

Power
Washing
Pressure



Capture &



CITY OF KNOXVILLE

Targeted Constituents

● Significant Benefit		◐ Partial Benefit		○ Low or Unknown Benefit	
● Sediment	● Heavy Metals	○ Floatable Materials	◐ Oxygen Demanding Substances		
◐ Nutrients	● Toxic Materials	● Oil & Grease	○ Bacteria & Viruses	○ Construction Wastes	

Description

The purpose of this BMP is to reduce pollution impacts from power washing, pressure washing, and steam cleaning of buildings, roofs, fences, floors, driveways, parking lots, etc. These practices dislodge pollutants such as grease, oil, paint chips, sediments, and food particles through the use of high-pressure water sprays, water containing a cleaning solution, or by heated water. Prevent or reduce the discharge of pollutants to stormwater from power washing activities by: employee training and education, identifying alternatives, and controlling washwater.

Approach

Approach Pollution from these types of washing activities comes from two sources

- Cleaning solutions
- Pollutants and dislodged materials

Cleaning solutions generally contain chemicals that are able to dissolve and dislodge grease and oils. These cleaning solutions are very dangerous to aquatic life and are likely to cause fishkills. It should be noted that all soaps, even biodegradable soaps, are harmful to fish and other aquatic organisms.

Pollutants and dislodged materials will also pollute the aquatic environment and harm fish. Materials such as paint chips or automotive fluid leaks are toxic to all creatures.

Alternatives to Power or Pressure Washing

The primary approach for most applications is to avoid the need for power washing, pressure washing or steam cleaning by using other methods such as:

- Dry methods for cleanup of liquid wastes and dry materials
- Scrapers for removing mud, dirt, or old paint
- Non-pressurized water in small amounts and prevent discharge to storm drain

Dry methods for cleanup of liquid wastes include the use absorbents and dry rags to contain the liquid. Then the area can be cleaned with a small amount of water using a mop or a scrub brush. Small amounts of washwater can generally be discharged to the sanitary sewer system if it does not contain hazardous chemicals or toxic materials.

Scrapers should be used for removing old paint from buildings or moss from rooftops. If the old paint contains lead or tributyl tin, then it is considered a hazardous waste and must be disposed at a facility licensed to handle hazardous waste. Use tarps and groundcloths to collect paint chips, then carefully verify that there are no paint chips on the

ground or other surfaces prior to washing.

Squeegees may be appropriate for cleaning mud or dirt from some surfaces. Scrubbing with sponges or rags will ensure that the surface is cleaned with the correct amount of pressure.

Manage washwater appropriately. Use sandbags, portable berms or other means to direct the washwater so it flows to one of the following:

- a grassy or vegetated area (if there are no oil or hazardous materials)
- a sump or an enclosed area where washwater will be trapped and then pumped for transport to an appropriate disposal location

The storm drain system can also be protected using water-filled berms or water-filled storm drain covers. These types of barriers are reusable and generally conform to the ground or pavement surface, creating a tight seal.

Do not dump mop water or carpet cleaning water outdoors. It can be poured into the sanitary sewer using an indoor drain, as long as it is not contaminated with hazardous materials. Mop water or carpet-cleaning water may need to be filtered if it contains large particles or sludge.

Power or pressure washing is very inefficient in water usage because it is not evident how much pressure is needed to clean the surface. This is particularly true for rental equipment or for recently purchased equipment. Someone may try to clean a building for an hour with a pressure washer prior to concluding that the pressure washer is ineffective. Therefore, it is best to examine all alternatives prior to using a pressure washer or steam cleaner.

Commercial Power Washing, Pressure Washing and Steam Cleaning

Use a licensed commercial washing business, which has modern equipment. Verify that the business protects the environment by isolating the area to be cleaned from draining into storm drains. A commercial washing business must collect washwater and dispose of properly. Oftentimes, the washwater will be filtered and recycled.

It is the responsibility of the property owner to make sure that a mobile washing service manages washwater properly. Mobile washing services are generally required to haul the washwater and rinsewater offsite; pretreatment may be required prior to discharging into the sanitary sewer system.

Limitations

- It is difficult to estimate the effectiveness of power or pressure washing, prior to attempting the effort.
- It takes a substantial effort to control washwater generated on a rooftop or the side of a building

References

31, 33, 34, 35, 99, 103, 138 (see BMP Manual Chapter 10 for list)