



NRCS Research and Technology Needs Water Availability and Watershed Management “Agronomic Perspective”

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SUCCESS is all about PARTNERSHIPS



Priority Research and Technology Needs

Water Quality

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Soil Erosion

Wind

Water – Sheet and Rill

Water – Ephemeral

Soil Health

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Transport and Fate of Nutrients (N & P)

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Resilience to weather extremes

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Water Quality



Lake Erie 2011

- Nitrogen and Phosphorus
 - Nitrogen - Technologies to predict and address movement via surface transport, leaching, tile drainage
 - Phosphorus – Technologies to address movement from applied fertilizer, manure, soil particles
 - Technologies to address major runoff events

Soil Erosion



Sheet
Rill
Ephemeral



Wind

- WEPP – adopting WEPP 2016
 - Address sheet and rill
 - Predict Ephemeral
 - Terrain Analysis
 - Predict Risk & Runoff
- WEPS
 - Continue to improve prediction
 - Predict risk

Soil Health



- **Systems soil resource treatment**
 - Better understand and quantify soil health.
 - Understand and use soil health “tests” for decision making.
 - Build resilience to address climate extremes and food production.

Transport and Fate of Nutrients (N & P)



- Nitrogen Emissions
- Nitrogen Leaching
- Nitrogen Tile Drainage
- Nitrogen in streams, rivers, lakes, & oceans
- Phosphorus dynamics in the soil based on soil type, STP level, legacy P
- How to address major runoff events

