

Interpretations Breakout Sessions

Monday 3:30-5:00

Agenda:

Business Meeting

Review charges from Regional Conferences

Charges:

Committee discussions at the National Conference will focus on six areas:

- 1. Review and document progress and key issues raised by the 2012 Regional Committees on Interpretations in the West, North Central, Northeastern, and South NCSS regions.**
 - a. The development of an interpretations generator as a standalone or other application environment outside the NASIS environment has merits for customers and should be pursued.
 - b. Initiation of a National Interpretations Advisory Committee.
 - i. Comprised of professionals within NRCS, Cooperators, and “outside” professions that need interpretations.
 - ii. “Non-traditional” professions which could be on the committee include consulting engineers, consulting soil scientists, land-use planners, etc.
 - c. Emphasize the importance of soil function in developing interpretations
 - d. Ksat is the most lacking but greatest needed input for many interpretations.
 - e. Take a holistic systematic soil profile-soil landscape approach to development.
 - i. Could apply this approach to interactive interpretations for ESDs, Soil Health, and DSPs.
 - ii. Will need to delineate the Reference State
 - iii. Will place a great emphasis on the need to obtain more biological soil data, supplemented by limited additional physical and chemical data.
 - iv. Will assist in development of carbon sequestration oriented interpretations
 - f. RECOMMENDATIONS from South conference
 - i. The National Soil Survey Center will be asked to coordinate development of interpretations
 - ii. This should be coordinated with the research committee to ensure that any field research is addressed

- iii. Demand for Fertility and Water Quality Related Issues
- iv. Aluminum saturation and ECEC are a major issue in the south region. Aluminum is not routinely populated, but should be. The ECEC and CEC calculations in NASIS are not always appropriate for “mixed” mineralogy soils in Southeast. The Total Acidity calculations need to be run in NASIS.
- v. Watershed Health, including Acid Rain Deposition was discussed. Results of the EPA study in 1980s are not readily available. The USFS initiatives to sample and study sensitive soils could utilize this data.
- vi. Urban Interpretations
- vii. Urban Interpretations and what data elements need to be populated are unclear. National Interpretations are under development and play a key role as starting points for new/revised ones. It is recognized that a large amount of work was done by many folks in the Northeast NCSS Region, especially Chris Smith (Retired NRCS soil scientist previously assigned to the NE NTSC and New Jersey State Office).

2. **Discuss and begin to develop a plan of action to develop, evaluate, and improve new and existing interpretive products to assist decision makers at all levels in the preparation for, response to, and recovery from extreme weather or other disastrous events.**
3. **In line with the theme of the conference, discuss possible methods to improve existing interpretive information and to develop new interpretive products by more fully incorporating information from the parts of the “Earth’s Critical Zone” not documented in traditional soil survey.**
4. **Review progress in the development of local, regional, and national interpretations that address “town and country” issues (aka Urban Interpretations). Identify key areas where existing synergies can be exploited as well as areas where additional work is required. Discuss alternative means of expressing interpretive results to better address user needs (e.g., failure probabilities).**
5. **Discuss the dynamic between National and State/Local interpretations and explore ways to broaden the applicability of National interpretations when appropriate to increase consistency and reduce maintenance workload in the face of steady or decreasing NRCS-SSD staffing and budget.**

6. **Explore future ways of developing and implementing a more efficient and effective means of interpretation development that integrates published soil data and other spatial data and information (e.g., climate, geology, topography, land use/land cover, etc.) to provide real-time, spatial referenced, interpretive products on both the national and local level.**

Interpretations NE, S,NC,W 2012 Regional Conferences

- Interpretations issues can continue to be handled through the Soil Taxonomy Committee. By Laws allow for the establishment of ad hoc committees by the conference committee as participant interest and needs warrant.
- Development of needed inputs into making sound, effective interpretations
 - Need to leverage/target existing data and sampling areas where we can go back and get Ksat and other needed inputs.
 - Get Ksat measurements from well defined areas then interpolate for similar geographically associated areas
 - Need for soil data to develop > 2 m interpretations for activities such as pipeline installation, catastrophic events, etc.
 - Minimum information needed from 2m to either regional water table or bedrock would be: texture, rock fragments, and density of the “critical zone”.
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South Region - Local (state) Interpretations

These are most important to users needing state-specific information. Septic Tank Absorption Fields are a prime example of an interpretation that is more relevant to users than the national interpretation.

There were concerns on how to display on Web Soil Survey.

Support is needed by many states to develop local (state-level) interpretations. National Versions are good starting point. In the past, most local interpretations were written to “fix” national ones that did not work correctly. These were utilized to generate tables for incorporation in the soil survey publications (manuscripts).

Not every state has expertise to program in NASIS. We recognize that criteria to make the interpretations and programming are separate needs.

We had a poster highlighting a new Tennessee septic system interpretation. The criteria developed by workgroup and reviewed by same group. It is critical that the NCSS cooperators be involved in planning and implementation. While the programming was performed by local field staff, much assistance was needed from National Soil Survey Center (Lincoln). Interpretation were reviewed and tested. Templates developed for Web Soil Survey, Access report template and Rule Manager. While many NRCS soil scientists have been trained, few of these people have created or modified

them to be proficient. It is recognized that support at National Soil Survey Center is limited by available staff.

We are concerned how the Soil Survey Restructuring could affect who would assist in creating the interpretations.

It is desirable that there be developed an interpretation tool that may be run outside of NASIS. Universities and others don't have, want, or need access to NASIS to want to make interpretations. This could enhance opportunities for modelers to properly use the data elements they wish to utilize.

RECOMMENDATIONS

1. Requesting that the NSSC develop step-by-step instructions (procedures) for local interpretations
2. National leadership coordinate roles responsibilities between State Soil Scientists (they have responsibility for interpretations) and the MLRA soil survey offices (they have the expertise)
 - Since it is critical that the NCSS cooperators be involved in planning and implementation, national leadership should emphasize the role of the cooperators

Old Business - Mica

Proposals at previous NCSS conferences presented were threefold:

1. Finalize the standards for describing, quantifying, and inclusion in NASIS for data population
2. Change the micaceous family (drop paramicaceous)
3. Develop the criteria so that the appropriate interpretations can be revised

The expected interpretations that would be affected:

- K factor (erodibility)
- Pond reservoir areas (seepage)
- Embankments, dikes and levees
- Road fill
- Slippage potential

The factors driving the need to complete implementation include the NRCS National Bulletin requiring calculation of K factors and the fact that National interpretations do not clearly reflect the limitations these soils present.

The Raleigh MO is ready to increase its focus toward finalizing this effort. This will be discussed at the NE NCSS conference in Maine.

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Urban Interpretations

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OTHER RECOMMENDATIONS

1. Develop interpretations for off-road vehicles – ATVs and 4X4s
2. Incorporate dynamic soil properties into interpretations
3. Incorporate ecological data into interpretations
4. Real interpretations to be utilized in subaqueous soils
5. Allow for rapid response to natural and biological disasters in creating or modifying interpretations to address cleanup. Examples are Katrina, the Gulf Coast oil spill, and Animal carcass disposal that is disease-specific (pH)
6. The NRCS should publish Interpretation criteria guides for distribution and use by all the NCSS

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