



Austell Public Works

# Community Partners for Healthy Streams

SERIES #3:



EQUIPMENT  
and VEHICLES

## SERIES #3: Maintaining Equipment and Vehicles



Community Partners for Healthy Streams is a cooperative effort between the Austell Public Works and local business community.

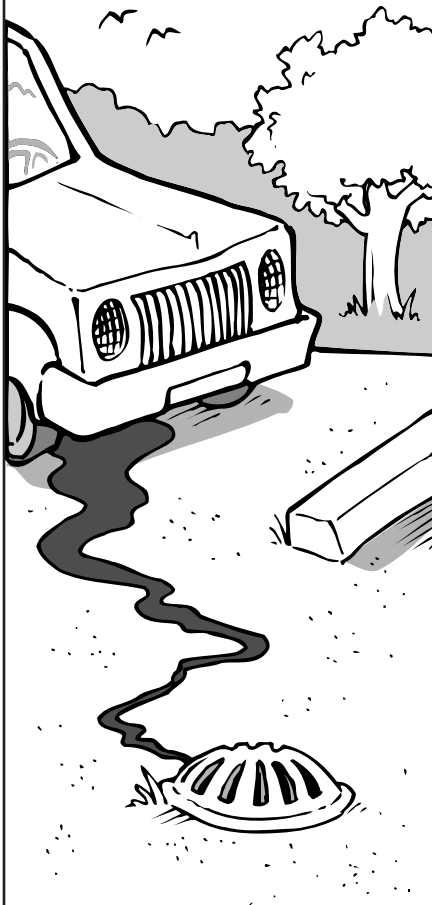


# Storing and Maintaining Equipment and Vehicles

## Why be concerned?

Dirty or leaking equipment and vehicles can deposit oil, grit, coolants, and other pollutants onto the ground. These pollutants can filter through soils to the groundwater table or be washed by stormwater into a lake, river or stream.

In addition, spills may occur during fueling and other maintenance activities. Designing outdoor maintenance areas to completely contain leaks and spills is an important part of protecting water quality.



## Eight Steps to Preventing Water Pollution

### 1 Regularly maintain equipment and vehicles

- Keep equipment and vehicles clean and regularly inspect them for leaks. Immediately repair and clean up any leaks that are found. Wash equipment and vehicles according to the recommendations in **Series #3, Fact Sheet 3.2**.
- Calibrate equipment frequently to ensure proper application patterns and rates.
- Drain all the fluids from equipment and vehicles before they are placed in seasonal or long-term storage. Remove fluids only in paved areas that are designed to contain spills. Recycle or otherwise properly dispose of drained fluids.
- Pave the area with concrete to prevent pollutants from filtering into the ground. Avoid the use of asphalt, since fuel will cause it to deteriorate.
- If necessary, construct curbs or berms around the perimeter to contain spills and prevent stormwater from washing through the area.
- Connect drains to a dead-end holding area or the sanitary sewer. Don't allow storage, fueling or other maintenance areas to drain to any part of the stormwater management system. If you aren't sure where a drain leads, call the Drain Commissioner's office and request that it be dye-tested. Before allowing fluids to drain to the sanitary sewer, call your local wastewater treatment plant and make sure they can be accepted.

### 2 Perform maintenance activities only in designated areas

Maintain equipment and vehicles indoors, if possible. If maintenance activities must take place outdoors, make sure they're performed only in designated areas that are clearly marked and designed to prevent water pollution.

### 3 Properly design outdoor storage, fueling and other maintenance areas

- Don't locate outdoor storage, fueling, or maintenance areas within a floodplain or within 100 feet of any part of the stormwater management system.

- Equip drains with shutoff valves in case of a spill and regularly inspect these valves to ensure they work. Alternatively, keep rubber mats or temporary plugs on hand to block drain inlets. If plugs are used, employees must be trained in advance on how to use them.
- Cover storage and maintenance areas to keep rainwater from entering and mixing with pollutants. If rainwater accumulates and becomes contaminated, it must be pumped out and disposed of at an approved facility. For more information about disposing of accumulated rainwater, see **Series #1, Fact Sheet 1.1**.

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#### 4 Keep service areas clean and take steps to prevent spills

Keep drip pans and absorbent materials readily available, appropriate to the types and quantities of potential spills. If possible, buy absorbent materials that can be reused or recycled: avoid the use of cat litter, since it's relatively inabsorbent (which increases waste) and must be landfilled. For more information about preventing and cleaning up spills, see **Series #1, Fact Sheet 1.2**.

When cleaning floors, prevent pollutants from entering the storm sewer system. The following three-step process is recommended:

1. clean up spills with absorbent materials
2. sweep the floor
3. wet mop and recycle wash water or dispose of it via the sanitary sewer.

#### 5 Prevent overfilling gas tanks

Gasoline and other fuels are toxic and can be highly flammable. Unfortunately, spills are common during fueling activities.

- Make sure that dispensing hoses are equipped with automatic shutoff valves and that these valves work.
- Post signs instructing fuel pump operators not to overfill gas tanks or leave them unattended while fueling.
- Locate temporary fuel tanks in a bermed, paved area. Design the area to completely contain at least 110% of the tank's total volume.
- Per state law, protect the area surrounding the fill pipe for underground gas tanks to prevent any spills from reaching the soil or groundwater.

#### 6 Properly store, use and dispose of maintenance products

For information about storing maintenance products, see **Series #1, Fact Sheet 1.1**. For information about using and disposing of them, see **Series #7**.

#### 7 Completely drain and recycle used oil filters

A used oil filter typically contains 1/3 of a quart of oil and sludge, as well as acid and heavy metals. If not properly drained, used filters can leak this contaminated oil into the environment.

Drain used oil filters for at least 24 hours and then recycle both the oil and filters. If you can't recycle them, filters can be put into the trash provided they're *not* terne-coated. (The EPA classifies oil and transmission filters as non-hazardous if they *aren't* terne-coated and they *are* completely drained.)

#### 8 Discharge equipment condensate and "blowdown" to the sanitary sewer

Air compressors and other equipment may produce small quantities of automatic blowdown water, which contains lubricating oil and other pollutants. Prevent blowdown water from soaking into the ground or running into the storm sewer system. Connect blowdown to the sanitary sewer or, if the compressor has a frequent small bleed, use a drip pan or catchment to collect the water. Oil separator systems are also available for blowdown water.

### GETTING HELP

Austell Public Works  
Stormwater Management.....(770) 944-4325



# Washing Equipment and Vehicles

## Why be concerned?

Washing equipment and vehicles can generate significant amounts of polluted runoff. In addition to detergent, oil, grease, heavy metals, sediment and other pollutants, wash water can contain grease cutters, acids and other toxic chemicals. Take steps to prevent untreated wash water from soaking into the ground or from entering the stormwater management system.

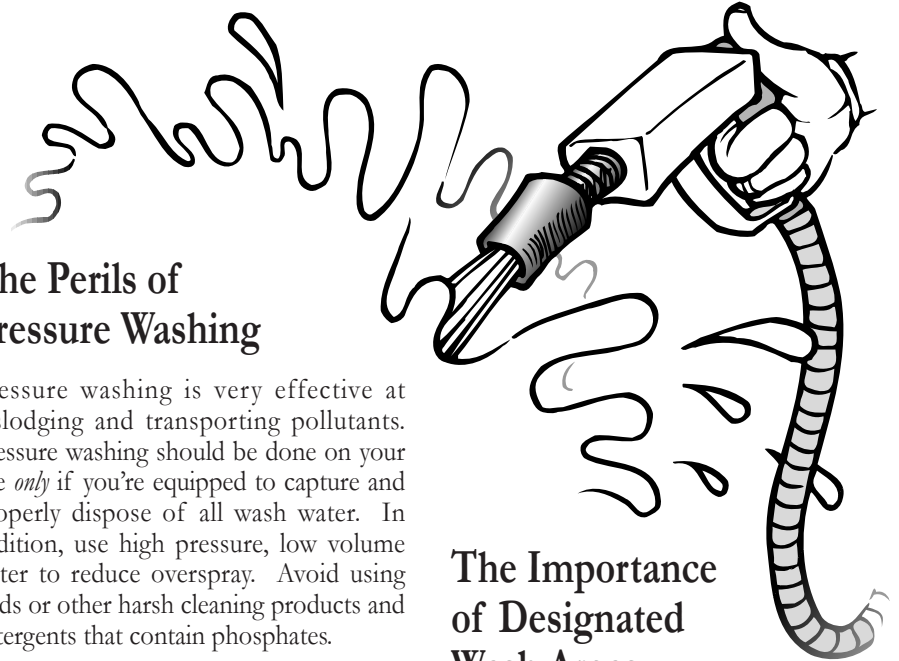


## Minimizing Runoff

Clean field equipment and vehicles using as little water as possible. For example, remove dirt and grit with wire brushes or other dry methods before applying solvent or water. Be sure to collect the dislodged material and dispose of it properly. To determine proper disposal, call the facility where you expect the material to be taken.

## The Perils of Pressure Washing

Pressure washing is very effective at dislodging and transporting pollutants. Pressure washing should be done on your site *only* if you're equipped to capture and properly dispose of all wash water. In addition, use high pressure, low volume water to reduce overspray. Avoid using acids or other harsh cleaning products and detergents that contain phosphates.



## The Importance of Designated Wash Areas

If you must wash equipment or vehicles on-site, wash them *only* in clearly marked, designated areas that are designed to properly manage waste water. Post signs that prohibit other maintenance activities and washing with solvents.

Never locate wash areas within a floodplain or within 100 feet of a drinking water well, wetland, lake, stream or any other part of the stormwater management system.

## Washing: It's An Inside Job

Outdoor washing operations are subject to State of Michigan permit requirements. To avoid additional regulations and potential threats to the environment, it's best to take vehicles and equipment to a commercial washing facility if you can't wash them indoors.



## Managing Wash Water

Discharge wash water only to the sanitary sewer, an enclosed holding tank, or, if it's relatively clean, a grassy area where the water will be *contained*. Don't allow it to drain off-site via a roadside ditch, stormwater management system, or local stream. Discharging wash water off-site requires a permit from Austell Public Works.

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- Before discharging wash water to the sanitary sewer, call your local wastewater treatment plant to make sure it can be accepted. Certain materials are prohibited due to health and safety risks. In addition, water used to wash muddy trucks or equipment can contain high volumes of sediment that may clog sewer lines.
- Wash water that can't be discharged to the sanitary sewer should be drained the area to an enclosed holding tank. The tank's contents must be removed periodically by a licensed waste hauler. While businesses that use a holding tank incur the cost of regular pumpouts, they avoid the risk of costly environmental cleanups.
- Install an oil/water separator to remove oil and grit from runoff before routing to a holding tank or sanitary sewer. For more information about oil/water separators, see **Series #2, Fact Sheet 2.2**.
- If you're washing relatively clean vehicles *with water only*, wash water can be diverted to a large grassy area. This will allow it to filter into the ground. *Be aware, however, that any dislodged pollutants or cleaning products that are used can also filter down to drinking water supplies.*

## Alternatives to Engine Cleaning

- Avoid cleaning engines for aesthetic purposes only.
- Instead of cleaning the entire engine to locate oil leaks, try using rags and solvent to clean small portions of the engine.

### GETTING HELP

Austell Public Works  
Stormwater Management.....(770) 944-4325



# Community Partners for Healthy Streams Fact Sheets



## **SERIES #1 - HOUSEKEEPING PRACTICES**

Fact Sheet 1.1..... Storing Materials and Wastes  
Fact Sheet 1.2..... Preventing and Cleaning Up Spills



## **SERIES #2 - MAINTAINING ENGINEERED STORMWATER CONTROLS**

Fact Sheet 2.1..... Catch Basin Care  
Fact Sheet 2.2..... Maintaining Stormwater Management Systems  
Fact Sheet 2.3..... Oil/Water Separators



## **SERIES #3 - MAINTAINING EQUIPMENT AND VEHICLES**

Fact Sheet 3.1..... Storing and Maintaining Equipment and Vehicles  
Fact Sheet 3.2..... Washing Equipment and Vehicles



## **SERIES #4 - MAINTAINING BUILDINGS AND PAVEMENT**

Fact Sheet 4.1..... Outdoor Pressure Washing  
Fact Sheet 4.2..... Maintaining Building Facades  
Fact Sheet 4.3..... Maintaining Paved Areas  
Fact Sheet 4.4..... Using and Storing Deicing Systems  
Fact Sheet 4.5..... Cooling Water Systems



## **SERIES #5 - MAINTAINING LANDSCAPES**

Fact Sheet 5.1..... Maintaining Healthy Lawns, Shrubs and Trees  
Fact Sheet 5.2..... Using Fertilizer  
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Fact Sheet 5.4..... Using Pesticides



## **SERIES #6 - SITE DESIGN AND CONSTRUCTION**

Fact Sheet 6.1..... Designing Landscapes for Water Quality  
Fact Sheet 6.2..... Designing Stormwater Management Systems  
Fact Sheet 6.3..... Clearing and Grading Land



## **SERIES #7 - MANAGING WASTES**

Fact Sheet 7.1..... Minimizing Waste  
Fact Sheet 7.2..... Recycling  
Fact Sheet 7.3..... Waste Disposal



## **SERIES #8 - EDUCATION**

Fact Sheet 8.1..... Education and Community Leadership



## **SERIES #9 - FATS, OILS AND GREASE**

Fact Sheet 9.1..... Food Service Industry Fats, Oil and Grease Recycling/Proper Disposal



## **SERIES #10 - PRESCRIPTION DRUG AND PERSONAL CARE PRODUCTS**

Fact Sheet 10.1..... Prescription Drug and Personal Care Product Disposal



**Austell Public Works**  
**STORMWATER**  
**Management**

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