The Iowa Watershed Approach

Iowa Water Center
ISU Extension and Outreach
Iowa Nutrient Research Center
DAILY EROSION PROJECT

- Estimate daily mass of soil transported from hillslopes across Iowa and sections of other selected Midwestern states
- Report these soil erosion values daily and publicly at the HUC 12 spatial resolution.
DEP Database

- 1,647 HUC 12 watersheds
- 36,900,000+ Acres

Major Geo-Spatial Components by HUC12

- Soils - gSSURGO – 10m raster
- Land Use - 2008-2013 NASS Crop Data Layer
- Elevation - LiDAR-based, 2m resolution
- 2009 crop-specific field boundaries
CLIMATE AND EROSION

• Increasing storm frequency and intensity when soils are most vulnerable
• Elevated soil erosion & **water runoff** rates unless we
  • Increase perennial vegetation
  • Build soil health
IWC ROLES (BESIDES DEP)

- Estimating historical loss of soil from HUC 12s and its impact on water retention in the uplands
- Information dissemination via Iowa Water Conference and other IWC channels
- WMAs of Iowa
Extension and Outreach

• For each watershed project watershed:
  – Develop education and outreach plans with integrated communication plans
  – Develop practice-specific outreach materials
Extension and Outreach

• Develop training opportunities for the IWA coordinators at the Iowa Watershed Academy
• Coordinate field days, workshops, and outreach events with project partners
Extension and Outreach

• Collaborate with ISU Research Farms and Extension Specialists to link IWA projects with new or existing on-farm demonstrations projects

• Establish data collection protocols for practice evaluation
Iowa Nutrient Research Center

- Incorporate research findings into project messaging strategies
- Collaborate with INRC project PIs to develop additional outreach materials
Iowa Nutrient Research Center IWA Projects

• Monetizing the Benefits of Conservation Practices Based on the Iowa Watershed Approach
• Scenario Development to Achieve Iowa Nutrient Reduction Strategy Goals
• Hydrometeorological Impacts on Water Quantity and Quality across Iowa’s Streams
• The Impact of Climate Variability and Land Management Practices on Water Quality in Iowa at the Watershed Scale.
Project Assessments and Evaluation

• Create field day and event evaluations for all projects to utilize
• Conduct mid-project assessments with each watershed project
• Conduct an end of project evaluation