

STORMWATER UPDATE

In This Issue

- ❖ Deficiencies Everywhere
- ❖ SELDM

CSW Training Upcoming Dates

KSU CIT Program

<http://citksu.com>

June 19-20, 2019

September 2019 class is not set yet,
Stay Tuned.

Kansas Contractors Association

<http://www.kansascontractors.org/>

No Classes Scheduled

**Reminder: Anyone doing
SWPPP inspections on KDOT
let LPA projects must be
CSWcertified by July 2020.**

**Construction Stormwater
(CSW) Training has replaced
the EIT/EMT courses. All
remaining EIT/EMT
Certifications expire October
2019.**

All completed inspection reports must be submitted to the responsible Area Engineer and the contractor's WPCM within 24 hours of each inspection. The Area Engineer must sign within 3 calendar days and submit to KDOT.stormwaterinspection@ks.gov
Failure to complete and submit inspection reports on time may result in disincentive assessment

Deficiencies Everywhere and Nothing Agreed On!



Deficiency? You bet. Contractor's should never store materials or equipment downstream of their perimeter controls.

Deficiencies, Deficiencies, Deficiencies. All projects have them (especially after all the rain we've had), and no one jumps for joy when found. But what happens when the state's inspector and the contractor's inspector disagree on what should be placed on the 247 form?

Paragraph 6 under section 7.2.10 "Site Inspections by Permittee" of the KDHE General Permit states, " Any

deficiencies in the operation or maintenance, effectiveness, adequacy or coverage extent of all installed BMPs, temporary stabilization measures, and other pollution control measures identified during the inspection shall be noted in the inspection report and corrected within seven calendar days of the inspection unless infeasible."

When a disagreement happens between inspectors, before calling anyone, they need to have a discussion as to why they are disagreeing. If common ground cannot be found, the WPCM and Area Engineer need to be brought into the conversation. The Area Engineer determines if an item is a deficiency or not. The Stormwater Compliance Engineer (SWCE) can override the Area Engineer if necessary. In rare cases the SWCE will take items off the deficiency list.



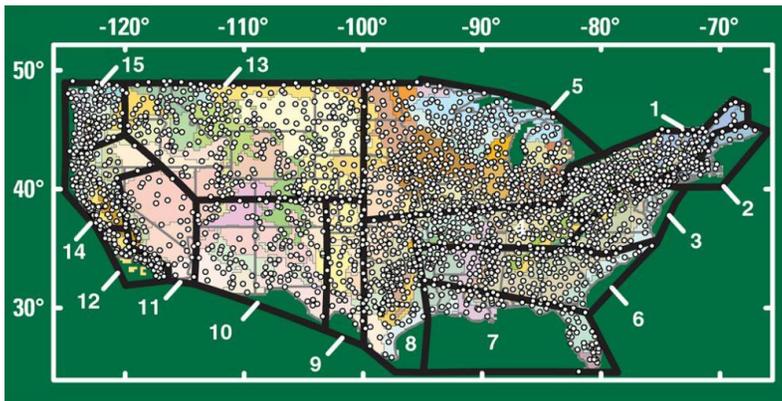
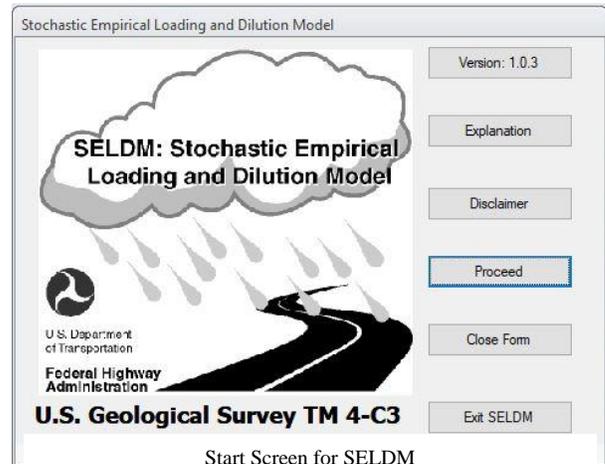
No deficiencies here. The Contractor has placed willow branches at the base of the erosion control mat.

Based on KDOT's current SWPPP requirements, if one inspector thinks they have found a deficiency, its probably a deficiency.

SELDM: Stochastic Empirical Loading and Dilution Model

Last December, I had the opportunity to take a weeklong class to learn about the Federal Highway Administration (FHWA) Stochastic Empirical and Dilution Model (SELDM). First off, a bit of history, the FHWA needed to redesign their 1990 highway runoff quality model. With the help of the U.S. Geological Survey (USGS), they created a robust database modeling software to create and run highway-runoff simulations. Gregory Granato, Hydrologist, USGS, is the developer and lead contact for SELDM.

What is SELDM then? SELDM is designed to transform complex scientific data into meaningful information about the risk of adverse effects of runoff on receiving waters, the potential need for mitigation measures, and the potential effectiveness of such management measures for reducing these risks.”



Example map showing the amount of data sets inside SELDM. The map is separated into 15 “eco-regions” and the user has the ability to narrow down their project location inside a region.

That boils down to allowing a designer to model pre-construction and post-construction run-off determining what effects their project has on the downstream receiving waters. Best Management Practices (BMPs) can then be added to the simulations to test their effect on discharge quantity and quality and on downstream waters. SELDM also can be used to run TMDL simulations. What makes SELDM unique from other modeling systems is that it pulls from empirical data sets that are built into the program for its modeling. Using that data a designer can simulate roughly 30 years of future rain-fall run-off and associated

contaminants into a down stream system. The best part is after some training an initial simulation can be run in about an hour!

How does SELDM fit into KDOT’s stormwater program? I’m still experimenting with its capabilities, but in the future I could see KDOT designers incorporating SELDM models into their design processes.

If I’ve peaked your curiosity a link to SELDM’s website is below.

<https://doi.org/10.5066/F7BG2M33>

Stormwater Update Online

This issue and all past issues of this quarterly bulletin are available online at KDOT’s Stormwater website: <http://www.ksdot.org/burconsmain/Connections/swppp.asp>

Contact Mervin Lare (mervin.lare@ks.gov) for questions, comments or suggestions for future content.