

You, Me & the USLE Seminar Questions and Answers

February 24, 2022

Q1: Should the maximum sheet flow length for the flow path be 300' or 100' as the current TR-55 version suggests.

Is there a maximum slope length that should be used before runoff becomes channelized?

A1: *Generally, there is no maximum allowable slope length. The USLE models both sheet and rill (shallow concentrated) erosion, which exists for variable lengths across a construction site, based on many factors. It's important to remember that TR-55 was not written for use with the USLE or on construction sites, so we are using our judgment to meld these two philosophies together. There are maximum slopes lengths that some practices (e.g. silt fence) can treat, so that should be taken into consideration.*

Q2: Many times when filling out the USLE and submitting the permit application, an actual start date is not known (review times could delay, weather, other approvals and permitting, etc). If the start date slides but the permit still expires based on the USLE, how should this be handled?

If we need to extend the permit deadline due to construction delays - how do we do that?

A2: *The plan construction schedule should always match what is happening on the site. We understand this can be difficult, but it's important to remember that the schedule is an enforceable part of the plan, so good communication between contractors and designers is critical. The County encourages schedule revisions, and the process is as simple as sending an e-mail to the plan reviewer with the new schedule, plan changes, and revised USLE(s). If the new schedule puts the site over the allowable soil loss, immediate measures will need to be taken to reduce any further soil loss. It's recommended that some "wiggle-room" be built into the schedule if possible, to avoid this situation.*

Q3: Are wood chips considered as mulch and erosion mat activity?

A3: *Yes, wood chips are an acceptable mulch material.*

Q4: For driveway projects, would the 'end' be when the driveway is paved/gravel finalized or when the side slopes are fully stabilized and established?

A4: *The "end" activity should be used when the surface is stabilized, either with hardscaping or vegetative cover. In the case of a driveway site, it's recommended that two USLEs be provided, representative of the drive area and side slope.*

Q5: Theresa mentioned referring to the Dane County Wiki Website for USLE guidance. Doesn't Dane County Wiki refer to both WDNR construction site soil loss guidance and Dane County specific requirements, which conflict in areas such as maximum slope steepness to model in USLE (i.e. prescribed compliance)? Which guidance are we supposed to follow?

Confused on the fact that we are to follow DNR guidance but that doesn't apply to the slopes? If using the DNR spreadsheet and the instruction tab explicitly calls out 20% slopes why would there be a requirement for steeper slopes? Where is this requirement in the ordinance?

DNR guidance says no slopes steeper than 20% to be modeled in USLE. Why is DC requiring up to 33% slopes?

A5: *This is a policy difference between Dane County and the DNR. We can't speak to why the DNR has chosen 20% as their maximum slope, but we understand the model is appropriate up to a 33% slope.*

Q6: Will Dane County be coordinating with the WDNR to create one guidance document for consistency or coming up with their own document and remove references to WDNR to avoid confusion/contradicting guidance?

A6: *With the use of the DNR USLE spreadsheet now being used for County permits, there should not be many differences between our guidance anymore, besides the maximum allowable slope (20% vs 33%). If there are other contradictions, please let us know and we'll work to clarify. And as a general rule for contradicting guidance, use whichever is stricter/more conservative.*

Q7: Are stone weeper dams considered sediment traps?

A7: *You can use the "ditch check sediment trap" practice in the USLE, but the practice must conform to the [Ditch Check Technical Standard](#) and it will not give as much removal as a standard sediment trap. Maintenance will likely be higher than a sediment trap.*

Q8: Doesn't the DNR guidance state to use May 16 if a start date is unknown? Should this date be used or early July to represent "worst case"?

A8: *May 16 should still be used if the start date is unknown, to be consistent with DNR guidance. When a start date is determined, a revised should be provided.*

Q9: I noticed that the WDNR Version 2.0 (06-29-2017) USLE spreadsheet has "Version 1.0" labeled above the Sediment Discharge column. Is there a reason for this or just a clerical error?

A9: *We understand this to be a clerical error.*

Q10: Are there any plans to make update to the current WDNR Version 2.0 (06-29-2017) USLE spreadsheet?

A10: *We don't know of any plans for it to be updated.*

Q11: In regards to the slope conflict with DC and DNR, won't this require designers to come up with two separate USLE plans since one would conflict with DNR and one would conflict with DC in regards to the 20% to 33% issue?

A11: *Because the 33% maximum slope typically results in in a more conservative design, the DNR accepts this alternative approach. This means that only one plan needs to be developed.*

Q12: Is there a maximum review timeframe established in the Dane County Ordinance?

A12: *There is no maximum review time in the ordinance, but policy dictates a review turnaround of 15 working days.*

Q13: For Jim's example of the large shed, are you able to describe how you'd recommend dealing with gutters and downspout routing across the disturbed area?

A13: *It's difficult to spread concentrated flow back out into sheet flow, so downspout extenders are the best solution. These should be used to take flow to a stable surface throughout the establishment timeframe, then removed. A small stilling bowl of stone can be used if extenders would get in the way. A silt sock can also help spread out the flow, if no better options are available.*

Q14: Can dormant seeding be the permanent seeding, or is it only for temporary seeding?

A14: *Dormant seeding (with mulch) can be used as permanent seeding, but you will need to extend the final stabilization "end" date to May 15 of the following spring to allow for growth.*

Q15: Can you talk about best practices for submittal of USLEs when you have slopes greater than 3:1, say up to 2:1?

A15: *Slopes over 33% cannot be modeled with the USLE, so prescriptive compliance would need to be used. Slopes that steep should open for only short periods of time and stabilized using very robust measures.*

Q16: Is there a weighted-average approach to the site calculations. If there are areas of your site where you are "retaining" more than the 5 tons/acre to offset other areas of the site that are exceeding the 5 tons/acre?

To build off the weighted average question - supposed your USLE says 4 tons/year for 80% of the site, but another says 6 tons/year for 20% of the site - the weighted average is 4.4 tons/year - is that OK?

A16: *A "weighted" approach may not be taken. The soil loss standard may not be exceeded anywhere on the site. To minimize the level of erosion control used, several representative slopes should be evaluated, in addition to the worst case. All areas of the site that are similar to their representative slope are assumed to meet the soil loss standard if the modeled measures and schedule are used. This means that shallow areas of the site stabilized soon after disturbance will need less erosion control than steep areas of the site that are open for longer.*