

# The Monthly Dirt

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

## RUSLE2

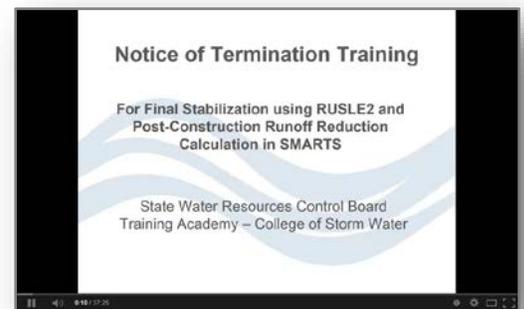
This has been on my bucket list since the current Construction General Permit first came out, and I kept telling myself that I was going to jump in and learn it. But each time I started to mess with the software it was like jumping into frigid ice water and I got out as fast as possible. But, with the encouragement and help of a new instructional video by Eric Berntsen and the State Water Board, I decided to try it again and I found the water of RUSLE2 to be much more tepid and not as baffling.

**What is RUSLE2?** It is a computer modeling tool that was originally released by the USDA's Natural Resources Conservation Service in 2003. It was originally developed to estimate soil loss from rill and interrill (sheet) erosion caused by rainfall on cropland and to predict the long-term average rate of rill and sheet erosion for several alternative combinations of crop systems and management practices. It takes into consideration specified soil types, rainfall patterns, and topography. When these predicted losses are compared with soil loss tolerances, RUSLE2 provides specific guidelines for effective erosion control. In 2005, Caltrans completed its modification of RUSLE2 and made it more applicable for construction sites.

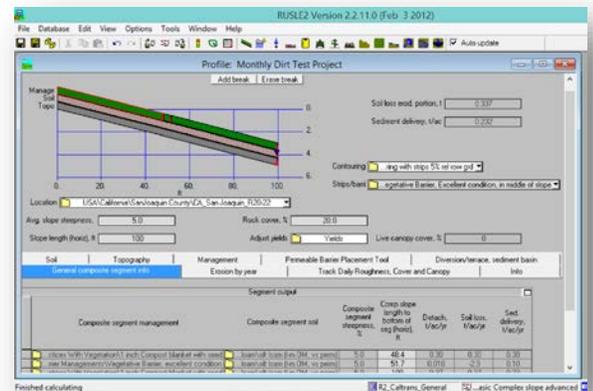
**Why use RUSLE2?** The advantage of using this computer modeling tool is that it provides the SWPPP developer with a more versatile tool to not only calculate predicted rates of sheet and rill erosion, but also to provide the sediment yield (MUSLE) for a specific project. The modeling tool can be used to view erosion rates before, during, and after construction. As allowed by the CGP, the State Water Board will accept RUSLE2 calculations and reports to be used to verify that final site stabilization has been achieved. This may be a very useful tool for large projects or challenging projects in which it is difficult to show stabilization by photographs.

**Where do you get RUSLE2?** The software is free and can be downloaded from the Caltrans website at <http://www.dot.ca.gov/hq/oppd/stormwtr/rusle2.htm>. In addition to the Water Board's 37-minute introductory video, Caltrans has several training resources available online, including quick reference fact sheets, a PowerPoint presentation, and a recorded webinar.

**Who can use RUSLE2?** After finally taking the plunge, I found out it was not as scary as I had first thought. I am by no means a RUSLE2 expert (yet), but I was able to perform fairly simple derivations of a simple site showing during- and post-construction erosion values. There are many advanced features in the software for which it will take some more time to master, but don't let those features frighten you out of the water. Jump in! You can do it!



To view video, go to:  
[www.waterboards.ca.gov/water\\_issues/programs/stormwater/training.shtml](http://www.waterboards.ca.gov/water_issues/programs/stormwater/training.shtml)



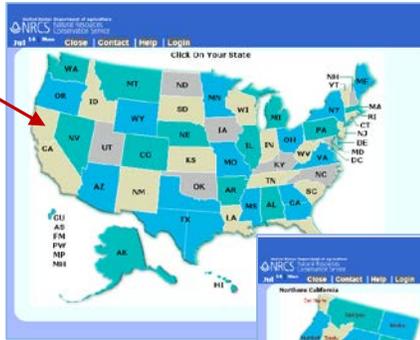
# Beware of R in RUSLE2

Although many of the variables in the RUSLE2 software model are analogous, if not identical, to those used in the RUSLE equation; R is not determined in the same way and is not interchangeable. To determine R for the RUSLE2 model, take the following steps:

1. Go to the following NRCS website and click on your State. (Note that California has been divided into two sections – Northern and Southern California.)

[http://efotg.sc.egov.usda.gov/efotg\\_locator.aspx?map=US](http://efotg.sc.egov.usda.gov/efotg_locator.aspx?map=US)

Click on your state

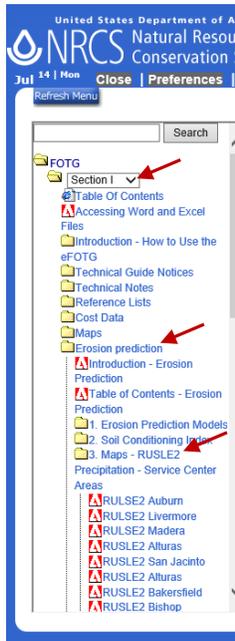
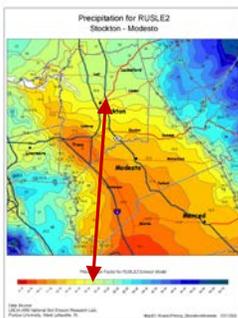


2. Select the county for your project.

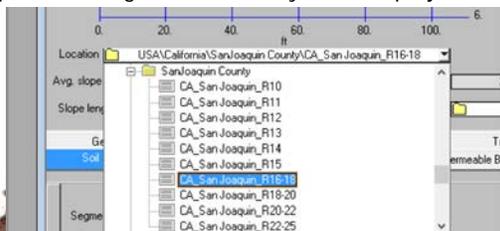
Click on your county



3. Next, under Section 1, Erosion Prediction, and "3. Maps – RUSLE2", select the location map nearest your project. You may have to look at a couple of maps if the project is near the boundary of two different maps.
4. Locate your project's location on the map and, using the color codes, determine the R value range (i.e. 16-17).



5. Using the drop down box in RUSLE2, select the appropriate R range for the county that the project is in.



## Upcoming Training ...

Got SWPPP? Classes coming to Lodi:

- ✓ **Next Week** - QSP/QSD Training, July 22-24
- ✓ CPESC Review and Exam – Sept. 2-4, 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.*

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

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