January 2017

The Monthly Dirt

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

The past month has brought a lot of rain to our drought-weary State – and for some projects, it's been enough to turn the entire site into a pond! But this abundance of water can cause some confusion about when inspections should be performed and when storm water samples need to be collected. A rain storm can create 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're going to give a brief refresher on the 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 (2009-0009-DWQ), 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 samples. Risk Level 1 sites are not required to analyze storm water samples, with the exception of non-visible pollutant monitoring – a temporary condition most often triggered by a spill or BMP failure (for more information about that, check out last month's edition of The Monthly Dirt).

Qualifying Rain Event =

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

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 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 many people we have talked to have expressed 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 per day. Thirdly, every point of discharge must be sampled at least once per day. 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 every Qualifying Rain Event. But a qualifying event only applies to storms that generate at least 0.5 inches of rain – and while our recent storms have certainly been producing this much rain, there will be many times where a storm might not produce that much in one day. But storms are unpredictable, and who knows when a cell will pass over and push your site over the ½-inch threshold. To simplify things, The Monthly Dirt recommends that you collect samples on each day of a rain event. If your site reaches 0.5 inches, then you've met the permit requirements. But if the rain event doesn't end up producing a half-inch of rain, don't worry – it's better to be safe than sorry. ***MD***

Getting Ready for a QRE

Don't let the rain catch you sleeping. The time to get your sampling supplies together is *before* the storm starts. The Construction General Permit 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. The January 2015 edition of The Monthly Dirt has a handy buyer's guide for rain gauges. 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 electric 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 www.wrh.noaa.gov so you can spot an incoming storm before it hits. And remember that Risk Level 2 and 3 sites need to prepare a REAP if there is a 50% or greater probability of rain. ***MD***

Upcoming Training

Got SWPPP? Classes coming to Lodi:

- ✓ QSP/QSD Training, **April 25-27, 2017**
  - Sign up at www.gotswppp.com
- ✓ PDU Week, **May 22-26, 2017**
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(For more information about these classes, please email jteravskis@wgr-sw.com)

Need PDHs?

Don't forget that you can watch last year's PDU Week broadcasts free of charge, and earn up to 5 professional development hours.

Visit www.pduweek.org

Please contact us if you have any questions ...

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Need a SWPPP?
Call (209) 334-5363, ext. 110

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

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.srh.noaa.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.

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

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
- ✓ 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

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