A Stormwater Guide for Power Washers:

Proper Washwater Containment, Collection and Disposal

Table of Contents

Introduction

Best Practices for Buildings

Best Practices for Other Surfaces

Best Practices for Special Surfaces

More Information

Clean water is important to all of us!

It's up to all of us to make it happen. Over many years, sources of water pollution like industrial wastes from factories have been greatly reduced. Now, more than 60% of water pollution comes from things like cars leaking oil, fertilizers from farms and gardens, and failing septic systems. All these sources can add up to big pollution problems.

Why do we need clean water?

Having clean water is important for our health and economy. Clean water provides a chance for recreation like swimming, fishing and boating. Clean water can provide jobs and commercial opportunities and adds beauty to our landscape as well as being important for wildlife habitats. Most importantly, we need clean water to drink. All of us benefit from clean water – and all of us have a role in getting and keeping our lakes, rivers and ground water clean.

The City of Columbia realizes the importance of clean water and has taken steps to help protect our natural resources. These steps include the City's ordinance that prohibits anything other than rain water from getting into a storm drain. It is important to realize that soapy or dirty runoff from commercial or residential pressure or power washing can contribute to pollution. Your business must properly contain, collect and dispose of the washwater it creates. Your business may be subject to fines and other penalties if it does not handle its washwater properly.

What's the problem with power or pressure washing?

Power washing itself is not a problem – in fact, it can actually help keep pollution out of our local waterways if done correctly. The problem is that there is more than just water that runs off from power or pressure washing. For instance, the grime that comes off parking lots can contain oil, grease and toxic chemicals. If washwater is not collected properly, all of this pollution will run along with the water into the storm drain. The water that enters a storm drain is not treated or cleaned before it enters our rivers and lakes.

Containment

The City does not require that you use a specific containment method. However, proper containment should prevent any washwater from entering storm drains or nearby streams. It will also allow you to collect washwater and dispose of it properly.

There are two major approaches to washwater containment.

The first method is to let the washwater flow to a low point and collect it there. Follow these steps to use this method:

1. Determine where all the storm drains are located.
2. Determine where the high and low spots are on the property to understand where the water will flow.
3. Make sure to block or plug any storm drains in the path of your washwater.

Some of the many ways to accomplish this are shown below.

You can contain washwater with (A) storm drain mats, (B) flexible berms and (C) flexible or inflatable drain plugs. Wash down the pavement when you are done and collect that water as well.

The second method is to contain washwater from smaller jobs at the cleaning site. This is done by using collapsible pools, containers or trays to capture washwater.

Before buying or building a containment system, make sure it is large enough! It should easily contain washwater and spray from the largest jobs you perform.

Collection

Washwater can be collected from its containment using a wet vacuum, a sump pump or a vacuum pump. It is important to collect your washwater because any pollutants left on the pavement will eventually be carried into a nearby storm drain or stream by rainwater. Washwater that contains soap, detergent, cleaning products, hazardous waste or large amounts of any other pollutant, cannot be left on paved surfaces.

- ✓ A **sump pump or wet vacuum** can be used with a flexible berm to collect washwater.
- ✓ A **generator** can power your sump pump or wet vacuum. Be mindful to keep power cords out of the water to avoid safety risks!
- ✓ **Plastic tanks** can be used to temporarily store washwater until it can be disposed of properly.

Other Options

There are many options besides those shown in the previous sections. The City does not require any specific method or equipment be used so long as you properly contain, collect and dispose of your washwater. Below are examples of other equipment you may want to consider.

Other options include (A) Rotary cleaners that supply high pressure water and collect dirty wash water in an attached storage tank, (B) Vacuum booms or berms that seal to the ground and suck washwater through a hose to also collect in a storage tank, and (C) Ride-on surface cleaning vehicles that collect and recycle washwater.

Disposal

Once you have contained and collected your washwater, you will need to dispose of it properly. Proper disposal methods include using the sanitary sewer system, the City's Metro Septage Receiving Station or using a private treatment company. For any of these methods, you may need to pre-treat your water.

If your washwater:	You will need to pre-treat by:
is over 150°F	cooling the washwater to under 150°F
has a pH <6 or >9	neutralizing the pH to between 6 and 9
is oily or greasy	using an oil-water separator*
has dirt, grit or paint chips	using a filter to remove large particles

**Fats, oils and grease cannot exceed 100ppm.*

If you dispose of your washwater in the sanitary sewer system, you can do so by using an oil and water separator, a sewer clean out, or a sink or floor drain (with the property owners permission).

You must get approval from the City's Wastewater Compliance Section before disposing of your washwater in the City's sanitary sewer system or at the City's Metro Septage Receiving Station. You can request approval by contacting the Industrial Pre-treatment Coordinator at (803) 545-0203.

To use the City's Metro Septage Receiving Station, you must be pre-approved. **The City WILL ONLY accept washwater with prior approval.** Contact (803) 545-0221 for details.

A sewer clean out is one option for disposing of your washwater. Never open a sanitary sewer manhole for any reason! It is unsafe and illegal.

Disposal to a Planted Area

In special cases, you may be able to dispose of your washwater in a landscaped area with grass or plants. The planted area must be able to absorb all the water you place in it. You will need to obtain the property owner's permission before using this disposal method.

Washwater that contains any of the following may NOT be disposed of in a planted area:

- Grease or oil
- Food wastes or scraps
- Solvents
- Hazardous materials
- Chlorine
- Surfactants/soap*
- Biological wastes
- Petroleum products

Soapy water may be disposed of in an on-site planted area if it is from washing the exterior of a residential building.

Best Practices for Buildings:
Commercial Building Exteriors

For buildings that are glass, steel, unpainted or painted with no loose paint:

A. 1. Sweep any hard surfaces your washwater will flow through to remove dirt and litter. Use absorbents to spot treat oil or grease stains. Dispose of collected dirt, litter and absorbents in the trash.

A. 2. Wash the building using only water. Keep the washwater out of the storm drains. With the property owner's permission, the washwater can be disposed of in a planted area. Keep in mind that this may stress, damage and potentially even kill plants.

OR

B. 1. Wash the area using water and soap (or another cleaner). Contain, collect and then dispose of water in the sanitary sewer system or at the Metro Septage Receiving Station*. You may need to filter the water first.

You should avoid pressure washing any wood treated with chromated copper arsenate (or CCA). Especially avoid using an acid wash or any cleaning products containing chlorine. This will increase the arsenic leaching out of the wood.

**** The City WILL ONLY accept washwater at the Metro Septage Receiving Station with prior approval. Contact (803) 545-0221 for details.***

Best Practices for Buildings:
Residential Building Exteriors

For buildings that are glass, steel, unpainted brink or vinyl or a painted surface with no loose paint:

1. Sweep any hard surfaces your washwater will flow through to remove dirt and litter. Use absorbents to spot treat oil or grease stains. Dispose of collected dirt, litter and absorbents in the trash.
2. Keep the washwater out of the storm drains. With the property owner's permission, the washwater can be disposed of in a planted area. This may stress, damage and potentially even kill plants, especially if any cleaning chemicals were used.

You should avoid pressure washing any wood treated with chromated copper arsenate (or CCA). Especially avoid using an acid wash or any cleaning products containing chlorine. This will increase the arsenic leaching out of the wood.

Best Practices for Buildings:
Buildings with Loose Paint

NOTE: Make sure you know what kind of paint you are removing. If it is toxic (i.e. contains lead, copper, tributyl tin or PCBs) then you will need to dispose of the paint chips as a hazardous waste. The City **WILL NOT** accept hazardous waste.

For non-toxic paint:

1. You will need to contain and collect your washwater.
2. As much as possible, collect any paint chips by sweeping them up or rinsing the area. This may be easier if you scrape the paint chips off, as much as possible, before you power or pressure wash the remaining paint.
3. Before disposing of washwater in the sanitary sewer system, you will need to filter out any paint chips. We recommend using a screen with quarter inch holes or smaller to ensure compliance with City's Wastewater Ordinance (Article IV Section 23).
4. Non-toxic paint chips can be disposed of as normal garbage. Toxic paint chips will need to be handled as a hazardous waste.

Best Practices for Buildings:
Graffiti Removal

A. 1. If you are sand blasting the graffiti off, you will need to contain and collect your washwater.

A. 2. As much as possible, collect any paint chips by sweeping them up or rinsing the area. This may be easier if you scrape off paint chips as much as you can before you power or pressure wash the remaining paint.

A. 3. Before disposing of washwater in the sanitary sewer system, you will need to filter out any paint chips and sand. Non-toxic paint chips can be disposed of as normal garbage. Toxic paint chips will need to be handled as a hazardous waste.

OR

B. 1. If you are using solvents in you pressure washing, you will need to contain and collect your washwater.

B. 2. Call the Wastewater Compliance Section at (803) 545-0203 before disposing of your washwater to ensure the solvent is safe for the sanitary sewer system.

Best Practices for Other Surfaces:
Sidewalks and Plazas

A. 1. Sweep the area that you are cleaning and any area your washwater will flow through to remove dirt and litter. Use absorbents to spot treat any oil or grease stains. Since these areas have only foot traffic, there should not be many of these stains. Dispose of collected dirt, litter and absorbents in the trash.

A. 2. Wash the area down using only water. Keep the washwater out of the storm drains. With the property owner's permission, the washwater can be disposed of in a planted area. This may stress, damage and potentially even kill plants, especially if any cleaning chemicals were used.

OR

B. 1. Wash the area using water and soap (or another cleaner). Contain, collect and then dispose of water in the sanitary sewer system or at the Metro Septage Receiving Station*. You may need to filter the water first.

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Best Practices for Other Surfaces:
Parking Lots, Driveways, Drive-Thrus, Parking Garages, etc.

1. Sweep the area that you are cleaning and any area washwater will flow through to remove dirt and litter. Use absorbents to spot treat oil or grease stains. Dispose of collected dirt, litter and absorbents in the trash.
2. Wash the area using water and soap (or another cleaner). Contain, collect and then dispose of water in the sanitary sewer system or at the Metro Septage Receiving Station*. If the washwater is oily or greasy, you will need to dispose of it through an oil/water separator or a grease interceptor. This may be especially true around restaurants and grease disposal areas.

Best Practices for Other Surfaces:
Masonry Mineral Deposits (Efflorescence)

1. Sweep any area your washwater will flow through to remove dirt and litter. Use absorbents to spot treat oil or grease stains. Dispose of collected dirt, litter and absorbents in the trash.
2. If you use an acid wash to remove the mineral deposits on the masonry, you will need to contain and collect your washwater.
3. Rinse down the acid treated area with an alkaline soap or baking soda solution.
4. Collect all of the washwater and neutralize the pH to between 6 and 9. Dispose of washwater in the sanitary sewer system or at the Metro Septage Receiving Station*.

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Best Practices for Special Surfaces:
Grocery Carts

1. You will need to collect, contain and filter your washwater.
2. If you only use water to clean the cart, you may dispose of the washwater in a planted area, the sanitary sewer or the Metro Septage Receiving Station*. If you use soap or another cleaning agent, then you will have to dispose of the washwater in the sanitary sewer or the Metro Septage Receiving Station.

Best Practices for Special Surfaces:
Dumpsters and Surrounding Areas

1. Sweep the area that you are cleaning and any area your washwater will flow through to remove dirt and litter. Use absorbents to clean oily or greasy areas. Dispose of collected dirt, litter and absorbents in the trash.
2. Wash the area using water and soap (or another cleaner). Contain and collect your washwater.
3. If your washwater is contaminated with large amounts of dirt, grime, food particles or other particles, you will need to filter it.
4. If your washwater is oily or greasy, you will need to dispose of it through an oil/water separator or a grease interceptor. Dispose of washwater in the sanitary sewer system or at the Metro Septage Receiving Station*.

Best Practices for Special Surfaces:
Restaurant Equipment

Restaurant floor mats, exhaust hoods or filters, grease bins/ storage and other oily restaurant equipment need special handling.

1. Wash the area or item using water and soap (or another cleaner).
2. Contain, collect and then dispose of water in the sanitary sewer system or at the Metro Septage Receiving Station*. If the washwater is oily or greasy, you will need to dispose of it through an oil/water separator or a grease interceptor.

**** The City WILL ONLY accept washwater at the Metro Septage Receiving Station with prior approval. Contact (803) 545-0221 for details.***

Complying with Columbia's Ordinance

You will need to develop a method to contain, collect and dispose of washwater. A number of complete systems that help accomplish this are available for purchase. However, many businesses have found it less expensive and more effective to develop their own unique containment system using common construction materials.

Why do I contact to schedule a compliance inspection?

You should contact the Wastewater Compliance Section at (803) 545-0203 to schedule an inspection. A demonstration or explanation of required containment, collection and disposal methods before starting any commercial washing can be provided during the inspection.

City of Columbia Stormwater Contact Information

Department of Utilities & Engineering
Stormwater Management Division
1136 Washington Street, 6th Floor
Columbia, SC 29201

(803) 545-3300 (complaints)
(803) 545-3400 (questions)

Stormwater@ColumbiaSC.Net

Other Important Contact Information

The City's sewer use, stormwater management, zoning or other ordinances or requirements may apply to your power, pressure washing or business activities.

If you are using, storing or transporting certain cleaning chemicals or hazardous wastes (for example, washwater from stripping paint containing lead or copper) there may be additional Occupational Safety and Health Administration (OSHA) or South Carolina Department of Transportation (S.C. DOT) regulations you need to follow. Please contact the appropriate group to find out more about these regulations:

OSHA – Columbia Area Office at Strom Thurmond Federal Building: (803) 765-5904

S.C. DOT - Office of Hazardous Materials Safety (HAZMAT) at: 1-800-HMR-4922 (1-800-467-4922). This hotline operates Monday through Friday from 9:00 am to 5:00 pm Eastern Standard Time (EST).

Department of Utilities & Engineering
Stormwater Management

1136 Washington Street
Columbia, SC 29201
(803) 545-3300
(803) 988-8199 (fax)

www.columbiasc.net/stormwater