

November 2011

The Monthly Dirt

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

Where are all the QSPs?

Since beginning the QSP / QSD training last Fall, we have been expecting to see a landslide of QSPs taking the training. But, they have yet to materialize. The ratio of QSPs to QSDs has gone up somewhat for the past few training events. But, after training more than 500 attendees, we are still averaging only about a 1 to 4 overall ratio of QSPs to QSDs. As of this publication date, CASQA reports a statewide total of 2,276 QSDs and only 1,280 QSPs, which is a better ratio, but still 1 QSP for every 2 QSDs. We believe that the ratio should be the reverse



and probably on a scale of 4 to 1 or much higher. Currently there are 6,590 active permitted construction sites in California. This means statistically every QSP must oversee more than 5 projects. So where are they? Well, we are seeing a couple of “log jams” in the QSP process. The first barrier, based on our discussions with numerous contractors, is that many contractors are still uninformed about the certification requirement or have just recently learned about it. The second barrier is due to the “*make hay while the sun is shining*” mentality. Many individuals and companies we have spoken to are too busy to stop what they are doing to

attend a two day class. Coming off of a rough recession, they, understandably, want to perform the work while they still have it. The third barrier is due to the difficulty in obtaining the underlying certification, the CESSWI or CISEC. We are finding this is truly proving to be a bottle neck in the process. Many individuals are finding it to be far more onerous than they first expected. So, if you are a QSP, the good news is there will be plenty of demand for your services. If you are not yet a QSP, we encourage you to push on and take care of the required training and certifications. Your services are desperately needed!

Bref's QSP Chatter ... Let's talk "Concrete Waste Management"

After traveling the last few days visiting job sites from the Bay area to our local area, I am seeing a number of sites that are using kiddie pools as concrete washout systems. While the idea is not bad and relatively inexpensive, they are a hazard to your site. They break from the weight of the dried concrete and the slurries are always spilling onto the ground thereby contaminating the underlying soil.

So what does the Permit say about this????? The Permit states that all Risk Levels shall “Ensure the containment of concrete washout areas and other washout areas that may contain additional pollutants so there is no discharge into the underlying soil and onto the surrounding areas”. Meaning..... If you spill it on the ground, you need to clean up the concrete and the contaminated soil. CASQA's BMP Sheet, WM-8 Concrete Waste Management, shows a number of different above and below grade systems that when properly employed work well. By shortcutting the system and trying to save a few cents, you are potentially causing yourself more work through sampling and monitoring and soil remediation. Let's not forget the Municipal Inspector who sees the leaking kiddie pool discharging into a drain inlet or the large gray stains from concrete that have leaked into the soil. Can you say Notice of Violation or Fine!!!!!!!!!!!!!!

During your weekly inspection, see if you are cutting corners or are you managing your waste areas effectively. Do you have the capacity to hold rain water from the storms this week? Do you see signs that there has been a leak or spill? If you can answer yes then you might want to reconsider your approach to “Concrete Waste Management”.

John's QSD Clatter

Sediment Basin Basics

For all risk levels and LUP types, the General Permit states, "on sites where sediment basins are to be used, ... dischargers shall, at minimum, design sediment basins according to the method provided in CASQA's Construction BMP Guidance Handbook."



The design method for sediment basins is found in SE-2 of the CASQA BMP Handbook, which states, "Sediment basins may be suitable for use on larger projects with sufficient space for constructing the basin. Sediment basins should be considered for use:

- Where sediment-laden water may enter the drainage system or watercourses;
- On construction projects with disturbed areas during the rainy season;
- At the outlet of disturbed watersheds **between 5 acres and 75 acres** and evaluated on a site by site basis;
- Where post construction detention basins are required; and
- In association with dikes, temporary channels, and pipes used to convey runoff from disturbed areas."

CASQA recommends the following 4-step approach to designing a sediment basin:

Step 1 – Hydrologic Design

- ✓ Evaluate the site constraints, assess the drainage area, and look up local hydrology data to estimate flow rates and anticipated volumes.

Step 2 – Hydraulic Design

- ✓ Determine the minimum area required for the retention basin using the formulas $A_S = 1.2Q/V_S$, $Q = CIA$, and $V_S = 2.81d^2$ where:

A_S =	Minimum surface area of the sediment basin
V_S =	Settling velocity for the design particle size chosen
Q =	Discharge rate measured in cubic feet per second
C =	Runoff coefficient (unit-less)
I =	Peak rainfall intensity for the 10-year, 6-hour rain event
A =	Area draining into the sediment basin in acres
d =	Smallest particle diameter

Step 3 – Evaluate the capacity of the sediment basin

- ✓ Use RUSLE or MUSLE to determine the annual erosion prediction or sediment yield, respectively, to determine how much sediment will be carried to the basin.

Step 4 – Incorporate other CASQA design recommendations

- ✓ Such as the length/width ratio; settling and storage zone designs; the 3:1 side wall requirements; overspill protection; skimmer devices; and design for 24 to 96-hour drawdown.

WGR has created a spreadsheet tool for use in conjunction with SE-2 to aid in the design of a sediment basin. The spreadsheet can be included in the SWPPP as supporting calculations for the sediment basin design. To download the tool, go to <http://gotswppp.com/events.html> and look for the side bar where you can download past copies of this newsletter.

Upcoming Training ...

- Got SWPPP? QSP/QSD Classes
 - ✓ Modesto – Dec. 13 – 15, 2011
 - ✓ Fresno – Jan. 17 – 19, 2012
- If you are interested in taking a CESSWI review class in the Lodi area, contact Lisa Smith at lsmith@wgr-sw.com. If there is enough interest, she will coordinate an event taught by an Enviro-cert Intl.-approved instructor.

Attention QSPs, don't forget to do the following at your project ...

- ⇒ Weekly baseline inspections
- ⇒ Pre-storm inspections and a REAP 48 hours before a 50% or greater predicted event.
- ⇒ During-storm event inspections every 24 hour period
- ⇒ Post-storm inspections within 48 hours of the end of the event
- ⇒ Commence corrective action within 72 hours.

Please contact us if you have any questions ...

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