



United States Department of Agriculture

Natural Resources  
Conservation Service



# Mississippi River Basin Initiative (MRBI)

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February 16, 2023



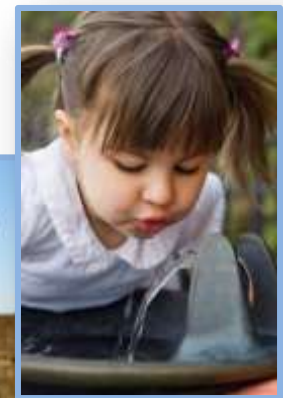
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# Landscape Conservation Initiatives

Initiatives have national or regional significance and focus on critical resource concerns at the landscape level

- Build on existing locally-led efforts
- Partnership driven
- Dedicated funding to accelerate implementation
- Science-based
- Focused on performance and environmental outcomes



# Mississippi River Basin Initiative (MRBI)

- Launched in FY 2009, MRBI targets small (HUC12) watersheds in the 12 State region of the Hypoxia Task Force to improve water quality, and help all states implementing [Nutrient Reduction Strategies](#)
- Uses a locally led approach to work with knowledgeable partners in the area
- Participation is voluntary, contracts offer financial assistance
  - Since 2010, Implemented over \$402 Million in contracts, on over 1.7 Million acres
- Requires detailed watershed plans submitted by State NRCS office or partnering agency



# MRBI State of Science

- MRBI is directed by a combination of locally led, partner input and science backed methods

## CEAP Cropland Assessments Modeling Strategy:

- Formed generalizations of cropland activity at the HUC4 scale
- Helped shape MRBI to take a systems and targeted approach

## Agricultural Policy Environmental Extender (APEX)

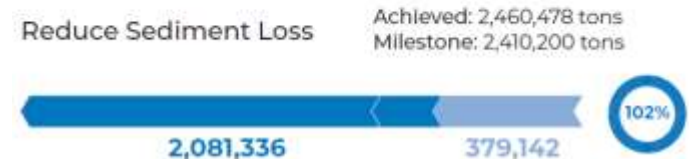
- Simulates all biophysical processes including hydrology, crop growth, and nutrient and pesticide fate
- Estimates edge of field loss and effects of Conservation Practices



### Overall Summary FY 2012-21

Total NRCS Investment.....	\$402,436,197
Number of Contracts.....	9,720
Total Acres Contracted.....	1,729,626

### 2023 Milestones: ■ FY 2012-19 ■ FY 2012-21



### High SVI Acres Treated Across all MRBI Watersheds as a Percent of All Treated Acres (Since FY2005)

Treating Acres for Surface Loss





# Systems Approach to Nutrients: Avoiding, Controlling, Trapping (ACT)



## Avoiding

- Nutrient management
  - Rate, Timing, Form, Method



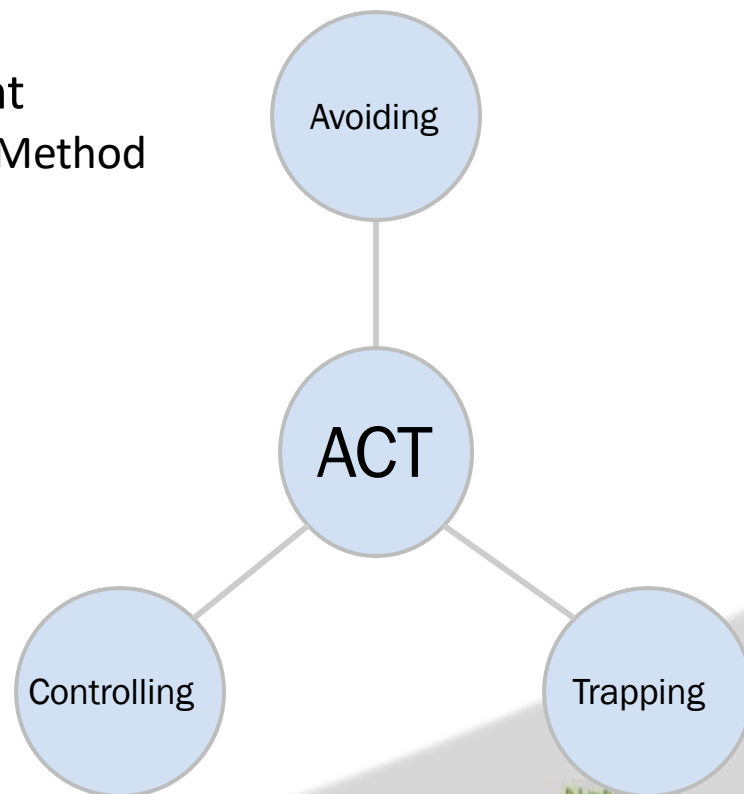
## Controlling

- Residue and tillage management
- Drainage water management



## Trapping

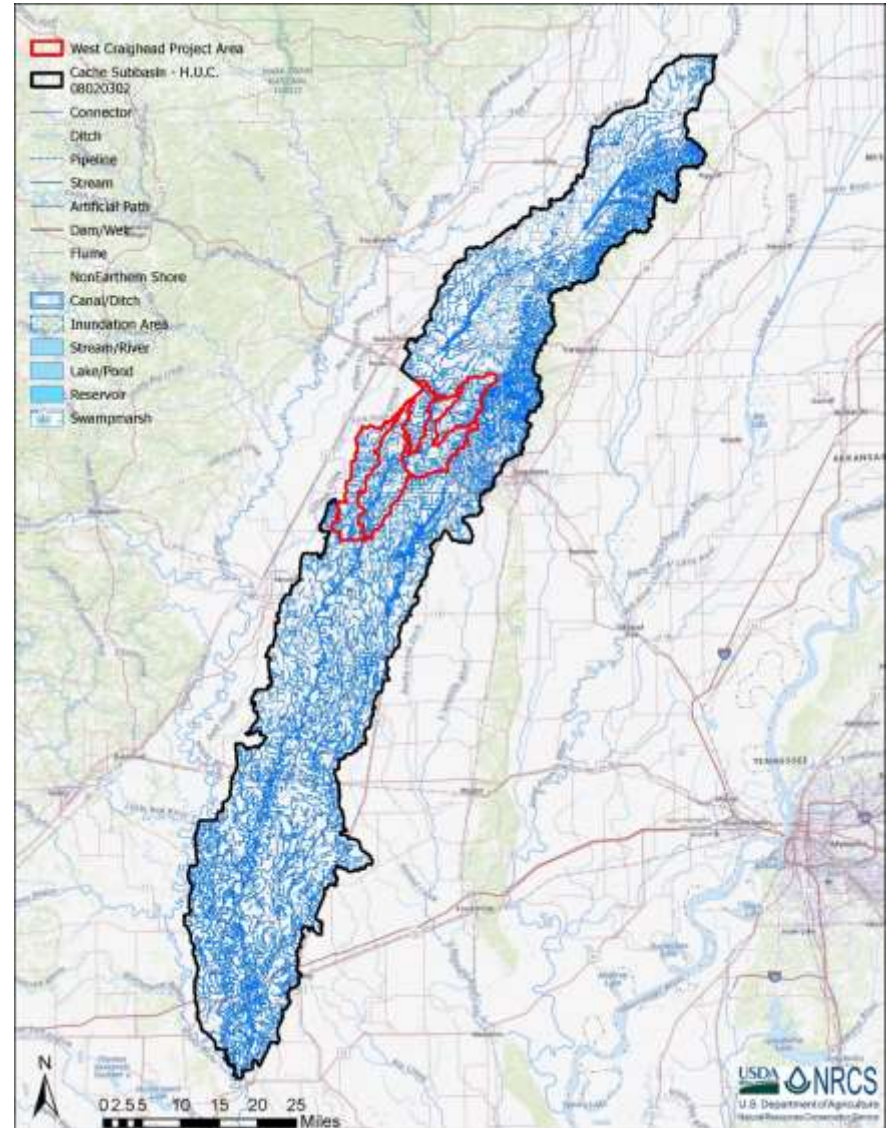
- Buffers
- Wetlands designed for nutrient removal



# MRBI Targeted Approach



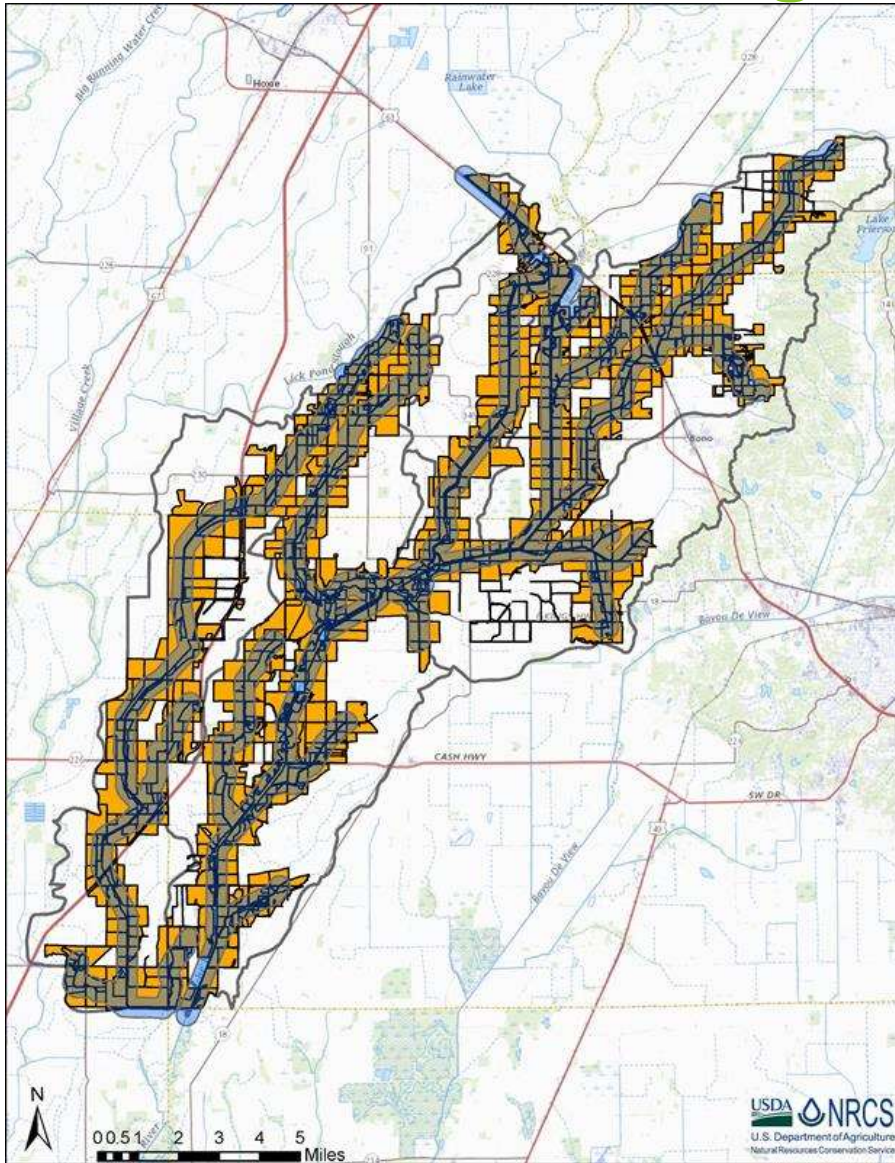
MRBI Focus Areas



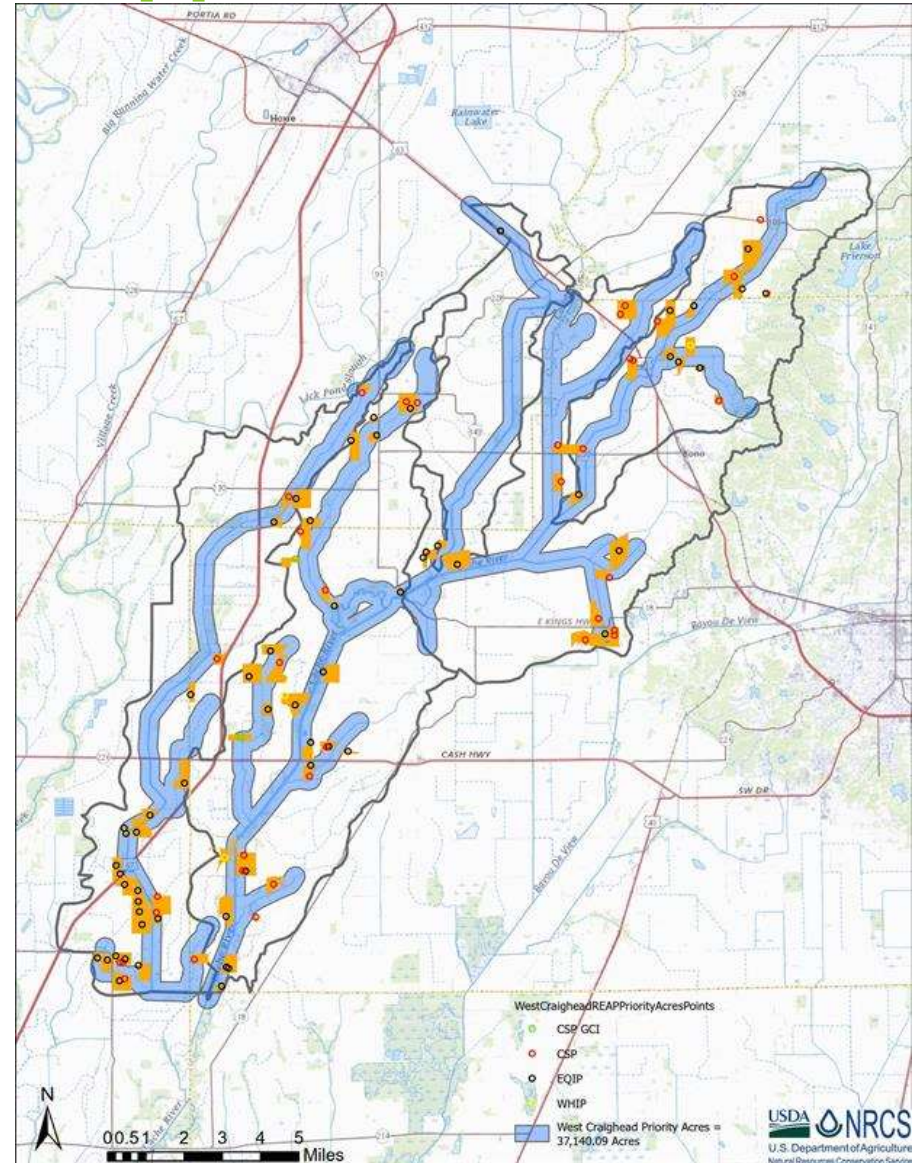
Cache River HUC 8



# MRBI Targeted Approach



Priority Areas



ACT Practices

# Data Gaps and Areas of Concern

**Always looking for innovative ways to improve MRBI**

- Watershed scale planning tools i.e. Agricultural Conservation Planning Framework (ACPF)
- Incorporating new practices on the ground

**Understanding and building resilience to climate change in our fields**

- Flow variations
- Increased nutrient loading
- Building our knowledge on how climate will affect the future of agriculture



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# Priority Next Steps & Resources Needed

## Extension of MRBI/NWQI seeking stakeholder feedback

- Anticipating Request for Information (RFI) in Federal Register

## Working with our partners (federal, state, local, non-profits) to implement tools and resources into planning

- Engaged with HTF to understand climate challenges
- Support UMBRA to help states implement NRS
- More public facing material and maps to show progress
- Ensuring equity within MRBI

## Engage with outside agencies for MRBI partnership opportunities





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