

# QUALIFYING RAIN EVENTS

## The Monthly Dirt

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

With all of the recent reg-flag warnings, public safety power shutoffs, and wildfires, the entire State is praying and hoping for the fall and winter rains to begin soon. Undoubtedly, they will begin – but is your construction site ready for them? However, the start of rain doesn't necessarily mean you will start sampling. A rain storm can generate an inch of water in a couple hours, and yet still not meet the requirements to be a **Qualifying Rain Event (QRE)**. In this month's edition of **The Monthly Dirt**, we provide a brief refresher on the CGP requirements for a Qualifying Rain Event.

First off, what does the Construction General Permit have to say about Qualifying Rain Events? According to [Appendix 5 of the CGP](#), a Qualifying Rain Event is defined as “Any event that produces 0.5” or more precipitation with a 48 hour or greater period between rain events.” What does this mean for construction sites? As far as storm water sampling goes, only Risk Levels 2 and 3 need to regularly test storm water discharges. Risk Level 1 sites are not required to analyze samples of runoff, with the exception of non-visible pollutant monitoring – a temporary condition most often triggered by a spill or BMP failure.

But storm sampling aside, **all three risk levels** still have responsibilities to manage during each Qualifying Rain Event. The Permit requires all three risk levels to perform visual inspections for each Qualifying Rain Event – we refer to these inspections as pre-, during-, and post-storm inspections. During pre-storm inspections, the QSP is looking for spills, leaks, areas of soil disturbance needing to

### Qualifying Rain Event =

“Any event that produces 0.5 inches or more precipitation with a 48 hour or greater period between rain events.”

be covered, BMPs in need of maintenance, and uncontrolled pollutant sources. The mid-storm inspection is mainly looking for BMP failures and pollutants that may be picked up by the storm water runoff. The post-storm inspection seeks to determine if the BMPs were properly implemented and adequate. If any problems are found,

the QSP makes sure the project takes appropriate corrective actions for the problems.

So, when is storm water sampling required? Since there is still quite a bit of uncertainty about this, we have devised some helpful “**rules of engagement**” for storm water sampling:

### RULES OF ENGAGEMENT:

1. No discharge = no samples
2. A minimum of 3 samples must be collected for the entire site **on each day of discharge**.
3. Every point of discharge must be sampled at least once per day.

First, no discharge means no samples. Simply put, if there is no water leaving your site, you do not have to sample (by “sample,” we’re talking about field-testing pH and turbidity). Secondly, a minimum of 3 samples must be collected for the entire site during each day of the QRE. Thirdly, every point of discharge must be sampled at least once per day during the QRE. These last two rules of engagement can be a little confusing at first, but they are actually pretty simple. Basically, you need to collect at least 3 samples each day during a Qualifying Rain Event...whether you have one discharge point, or ten. No matter how many discharge points you have, you need to sample each one at least once – see Rule #3. If there are three or more discharge points on your site, following Rule #3 will also fulfill Rule #2. Notice that you need to collect a sample at each discharge point, but you don't necessarily have to collect *three* samples at each

discharge point. But if you only have two discharge points, you will need to sample both discharge points to fulfill Rule #3, and then sample one of them again to fulfill Rule #2.

Finally, the Permit requires that you sample each day of a Qualifying Rain Event. But a qualifying event only applies to storms that generate at least 0.5 inches of rain – and while some storms will produce this much rain in a single day, there will be many other times when it will take several days or more during the QRE to accumulate a half of inch of precipitation. However, please note that the CGP requires samples to be tested for pH and turbidity each day of the QRE. Testing does not begin when a half an inch is finally achieved, but on the very first day of the QRE. Storms are unpredictable, and who knows when a cell will pass over and push your site over the ½-inch threshold. To simplify things, it is recommended that you collect samples on each day of a rain event if you think there is any possibility of reaching the half inch mark. If your site reaches 0.5 inches, then you've met the permit requirements. Otherwise, you were able to get a glimpse of your BMP performance with data that you do not need to report. *MD*

## Getting Ready for a QRE

Don't let the rain catch you off-guard. The time to get your sampling supplies together is *before* the storm starts. The CGP requires dischargers to analyze for pH and turbidity in the field, so you will need to have a pH meter and turbidity meter that are working and in good condition. Both meters will need to be calibrated before each day of use and remember that calibration standards don't last forever. If yours have been sitting around for a year, check the expiration date to see if it has expired or will soon.

Rain gauges are another requirement for active construction sites. According to the Permit, a Qualifying Rain Event doesn't start until your site receives a ½-inch of rain – and you won't know for sure when that happens unless you can measure how much rain has fallen on your site. If you already have a rain gauge, make sure the plastic collection tube isn't cracked, or the batteries are good if you have an electronic model.

Also, keep an eye on the weather forecast. Don't let a Qualifying Rain Event sneak up on you; make a habit of watching the local weather forecast at [weather.gov](http://weather.gov) so you can spot an incoming storm before it hits. *MD*

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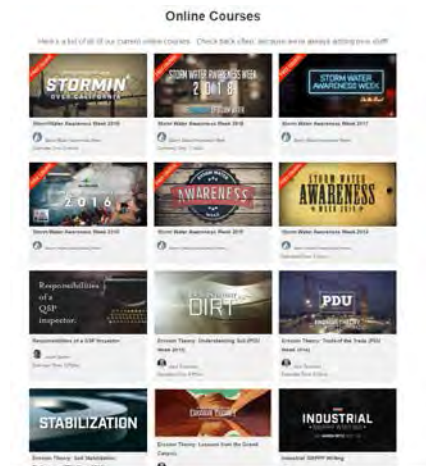
## Upcoming Training

Got SWPPP? Classes coming to Lodi:

- ✓ QSP/QSD Training, Nov. 12-14, 2019
  - Sign up at <https://gotswppp.com/events.html>  
(For more information about these classes, please email [jteravskis@wgr-sw.com](mailto:jteravskis@wgr-sw.com) )

## Need PDHs?

With both the 2019 PDU Week and Storm Water Awareness Week events behind us now, have you missed out on this year's free PDH opportunities? No! We have gobs of free videos for you to watch. The first six courses listed below are still **free**.



Visit <https://secure.wgr-sw.com/training/>

### Wet Season QSP Tip:

Take a photo of the site's rain gauge during every inspection. Allow water to accumulate in the gauge during the QRE, do not empty the rain gauge until the QRE is over.



Please contact us if you have any questions ...

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Technical Questions about Environmental Compliance?  
Call ...

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# We're thankful

for you, our readers; for freedom, for family, for clean water, and of course... hot turkey!

Psalm 105:1

# THE KEY

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# DON'T USE DAVE.

You need a QSP, and Dave would do a great job, right? Not when he's already the Project Superintendent, and oversees a 20-person crew and six contractors. He's got a meeting at 8:00 with the architect. And at 9:00 with a vendor. Oh, and the owner is stopping by the site at 10:30. And somehow by the end of the day he needs to get a budget and schedule update to the Project Manager.

**Dave can't handle any more jobs.**  
So let WGR take care of your QSP inspections.

And what about when it rains? Dave can't really skip the City building permit inspection to collect storm water samples. But WGR has a team of QSPs that can inspect your site, collect samples, take pictures, and fill out the paperwork. **WGR will be there when you need us, and not when you don't.**

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# Quick QSP Quips

## Required Inspections

### Risk 1, 2 & 3 – Traditional Projects:

- Weekly BMP inspections
- Pre-storm (within 48 hours before)
- Post-storm (within 48 hours after)
- During storms (every 24 hours)
- Quarterly for non-storm water flows

### Risk 2 & 3 – Traditional Projects:

- Daily inspect immediate access roads for sediment and track out

### LUP Types 1, 2 & 3 Projects:

- Daily visual BMP inspections and ensure that photographs of the site are taken before, during, and after storm events are taken during inspections, and submitted through the State Water Board's SMARTS website once every three rain events.

### LUP Types 2 & 3 Projects:

- Pre-storm (within 48 hours before)
- Post-storm (within 48 hours after)
- During storms (every 24 hours)

### Risk 3 & LUP Type 3 Projects:

- *If triggered*, receiving water or bioassessment observations

## Sampling Requirements

### Risk 1 – Traditional Projects:

- Only for non-visible pollutants if triggered

### Risk 2 & 3 – Traditional Projects:

- Discharge monitoring (pH and turbidity) at least 3 times per day when there is a discharge
- Non-visible pollutants *if triggered*.

### Risk 3 – Traditional Projects:

- Upstream and downstream receiving water testing *if triggered*.
- Bioassessment *if triggered*.

### LUP Type 1 Projects:

- Only for non-visible pollutants if triggered

### LUP Types 2 & 3 Projects:

- Discharge monitoring (pH and turbidity) at least 3 times per day when there is a discharge
- Non-visible pollutants *if triggered*.

### LUP Type 3 Projects:

- Upstream and downstream receiving water testing *if triggered*.
- Bioassessment *if triggered*.

### Non-visible sampling – All Risk and Type Levels:

- Triggered by a breach, malfunction, leakage, or spill observed during a visual inspection.
- Collected during the first 2 hours of discharge.
- Two samples one at the affected discharge point and another at an unaffected area

## RAIN EVENT ACTION PLANS

- ☁️ Required of Risk 2 & 3 traditional projects only. LUPs are not required to prepare REAPs.
- ☁️ Are triggered by a 50% or greater possibility of rain per the NOAA weather forecast at [www.weather.gov](http://www.weather.gov)
- ☁️ Must be prepared within 48 hours of the predicted storm event.
- ☁️ Must be implemented and a paper copy on-site within 24 hours of the predicted storm event.
- ☁️ Must be prepared by a QSP.

## Qualifying Rain Events

A qualifying rain event is “any event that produces 0.5 inches or more precipitation with a 48 hour or greater period between rain events.” In other words, it is a period of rain that is “bookended” by dry weather that is at least 48 hours long.

## Sampling Exemptions

1. It is not a “qualifying rain event”.
2. During dangerous weather conditions such as flooding and electrical storms.
3. Outside of scheduled site business hours.

Remember to document if any of these exemptions are applicable to your project.

### Numeric Action Levels

Prepare a NAL exceedance report within 10 days if either of the following is true about your project's daily average:

pH is <6.5 or >8.5  
Turbidity is >250 NTU

- ✓ NALs are daily averages of monitoring data from all discharge points for the entire day.
- ✓ pH must be averaged logarithmically. Averaging tool is at [www.wgr-sw.com/pH](http://www.wgr-sw.com/pH)
- ✓ NAL exceedance reports must be uploaded onto SMARTS.

### Rules of Engagement for Sampling

The following are helpful guidelines that have been extracted from the permit to assist you in knowing when to sample:

1. If there is no discharge, then no sample is required.
2. Collect a minimum of 3 samples per day for the entire site.
3. Each day, collect at least one sample from each point of discharge.

### Best Management Practices

- ❑ Risk 1 mandatory BMPs are found in Attachment C.
- ❑ Risk 2 mandatory BMPs are found in Attachment D.
- ❑ Risk 3 mandatory BMPs are found in Attachment E.
- ❑ LUP mandatory BMPs are found in Attachment A.
- ❑ The QSP must use a checklist for inspections and include a description of the BMPs evaluated and the deficiencies noted.
- ❑ Corrective action must begin within **72 hours** of identification and be completed as soon as possible.
- ❑ Inactive areas of soil disturbance that are not scheduled to be disturbed for at least 14 days must have effective soil cover.
- ❑ Projects must establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from the site.
- ❑ Risk Levels 2 & 3 and LUP Types 2 & 3 projects must apply linear sediment controls along the toe of the slope, face of the slope, and at the grade breaks of exposed slopes to comply with the table shown at the right.

Slope Percentage	Sheet flow length not to exceed
0-25%	20 feet
25-50%	15 feet
Over 50%	10 feet

Questions? Call the QSP Help Hotline:  
(209) 649-0877 or email at  
[jteravskis@wgr-sw.com](mailto:jteravskis@wgr-sw.com)

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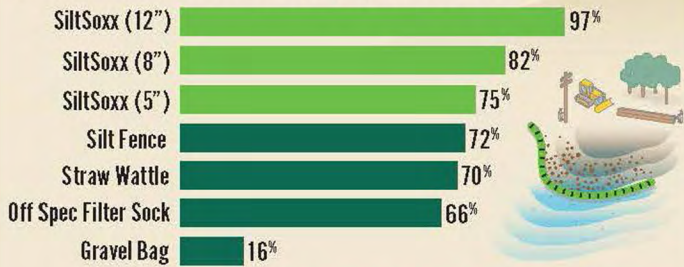
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## QUICKER INSTALLATION = LESS COST

### COMPARE TIME TO INSTALL



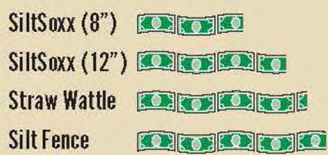
## LESS MAINTENANCE = LESS COST

### SiltSoxx COMPARED TO OTHER BMPs



## COMPARE TOTAL PROJECT COSTS

### ESTIMATED PROJECT COSTS



Project costs include: product cost, installation, maintenance and removal of BMP

### 3<sup>RD</sup> PARTY TESTED



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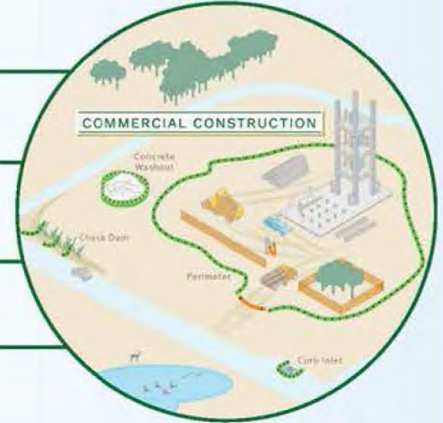
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For more information on total life cycle costs of BMPs, side-by-side video comparisons, references, and more

VISIT [FILTREX.COM/CONTROLCOSTS](http://FILTREX.COM/CONTROLCOSTS)