

The Monthly Dirt

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

Reeling in Rills

This month on Sunday, December 2, many parts of Northern California were walloped by a storm producing in 24 hours over 5 inches of rain; which is close to the 100-year 24-hour rainfall amount. This storm caused a significant amount of runoff to flow across already saturated soils testing even some of the best erosion control BMPs. Post-storm inspections at many projects revealed a common problem ... rills! According to the CESSWI Inspector Manual¹, *“rill erosion develops as the shallow surface flow begins to concentrate in low spots. The concentrated flow increases in velocity and turbulence, which in turn causes the detachment and transport of more soil particles. This action cuts tiny well-defined channels called rills, which are usually only a few inches deep.”* In your QSP/QSD training class, you may have learned that the precursors to rill erosion are splash (raindrop) erosion and sheet erosion. Rills produce 100 times more detached particles than sheet erosion. However, if corrective action is not taken, rills may quickly combine to form a gully which produces 100 times erosion than rills. Therefore, when rills start occurring it is vital to address them. The important thing to remember about rills is that they are not the problem but a symptom of a weakness or failure in your erosion protection plan. The following are suggestions for preventing and repairing rills.



In spite of the application of BFM, rills are forming. Why? What can you do to prevent them?

Tips on Preventing Rills

- Don't allow sheet flow to concentrate. Use linear sediment controls (i.e. fiber rolls) at the top of the slope, the toe of the slope, and along the face of the slope. The fiber rolls should always be installed parallel to the slope contours and should be spaced from each other at a distance of 20 feet for slopes <25%, 15 feet for slopes 25 – 50%, or 10 feet for slopes > 50%.
- Use down slope drainage devices such as a swale with check dams or a down slope pipe with a velocity dissipater at the end of the pipe. Many rills are caused by not properly planning for water to flow downhill.
- Cover exposed soils with a “blanket” such as hydroseeding, blown straw / mulch, or an EC blanket. This will slow the flow and keep particles from becoming detached.

Tips on Repairing Rills

- Rills will quickly worsen causing bigger problems; tackle them when they are small before they become a monster rill. Remember the Construction General Permit requires corrective action to begin within 72 hours of identifying failures or shortcomings (including rills).
- First, install preventative measures; otherwise your repair efforts will be futile. Prevent up-slope run-on from flowing across the rill location.
- Fill rills with soil or an organic mulch. It is a good idea to mix in some seed into the fill material. Rake the surface smooth making sure to remove or minimize any irregularities. Install an erosion control mat over the path of the rill. Cover with additional mulch or a spray on material (such as BFM).

¹ Certified Erosion, Sediment and Storm Water Inspection Inspector Manual, US Version; CESSWI, Inc., November 2011

Merry Christmas! ... Possible year-round "gifts" of Permit Exemptions, Waivers, or Risk Level Reductions

What can be a sweeter gift than learning that your project doesn't need to be covered under the Construction General Permit, or qualifies for the Waiver, or can have the Risk Level reduced? The following are some provisions in the permit that are many times overlooked. See if any of them apply to your project:

1. If there is no way that water from your site can reach waters of the United States, *you may be exempt from permit coverage altogether*. This means either your project has no runoff and can retain its water for at least a 100-year 24-hour storm event, or the project does have runoff but the discharge occurs in a basin that is not tributary or hydrologically connected to waters of the United States. (Groundwater is waters of the State not the US.) The permit states that you must have approval from the local Regional Board. If this is true of your project, put together the supporting documentation and submit it to the Regional Board.
2. LUP projects (such as a water main project) *are exempt from the permit* in which the project is to update existing lines and facilities to comply with applicable codes, standards, and regulations or it is for repairing leaks. This exemption applies even if the replacement line has an increased capacity or for new lines if they are part of the project to update or replace existing lines. The State recently clarified that a LUP project to install new lines just to accommodate for growth is considered new construction and requires a permit.
3. Don't forget the *Rainfall Erosivity Waiver* "gift" for projects with soil disturbance less than 5 acres and an R factor less than 5.
4. Try to reduce your Risk Level by looking at the following:
 - a. *Receiving Water Risk* – We have noted that just because SMARTS defaults with a *High* receiving water risk doesn't mean it is necessarily so. For example, most of the San Jose area defaults as a High; however, when we look at the Basin Plan for that area, many of the local water bodies are not impaired for sediment and do not have all three beneficial uses of COLD, SPAWN, and MIGRATORY. If this is the case, select *Low* on SMARTS and upload your supporting documentation.
 - b. *Sediment Risk* - Try using *site specific data* for the K and LS factors. We have seen significant differences from the State's default values, which many times will reduce the risk level.

Upcoming Training ...

- Next Got SWPPP? Classes held in Lodi, CA:
 - ✓ QSD/QSP Certification, Feb. 5-7, 2013
 - ✓ CPESC Review Wednesday, Feb. 27, 2013
 - ✓ CPESC Exam Thursday, Feb. 28, 2013
 - ✓ Need PDUs for CESSWI or CPESC? PDU Week coming in May 2013.

For more information or to register for a class go to www.gotswppp.com

Need a QSP for your project? Can't find someone local? Go to California's QSP central at ...

www.FINDaQSP.com

We have a network of QSPs, who are ready and willing to work at your project. Log onto the website and get a quote today for your project or bid.

Merry Christmas & Happy New Year

From your friends at ...



Please contact us if you have any questions ...

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December Special

The Sifter® Pipe End Filter

\$40.00 each

Designed for end of pipe filtration. Built for durability, the pipe end filter is encased in a high density polyethylene fabric, secured with 4 thread poly lock stitching and an 85% U.V. rating designed to handle even the most severe of climates. The inner workings consist of tightly rolled Aspen wood excelsior and nonwoven geotextile fabric.

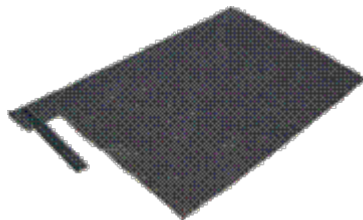


Specifications:

- Standard size fits up to 9" diameter pipe.
- Filter is approximately 4' total length.
- Custom sizing is available.
- Part #: SiftPEF

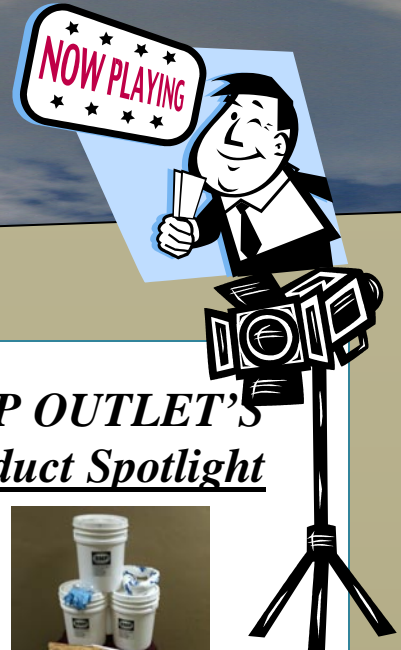
Dewatering Bag

The D-Watering Bag is an effective device for separating sediment from pumped water. Made from heavyweight, nonwoven geotextile fabric, the D-Watering Bag filters water diluted by solids and sediment with ease. The input sleeve is designed to accommodate several hose diameters. Securing the D-Watering Bag to the hose is quick and easy with heavy duty webbing and d-rings sewn to the sleeve. To maintain uniform integrity, each D-Watering Bag is sewn with a 4 thread lockstich hem an additional perimeter lockstitch using high strength, marine-rated poly thread.



Product Specifications

- Material 8 ounce nonwoven geotextile
- Strapping Weather resistant 2" polypropylene webbing
- Available sizes 3'x4', 4'x6', & 6'x9'



BMP OUTLET'S Product Spotlight



Universal or Oil Only Spill Buckets

is a convenient, all in one bucket spill kit. The bucket is a UN rated screw top pail. The screw top allows not only easy access, but also provides you the confidence that the bucket is completely close and sealed. The contents of the spill bucket include approximately 2.5 gallons of granular absorbent, 6 universal or oil only spill pads, 1 universal or oil only absorbent soc, and two 2.5 mil, 18 gallon waste bags. One of the features of BMP Outlet's Spill Buckets that sets it apart from other spill kits is that Personal Protective Equipment (PPE) is included with each spill bucket. Pair of clear safety glasses and nitrile gloves is included. For easy access in the event of spill the glasses and gloves are sitting on the top of the bucket when opened.

- Absorbs up to 5 gallons;
- UN Container 1H2/Y25/S;
- Screw top lid;
- Contents identified on easy to read label;

Contents include:

Approximately 2.5 gallons of granular absorbent, 6 Universal or Oil Only Spill Pads, 1 Universal or Oil Only Soc, Safety Glasses, Nitrile Gloves (Powder-free) and 2 Disposal Bags