



**The Monthly Dirt**  
 A monthly newsletter on the California  
 Construction General Permit

# the clean sweep

**The most cost effective and efficient BMP but also the most underrated**

Not only is street sweeping one of the most cost effective and efficient BMPs, but it is probably one of the oldest! Street sweeping was first invented by English engineer, inventor, and philanthropist Joseph Whitworth who created the first model of a mechanical street sweeper in 1843. His street sweeper was horse drawn and made up of a large drum covered in stiff wire bristles that would brush debris (horse poop) onto an elevator system and into a storage area. In 1849, C.S. Bishop brought a similar invention to the United States. Today, mechanical sweepers and vacuum/air sweepers are common sights at construction sites in an effort to control trackout and erosion issues. This month’s edition of **The Monthly Dirt** highlights a common but largely underrated BMP – street sweeping.

**Why is street sweeping important?** Aside from aesthetic purposes, street sweeping matters for a variety of reasons. When a lot of earthwork is occurring at a site with vehicles and equipment entering and exiting the site all day, trackout of sediment is a concern – especially during the wet season when it can get liquified in a storm event and wash down the drain. But it’s not just dirt that will get washed or blown away from trackout, things like organic debris, metals, trash, microplastics, toxics, bacteria, and more will also be in the mix causing pollutant concerns. Of course at most construction sites, the main culprit is sediment. Sediment could be coming from trackout, run-on water, wind erosion, or other construction activities generating particulate matter. Fortunately, sediment is almost always visible, and can be cleaned up fairly easily. Interestingly, many times we have noticed a direct link between total suspended solids (TSS) and other pollutants – high TSS tends to correlate with high concentrations of metals, nutrients, and toxic substances. So, staying on top of any loose sediment, dust, or dirt on your site can have the added advantage of keeping other pollutants under control. Microplastics are

becoming a big water quality concern, and even though it is not currently a regulated monitoring parameter in the Construction General Permit, street sweeping will serve a dual purpose of removing these small particles while cleaning up tracked out sediment. Microplastics at a construction site can come from tire wear, construction activities that include grinding or cutting of

plastics, insulation shedding fiberglass filaments, fibers from reinforced concrete, paint, and, many times, even from the BMPs themselves. This up-and-coming pollutant has vast detrimental effects on wildlife and human health and because of plastic’s lack of degradation, it’s only accumulating into a bigger problem as time progresses.

A new study in the journal *Environmental Science and Technology* says it's possible that humans may be consuming anywhere from **39,000 to 52,000** microplastic particles a year. With added estimates of how much microplastic might be inhaled, that number is more than **74,000**.

\*A microplastic particle is any piece of plastic smaller than five millimeters, but many are much smaller and only visible under a microscope.

**National Geographic**

**Sweeping vastly reduces pollutant concentrations.** The more particulate matter collected, the better pollutant removal you achieve. But, because of the heavy-duty nature of trackout due to equipment and traffic compacting dirt into the paved surfaces near the entrances/exits of your site, selecting the right type of street sweeper combination is crucial to getting the best BMP. Some sweepers will greatly assist with pollutant removal, while other sweepers tend to just move a problem to another location or make a bigger problem.

**To sweep or not to sweep?** With the new 2022 Permit that just took effect in September, we see an interesting change in sweeping requirements for construction sites. Under the 2009 CGP, LUP Types 2 & 3 and Risk Levels 2 & 3 are required to inspect all access roads **daily** for trackout, and on a **daily** basis and prior to any rain event are to remove any sediment or other built up construction related materials by sweeping or vacuuming. However, under the 2022 CGP, those requirements seem to have softened quite a bit. The only requirement the 2022 CGP has for sweeping is... **“Risk Type 2 and 3 dischargers shall remove any excess sediment or other construction activity-related materials that are deposited on the impervious roads by vacuuming or sweeping prior to any precipitation event.”** Sweeping is **only** required prior to any precipitation event. No longer is a time interval specified. While some may view this as a lessening of the requirements, the opposite may actually be true. Prior to a precipitation event, hourly removal of roadway deposited sediment may be necessary. So, don’t get hung up on the

frequencies, bottom line—if there’s sediment on the roadway, it needs to be swept up. But, keep in mind many sites are still under the 2009 CGP and will still need to be inspecting and sweeping on a **daily** basis until August 31, 2025. So make sure to keep track of which Permit your site falls under. Plus, you will need to be compliant with the Air Pollution Control District’s requirements for dust control as it relates to trackout. For example, in the San Joaquin Valley Air Pollution Control District [the use of blower devices or dry rotary brushers or \(kick\) brooms for the removal of trackout is prohibited](#). Caltrans also prohibits the use of kick brooms because these devices usually only move the dust or sediment sources to another location (another place on the project or into the air). Check the requirements of your area to make sure that you will be meeting both the CGP and Air District dust control requirements.

During [Storm Water Awareness Week](#), a workshop was given by Ranger Kidwell-Ross with World Sweeping Association and Roger Sutherland with Cascade Water Resources LLC who have spent years developing models and studying the benefits of street sweeping and how it helps with water quality. They highlighted the efficiency, cost effectiveness, and pollution abatement data from street sweeping. They are currently involved in a study with the City of Santa Barbara and the Sea Grant program to study the effects of street sweeping on microplastics. We have linked the workshop below. They also have developed a [website](#) with hundreds of articles on street sweeping. Linked here is a very insightful article about things you should be aware of

as a construction site when it comes to contracting a sweeper for your site. [Construction Sweeping: Safely and Efficiently](#)

**Do’s and Don’ts of Street Sweeping:**

**Don’t sweep in the rain.** Sweeping prior to a rain event is required by both the 2009 CGP and 2022 CGP. But sweeping during wet conditions, besides not being common sense, can actually be more detrimental than beneficial. Sweeping during a rain event will aggravate and loosen the particles, so they are more readily washed down the storm drain or into a nearby waterway during a rain event that produces runoff. It would be better to sweep both before and after a rain event than to attempt to sweep during wet weather. Plus sweeping after a rain event will clean up any erosion that occurred due to runoff and help get a handle on trackout.

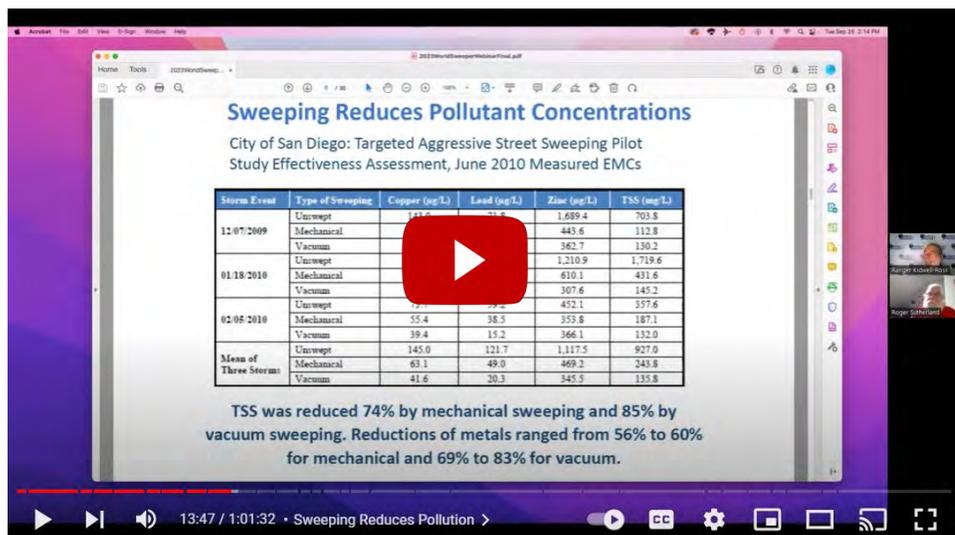
**Do use the right equipment.** Sweepers come in different forms – mechanical broom sweepers, vacuums, air sweepers, or combinations of those things. For construction sites with bigger amounts of sediment trackout which will become adhered to paved surfaces fairly easily, it’s necessary to have a mechanical broom component on the sweeper you use to help loosen any caked soil before using an air sweeper or vacuum to suck the sediment up.

**Do identify the resource in the SWPPP.** If street sweeping is so important, why is it so seldomly incorporated in the SWPPP other than to state “Perform Sweeping”? If the SWPPP is going to be an useful resource, we need to provide more information than that. Hey QSDs, why not provide in the SWPPP the name and phone number for the street sweeping sub-contractor to be used on the project. That way the phone number will be nice and handy the next time sediment is observed on a paved surface.

**Please contact us if you have any questions ...**

**The Monthly Dirt**

**Newsletter Editor:**  
**John Teravskis**, QSP/QSD, CPESC, WPCM, ToR  
[jteravskis@wgr-sw.com](mailto:jteravskis@wgr-sw.com) (209) 334-5363 ext. 110  
 or (209) 649-0877  
**Technical Questions about Environmental Compliance? Call ...**  
**Mike Lewis**, QSP, CESSWI, WPCM  
 (Northern California) [mlewis@wgr-sw.com](mailto:mlewis@wgr-sw.com),  
 (209) 334-5363 ext. 116  
**Gray Martz**, QSP/QSD, PG (Southern California)  
[jgmartz@wgr-sw.com](mailto:jgmartz@wgr-sw.com), (562) 799-8510 ext. 1002





# || thankful ||

Give thanks this Thanksgiving with a grateful heart.            Psalm 86:12

A rustic Thanksgiving table setting featuring pumpkins, pomegranates, apples, lemons, and lit candles. The table is set with light blue plates, gold cutlery, and wine glasses. The background is a dark wooden surface.

FORGE

thanksgiving sale.  
*25% off online training*

use the code THANKFUL25 at checkout. valid thru 11/23/23

**Is your  
site rain  
ready?**





## Create the “one of a kind” landscape of your dreams!

Our innovative, landscape retaining wall block system is designed for ease of shipping, handling, and installation. Build retaining walls up to 5' tall with full size retaining wall blocks that cool the environment and create green-space and habitat.

- Varden Living Retaining Wall Blocks weigh 3 pounds each, saving time and backache
- Save on storage space with our stackable blocks and innovative packaging
- Build up to 5' tall with these full size retaining wall blocks that cover 1 sf each
- Turn your retaining wall need into a lush landscape garden by planting into the gaps
- Efficiently delivered to your door by common carrier like other daily packages

Specifications: 15" wide by 6" high x 14" deep modules

Qty: 250 Blocks + 500 Side Rails

Pallet: 48" x 48" x 66" @ 790 lbs.

Class 100

FOB Houston, TX

Verdtech, Inc. 2641 LaSalle Street, St. Louis, MO, 63104 | 314-279-8905  
[www.verticalgardensupply.com](http://www.verticalgardensupply.com) | [info@verdtech.com](mailto:info@verdtech.com)



# Need a Construction SWPPP?

*let us help!*

email QSD John Teravskis for more  
information at [jteravskis@wgr-sw.com](mailto:jteravskis@wgr-sw.com)

# SWPPP RADIO

subscription based & available on *Apple Podcasts* and *Spotify*  
*\*complimentary free episodes available now*

