



# Understading the PWNA's BMPs

by Allison Hester, Editor

In the early 1990s, the pressure washing industry was “in turmoil.” The Environmental Protection Agency (EPA) was largely requiring pressure washing contractors to use some sort of expensive wastewater recycling equipment, and it was putting them out of business. Contractors in the Miami and San Francisco areas stopped power washing altogether for a short time, and the trend was going to spread – unless someone did something to change it.

Robert Hinderliter, who at the time owned the Delco Cleaning Systems of Ft. Worth (which is now PowerWash.com), disagreed with the EPA’s costly requirements, believing instead that the easier it was for contractors to conform to regulations, the more likely they would be to comply with the Clean Water Act.

“This radical thinking was not widely accepted by our industry at the time,” he explained.

Hinderliter did not have the finances to fight the regulators in court, and even more, it was a political problem. “I was not a political person.” But he knew he needed to do something, so he contacted his local AHJ (Authority Having Jurisdiction), who took Hinderliter under his wing and taught him the in’s and out’s of the regulatory community.

The Clean Water Act states that “no person shall throw, drain, or otherwise discharge, cause or allow separate storm sewer system (a.k.a. “MS4”) any pollutants or waters containing any pollutants, other than storm water.”

However, Hinderliter soon learned that the Clean Water Act was “basically interpreted by everyone’s economic revenue stream and that our industry was being controlled by the coin-op

carwash association and the liquid waste haulers.”

He also learned that individuals held little authority when it came to working with regulators; they wanted to deal with an industry trade association. “I tried to get the equipment manufacturers to open up their association to everyone, but they would not do it.”

So in April 1992, Hinderliter used his company’s newsletter to announce he was wanting to form a contract cleaning trade association – which became the Power Washers of North America (PWNA) – to fulfill the needed trade association role for contract cleaners. It took a few years, but eventually regulatory agencies began to listen.

Hinderliter arranged a compliance conference that was attended by 40 environmental regulators – national, state and local – and 100 contract cleaners. “There was a lot of discussion among everyone, AHJ to AHJ and contractors to AHJs. The Feds, State, and Locals decided what each would be responsible for and basic structure and BMPs (Best Management Practices).

Hinderliter and the PWNA fought hard for some aspects of these BMPs – such as raising the defining temperature of “hot water” to 110 degrees from the initial description, which was essentially “anything hotter than tap water” as the municipalities initially called for.

The end result was a set of BMPs establishing that the ordinance should be “reasonable, rational, and logical.” The Model Ordinance is just that, a model for the municipalities to follow, not a requirement. Ultimately, each municipality has the right to create their own regulations.

Additionally, these BMPs are for regular

maintenance cleaning, not for the purpose of cleaning hazardous materials. Another important note is that if your discharge does not reach the waters of the United States, there are no requirements by the Clean Water Act.

While the PWNA guidelines list specific BMPs for a wide variety of cleaning applications some basic elements are consistent. These are as follows:

## Always Preclean

This means before any power washing begins, contractors should collect debris (dirt, sand, leaves, twigs, etc.) by sweeping with a broom, using a leaf blower or vacuuming and disposing into a trash receptacle. The gathered debris should never go to a sanitary sewer or storm drain. Finally, any oil and grease spots should be pretreated with an oil absorbent clay (such as kitty litter) and then thrown away in a trash receptacle.

## Always filter wash water before discharging to the sewer

For debris, this may mean running through a 20 mesh (or smaller) screen. A 20 mesh screen is about the equivalent of a pair of pantyhose. Hydrocarbons (grease/oil) need to be run through an oil absorbent filter/oil sock or an oil/water separator such as an oil absorbent boom, sand trap, grease trap, clarifier, recycling system, etc. After filtering the water, there should be no oil sheen (i.e., multi-colored water) visible.

Sanitary sewer is the PWNA's first choice for disposal in most situations. Because studies found that "the amount of wastewater delivered to the sanitary sewer was insignificant compared to the total amount of wastewater the POTWs are handling," the PWNA made this their first choice for most types of disposals. Some cities require a license to discharge to the sanitary sewer; others do not. Start with your local Public Works Department to find out whether a permit is required. (They may direct you to another department).

Additionally, discharge must be in compliance with local regulations and limits, which varies by municipality. Use a pH test to ensure the pH of wash water is between 5.0 and 12.0 and below 150F; solids - less than 250 mg/L, petroleum -less than 250 mg/L. Finally, filter "using the best available method of convenience that removes the largest amount of contaminants." The best available methods of convenience may be a sand trap, grit trap, grease trap or clarifier, or it may require discharging to some sort of sink, toilet, indoor floor drain, or sanitary sewer clean-out stub.

## Discharging to a landscaped area is the PWNA's second choice.

As mentioned before, it is true that if your wastewater discharge does not reach the waters of the United States, there are no requirements by the Clean Water Act. The PWNA considers discharging to a landscaped area an acceptable choice if guidelines (below) are followed, although sanitary sewers remains the preferred method. "If you discharge pollutants long enough to the same landscaped area, you're going to contaminate the soil, and potentially make it hazardous," Hinderliter explained. "The sanitary sewer is the best place because that goes to the City municipality, and they have an NPDES permit to discharge to the waters of the United States."

First, it's important to note that on-property washwater discharge can only occur on the property where the washwater is generated. To discharge to landscaped areas, you should first obtain the property owner's permission and ensure that the discharge volume is small enough to soak into the ground without running into the property. Limit your discharge to 1,000 gallons per acre, per month. Discharge only at the property where the wash water was generated. Do not discharge repeatedly to the same area because doing so can contaminate the soil and groundwater, damage plants and cause other problematic conditions. Ensure the pH of the wash water is between 6.0 and 9.0.

## The third preferred method is to recycle wash water then discharge to the sanitary sewer.

“Recycling really should be avoided if at all possible, as this concentrates the waste,” Hinderliter explained. In other words, recycling wash water has the effect of concentrating the contaminants and pollutants, and the POTW (Publically Owned Treatment Works) usually won’t accept concentrated wastewater. In fact, if recycled long enough, it can become hazardous waste, which requires contractors to have a hazardous waste haulers permit. If the water is recycled and collected for reuse, all discharge locations need to be reported to the Sanitary Sewer Department in advance, and should be tested annually and reported to the Sanitary Sewer Department as required.

## Discharging to storm drains is not recommended, but there are times it may be allowed.

Washing with cold water (less than 110 degrees F) without use of chemicals is considered no worse than a “rain event” and may be discharged to the storm drains if the surface cleaned has no oil, grease, or similar contaminants. In some cases, hot water without chemicals may be allowed to the storm drain if the AHJ preauthorizes the cleaning.

“Anything that physically, chemically or biologically changes the water is considered a pollutant,” explained Clifford M. Lawson, P.E., Supervisor of the Permits Branch for the Bureau of Water Pollution Control, Nevada Division of the EPA, who recently spoke at the Gamble Garage Cleaning Event in Las Vegas. “Elevating the temperature means you’re creating pollution.”

“High Pressure Power Washing with hot water or chemicals dislodges more contaminates than a rain event and cannot



Robert Hinderliter (second from left) joins with members of the State of Nevada’s Dept. of Conservation & Natural Resources, Division of Environmental Protection Agency, following Clifford M. Lawson (middle), P.E.’s talk during last week’s 2013 Gamble Garage Cleaning Event. Also shown: John Tornabene (left), Jim Gamble (second from right) and Nigel Griffith (right).

be treated the same. The dislodged items need to be collected before being washed into the MS4 (storm sewer), which is not designed for the increased load. The extra dislodged items will increase the TSS and turbidity of the water and impair living organisms. Chemicals are nutrients and when added to the MS4, they unset the natural habitat,” said Hinderliter.

## The Impact

The result of the PWNA’s Model Ordinance in 1995 was that expensive recycling equipment was no longer needed. “I showed contractors how they could comply for a few hundred dollars, not thousands,” Hinderliter explained. In fact, the PWNA’s BMPs provided plans “that everyone with any talent could copy,” publishing remediation basics so contractors could build their own systems if they so chose. All of this information has always been free. “I only get orders for wastewater equipment from contractors who determine they have more money to buy the equipment premade than time to build it themselves.”

The PWNA’s BMPs are available online at [pwna.org/water\\_reclaimer.php#updatedbmp](http://pwna.org/water_reclaimer.php#updatedbmp). The PWNA also is offering its environmental certification course several times throughout the year (visit [www.ecleanmag.com/events](http://www.ecleanmag.com/events) for dates), as well as at its annual convention, October 17 through 19, in Orlando. To learn more, go to [www.PWNA.org](http://www.PWNA.org).