

2011 NCSS Conference

Interpretations Committee Report

SUBAQUEOUS SOILS

MARTY RABENHORST

Issues/actions

- Increase emphasis on including SAS mapping / data collection in soil survey work plans
- Continue calibrating/validating interpretations and ecological relationships involving external expertise
- Develop Ecological Site descriptions for SAS

SQ/DSP/ES

Susan Andrews

Recommendations:

- Move DSP & Soil Change working group to Soil Ecology Standing Committee

Septic Systems

Dave Lindbo

Recommendations

- ▣ Use soil properties as pedo transfer functions to estimate k_{sat}
- ▣ Define terms:
 - slight – where conventional system can be used
 - Moderate – soil thickness marginal
 - Severe – need fill or “at grade”?

Consider

- ▣ not providing interpretations for septic and only provide data?

Methyl Hg Availability and Interpretation

Stephanie Connolly

Recommendations

- ▣ Need interpretation for Hg fate
- ▣ ID hot spots in landscapes (areas where Hg could accumulate) and soils conducive to methylation

Public Health Interpretations

Radon

Bob Dobos

Recommendations

- ▣ Continue literature review on factors affecting Radon emanation, sorption, release
- ▣ Refine NASIS based criteria for radon hazard

Radionuclides

Bob Dobos

Recommendations

- ▣ Investigate leaching of Sr and Cs vs soil properties
- ▣ Investigate if Iodine 131 interpretations are possible
- ▣ Study if Sr and Cs are similar to Ca and K in plant uptake characteristics

Urban Soils

George Teachman

Recomendations

- ▣ Idea: provide in WSS, an application for client to enter properties required to run an interpretation for a point
- ▣ Prime farmland: If map unit is urban-prime complex, cannot call the map unit prime presently. One solution is to not make such a complex. Or, change the law.
- ▣ More detailed mapping of Navajo lands needed for various decision making.
- ▣ Standardize type of data to be collected on urban lands

Use of Soil Survey and related data to inform Tribal Land Management Decision Making – Cherokee Nation

David Wyatt

Issues/Actions

- David developed an Integrated Enterprise Database and a Site Plan Review process to evaluate proposed projects on Cherokee lands. Users are connected to the Enterprise Database system and enter the project location into the system.
- 2) The Band contracted with ESRI to write geoprocessing scripts using Python based on existing data layers and hazardous ratings.
- 3) Soils are an integral part of the layers used in evaluated the projects. David worked with local NRCS staff to come up with soil suitability ratings.
- 4) This project has important implications in showing what can be accomplished with tribes on using and interpreting soil information.
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- General Recommendation: Facilitate partnerships that tap into the expertise of NRCS, other NCSS soil staff, private consultants, BIA and tribal technical and local knowledge to improve the soil information delivery system on tribal lands.
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Integrating Soil Survey on Navajo Lands

Anne Meloy

- 1) The Navajo Nation has over 17 million acres. There are 22 completed soil surveys and two ongoing surveys. These are from various time periods and map unit design and NASIS data varies.
- 2) Soil Survey boundaries overlap Navajo political boundaries, Management (Grazing) Districts and BIA Agencies, in addition to numerous county and state boundaries.
- 3) Soil Information Delivery on the Navajo Nation has been hindered by multiple factors. Reports from Soil Data Mart or Web Soil Survey often do not provide the interpretations needed by the Navajo Nation.
- 4) Anne has been working with BIA National Geospatial Resource Center (NGRC) and National Soil Survey Center staff on incorporating a DOI Initiative for data centralization using an enterprise web GIS service to enable direct access to NASIS for BIA.
- 5) BIA Navajo Region management is interested in establishing partnerships and coalitions with other entities within and outside of the BIA and National Cooperative Soil Survey to advance resolutions to these problems.
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Opportunities for the Development and Display of Interpretations on Multiple Scale: Gridded SSURGO and Beyond Sharon Waltman

- ▣ Incorporate other data layers to refine and enhance soil interpretation – “decision support systems”

EPA Wetland Sampling Project

Chris Smith

- ▣ 900 sites sampled nationally
- ▣ Rich data producing project that may be useful for Hydric soil function quantification

Vinyard Suitability

Tom Rice

Issues/Actions

- ▣ Presented Soil properties of importance to vineyard site selection
 - Provide soil properties important for rootstock selection.
 - Provide package of salient soil properties for the viticulturalists to make decisions

Additional Recommendation

▣ Phillip Owen recommended :

Investigate the need for a residential and commercial geothermal trench type heating and cooling heat exchange system interpretations