

Editor's Note: This month's newsletter article was written by guest writer Matt Lewis. Matt is a certified QSP and CISEC inspector and works for WGR Southwest, Inc. at the Lodi, California office.

What's the deal with concrete washouts, and why is it so hard to keep them in compliance? Well, they actually aren't hard to control if the site has the proper equipment for the job, and if the crew stays proactive in containing concrete waste. Our headline picture of a hay bale and plastic washout is one of the EPA's worst nightmares—and a far cry from being a controlled washout. In this case, the washout containment failed within 48 hours of installation.

Concrete washout is also a tricky subject because it's admittedly a little confusing. I can't tell you how many times I've had a conversation with a project superintendent that goes something like this. **Superintendent:** "We're going to lay a slab of concrete here tomorrow, so why can't I wash out the concrete truck where the slab is going to go? After all, that can't be any worse for the environment than the huge slab of fresh concrete I'll be pouring tomorrow." **My typical response:** "That's a

valid question, for sure, and from a scientific standpoint, there's no evidence that concrete washout is any more harmful to soil than a large slab of concrete. But that's not the point. The point is the Construction General Permit expressly forbids concrete washout from discharging to underlying soil and the surrounding areas."

Concrete is one of the most used products on earth; some might say it's second only to water. Concrete is incredibly high in alkalinity and can be quite harmful to exposed skin, and (theoretically) to exposed topsoil. This is one of the main reasons why concrete installation and washout activities are monitored so closely by inspectors, especially considering how common it is to see non-compliant washouts on almost every job site. But concrete washout doesn't have to be difficult. It can be as simple as a couple of on-site kiddie pools, disposable washouts from companies like Outpak (check out their heavy-duty kraft fiberboard washouts and their all-weather poly propylene washouts), or a 26'x8' steel washout container from a concrete washout contractor. The size of your washout really depends on your site, budget, and the volume of concrete being poured. But regardless of size, a compliant concrete washout needs to be readily available for on-site crews at all times.

Cleaning Up Washout Spills: To clean up a concrete spill you don't have to be a rocket scientist; you just need to be fast-acting. If a spill happens, the best solution is to grab a shovel. Dig out the spill, digging 6-12 inches below and around the spill, and dispose of the material into your on-site washout. If your site doesn't have a washout, make sure that the cement truck operator washes truck, chute, and tools off-site, and not onto the surface of your job site.





I've had many conversations with cement truck operators regarding their cleanup that usually go along these lines: **Operator:** "It's just aggregate, what's the big deal if I leave it on the exposed soil?" QSP: "Yes, understood. But there are procedures and containment options for you to clean your equipment, and the storm water regulations clearly state that concrete washout must be contained and cannot discharge onto soil or the surrounding area."



If you're looking to show carelessness for your jobsite or the environment, I'm not sure there is a better way than to allow uncontrolled or uncontained concrete washout. One of my favorite mottos is: "The way you do anything is the way you do everything." If you show respect for your job-site and for the environment, you will certainly be shown due respect from your local inspector.

Resources: Outpak Washout is a great resource for acquiring the right supplies for your project's needs. Their products are designed to withstand the toughest environments, coupled with the incredible convenience of their product's installation and storage capabilities. https://outpak.com/

Another great resource for the disposal of any type of construction waste, including concrete, is the Construction & Demolition Recycling Association (CDRA). Their website has a great feature that allows anyone to search for construction & demolition waste recycling centers in your local area. Staying in compliance is just a few clicks away... https://cdrecycling.org/directory/ -MD

Green Concrete

Manufacturing cement, the active ingredient in concrete, contributes as much as 10 percent of the world's total CO₂ emissions. That figure can be reduced by using concrete waste materials in production of concrete as partial or full replacement of natural materials like sand or aggregates. Reuse of such materials reduces the extra load on the landfills for waste material disposal, and is less expensive to manufacture. Link: https://theconstructor.org/concrete/green-concrete/5566/

Advantages to Green Concrete:

- It has good thermal resistance and acid resistance.
- Green concrete reduces environmental pollution and CO₂ production.
- It has better workability than conventional concrete.

Disadvantages to Green Concrete:

- In the eco-friendly concrete, the cost of the reinforcement increases with the use of stainless steel.
- Water absorption is high compared to conventional concrete.
- The green concrete has less split tensile strength than the ordinary concrete.

2020 Training Events

We're a month and a half into 2020, and we've already had one successful training event. Did you miss it? Don't worry—we've got plenty more coming up. Click the links below to sign up for the next classes.

February 20: Storm Water Sampling School Click here to register.

March 19: Storm Water Treatment School

April 28—30: QSP/QSD Class. Registration

May 25—31: PDU Week

June 4: BMP Roundup

July 28—30: QSP/QSD Class

August 14: Kayak Tour of the Lower Mokelumne River Watershed

Sept. 21—25: Storm Water Awareness Week

October 27—29: QSP/QSD Class

November 12: BMP Roundup

December 10: Storm Water Sampling School

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Please contact us if you have any questions ...

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FILTREXX SILTSOXX COMPOST SOCKS

Yeah, we put Filtrexx SiltSoxx in all our ads. Know why? Because these compost socks are one of the best BMP products that we've found. They're easier to install and more durable than fiber roll and silt fence, largely due to the Filtrexx mesh material. They also have a wide variety of uses, from erosion and sediment control, to industrial drain inlet filtration. And that compost though—it might be an understatement to say we're a fan, after what we've seen it do for countless jobsites and industrial facilities. The Filtrexx SiltSoxx we sell in our warehouse are made locally in California, using natural recycled material for the compost.

18-piece pallet: \$440.00

HORNET'S NEST DRAIN INSERTS

You probably won't find a more economical BMP than these orange-and-black drain insert bags. They're easy to install, too, and they will fit (almost) any drain size you throw at them! And if they don't fit, well, we've got bigger ones that we can sell you for a bigger price. The sediment bag traps and retains larger sediment and trash particles, and the oil absorbent pillow (available for an additional cost) soaks up any hydrocarbons that might be surfing around on your storm water. Just make sure not to install these drain inserts at any of your sample points. Disturbing the insert to collect a storm water sample can release a bunch of trapped sediment right into your sample bottle. These drain inserts are made locally in Lodi, CA and sold at a wholesale price by us.

\$49.50 each (\$66 with oil pillow)



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