. Accepted practice to leave oil in the engine during storage. Oil filters should drain for 24-hours. Empty filters return to vehicle for scrap metal reclamation. ❑ Other fluids and oils - Drain as completely as mechanically possible. Do not burn used oil unless approved. ❑ Asbestos Brake Shoes and Clutches - If handled, should be wetted down to prevent asbestos particulates from becoming airborne. ❑ Mercury switches - Remove promptly and avoid breakage. Store as hazardous waste. ❑ Do not use vehicle fluids, oil, or fuels for dust or weed control.
Liquid storage in above ground containers	❑ Maintain good integrity of all storage containers. ❑ Install safeguards (such as diking, berming, or permanent secondary containment) against accidental releases at the storage area. ❑ Valves on permanent secondary containment should be kept in the "off" position and locked at all times, except when collected water is removed. ❑ Inspect storage tanks to detect potential leaks and perform preventive maintenance. ❑ Inspect piping systems (pipes, pumps, flanges, couplings, hoses, and valves) for failures or leaks.
Illicit connection to storm sewer	❑ Plug all floor drains if it is unknown whether the connection is to storm sewer or sanitary sewer systems. Alternatively, install a sump that is pumped regularly. ❑ Perform dye testing to determine if interconnections exist between sanitary water system and storm sewer system. ❑ Update facility schematics to accurately reflect all plumbing connections. ❑ Install a safeguard against vehicle washwaters and parts cleaning waters entering the storm sewer unless permitted. ❑ Maintain and inspect the integrity of all underground storage tanks; replace when necessary.

What if activities and materials at my facility are not exposed to precipitation?

The industrial stormwater program requires permit coverage for a number of specified types of industrial activities. However, when a facility is able to prevent the exposure of ALL relevant activities and materials to precipitation, it may be eligible to claim no exposure and qualify for a waiver from permit coverage.

If you are regulated under the industrial permitting program, you must either obtain permit coverage or submit a no exposure certification form, if available. Check with your permitting authority for additional information as not every permitting authority program provides no exposure exemptions.

Where do I get more information?

For additional information on the industrial stormwater program see **www.epa.gov/npdes/stormwater/msgp**.

A list of names and telephone numbers for each EPA Region or state NPDES permitting authority can be found at **www.epa.gov/npdes/stormwatercontacts**.

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Information contained in this Fact Sheet was compiled from EPA's past and present Multi-Sector General Permits and from the following sources:

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  www.epa.gov/npdes/stormwater/msgp
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  www.anr.state.vt.us/DEC/ead/sbcap/salvage/PDF/bmpguide.pdf

ARE YOU A DO-IT-YOURSELFER?

YOU CAN PUT THE BRAKES ON WATER POLLUTION

Did You Know?

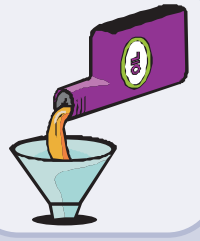
Each year millions of gallons of used motor oil are disposed of improperly: dripped, spilled or poured directly onto the ground or down storm drains.

It only takes four quarts, or about one oil change, of used motor oil to foul one million gallons of drinking water.

Many brake pads contain metals that wear away a little by little. The metal breaks down into dust each time you apply the brakes. Brake pads can contain as much as 20 percent copper, which is toxic to aquatic life at the base of the food chain. They also contain lead and zinc. (Source: US EPA)

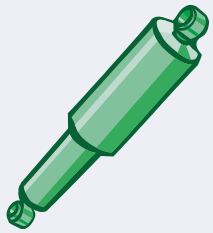
BE A SOLUTION TO WATER POLLUTION.

Stormwater Management
1246 Louisville Highway
Millersville, TN 37072
(615) 859-0880
www.cityofmillersville.com



PUT THE BRAKES ON WATER POLLUTION

TIPS FOR MAINTAINING OR REPAIRING YOUR VEHICLE AT HOME



BY PREVENTING FLUIDS FROM REACHING THE STREET OR STORM DRAIN, YOU CAN PREVENT STORMWATER POLLUTION AND HELP PROTECT OUR RIVERS, LAKES AND STREAMS.

BE AWARE OF WHERE YOU WORK

- Any drips or spills on the ground can be carried away by rainwater to a storm drain and into a nearby river, lake or stream.
- Choose to work on a flat concrete surface where you can easily clean up accidental spills. Remember the phrase "keep it clean, drains to stream" when you work on paved surfaces.
- Never work on a vehicle in the street or near a storm drain.

FOLLOW THESE TIPS WHEN CHANGING YOUR OIL OR OTHER VEHICLE FLUIDS

- Use funnels or pumps when handling liquid products or wastes to avoid spills.
- Capture vehicle fluids in separate drip pans or containers. Properly recycle used oil, antifreeze and other vehicle fluids. Do not mix vehicle fluids.
- Use plastic tarps and drip pans if a car is leaking. Pour the oil collected on tarp back into a drip pan.
- Drain and recycle used oil filters. Poke holes in the filer and let it drain into your oil pan for several hours before you recycle.
- As an alternative, you can use kitty litter, sawdust or oil absorbent to clean spills. Apply it to the spill, sweep it up and dispose of the waste in the trash.
- If spills occur, use an absorbent pad to clean the spill. Squeeze the pad to wring out excess liquids. Place the used pad in a plastic bag and then dispose in the trash.
- Collect your used motor oil, antifreeze and oil filters in separate containers for transport to a nearby recycling station. Tires and batteries are some other items that can be recycled.

PUT THE BRAKES ON POLLUTION WHEN REPLACING BRAKE PARTS

- Many brake pads contain copper, which wears off as the pads wear and contributes to stormwater pollution.
- Don't hose down brake pads, rotors or drums.
- Use shop cloths to wipe as much brake dust as possible from the rotors and drums before using brake cleaner fluid. The shop cloths can be laundered and reused.
- Recycle cleaner fluid by using a drip pan. Reuse collected cleaner to clean rotors and drums.

WASH YOUR CAR AT A NEARBY CAR WASH

- Wash water from washing your car at home can contain detergents, metals, oil, sediment and other debris that can pollute nearby rivers, lakes and streams.
- For spot cleaning, wipe the vehicle with a damp cloth instead of washing it.
- Take your vehicle to a commercial car wash that recycles water. This will prevent detergents and other contaminants from being washed down a storm drain or drainage ditch.

DID YOU KNOW THE FOLLOWING CAN BE RECYCLED?

- Transmission fluid
- Used tires
- Brake fluid
- Used oil filters
- Car batteries
- Antifreeze
- Used motor oil

For the location nearest you, visit
earth911.com

How Can I make a difference ?

There are many small steps that can be taken at home to help reduce pollution.

1. Check automobiles for leaks—
Each year millions of gallons of used motor oil are disposed of improperly by being spilled or poured onto the ground or directly down storm drains. Did you know that one pint of oil can cause an oil slick that will cover the area the size of a football field? Low concentrations of other vehicle fluids can also cause substantial damage to waterways by simply leaking onto the roadway or your driveway.

2. Take your vehicles to car washes—
If you are washing your vehicle on your driveway or street, all of the wash water runs down a curb and into the nearest storm drain which leads right into a river or stream. Soap and detergents can impair waterways with ingredients such as phosphorus and other harsh cleaning chemicals. The remaining rinse water usually contains pollutants such as oils and grease, suspended solids, heavy metals, and other toxic substances. This problem can be especially harmful if a vehicle is washed on the pavement.

Collected dust particles from dirt, brake wear, engine leaks and other sources that collect on your car or truck's surface will wash into nearby waterways.

If you must wash off your vehicle, consider doing it on a part of your yard where the grass and/or soil can serve as a natural filter to absorb pollutants. The area that you select to clean your vehicle on is important. Find a grass, gravel, or porous area that will absorb the wash water rather than carrying it to a storm drain.

Remember these the next time you decide NOT to wash a vehicle at a commercial facility: Use environmentally safe products. Water with soap will not be treated if dumped down a storm drain. Use low-volume or pressure to reduce over spraying and wasting water. Consider using rain barrels to collect rainwater that could be reused to wash vehicles. Wash a vehicle **ONLY** when needed.

3. Maintain a healthy lawn without polluting—

Maintaining a healthy yard is important to most residents. Excess fertilizer and pesticides can wash off lawns when it rains. Here are some tips to follow when maintaining your lawn that prevent water pollution while keeping a yard green.

Fertilizer Application
- Avoid fertilizing in drought conditions and when heavy rain is predicted.
- Use slow-release forms of nitrogen.
- If fertilizer is spilled on paved surfaces, sweep it up and apply it to the lawn.
- Irrigate the lawn to minimize runoff.

Pesticide Application
- Read the pesticide label BEFORE you handle or apply.
- Avoid applying pesticides when rain is predicted.

Grass and Yard Clippings
- Don't blow grass clippings and leaves in the street or down a storm drain! These extra nutrients can reduce oxygen levels in water and potentially cause fish kills.
- Recycle clippings.
- Use a mulching mower to reduce grass clippings.
- Compost plant clippings, leaves, grass clippings and other plant material or bag them for curbside pick-up.

Prevent Erosion
- Schedule grading projects for dry weather.
- Cover bare areas with plants or mulch.
- Leave vegetation along stream banks undisturbed.
- Cover all storm drains before hydro-seeding an area.

Equipment Maintenance and Clean Up
- Don't wash equipment where wastewater can drain to an impervious surface or storm drain.
- Dispose of old oil, gasoline and yard chemicals properly.
- Don't litter. Cover your load.
- Don't use cleaning chemicals where wastewater can drain to impervious surfaces or a storm drain.

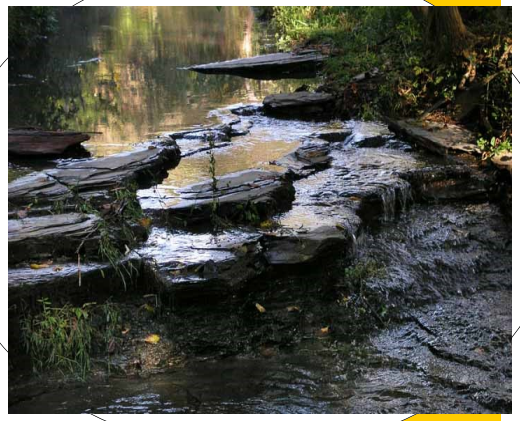
What You Can Do To Report Polluters

Call 911 **only** if there is a LIFE SAFETY EMERGENCY SPILL. The fire department can report to the scene and contain a spill.

Call the Millersville Police Department at **(615) 859-2758** to report illegal dumping. Be sure to get any vehicle information such as make, model, year and license plate number.

Call the Public Works at (615) 859-0880 to report clogged catch basins. Call Codes Office for illicit discharges into the street or storm drain at (615) 859-0880. Rain water is the ONLY substance that should go down any storm drain.

WHAT CAN I DO?



POLLUTION PREVENTION

Stormwater Management

Phone: 615-859-0880
Fax: 615-851-1825

Rain Gardens Make a Difference in Water Quality

Why Plant a Rain Garden

Every time it rains, fertilizers, pesticides, debris and other pollutants wash across lawns and driveways and down streets into the nearest storm drain. From there they go directly into a river, lake or stream. Most pollution comes from storm water runoff. Planting a rain garden reduces pollution while giving you a garden that is easy to maintain and needs little or no watering.

About Rain Gardens

Planting a rain garden on your property is one way to conserve water, reduce your monthly water bill and help protect our waterways at the same time. All that is needed is some basic information, a little imagination and the space on your property to build a rain garden.

How Rain Gardens Work

A rain garden receives storm water runoff water from roofs or other hard surfaces such as driveways. The rain garden holds the water on the landscape so that it can soak into the ground instead of flowing into a street and down a storm drain. The plants, mulch and soil in a rain garden combine natural physical, biological and chemical processes to remove pollutants from runoff.

An effective rain garden depends on water infiltrating the soil of the garden. Water should stand in a rain garden no longer than 24 hours after the rain stops. Mosquitoes cannot complete their breeding cycle in this length of time, so the rain garden should not increase mosquito populations at all.

Multiple Benefits from Rain Gardens

How to Create a Rain Garden

Constructing a rain garden is easy, but it requires lots of shovel work when built by hand. Use the assistance of others to prepare and plant your rain garden. Teamwork reduces the amount of time it takes to construct a rain garden. It can be created alone, but if neighbors and friends are asked to join then they can learn the "hands on" value of a rain garden. Here are the main steps to creating a rain garden in your yard.

1. **Use rope to layout the boundary of the rain garden.**

A rain garden should be curvy in shape and is best situated with the longest length perpendicular to the slope of the land.

While there are no hard rules, the size of the roof area and the infiltration rate of the soil are keys to deciding how big to make a rain garden. The larger the roof area and the slower that water infiltrates into the soil the more area of rain garden needed.

2. **Once the rain garden is laid out, it is time to start digging.**

The deepest ponding depth in the rain garden should be about 6 inches.

Begin the digging by removing soil in the rain garden so that the deepest part is about 8 -10 inches deep.

The bottom of the rain garden should be as level as possible.

The extra soil removed from the rain garden should be used on the downhill side of the rain garden to create a berm, an earthen barrier, that will keep the water in the rain garden. The top of the berm should not be higher than the uphill edge of the rain garden.

3. A shallow swale or corrugated drain pipe should be set up to carry the water from the roof downspout to the rain garden.

Corrugated pipe can be buried or above ground.

The land should slope down to the rain garden area to ensure that water does not stand anywhere around the foundation of the house.

4. Mix organic matter into the soil within the rain garden by spreading 2 to 4 inches of compost over the area and mixing the organic matter in with the existing soil.

If the soil is acidic (has a low pH), lime should also be added to neutralize the pH of the soil.

For soils with high clay content, it may be beneficial to remove about 1-2 feet of the soil and replace it with a more porous "rain garden soil".

5. Establish a grass or groundcover border along the upper edge of the rain garden to slow down the runoff water as it enters the rain garden, and do the same over the berm to stabilize it as a border of the rain garden.

6. Within the rain garden, plant drought tolerant, wet tolerant, hardy plants such as many of the native plants found in low areas.

Ornamental grasses, shrubs and self-seeding perennials are good choices.

7. Once plants are in place, the rain garden area should have a good covering of mulch put over it. Lighter mulches such as pine bark and straw will float and may be washed away to the edges in the rain garden, so better mulch choices for a rain garden are more dense materials such as pine straw, wood chips or shredded wood.

8. Remove weeds on a regular basis as the landscape plants grow, and replenish mulch as needed.

As the plants in the rain garden mature, there will be less need for mulch and weeding.

Rain gardens should be relatively low maintenance

TRASH / DEBRIS / ILLEGAL DUMPING

Site in the City of Millersville

if the correct plants are chosen.

Common forms of litter (or trash) include aluminum cans, plastic bags and bottles, paper products, household hazardous wastes, motor oil, used food containers, cigarette butts, unwanted food, diapers and more. Litter can collect on top of drains, causing potential flooding by not allowing water to enter fast enough during a storm. Smaller debris or non-visible pollutants can wash into storm drains that drain to rivers, lakes and streams. When litter is washed into creeks and streams, it can impact aquatic life. This pollution can have harmful effects on drinking water supplies, recreational use, and wildlife.

Make sure that your trash is properly disposed of and never litter. If you spot trash and debris in your neighborhood, pick it up and dispose of it properly! Never rinse it down the storm drain by hosing an area. Never use a broom or a leaf blower to push debris down a drain.

Maintain your driveway to prevent dirt, gravel and other forms of pollution to reach the public way. Storm water running across the road will end up in a storm drain or drainage ditch and eventually to one of our impaired streams.

To help R.I.D. Millersville of illegal dumping and other forms of pollution, REPORT what you see to the police department at 615-859-2758. Remember to get the license number of vehicles dumping illegally.

***Together* we can stop it!**