National Wetlands Condition Assessment (NWCA)
EPA w/ NRCS Assistance

Assessing the Nation’s Waters
What is the National Wetland Condition Assessment (NWCA)?

• The NWCA is a statistical survey of the quality of our Nation’s wetlands. Designed to:
  • Determine the ecological integrity of wetlands at regional and national scales.
  • Build state and tribal capacity for monitoring and analyses.
  • Promote collaboration across jurisdictional boundaries.
  • Achieve a robust, statistically-valid set of wetland data.
  • Develop baseline information to evaluate progress.
NWCA Site Locations
Soil Pits are placed just off the SE corner of the 4 Veg Plots furthest from the CENTER. One will be chosen as the Representative Soil Pit.
Special Tools for Difficult Soils
Form S-1 (Front)

4 copies of Form S-1 are used per site.
(one per soil pit)
Soil Sample Collection

- Soil samples are collected from the Representative Soil Pit after profile description down to 60cm has been completed for all four soil pits.
- Description of the lower soil profile (60 to 125cm) of the Representative Pit is also necessary.
- Four types of soil samples are collected at the Representative Pit in the following order:
  - Isotope Samples – collected from the surface layer of three locations near the Representative Pit.
  - Sediment Enzyme Samples – collected from the surface layer of three locations near the Representative Pit.
  - Bulk Density (BD) Samples – collected from each horizon greater than 8cm thick down to 60cm.
  - Chemistry/Particle Size Density Analysis (PSDA) Samples (Chemistry) – collected from each horizon greater than 8cm thick down to 125cm.
Future Possibilities

• 900 + pedons sampled nationwide
• Map unit (soil series/phase identified)
• Broad suite of analyses obtained (NSSC lab)
• Vegetation, hydrology, and HGM also determined
• Needs:
  A semi-quantitative classification system for
  **Hydric Soil Function**
Possible Hydric Soil Function Themes

• Sediment trapping ability
• Nitrogen trapping and transformation potential
• Phosphorous retention
• Carbon sequestration potential
• Heavy metal trapping and sequestration
• Methyl Hg production potential