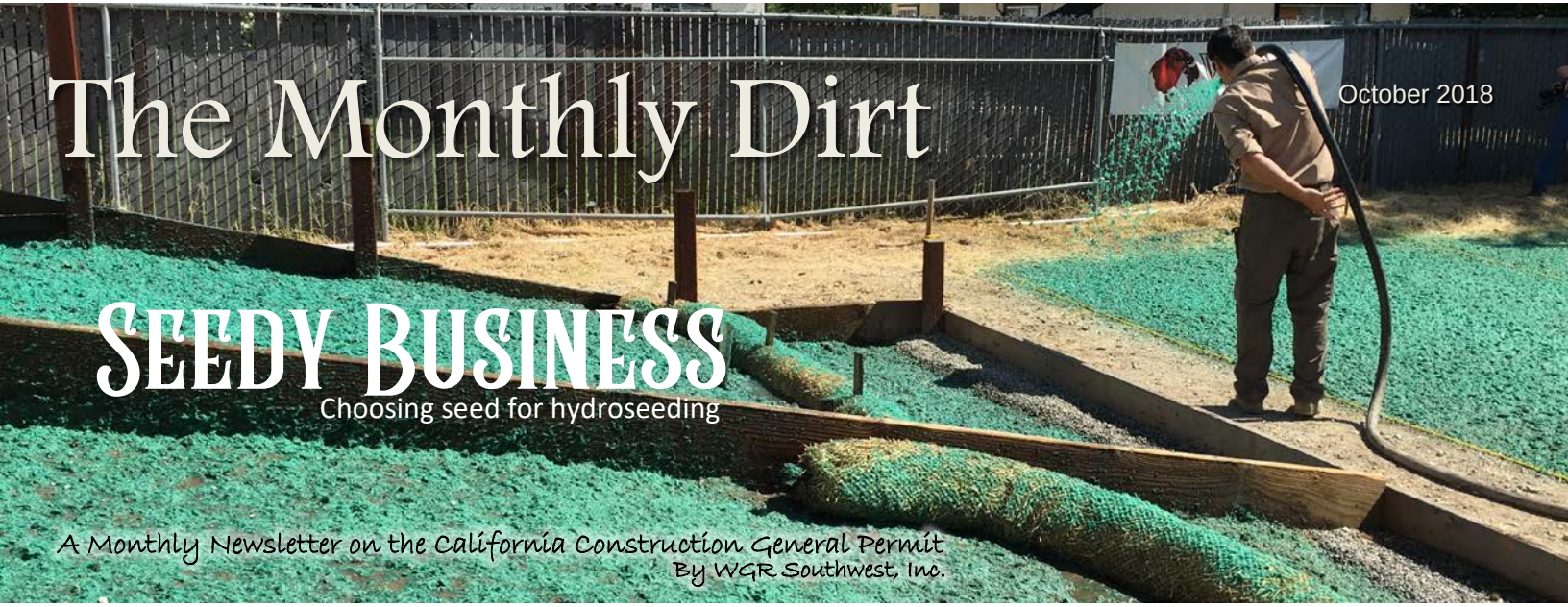

The Monthly Dirt

October 2018

SEEDY BUSINESS

Choosing seed for hydroseeding

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, stricter enforcement of storm water regulations is encouraging project managers to utilize this technique to stabilize the soil on their projects. 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 plant some ideas for seeding (pun intended).

You may already know this, but it's important to understand the difference between hydromulching, hydroseeding, and hydraulic seeding. It is 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, many times, a 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 to hold 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 warmer 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 arid conditions and seasonal rains 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. Caltrans 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 $3.50 per pound, while the other is charging $6.00 per pound. Most people would choose the $3.50 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 90% PLS range which only needs to be applied at 30 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

- 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

Watch Monthly Dirt’s friend **John McCullah** (CPESC #311) talk about seeding rates and native grasses:

For more information about John’s company and videos go to: http://www.salixaec.com/

Upcoming Training

Got SWPPP? Classes coming to Lodi:

✓ QSP/QSD Training, October 16 - 18, 2018

(To register for the class, go to http://www.gotswppp.com/events.html)

Storm Water Awareness Week 2018

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:

28

WORKSHOPS

823

REGISTRATIONS

It’s not too late to get in on the free storm water education, you can still view the following eight online sessions at http://stormwaterawareness.org/Online.html :

The Chemistry of Storm Water for Industrial Facilities	Watch
The Chemistry of Storm Water: Common Misconceptions about Industrial Pollutants	Watch
The Chemistry of Storm Water: Laboratory Basics	Watch
The Chemistry of Storm Water for Municipalities	Watch
The Future of the Phase II MS4 Permit - Year 5 and beyond	Watch
A New ERA in Industrial Storm Water Regulations	Watch
The Chemistry of Storm Water at Construction Sites	Watch
The Future of the Construction General Permit	Watch

Please contact us if you have any questions ...

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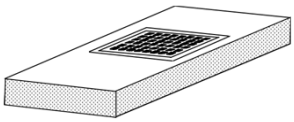
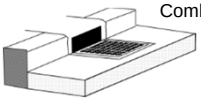


GG 12x12	Grates up to 12"x12"
GG 20x20	Grates up to 20"x20"
GG 28x28	Grates up to 28"x28"
GG 36x24	Grates up to 36"x24"
GG 36x36	Grates up to 36"x36"
GG 42x28	Grates up to 42"x28"
GG 48x24	Grates up to 48"x24"
GG 48x36	Grates up to 48"x36"
GG 48x48	Grates up to 48"x48"

Combo Guard™
Combo Curb and Grate Inlets

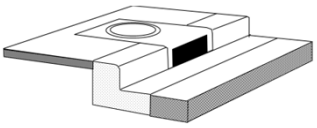
Combo Guard™



Combo Guard T™

CG 28x22	Fits 23" by 19" Grate
CG 48x22	Fits 36" x 18" **and** 36" x 20" **and** 40" x 17" Grates
CG 48x27	Fits 40" x 24" Grate
CG 48x30	Fits 42" x 28" Grate
CGT 26"x23"x 46"	Fits up to 24"x24" Grate with 41" Curb Opening
CGT 26"x26"x 46"	Fits up to 24" Round Grate with 41" Curb Opening

Curb Inlet Guard™
For Curb Inlets Without Grates



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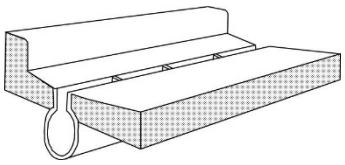
2'x2'	2 ea (14 ft)	4	8
2'x3'	2 ea (14 ft)	4	8
3'x3'	2 ea (14 ft)	4	8
3'x4'	3 ea (21 ft)	4	8
4'x4'	3 ea (21 ft)	4	8

Slot Guard™
For Slot and Trench Drains



SG 84x06	Slot/Tench drains up to 6" width
SG 84x12	Slot/Trench drains up to 12" width
SG 84x15	Slot/Trench drains up to 15" width
SG 84x20	Slot/Trench drains up to 20" width

Slot Guard segments are 7 LF.
Overlap for longer openings

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