

# The Monthly Dirt

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

## The Calculator is Back!

The United States Environmental Protection Agency (EPA) recently released their updated Soil Erosivity Calculator for determining the soil erosivity R-value (used in the RUSLE equation) for soil loss predictions. The EPA had disabled the calculator in 2012 to update the database and fix some problems. The Calculator can be used to determine if a construction site meets the requirements for a Small Construction Rainfall Erosivity Waiver. To obtain the waiver under the California Construction General Permit (CGP), a construction site must have soil disturbance less than five acres and have an R value equal to or less than 5. Typically this waiver is applicable to construction projects that have short durations and occur predominately within the dry season.

The screenshot shows the EPA's online calculator interface. The header includes the EPA logo and navigation links like 'LEARN THE ISSUES', 'SCIENCE & TECHNOLOGY', 'LAWS & REGULATIONS', and 'ABOUT EPA'. The main heading is 'Rainfall Erosivity Factor Calculator for Small Construction Sites'. The form includes fields for 'Start Date' and 'End Date' with a note: 'The start date is the date of initial earth disturbance. The end date is the date of final site stabilization.' There are three radio button options for location input: 1) 'Please enter the Latitude/Longitude information of the project/site.' with sub-options for (Degrees/Minutes/Seconds), (Degrees/Minutes/Decimal Minutes), and (Decimals); 2) 'If you do NOT have the Latitude/Longitude information, please enter the project/site address.'; and 3) a 'NOTE' section stating: 'NOTE: If your construction project extends beyond the estimated end date, you will need to either recalculate the R factor based on a new end date, or apply for NPDES permit coverage.'

The editors of **The Monthly Dirt** had heard, unofficially, from Water Board staff that the EPA took offline its calculator due to discrepancies of R values being generated by the Calculator and those determined by Water Board staff using other tools such as RUSLE2. This claim seemed to be substantiated by the fact that leading up to the time the EPA Calculator was taken offline in 2012, there were quite a few projects being denied the waiver they had been granted by SMARTS. In many such cases, the permittee would receive an email from the Regional Board staff stating that the waiver was denied because the R value was calculated to be higher using RUSLE2. The waiver denials became far more infrequent after the Calculator was disabled and replaced by the EPA guidance document for manually calculating R values.

The EPA Calculator certainly makes it easier for a QSD or project proponent to calculate an R value. But, the question **The Monthly Dirt** had was, **“Would the R results be the same between the manual calculation method and the calculator?”** So, we picked a dozen construction projects scattered across California and compared the manual method to the EPA’s calculator. In our very limited test, we found that overwhelmingly the R values were higher as generated by the calculator versus those manually derived. Of the 12 projects we analyzed, 9 had higher calculator-generated R values, ranging from just a little over 100% to 700% of the manual method, but averaging 179% higher. Three projects had lower calculator-generated values ranging from 42% to 92% of the manual calculation. Although our quick comparison was certainly not comprehensive, it appeared to us that Southern California projects tended to have lower calculator-derived R values that better correlated with the manual method than did projects in Northern California. There were a couple of projects in our analysis that qualified for the waiver under the manual method but did not qualify for it using the EPA Calculator.

Are you required to utilize the EPA Calculator? No, not yet; and so far, SMARTS has not auto-populated the R value field with a default value. That may be coming ... but, at the current time, you have choices in how to calculate the R value and can continue to use the manual method following the State’s and EPA guidance documents.

## Tools for Manually Calculating R

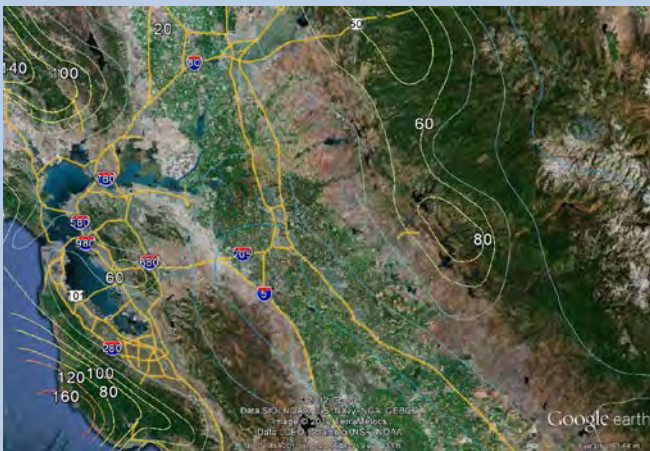
Although the USEPA's online R-factor Calculator is now back, those wanting to determine their project's risk level can still do so by **manually** deriving the R value used in the RUSLE equation for sediment risk determination. In the May 2012 edition of The Monthly Dirt, we reviewed how to manually calculate R. You can download that newsletter at [www.gotswppp.com](http://www.gotswppp.com). But, one of the frustrations about the manual method was using the isoerodent map, which until recently, was limited to the crude map shown here on the right. Using this map, we found it really hard to locate projects and accurately determine the isoerodent.



But, the State SMARTS group has come through again! They have developed a kml file of the isoerodents that can be used on Google Earth™. You can download the isoerodent kml file, as well as, the kml files for K, LS, and receiving water risk from the State's ftp site at:

<ftp://swrcb2a.waterboards.ca.gov/pub/swrcb/dwg/cgp/Risk/>

We recommend using an ftp tool like Filezilla to download the files. If you have problems downloading them, we have linked them to our website at [www.gotswppp.com](http://www.gotswppp.com).



We have also developed a Risk Determination Worksheet that you can use to document, not only the R calculation, but also show the RUSLE calculation and supporting documentation; and the receiving water risk rating. If you would like a free copy of our worksheet, please email your request to [jteravskis@wgr-sw.com](mailto:jteravskis@wgr-sw.com).

## Upcoming Training ...

Got SWPPP? Classes coming to Lodi:

- ✓ Storm Water Awareness Week – Sept. 22-26, 2014 (all workshops are free)
- ✓ QSP/QSD Training, October 21 - 23, 2014

For more information about these classes, go to [www.gotswppp.com](http://www.gotswppp.com).

*Need storm water training at your office or project location?  
Invite one of WGR's experienced QSPs to come and provide training for your crew.*

WWW.STORMWATERAWARENESS.ORG

STORM WATER  
**AWARENESS**  
WEEK 2014

THE BEST FREE STORM WATER EDUCATION IN THE WEST!

A WEEK OF FREE WORKSHOPS AT LOCATIONS  
THROUGHOUT CALIFORNIA

**Register Now!**

- Over 50 workshops throughout CA
- Kickoff and wrap-up online webinars

SEPTEMBER 22-26, 2014

*Please contact us if you have any questions ...*

**The Monthly Dirt** Newsletter Editor:

John Teravskis, QSD/QSP, CPESC  
[jteravskis@wgr-sw.com](mailto:jteravskis@wgr-sw.com)  
(209) 334-5363 ext. 110 or (209) 649-0877

Technical Questions about Environmental Compliance?  
Call ...

Kevin Harcourt, QSP, CESSWI (Northern California)  
[kbharcourt@wgr-sw.com](mailto:kbharcourt@wgr-sw.com), (209) 373-8277

Gray Martz, QSD, PG (Southern California)  
[jgmartz@wgr-sw.com](mailto:jgmartz@wgr-sw.com), (562) 799-8510 ext. 203

Don't miss two great LID workshops being offered during Storm Water Awareness Week for free at the University of California, Davis ...

**Workshop # 1 – Thursday, September 25 at 8:00 AM**  
**The LID Classroom**

- Field trip of the beautiful and impressive LID features at UC Davis
- See the evolution of LID at the University
- Expert staff will share lessons learned and successes

**Workshop # 2 – Thursday, September 25 at 9:30 AM**  
**Water Conservation and Efficient Landscape Irrigation**

- Field trip of the drought resistant and water efficient landscaping techniques used by the University
- Learn from University staff and landscape maintenance personnel
- Send MS4 staff to these workshops to help meet permit-required training



# Need BMPs?

## Come to the BMP Outlet Warehouse in Lodi!



Attention San Joaquin Valley Contractors! Stop by on the way to your project to pick up BMP supplies including:

- Fiber rolls / wattle
- ESA fencing
- Concrete wash out boxes
- Drain inlet protection devices
- Rock bags
- Spill kits
- Compost socks
- Grow socks
- Silt sifter tubes
- Curb inlet protection tubes
- Drip pads
- pH pens and calibration standards
- Turbidity meters
- Rain gauges



*Also, check out our living wall demonstration:*



### **BMP Outlet / WGR Southwest, Inc.**

*Located on Hwy. 99 between Lodi and Stockton on the  
East frontage road between Armstrong and Eight Mile Road*

Open 6:30 AM to 4:00 PM Monday - Friday

11780 N. Hwy. 99

Lodi, CA 95220

(209) 334-5363 x115

