**Use of Soils data in the Conservation Assessment Ranking Tool (CART)**

**July 17, 2019 (2 pm, EST)**

**Soils and Plant Science Division (SPSD) Leadership**

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|  | Topic |
|  | What CART is and why getting the soils data right is so important |
|  | CART GitHub Webpage Overview |
|  | Traditional Soil Map vs. Land Unit Soil Ratings |
|  | Issues and volunteering   * Besides data team there was a lack of participation for CART sub teams (needs more diversifying) * Soils data error |
|  | Short term need   * Fix priority identified holes in the data. |
|  | Medium term need   * Prioritize initial and update mapping on areas where current detail of mapping does not support current land use (esp. if FB is involved) |
|  | Opportunities for Soils   * Outcomes – Using soils data to model results and using soil scientist to collect data for validating conservation practices (link) * Future- Volunteering for next versions of CART and creating interpretations for specific conservation practices. |
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1. Think about if we weren’t working on CART and who would be working it and how would they be using or not using the soils data. (Presence and expertise)
2. We have a seat at the table where the soils data are being considered for use and have a say on how to use it correctly
3. Soils was represented on CART but besides the “data team” there were just a couple people representing soils on many of the sub-teams.  Out of 300 some people participating in CART sub-teams just a couple soils people participated on a couple of teams.
4. There are a lot of conservation models out there that are using soils data incorrectly or not using soils data at all. We need to have a presence when it comes to the conservation side. If we don’t, we will become obsolete.
5. When I was working on writing the script, I had to eliminate data because the **fundamental** data elements weren’t populated correctly, such horizon thickness or component percent. This is important when we are doing weighted averages, dominant condition or dominant component.  I would get divide by zero errors because the top and bottom depth would equal zero, or there were gaps in the depth. Or…the component percent didn’t add up to 100 for a map unit. There were 500 some map units where it had at least 1 component that was flagged as a major component, but the component percent was less than 10%.
6. We’re not in the business to make soils data conform to a published manuscript anymore. If we attempt to accommodate every statement in the narrative map unit description (i.e. MUD), we risk providing data that are not useful for interpretive reports.  Everything about soils data is being interpreted in some way or another.
7. That first page of the document gives you the needed information for how the data will be returned from the SQL and all possible rating values to be returned that need to be accounted for by CART in a domain table.