Table - B Prohibited Wash water Discharges to Storm Drain (Option 1) and Vegetative Area (Option 2) Consider Options 3 and Option 4 for these types off washing	
1	Mobile and stationary fleet/truck washing and detailing
2	Engine, equipment, or other degreasing
3	Cleaning equipment related to application of paint, or other chemicals
4	Restaurant back areas, grease bins, drive-thru' s, dumpsters, mobile food carts, kitchen exhaust/hood vents
5	Parking lots and parking decks
6	Fuel Islands and gas stations
7	Pressure washing of sidewalks and plazas with significant oil deposits
8	Wash water from vehicles at body shops
9	Wash water from lead or mercury painted surfaces, or other toxic materials

Option 3: Discharge Wash Water to the Sanitary Sewer

Sanitary sewers drain to a treatment plant where flows are treated before being discharged into receiving surface waters under federal and state permits. Treatment plants cannot handle all wastes, however, certain discharges may damage the treatment system and consequently be very expensive to repair. Often pretreatment, such as oil/water separation and grit separation is needed on effluent from washing operations prior to discharge to the City's sanitary sewer system. Before beginning washing operations with the intent to discharge under Option 3, **contact the City of Monroe Water Resources Department at 704-**

Wash water pretreatment prior to discharge to City sanitary sewer.

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

Discharging wash water through an environmental waste company is a good 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 explosive hazard (gas, diesel fuel, etc.)
- Contains excessive solids or viscous material that could cause a blockage in a sewer line
- Contains other potential hazardous waste, 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. Truly biodegradable products can still harm aquatic life and water quality while they break down, consuming dissolved oxygen needed for aquatic life, and may leave harmful byproducts. The fact is, most things eventually biodegrade; some may take many years. Products are typically called "biodegradable" if they break down to at least 90% water, carbon dioxide and organic matter

For additional information please call the
City of Monroe Engineering Department
704-282-4515 www.MonroeNC.org

Best Management Practices

for Vehicle Washing, Pressure Washing, Equipment Washing and other Outdoor Surface Cleaning Operations

City of Monroe Engineering

City of Monroe Engineering Department 704-282-4515

Planning to do outdoor pressure washing of buildings, parking lots, vehicle washing, or other outdoor cleaning?

Pressure washing pavement.

Vehicle washing, pressure washing and other outdoor cleaning operations are common activities in the City of Monroe. Potential impacts to the environment from outdoor washing are significant and therefore must be controlled.

Most wash water is not be allowed to flow to the storm drain system. Wash water that enters storm drains and eventually surface waters is harmful because it can contain oil, detergents, sediment' heavy metals, oxygen depleting substances, and other pollutants. This is true even if biodegradable products are used. (see note on back of this pamphlet) The storm drain system is designed to carry only rain water and its primary purpose is flood prevention.

Pressure washing pavement is not allowed.

To avoid polluting our waterways and associated violations, please follow the Best Management Practices in this pamphlet. In some isolated cases, relatively clean wash water can be discharged to the storm drain (Option 1) and other cases it may be allowed to soak directly into vegetative areas (Option 2). In other cases, the wash water must be collected and either pretreated and permitted for discharge into the City's sanitary sewer (Option 3) or collected and disposed of appropriately by an environmental company that specializes in liquid waste (Option 4).

Outdoor washing is an Illicit discharge of wash water to the storm drainage system, which is not allowed.

Local, State and Federal Law Prohibits…….

most wash water discharged into the storm drain system. These discharges are considered to be illicit. Violators could face local and/or State fines. The City of Monroe's Stormwater Ordinance states:

> "*No person shall cause or allow the discharge, emission, disposal, pouring, or pumping directly or indirectly to any stormwater conveyance, the waters of the State, or upon the land in manner and amount that the substance is likely to reach a stormwater conveyance or the waters of the State, any liquid, solid, gas, or other substance, other than stormwater; …*"

The ordinance exempts "individual residential and charity car washing". A permit is needed for most commercial operations such as mobile vehicle washing operations.

Contact the City's Permit Center at (704) 282- 4524 for a permit application.

Allowable Wash Water Discharges (Options 1 and 2)

Several options are available for disposing of wash water. The method chosen depends on the situation. The preferred disposal location for wash water generated during a job is at the site of the generation. It is important to discuss this issue with your client. If no viable option is available at the job site, you may need to transport the wash water to another location for proper disposal. **Table A** below provides guidance with the allowable wash water discharges under Options 1 and 2. **Table B** below lists specific restrictions that are not allowed under Options 1 and 2.

Option 1: Discharge of Water into a Storm Drain

Example of Best Management practice being used, Filter sock protecting storm drain under Option 1.

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

- NO soaps, detergents or chemicals may be used.
- Water temperature MUST be below 110 degrees F.
- Surface MUST be pre-cleaned, including using absorbent to clean up oils and sweeping up debris.
- 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.

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

Because many surfaces and structures are surrounded by landscaped areas, wash water from some operations that naturally drain directly into landscaped areas and soaks into the soil during washing of those surfaces and structures is allowed. Areas in close proximity to drainage ways and surface waters may not be allowed. Wash water may not run over impervious surfaces or be purposefully collected and then disposed of directly into landscaped or vegetated areas.

Table – A Allowable Wash water Discharges Under Options 1 and 2
(refer also to prohibited discharges in Table B)

	Washing Activity	Option 1 Allowed to Storm Drain	Option 2 Allowed to Vegetative Area
Residential			
1	Individual residential vehicles	Yes, but avoid discharge to storm drain, if possible	With or without soap* Soap to be biodegradable, non-toxic
2	Pressure washing driveways, sidewalks and patios	Without soap*	With or without soap* Use biodegradable, non-toxic product when possible
Commercial Vehicles, mobile car washing including car sales lots, body only no undercarriage or engine cleaning (excludes body shops and tractor trailers)			
3	Vehicle rinsing without soap*	Yes	Yes
4	Vehicle washing with soap*	No	Yes, limited to one vehicle per day
Commercial Pressure Washing (excludes parking lots, restaurant back area or other surface that generates heavily polluted wash water)			
5	Sidewalks and plazas - without soap*	Only if no significant oil to be cleaned	Only if no significant oil to be cleaned
6	Building exteriors, walls, fences, glass and structures - without soap* for dirt and plant growth removal	Yes	Yes
7	Building exteriors, walls, fences, glass and structures to remove paint	No	With or without soap* No lead or toxic paint Must collect paint chips and debris
8	Masonry acid washing	No	Allowed, but may harm plants/vegetation

* "soap" includes soap, detergents, and other washing/rinse additives. Use biodegradable, non-toxic products. See back page regarding "biodegradable. Refer to front page regarding the potential harmful effect of biodegradable products to surface waters.

Wash Water Collection and Disposal (Options 3 and 4)

There are numerous ways to collect wash water so it does not enter our storm drain system. The best method will often depend on the situation, and sometimes a combination of methods may be necessary. Following are some of the Best Management Practices (BMPs) for containment and collection methods. Other methods may be acceptable.

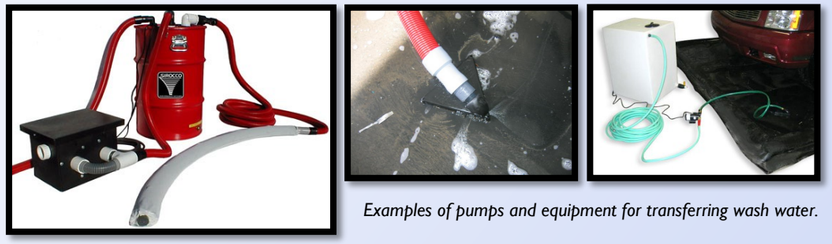
Portable Containment Pads

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.

Acceptable wash water containment examples.

Vacuums, Pumps, and 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 my often be needed in series.



Examples of pumps and equipment for transferring wash water.

Commercial Wastewater Collection Systems

Wash water collection and removal system examples.

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.

Absorbent booms can be used to protect storm drains. (Spill911, no date)

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.

Storm Drain Covers

Sealing a storm drain inlet during washing operations.

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.

The collected wash water must be disposed of using Options 3 or 4.