

Best Management Practices For Pressure Washers

INTRODUCTION

This booklet describes the requirements for the disposal of waste and wastewater generated by the use of pressure washing equipment. It also provides information on practical methods, known as Best Management Practices (BMPs), which may be used to protect the environment and to comply with regulatory requirements.

These requirements and BMPs apply to anyone who generates wastewater from pressure washing, including:

- contractors that provide a pressure washing service to others
- businesses that use pressure washing equipment as part of their operations or maintenance (such as cleaning heavy equipment)
- homeowners

What is Pressure Washing?

Pressure washing uses mechanical equipment to create a high pressure stream of water, typically ejected from a hand-held wand or nozzle. This jet of water is used for cleaning a wide variety of surfaces and objects. Depending on the application, pressure washing may be conducted with or without heated water or added cleaners.

In recent years, the use of pressure washing equipment has grown substantially. Numerous contractors provide pressure washing as a service to others, businesses purchase their own units to use in their own operations and maintenance, and many homeowners rent units or purchase low cost ones.

Pressure washing is used to clean many things, including:

- Trucks
- Automobile fleets
- Parking lots
- Building exteriors
- Sidewalks
- Drive-thrus
- Heavy equipment
- Roofs
- Restaurant equipment and hood filters
- Graffiti

Pressure washing equipment is also used for stripping paint or for preparing and treating other types of surfaces.

Best Management Practices For Pressure Washers

The Problem

Most pressure washing activities are conducted outside. This often results in the discharge of wastewater to the storm drain, unless the equipment operator takes steps to collect and dispose of it legally. Discharge of pressure washing wastewater to the storm drain is prohibited because it contains pollutants from the cleaning compounds used and/or from the objects or surfaces being cleaned. Even cleaners labeled “biodegradable” and “non-toxic” may be harmful to aquatic life, especially after cleaning various surfaces (e.g. dumpster areas, parking lots, equipment and more) that contain oils, greases, chemicals, and other substances.

Any substance, including pressure washing wastewater that enters storm drains flows directly into lakes, rivers, and streams. This water is not treated or cleaned to remove pollutants. Pollutants discharged to the storm drain harm fish and wildlife and contaminate recreational sites and drinking water supplies.

Regulations

To improve the quality of water we fish and swim in, not to mention drink, Federal and State regulations prohibit discharges of pollutants to water bodies without a permit. Because of these regulations, the Cities of Citrus Heights, Elk Grove, Folsom, and the County of Sacramento are subject to a Municipal Storm Water (MS4) Permit issued to them by the State of California. The MS4 Permit requires local agencies to implement programs to reduce pollutants in storm water runoff (directly caused by rainfall) and to effectively prohibit non-storm water discharges.

As required by the MS4 Permit, these local agencies have adopted Storm Water Ordinances that prohibit non-storm water discharges. The discharge of wastewater from pressure washing to the storm drain or surface waters is prohibited by these ordinances.

However, preventing discharge to the storm drain is only part of the story. Improper discharges to the sanitary sewer, septic tanks, or land can also cause environmental harm, damage equipment and facilities, and violate regulations.

Pressure Washing as Part of the Solution

Pressure washing is an activity that can help improve the quality of our waters when done properly. By cleaning (pressure washing) surfaces (e.g. equipment, parking lots, sidewalks, buildings, etc.), collecting the wastes (water and/or debris), and properly disposing of the wastes, there is less chance of pollutants ending up in our waterways. It is through education, proper collection and disposal that pressure washing can have a positive impact on the environment!

Best Management Practices For Pressure Washers

Clean Water Business Program (CWBP)

Pressure washers conducting business within Sacramento County are eligible to join the CWBP (916-264-0126). The CWBP is an incentive-based program that rewards local pressure washing businesses for promoting clean water awareness and implementing BMPs such as properly collecting and discharging wastewater into the sanitary sewer system for proper treatment.

DISPOSAL REQUIREMENTS AND PROHIBITIONS

Proper disposal of pressure washing wastewater, in compliance with environmental regulations, depends on the nature of the pollutants in it. It is the responsibility of the generator to determine the proper collection and disposal method for wastewater created by pressure washing. To avoid unanticipated costs, delays, and violations, this determination should always be made prior to starting any job.

All disposal methods are subject to requirements, restrictions, and prohibitions, and are outlined below.

Storm Drains

- Discharging pressure washing wastewater, into any natural body of water or any storm water drainage system, such as storm drains, ditches, and gutters, within Sacramento County, is **prohibited** by Federal, State, and local laws.
- Exceptions to this prohibition must be approved in writing by the local storm water jurisdiction and the Central Valley Regional Water Quality Control Board.

Evaporation

- Pressure washing wastewater that contains visible debris or residue; soap, detergent or other cleaning agents; or excessive amounts of any pollutant, may not be left on paved surfaces to evaporate, because the residue will eventually be discharged to the storm drain.

Land Disposal

- Wastewater disposal to land must not create a nuisance condition, flow into the storm drain, or contaminate soil with hazardous waste.
- Wastewater containing garbage, food wastes, or visible trash may not be discharged to land.
- Any wastewater disposal to land must have the approval of the property owner.

Best Management Practices For Pressure Washers

Sanitary Sewer

- Disposal of pressure washing wastewater to the sanitary sewer must meet the requirements of the Sacramento Regional County Sanitation District (SRCSD) (916-875-6470). See SRCSD's Sewer Use Ordinance and Surface Cleaning Wastewater policy for more information.
- The Sacramento Regional County Sanitation District's (SRCSD) sanitary sewer system service area includes the Cities of Citrus Heights, Elk Grove, Folsom, and Sacramento, the urban portions of unincorporated Sacramento County, and the towns of Courtland, Walnut Grove, and Locke. Pressure washing contractors are required to obtain a permit prior to discharging to SRCSD's sanitary sewer system. The type of permit required is dependent upon whether the wastewater is discharged at a place of business or at an SRCSD septage site. See SRCSD's Surface Cleaning Wastewater Policy for more information.
- Residential SRCSD customers conducting pressure washing activities at their home are not required to obtain a permit. However, homeowners are required to comply with the discharge requirements of the SRCSD Sewer Use Ordinance. Using the BMPs described in this document will help residential users comply with SRCSD requirements.
- Businesses in the SRCSD service area utilizing a pressure washing company/contractor that will be disposing of the wastewater into their sanitary sewer clean-out/inlet are required to have a Sewer Use Questionnaire (SUQ) on file with SRCSD. Note: property owner permission is required prior to discharging wastewater into the customer's sanitary sewer clean-out/inlet.
- Discharges to the sanitary sewer within the Galt service area must comply with the requirements of the City of Galt. Call the City of Galt at (209) 745-0575 for more information.

Septic Systems

- Discharges of pressure washing wastewater to a septic system anywhere within Sacramento County must be approved by the County Environmental Health Division (916-875-8440). Discharges that contain hazardous waste, have the potential to harm septic systems, or are likely to contaminate groundwater, **will not** be approved.

Hazardous Waste

- Beware of pressure washing surfaces that contain lead-based paint, or areas with freestanding liquids (e.g. oil, solvents, antifreeze, etc.). Pressure washing these type of surfaces may generate hazardous waste (e.g., lead-based paint chips, oil/grease, hydrofluoric acid, muriatic acid,

Best Management Practices For Pressure Washers

etc.). Generating hazardous waste may dramatically increase your operating costs and limit your disposal options. For more information on hazardous waste determination call the Sacramento County Hazardous Materials Division (HMD) at 916-875-8550 or the Business Environmental Resource Center (BERC) at 916-364-4110.

BEST MANAGEMENT PRACTICES

PLANNING

- Prior to beginning pressure washing activities, determine what collection method you will be using and how you intend to properly dispose of the wastewater generated from each cleaning activity.
- Obtain all necessary permits and authorizations.
- Identify the specific location where you will be disposing wastewater (e.g. job-site sewer clean-out, county septage station, or the sewer clean-out at your place of business).
- Always obtain the property owner's permission before disposing of wastewater at a job site (i.e. sanitary sewer clean-out) and remind the business owner to have an updated Sewer Use Questionnaire submitted to SRCSD.

SURFACE PRE-CLEANING

Consider using dry methods for surface pre-cleaning, such as using absorbents on small oil spots and sweeping up trash/debris/dirt before wet washing. Pre-cleaning is an activity that may reduce costs and simplify the wastewater disposal process. However, you should also be aware of the costs and requirements associated with disposing of pre-cleaning wastes which may be identified as hazardous waste and require special management. Note: it is important to remember, when using dry pre-cleaning methods, be sure to pick up pre-cleaning debris as soon as possible, so the materials do not have a chance to enter the storm drains. For more information call HMD at (916) 875-8550 or BERC at (916) 364-4110.

PRESSURE WASHING

Minimize the amount of water used during pressure washing activities, thus reducing the volume of wastewater that needs to be properly disposed.

- Avoid using cleaning products that contain hazardous substances (e.g., hydrofluoric acid, muriatic acid, sodium hydroxide, bleach, etc.) and can turn wastewater into hazardous waste.

Best Management Practices For Pressure Washers

- Acidic, caustic, and detergent cleaners may damage paved or coated surfaces.
- Once most of the wastewater has been collected and properly disposed, minimal residual amounts of wastewater that can not be collected and that will not reach storm drains may be left on paved surfaces and allowed to evaporate. Sweeping the area may be necessary to avoid leaving behind visible solids that will be washed into the storm drain at a later time.
- Wastewater with high pollutant concentrations, including wastewater that contains cleaning compounds, must be completely collected and may not be left to evaporate.

WASTEWATER COLLECTION

- Identify where all area storm drains are situated.
- Locate property high and low-spots and determine the area where wastewater can be pooled for collection. Drainage swales may sometimes be used to collect water before it enters a storm drain.
- Common equipment used for containing and collecting wastewater generated during pressure washing activities include: vacuum pumps, booms/berms, portable containment areas, weighted storm drain covers, inflatable plumber's plugs, oil/water separators, holding tanks, portable sump pumps, hoses, absorbents, and more.
- Avoid mixing non-hazardous wastewater with wastewater known to contain hazardous levels of pollutants. This may increase the volume of waste and require complicated treatment and/or disposal as a hazardous waste, thus increasing disposal costs.
- Place an oil-absorbent mat/pad on top of collected wastewater to help reduce the amount of oil re-deposited on the surface of the collection area.
- Once wastewater has been collected and/or discharged to the sanitary sewer system, visible solids remaining in the collection area must be swept up to prevent subsequent discharge to the storm drain.

WASTEWATER DISPOSAL

All wastewater discharged into the sanitary sewer must meet the requirements of the SRCSD and often includes obtaining pre-approval prior to disposal.

Within the SRCSD service area, any pressure washing contractor discharging to the sanitary sewer must have a permit issued by SRCSD. Most of the contiguous urban area of Sacramento County, including unincorporated areas and all of the

Best Management Practices For Pressure Washers

incorporated cities of Citrus Heights, Elk Grove, Folsom, and Sacramento are served by SRCSD.

The following activities **require** an SRCSD permit for pressure washing contractors, however, they do not require pre-approval prior to each discharge into the sanitary sewer system.

- **Transportation related cleaning** - washing fleet vehicle exteriors, mobile auto detailing, and rinsing of automobiles, recreational vehicles (RV), and boats at retail dealerships
- **Surface related cleaning** - sidewalks, plazas, driveways, parking garages, service stations, and building exteriors and walls
- **Food service related cleaning** - restaurant alleys, grocery dumpster areas, restaurant floor mats, exhaust filters, grease filters, lunch wagons (non-engine), and food carts

Refer to SRCSD's Surface Cleaning Wastewater Policy for specific requirements.

Other types of *permitted* wastewater discharges may be acceptable for disposal into the sewer system, however pre-approval must be obtained by SRCSD prior to each discharge. The following pressure washing activities **require** SRCSD pre-approval.

- **Engine/equipment degreasing** - wastewater must be treated with a sand/oil/water separator or an equivalent level of treatment prior to discharge
- **Acid cleaning** - unpainted vehicles, equipment, structures, or containers
- **Other activities not listed** (Excluding Transportation, Surface, and Food Service related cleaning)

Contact SRCSD for pre-approval authorization prior to each sewer discharge. Approvals will be considered on a case-by-case basis.

Sewer Disposal Options

Disposal options for non-hazardous pressure washing wastewater include:

- Collecting and discharging wastewater into the sanitary sewer via the sanitary sewer clean-out or sanitary sewer inlet at the point of generation (job site). This activity must be conducted in accordance with SRCSD's Surface Cleaning Wastewater Policy and may require some form of pretreatment, depending on the nature of the wastewater. In addition, this

Best Management Practices For Pressure Washers

disposal method must be approved by the property owner(s) prior to discharge.

- Collecting and transporting wastewater in a holding tank for proper sewer system disposal at an off-site SRCSD septage site provided that 1) it is conducted in accordance with SRCSD policies, and 2) a permit is obtained from SRCSD prior to discharge.
- Collecting and discharging wastewater into the sanitary sewer at the pressure washer's place of business using the sewer clean out. **Note:** make sure to submit a SUQ to SRCSD if you discharge pressure washing wastewater to the sanitary sewer at your place of business.
- Obtain permission from the property owner for any type of discharge to the sanitary sewer and make sure wastewater meets SRCSD guidelines and/or is approved by an authorizing agency prior to seeking the property owner's permission.

Land Disposal

Wastewater may be collected and discharged or directed onto landscaped and/or dirt areas only when the wastewater does not contain contaminants (i.e. solvents, cleaners, oils, metals, etc.) that may constitute a hazardous waste, food products, or create a nuisance condition. In addition, such discharges must soak into the ground and may not flow into the storm drain. Make sure to obtain permission from the property owner prior to discharging or diverting wastewater to landscapes and/or dirt areas.

If you are diverting wastewater to landscaped areas, avoid damage to plants and soil by minimizing or eliminating the use of soaps, detergents, and chemicals. Filter out any solids that would be visible on the ground after discharge. In addition, minimize the use of water to avoid wastewater overflowing from these areas. **Note:** repeated discharges to landscaped areas may result in an accumulation of contaminants, thus damaging vegetation and increasing contaminant levels in the soil.

WASTEWATER TREATMENT

If you operate or are considering using a wastewater recycling or pretreatment unit (e.g. oil/water separator), make sure you understand the waste streams that are generated. Identify proper disposal methods for these wastes, and consider disposal costs before starting a job. Some units, especially those that separate oil from water, may generate hazardous waste (e.g. waste oil) and require special storage and handling practices.

Consider contracting with a company that can provide appropriate treatment and disposal of your wastes. This may save you time and money associated with

Best Management Practices For Pressure Washers

purchasing, permitting, and using your own wastewater treatment equipment. In some cases, you may be able to reduce the liability that comes with the generation and disposal of hazardous waste. Contact SRCSD at (916) 875-6470 for a list of local firms that may be able to provide disposal and/or treatment of your wastewater.

WAYS TO COLLECT WASTEWATER:

The following are examples of devices that may be used to contain and collect wastewater during pressure washing activities. The collection devices described below are not endorsed and are only provided as a reference tool. In addition, there may be other containment devices available, which are not listed.

Note: When working with electrical equipment in wet environments, it is important to understand and comply with applicable health/safety and electrical codes, as well as utilize appropriate safety equipment (e.g., Ground Fault Interrupters, etc.).

Berms – Berms may be used to prevent wastewater from entering a storm drain by placing a protective barrier around the storm drain inlet, thus allowing the wastewater to pool up around the storm drain prior to proper collection and disposal. This type of containment may be less effective or ineffective when the storm drain is located at the bottom of a slope and/or a large amount of wastewater is generated.



Storm Drain Covers/Mats – These devices are placed on top of the storm drain cover grate, creating a quick seal, thus preventing wastewater from entering the storm drain system. Storm drain covers/mats (magnetic vinyl mats, PVC drain covers, polyurethane mats, and others) allow wastewater to accumulate on top of it until the pressure washing activity is complete and the wastewater can be collected for proper disposal. Storm drain covers/mats are frequently used along with a vacuum device (e.g. sump pump, wet/dry vacuum, and vacuum pump) that diverts wastewater into the sanitary sewer system.



Best Management Practices For Pressure Washers

Containment Pools – A portable or temporary containment pool is another option which may be used by pressure washers to collect wastewater. Containment pools are easy to assemble, provide an immediate work area, and allow the wastewater to be collected in a manner that will prevent pollutants from entering the storm drains. Containment pools vary in size and material, and hold anything from a shopping cart to a truck and trailer.



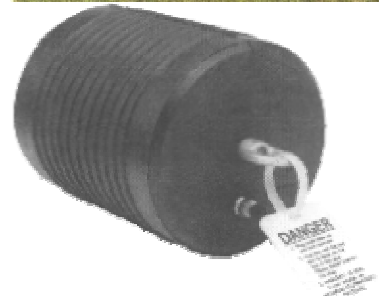
Vacuums/Pumps – Devices such as wet/dry vacuums, sump pumps, and vacuum pumps may be used to collect wastewater after pressure washing. Vacuum devices typically have an extension (vacuum boom) which allows the wastewater to be collected efficiently. In addition, many vacuum devices are designed with a second hose (e.g. garden hose) that can run from the pump to the sanitary sewer or a truck/trailer mounted holding tank, depending on disposal method.



Vacuum Boom – Vacuum booms are an attachment for the vacuum device. The boom typically rests flush on the ground and draws wastewater through small holes on the bottom of the boom. In addition, different variations of vacuum booms are available for areas with steep slopes or rough terrain.



Inflatable Pipe Plug – Inflatable pipe plugs prevent wastewater from entering a storm drain system by blocking the pipe leading from the drain inlet. Unlike the storm drain mats/covers that block storm drain grates, the inflatable pipe plug is inserted into the storm drain pipe and uses the inlet structure beneath the grate to collect the wastewater. Once inserted, the plug is inflated to make a snug fit. Once the wastewater has been contained, it can be collected and properly disposed by using a portable pump device (e.g. sump pump, vacuum pump, etc.). Note: inflatable pipe plugs should only be used in storm drains on private property. They are not authorized to be used in public storm drain inlets or pipes.



Best Management Practices For Pressure Washers

Swales –Swales are typically considered small open channels, which are located at the perimeter of a facility or parking lot, and are used to divert wastewater away from storm drains. Swales are usually sloped with a drain at the lowest point and are stabilized with either vegetation or rock. These small open channels are usually installed during the construction phase to collect, absorb, and filter wastewater and sediment, thus reducing or the amount of water entering the drain. Other types of swales include long, low points in broad paved areas, such as parking lots, spaces between commercial buildings or industrial yards. Some facilities may have swales onsite and may provide you with an additional collection option.



FOR MORE INFORMATION

Business Environmental Resource Center (BERC)
(916) 364-4110

Power Washers of North America (PWNA) <http://www.pwna.org/>

Clean Water Business Program (Sacramento)
(916) 433-6369

Cleaning Equipment Trade Association (CETA)
(800) 441-0111

City of Citrus Heights Stormwater Management Program
(916) 874-6851

City of Elk Grove Stormwater Management Program
(916) 874-6851

City of Folsom Stormwater Management Program
(916) 351-3545

City of Galt Department of Public Works (Stormwater Management Program and Sanitary Sewer)
(209) 744-7545

City of Sacramento Stormwater Management Program
(916) 433-6369

Best Management Practices For Pressure Washers

Sacramento County Environmental Health Division
(916) 875-8440

Sacramento County Hazardous Materials Division
(916) 875-8550

Sacramento County Stormwater Management Program
(916) 874-6851

Sacramento Regional County Sanitation District (SRCSD)
Industrial Waste Section (IWS)
(916) 875-6470

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