

seedy business

choosing seed for hydroseeding

The Monthly Dirt

A Monthly Newsletter on the California Construction General Permit
By WGR Southwest, Inc.



The concept of hydroseeding is becoming more and more popular every day. Even though the technology has been around for decades, the stricter storm water regulations are leading people to discover this amazing technique that can stabilize and prevent erosion on even the trickiest job sites. However, for those of us who are tasked with developing Storm Water Pollution Prevention Plans and BMP strategies, our specifications for hydroseeding many times tend towards a vague mention of "Hydroseeding, applied in accordance with manufacturer's instructions." But what seeds should be planted? What should the application rate be for the chosen seed mix? What if the project is in a sensitive area where only native plants are allowed? Even the CASQA EC-4 cutsheet doesn't provide much help in answering these specific questions. So in this issue of **The Monthly Dirt**, we are going to dig deeper into seeds (pun intended).

You may already know this, but it's important to understand the difference between hydromulching, hydroseeding, and hydraulic seeding. It's not uncommon to hear these terms used interchangeably, even though they refer to completely different techniques. **Hydromulching** involves applying a slurry of water, a mulch product (usually made from wood fiber), and often a tackifier, to problematic areas in an effort to prevent soil erosion. **Hydroseeding** is much the same as hydromulching, except that a seed mix and fertilizer are added to the hydromulch slurry. **Hydraulic seeding** sounds similar to hydroseeding, except that the seeds are applied without the mulch product, tackifier, or fertilizer. Since there is nothing holding the soil in place until the seeds germinate, hydraulic seeding is not considered an effective erosion control measure until the plants reach maturity.

So, you're writing a SWPPP, and you come across a perfect scenario for hydroseeding. Well, now what? Which seed mix should you specify? Should the mixture be applied with mulch and fertilizer, or not? Let's start with the first question. The choice of seed (or seed mix) depends on quite a few factors. First, it's important to determine the **climate and soil type** of the project location. California is a very diverse state – within a few hours, you can drive to the rugged Sierra Nevadas, the fertile Central Valley, the beaches of Southern California, or the wastelands of the Mojave Desert. Plants that thrive in the humid San Diego climate will not last long in the Lake Tahoe area (nor would you want San Diego plants in Tahoe – but more on that later). You will also want to consider the **slope of the area to be hydroseeded**. Not all plants grow well on a slope, and depending on how steep the slope is, the hydroseeding may

fail without some form of reinforcement. **Will the area be irrigated?** Many seed mixes are designed with construction and erosion control in mind, and usually require little (if any) irrigation. If the application area can handle it, irrigation will often extend the growth time of the plants for a longer green period. Another important consideration is the desired **longevity of the hydroseeding**, and whether you need the plants to reseed themselves. Some seed mixes are better at reseeding than others, and many times irrigation is recommended to help get a satisfactory reseeding. Probably one of the most important questions to consider when choosing a seed mix is whether **native or non-native plants** should be used. Native landscaping is becoming very popular in California, and native plants would likely be preferable in many cases, especially if the longevity of the hydroseeding application is longer than a month or two. In some sensitive areas, native species may be required for hydroseeding applications. To see an intuitive worksheet on selecting appropriate seeds for your project, check out [this page on specifying seed and plant species](#) on the CalTrans website. The page does a great job of walking you through all of the considerations mentioned above (and a few we haven't talked about here), and provides links to some handy seed selection tools.

But here's one last consideration before you specify a seed mix. Say you've found suitable erosion control seed mixes from two separate suppliers. One supplier is charging \$2.95 per pound, while the other is charging \$6.00 per pound. Most people would choose the \$2.95 product, assuming that it's the better deal. Or is it? You may be saving a little money by going with the cheaper product, but you might also be sacrificing quality. The seed industry uses a term called "Pure Live Seed,"

or PLS – this is the percentage of the seeding mix that is actually viable seed, versus the percentage of the mix that is essentially of no value. A higher PLS percentage means a higher rate of germination, and consequently requires less bulk seed. For instance: the first supplier may be selling seed that is only 45% PLS and requires an application rate of 60 lbs. per acre, while the more expensive supplier may be selling seed in the 80% PLS range which only needs to be applied at 40 lbs. per acre. So even though you may be paying more per pound for seed from the second supplier, you won't have to buy as many pounds of seed, which may end up saving you money.

So, when specifying hydroseed in a SWPPP, you are going to have to do your homework. It's always a good idea to talk to your preferred hydroseeding contractor or seed supplier (or if you don't have any, check out the list below), and follow their recommendations. Hydroseeding is a great technique for preventing and controlling erosion, but it is also a little on the expensive side. If you're planning on specifying this BMP in a SWPPP, make sure you do your research and specify the right product and application rate. Even though it may be expensive, it sure costs less than having to redo it because the plants didn't take. Your client's pocketbook will thank you. **MD**

Hydroseed Suppliers and Services

Seed suppliers:

- Granite Seed – www.graniteseed.com
- Larner Seeds – www.larnerseeds.com
- Pacific Coast Seed – www.pcseed.com
- S&S Seeds – www.ssseeds.com
- Stover Seed Company – www.stoverseed.com

Hydroseed/Hydromulch Contractors:

- Acacia Environmental Construction – www.acacia.com
- Bill's Hydroseeding – www.billshydroseed.com
- Canyon Hydroseeding – www.hydroseedingsocal.com
- CMG Hydroseeding – www.cmghydroseeding.com
- Dietz Hydroseeding – www.dietzhydroseeding.com
- HydroGrow – www.hydro-grow.org
- Mark Seeding Services – www.markseeding.com
- Odyssey Landscape – www.odysseylandscape.com

Upcoming Training

Got SWPPP? Classes coming to Lodi:

- ✓ QSP/QSD Training, **October 25 - 27, 2016**
- ✓ **BMP Roundup for Municipal Inspectors:** (Only City and County inspectors allowed! No contractors please.)
 - Inspecting Construction Sites - November 15, 2016
 - Pollution Prevention for Corp Yards – November 17, 2016

(For more information about these classes, please email jteravskis@wgr-sw.com)

Storm Water Awareness Week 2016

To all of you who participated in this year's Storm Water Awareness Week, we want to say a huge

THANK YOU!

We couldn't have done it without you. In case you haven't heard, here are the final numbers for this year's event:

52

WORKSHOPS

737

REGISTRATIONS

Also, if you haven't seen them already, don't forget to watch the keynote videos that we shot at SeaWorld San Diego.

Check out the full-page ad below.

Please contact us if you have any questions ...

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Technical Questions about Environmental Compliance?

Call ...

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STORM WATER AWARENESS WEEK



KEYNOTE SESSIONS

FILMED AT SEAWORLD SAN DIEGO



SeaWorld
San Diego



WATER TREATMENT SYSTEMS ON A THEME PARK LEVEL

Water treatment systems come in all sizes - from something as simple as a compost sock, to as large as a tow-behind trailer. But a theme park full of marine animals that depend upon clean water demands a much more advanced treatment system. In this exciting keynote session, you will get a rare look behind the scenes at the water quality system at SeaWorld's San Diego theme park.

[WATCH THE KEYNOTE >>](#)

WATER POLLUTION'S SILENT VICTIMS

Sometimes it's hard to step back and see the big picture. When it seems like the storm water regulations are getting a little carried away, it's good to remember the reason why we protect our water quality. In this keynote session, we are going to spend some time with the SeaWorld animal rescue team, and hear their perspective on the impact of pollution on marine wildlife, and why it's important to protect water quality.

[WATCH THE KEYNOTE >>](#)



PATHOGEN POLLUTION IN MARINE ANIMALS

You may have noticed that many of the waterways in the Industrial General Permit's 303(d) list are impaired for "pathogens." These harmful little microorganisms can cause a boatload of trouble for human and animal health. In this keynote session, Dr. Pam Yochem with the Hubbs-SeaWorld Research Institute will be discussing the impact of parasites and pathogens in storm water runoff on marine animals.

[WATCH THE KEYNOTE >>](#)



WGR SOUTHWEST, INC. PRESENTS IN ASSOCIATION WITH SEAWORLD PARKS AND ENTERTAINMENT "STORM WATER AWARENESS WEEK 2016 KEYNOTES"

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MANAGED BY BOOKER T. CRENSHAW, JR. PRODUCED BY JOHN TERAVSKIS EXECUTIVE PRODUCERS JOHN RIPLEY AND GRAY MARTZ DIRECTED BY ANDREW TERAVSKIS

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PRODUCT SPOTLIGHT

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