

# Soil Interpretations Activities at the NSSC



**2013 NATIONAL COOPERATIVE  
SOIL SURVEY CONFERENCE  
ANNAPOLIS, MD**

# New Tools



- **Version 2 of the National Commodity Crop Productivity Index**
- **Drainage Water Management interpretations**
- **Wine grape site desirability**
- **gSSURGO**
- **Bulk density calculation in NASIS**
- **Extractable Acidity calculation in NASIS**
- **Sum of Bases calculation in NASIS**

# In the Works



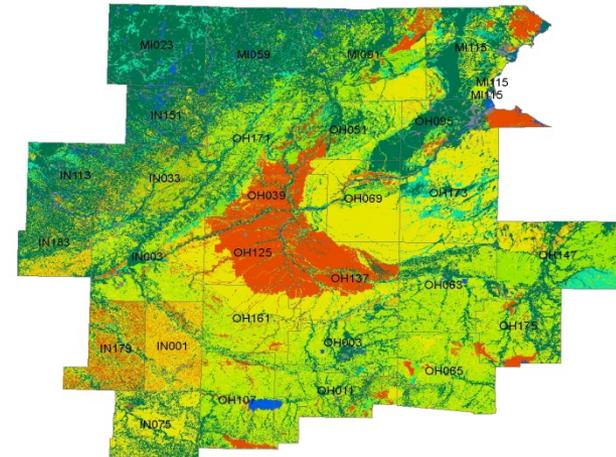
- **Potential Erosion Index**
- **Soil thermal properties**
  - Volumetric heat capacity
  - Thermal conductivity
- **Soil Liquefaction**
- **Seismic Properties**

# Drought Response

- “Cracked and Drained”
  - Drained, cracked soils may provide a conduit for phosphorus to enter the drain pipes when rainfall resumes
- Potential Recharge Areas
- Droughty Landscapes

Maumee River Watershed  
Indiana, Michigan, Ohio

0 12.5 25 50 75 100 Kilometers



Drainage and Shrink-swell Dominant Condition  
Maumee Watershed

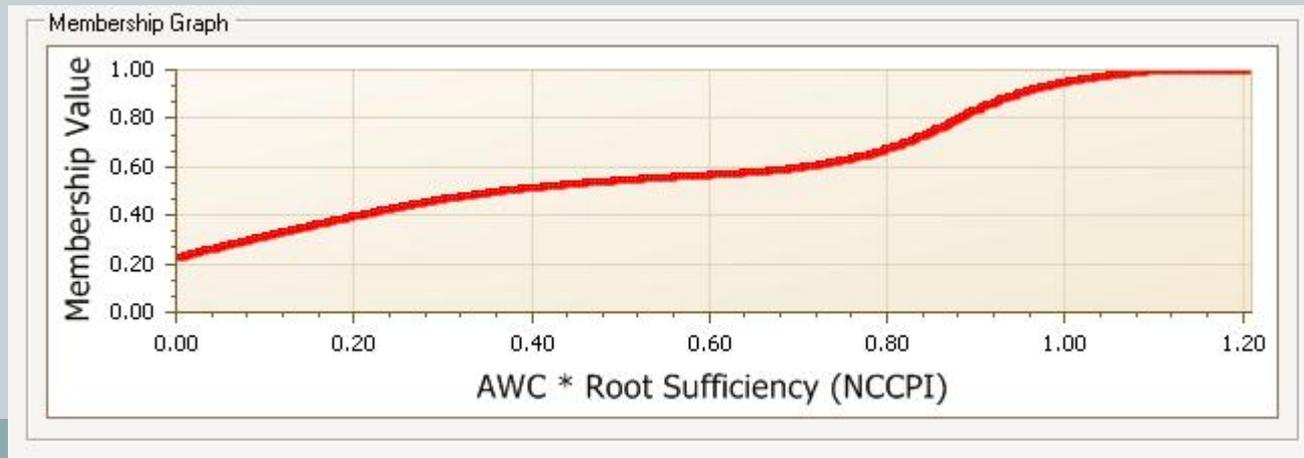
Artificially Drained and Shrink-Swell

- Not drained
- Drained, shrink-swell <2
- Drained, shrink-swell 2-3
- Drained, shrink-swell 3-4
- Drained, shrink-swell 4-5
- Drained, shrink-swell 5-6
- Water
- Null

# Training Courses



- **Introduction to Interpretations**
  - Distance learning class targeted at casual NASIS and GIS users
- **Science of Interpretations**
  - Distance learning class targeted at mature scientists
  - No NASIS involved, but lots of GOOGLE
- **Designing Interpretations in NASIS**



# Intentions/Trends



- Increase the depth of the frame of reference to include the depth of the Critical Zone
- Increase the “universality” of interpretive rules such that an interpretation will be relevant everywhere
- Build the suite of fruit and tree interpretations
- Build the suite of “town and country” interpretations

# Staff



- Michael Robotham – National Leader
- Susan Southard – NPS Liaison
- Linda Scheffe – Agronomist, erosion databases
- Cathy Seybold – Soil Scientist, pedotransfer functions
- Steve Peaslee – GIS Specialist
- Robert Dobos – Soil Scientist
- Ray Sinclair retired after 50+ years
- Doug Dotson retired
- George Teachman defected to soil business systems