

activities. Wash water may not be purposefully collected and disposed of into landscaped areas. The reason is that soil and groundwater contamination may result. The purpose of the rules and guidelines explained in this document is to protect our waters, and it is important that pollution is not just transferred from one part of the environment to another.

Option 3: Dispose of Wash Water into a Storm Drain

Wash water generated from certain activities when no detergents or chemicals are used may be discharged into the storm drain as long as certain treatment measures are taken. Following are guidelines for discharging wash water from certain washing activities into the storm drain:

- No detergents or chemicals may be used
- Surface may not be a parking lot, restaurant back area or other surface that generates heavily polluted wash water
- Surface must be pre-cleaned, including using absorbent to clean up oils and sweeping up debris
- Water temperature must be below 110 F
- Water must be filtered to remove oil and debris before it enters a storm drain. Fine mesh screens and absorbent socks and other materials temporarily placed around storm drains may accomplish this task.
- No oil sheen may be present as wash water enters the storm drain



Option 4: Dispose of Wash Water Through an Environmental Waste Company

Discharging wash water through an environmental waste company is the best way to ensure proper treatment and disposal. This option will likely be the most expensive as most companies charge by the gallon. Wash water from some activities MUST be disposed of through an environmental waste company. Examples of such wastes include:

- pH is less than 6.0 or greater than 12.0
- Contains a pollutant that may create a fire or explosion hazard (gas, diesel fuel, etc.)
- Contains excessive solids or viscous material that could cause a blockage in a sewer line
- Contains other potential hazardous wastes, such as lead-based paint washed off a building and certain solvents and degreasing agents

A Note About Products Labeled “Biodegradable”

Biodegradable doesn’t necessarily mean “environmentally friendly”, as some product advertisements would like you to believe. The Consumers Union (publisher of Consumer Reports magazine), says there are no specific standards for the “biodegradable” claim, and no official organization exists to verify use of the claim. The Federal Trade Commission, however, has issued some general guidelines on what types of products qualify as legitimately biodegradable.

Truly biodegradable products can still harm aquatic life and water quality while they break down as well as after they break down (because of byproducts left behind). The fact is, most things eventually biodegrade; some may take many, many years. Products are typically called “biodegradable” if they break down to at least 90% water, carbon dioxide and organic matter within 6 months.

“Biodegradable” typically means that the product will not harm bacteria in sewage treatment plants, will break down **faster** than conventional products, and will break down into elements found in nature. So, the message to remember is this: “Biodegradable” products are typically better for the environment than conventional products, but they still may not be discharged into the storm drain system.

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Best Management Practices for Pressure Washers, Vehicle Detailers and Other Surface Cleaning Operations



Pressure washing, vehicle washing and other surface cleaning operations (parking lots, buildings, etc.) occur every day in Charlotte and Mecklenburg County. Because of the widespread activity, potential impacts to the environment are significant. When polluted water enters storm drains, that water flows directly to a stream or lake. The storm drain system is designed to carry only rain water and its primary purpose is flood prevention. The sanitary sewer system is separate. Those pipes carry wastewater to facilities where the water is treated.

Wash water that enters storm drains and eventually creeks and lakes is harmful because it carries oil, detergents, sediment and other pollutants. This is true even if biodegradable products are used (see p. 4 for more information on that subject). Damage to aquatic life, downstream swimming areas and drinking water supplies can result.



Local, state and federal law prohibits, with some exceptions, anything but stormwater from entering storm drains. Therefore, wash water **in most cases** cannot be discharged into storm drains or onto the ground (read further for detailed rules and guidance). Most wash water discharged into the storm drain system is considered an “illicit discharge”. Violations could result in local and/or State fines. To avoid potential violations and fines, follow the guidance information presented in this publication.

Prior to washing, follow these general practices and guidelines:

- 1) Planning
 - Determine whether the job can be done without the use of detergents or chemicals.
 - Identify all storm drains in the area.
 - Figure out in which direction wash water will flow.
 - Determine how wash water will be prevented from entering storm drains and what equipment will be needed.
 - Determine how wash water will be collected and disposed, if necessary, and what equipment will be needed.
 - Obtain all necessary authorizations and permits.
- 2) Pre-Cleaning
 - Pick up trash and debris in the wash area.
 - Use dry methods first (absorbent, rags, sweeping, etc.) to clean oil and dirt from the surface to be washed and the area where wash water will drain across. This will reduce pollutants in wash water.
- 3) Training
 - Train all employees about storm water and wastewater discharge requirements and proper techniques to comply with those requirements.

Wash Water Collection

There are numerous ways to collect wash water so it does not enter the storm drain system. The best method will often depend on the situation, and sometimes a combination of methods may be necessary. Below are some best management practices (BMPs) for collection methods, but they are not the only ones available.

BMP Vacuums/Pumps/Tanks

Equipment such as wet/dry vacuums, sump pumps, vacuum pumps and portable tanks may be used to collect wash water from a containment area. This equipment may often be needed in series.



BMP Portable containment pads

Impermeable containment areas or pads can be set up to collect wash water. They are typically set up underneath the vehicle or equipment to be washed. They are fairly easy to assemble, can be purchased or made, and vary in size and construction material. They often have a drainage outlet connected to a pump and tank system.



BMP Commercial wastewater collection systems

These systems vary greatly in size, sophistication and cost. One example is a vacuum boom, which rests flush on the ground and draws wash water through small holes and into a vacuum unit sump. Package systems are available that provide everything including a pressure washer, containment area, vacuum pump and collection tank. Self-contained water recycling systems are also available.



BMP Storm drain covers

Commercially-available covers and mats are placed on top of a storm drain grate to create a seal and prevent water from entering the drain. They allow wash water to pool around the inlet and be collected for disposal. In order to create a tight seal, mats equipped with magnets or heavy objects placed on top of the cover are recommended. Inflatable "kiddie" pools placed over a storm drain inlet and then filled with water may also produce a tight seal. It is very important to monitor the effectiveness of the cover's seal throughout the job to ensure that water does not seep under and enter a storm drain.



BMP Berms

A temporary or permanent berm made of impermeable material may be set up around a storm drain inlet to prevent wash water from entering. They may also be used to re-direct flow toward a containment area. It is important to monitor the effectiveness of the berm throughout the job to ensure that water does not seep under or flow over and enter a storm drain.



Wash Water Disposal

Several options are available for disposing of wash water. The method chosen often depends on the situation. The preferred disposal location for wash water generated during a job is at the site of generation. It is important to discuss this issue with your client. If no viable disposal option is available at the job site, you may need to transport the wash water to another location for proper disposal.

Option 1: Discharge Wash Water to the Sanitary Sewer

Sanitary sewers drain to a treatment plant where flows are treated before being discharged back into a creek, lake, or river. Treatment plants cannot handle all wastes, however. Certain discharges may damage the treatment system and consequently be very expensive to repair. Examples of wastewaters that are not allowed in the sanitary sewer in any amount without a proper permit and pre-treatment include engine degreasing and masonry acid washing wastewaters. Before beginning to discharge wash water to the sanitary sewer, contact Charlotte-Mecklenburg Utilities at (704) 336-4407 to obtain authorization and to ask about restrictions. Discharges of 100 gallons or less per day are allowed without a permit or prior notification. The same is true for discharges above 100 but below 1000 gallons; HOWEVER, pre-treatment of volumes in that range is required in order to meet sanitary sewer discharge limits for oil/grease and suspended solids. In most cases, engineered pre-treatment systems like an oil/water separator and grit settling chamber will be necessary to meet discharge limits. For smaller volumes and less polluted wastewater, filtering the water through a fine mesh and oil absorbent material (socks, booms, clay, etc.) may be sufficient. Dischargers are responsible for meeting discharge limits. Failure to comply with limits is a violation of the Sewer Use Ordinance and is subject to fines. Some places you may be allowed to discharge include a sewer cleanout, sink, toilet or floor drain. Discharging into a sewer manhole is strictly prohibited. Disposal at the owner's facility is preferred if it can be done legally and with the owner's consent. You may need to discharge at an offsite location, such as your residence or business or another person's business such as a car wash. You should obtain consent from the business owner first.

Option 2: Discharge Wash Water to a Landscaped or Natural Area

Because many surfaces and structures are surrounded by landscaped areas, water that naturally drains into landscaped areas during pressure washing of those surfaces and structures is allowed. Water from washing one vehicle may also be discharged to a landscaped area. All other wash water that runs across impervious surfaces must be handled differently. See the attached table for detailed guidance about collection and disposal practices for various washing