

Reducing the Health Impacts of the Nitrogen Problem

A Virtual Workshop from the Environmental
Health Matters Initiative

New sessions every Thursday
from 2:30–5:30 PM (ET)
from January 28 – February 25, 2021



Building Coalitions to Develop and Implement Solutions

Roger Wolf, Director Iowa Soybean Association
Research Center for Farming Innovation

Coalition Building – Nexus of Art, Science, Business, and Policy

The Ingredients: One Water Approach and Operationalizing the Venn

- Water Quality
- Watershed Planning and Implementation
- Multi-scale systems thinking
- State/Federal Policy and Programs
- Nitrogen Management – for Agronomy and Loss
- Water Management
- Research and Technology
- Agriculture and Urban Communities

Our Experiences and Examples in Iowa



Iowa Soybean Association

- Created 1964
- Headquarters in Ankeny, Iowa
- Elected volunteer board of 22 farmers
- 38,000 soybean farmers
- Production 500 million bu. on 10M acres annually

Key Ingredients: Driving Innovations Intentionally

- Invest in human resources to add capacity
- Entrepreneurial
- Quest for inquiry and discovery
- Build culture of collaboration
- Bridging disciplines via an integrated framework
- Seek impactful outcomes with value



Water Challenges – Upstream

- Increased erosion
- Flooding
- Crop damage
- Productivity
- Nutrient loss

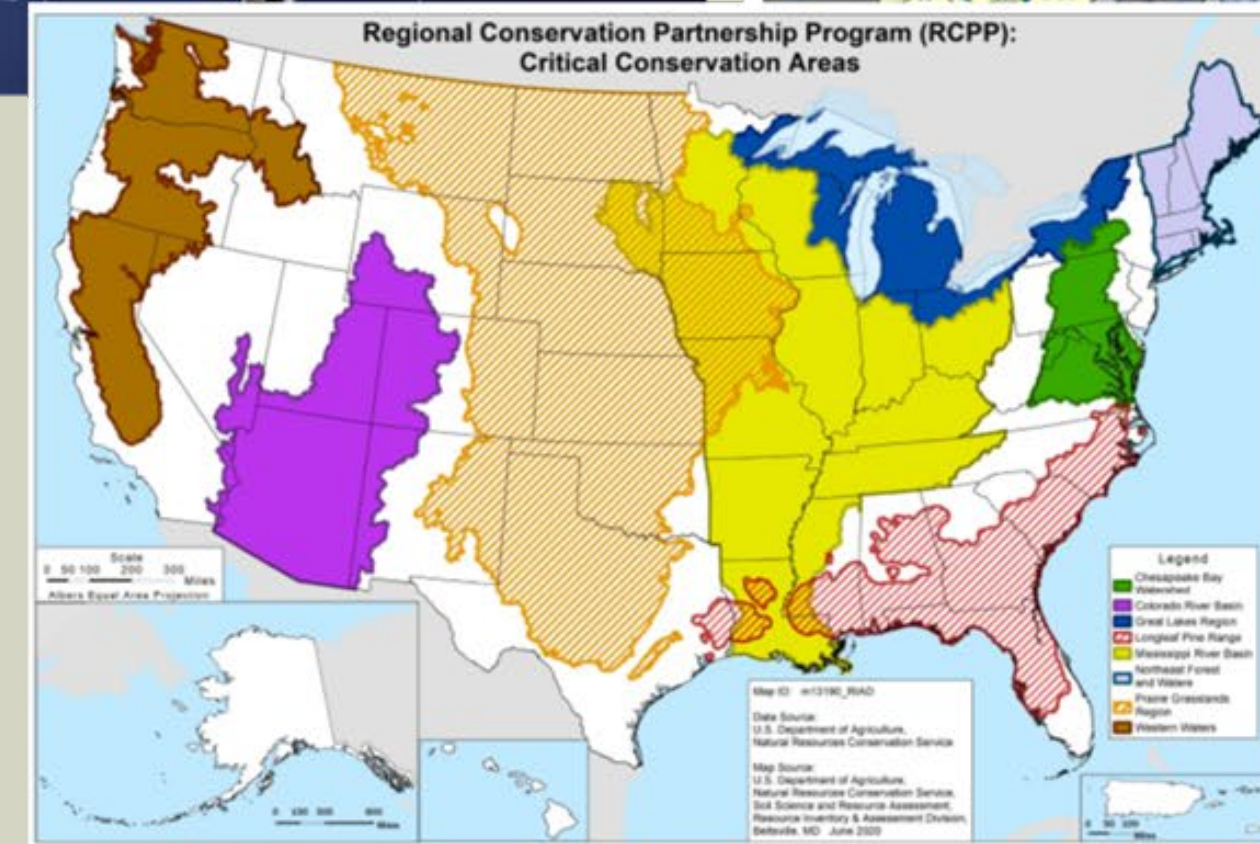
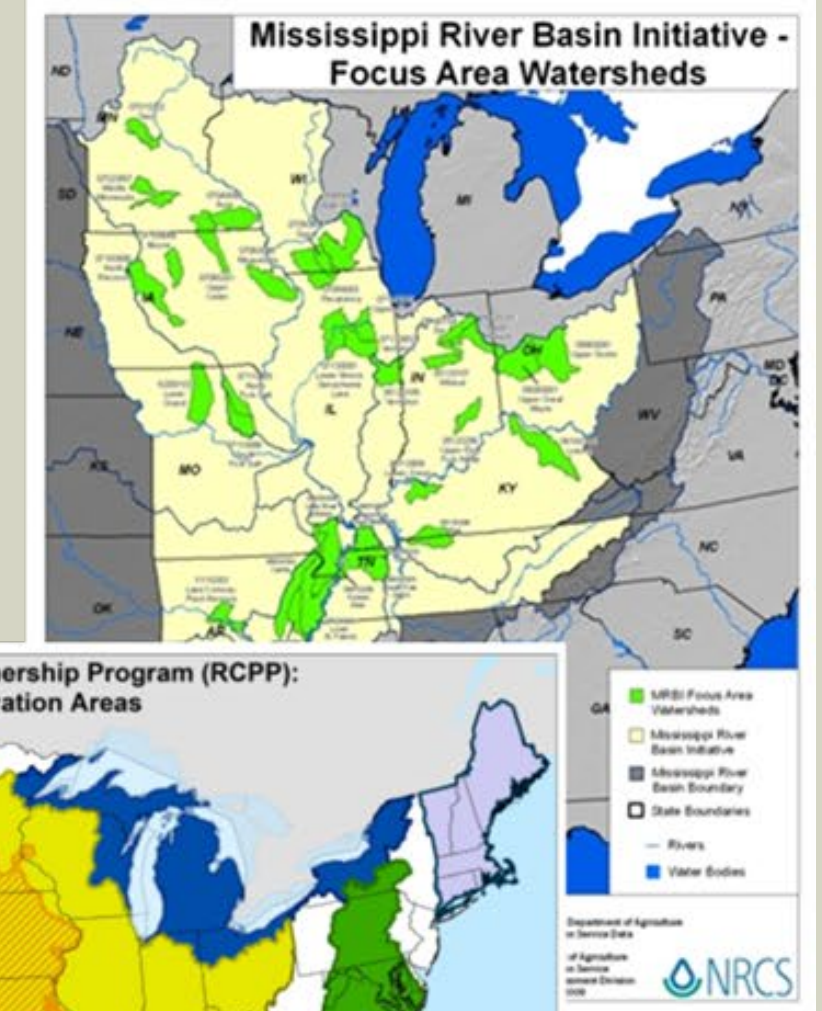
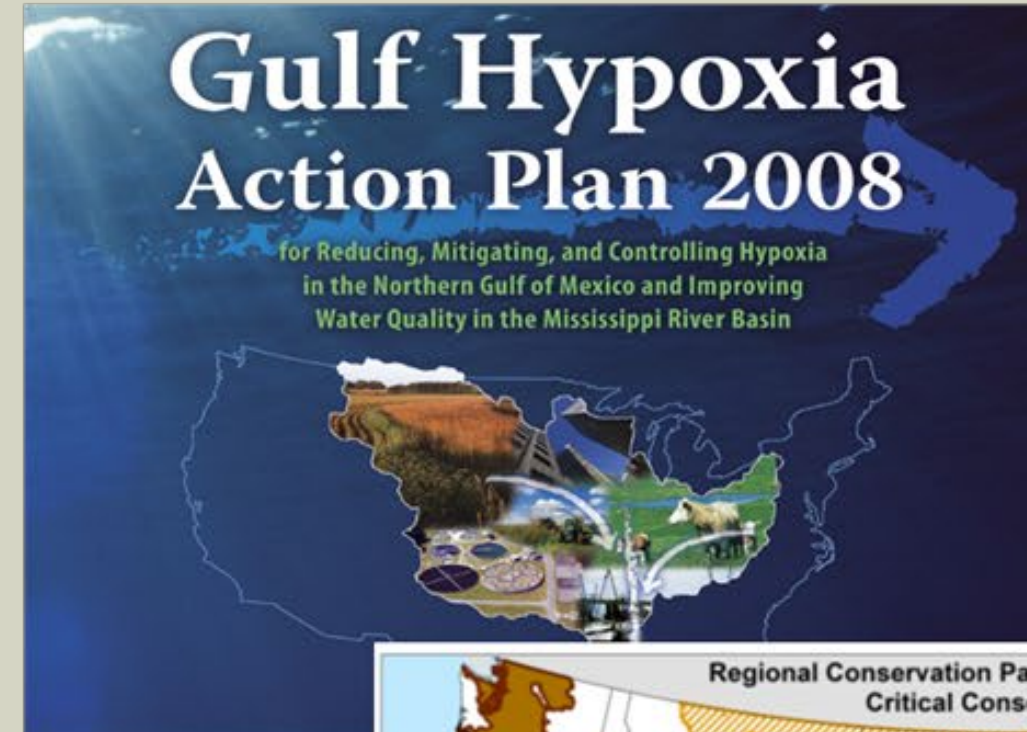


Water Challenges – State/Federal Response

Gulf Hypoxia – Mississippi River



Iowa Nutrient Reduction Strategy

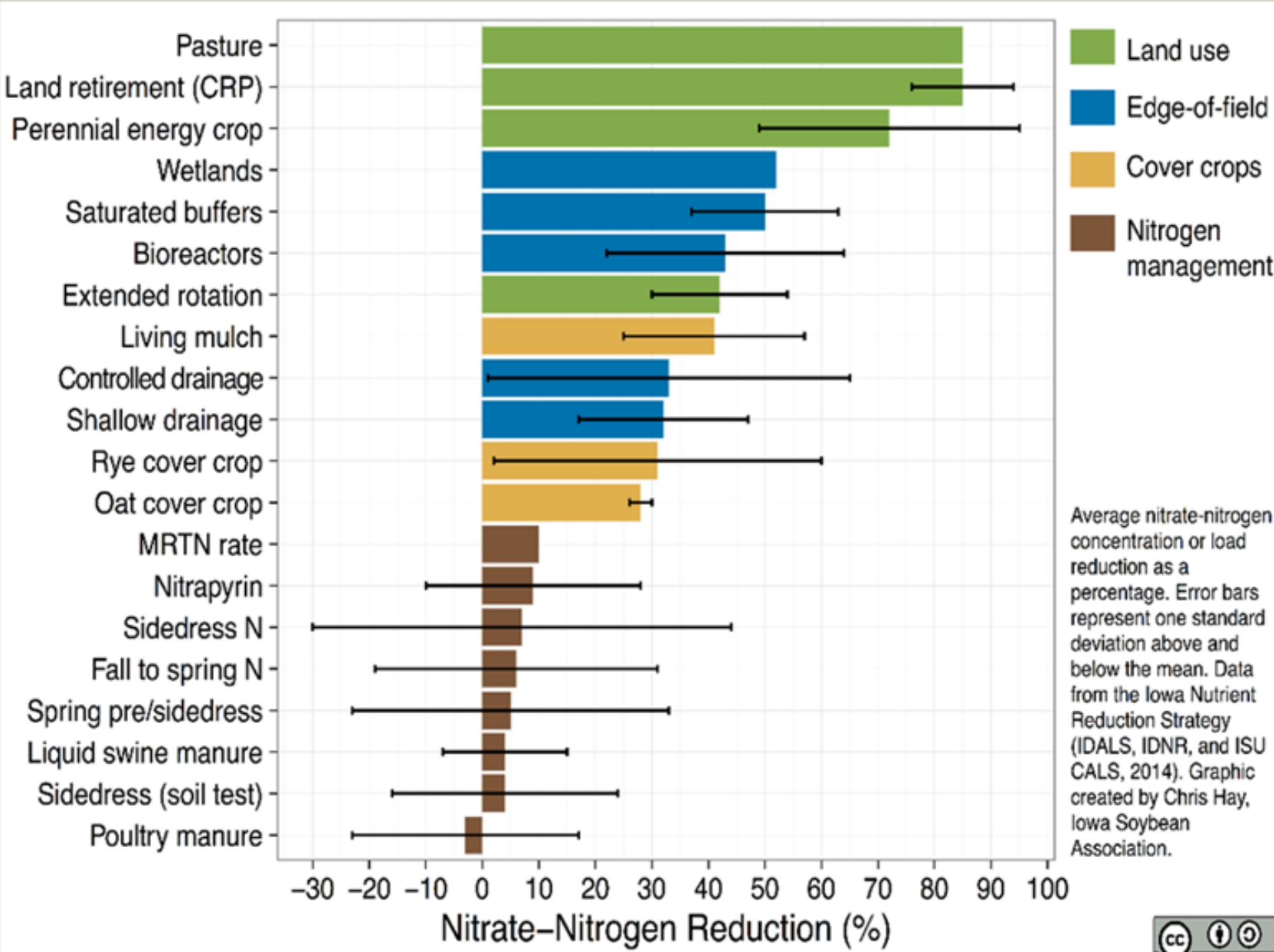


Innovating and Integrating Process and Practices for Outcomes and Scaling

Watershed Management Planning Framework



Nitrogen Loss Reduction Varies By Practice



HOLLAND CREEK WATERSHED PLAN

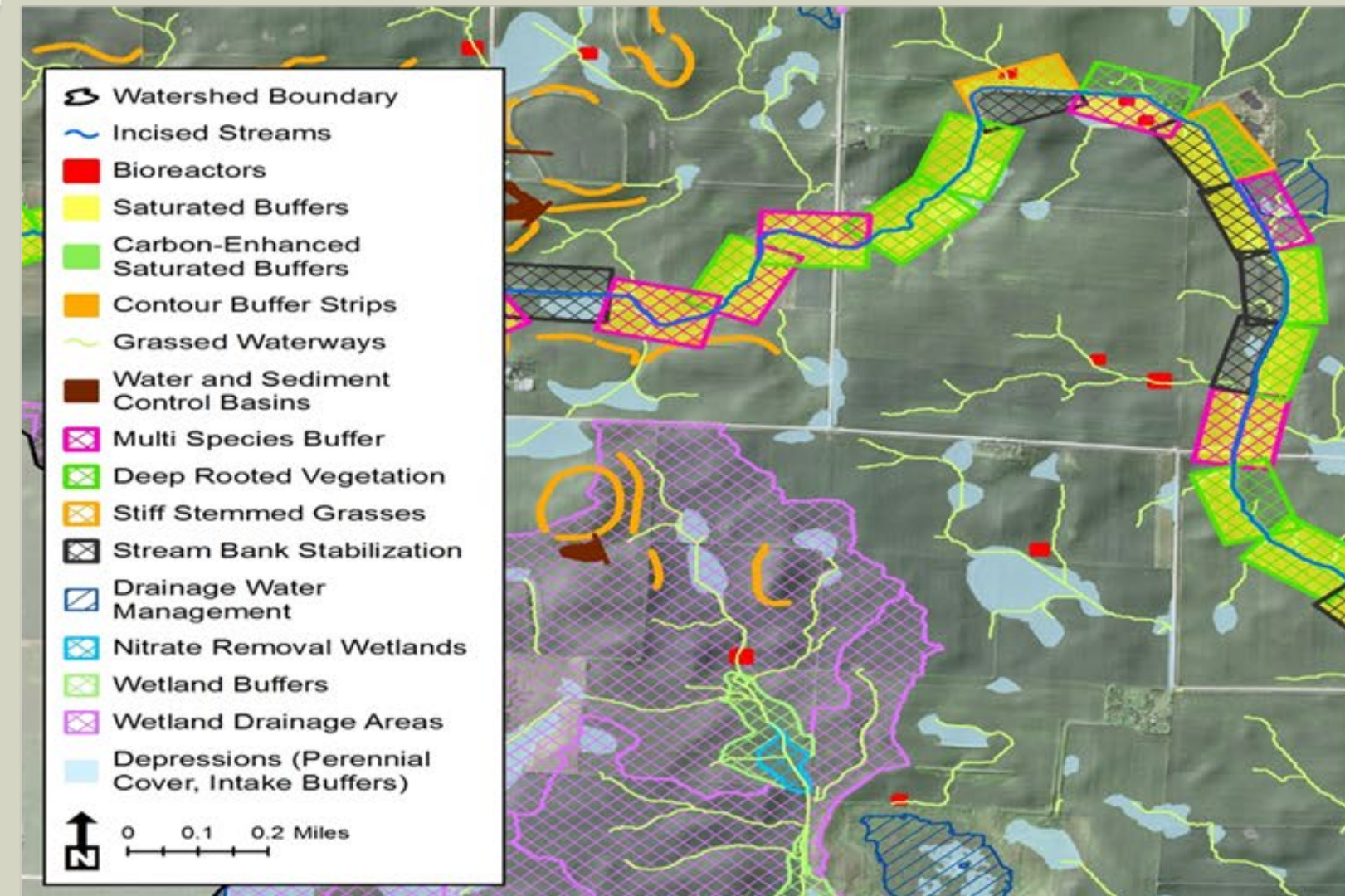
A guide for healthy soil and clean water
in the Holland Creek Watershed



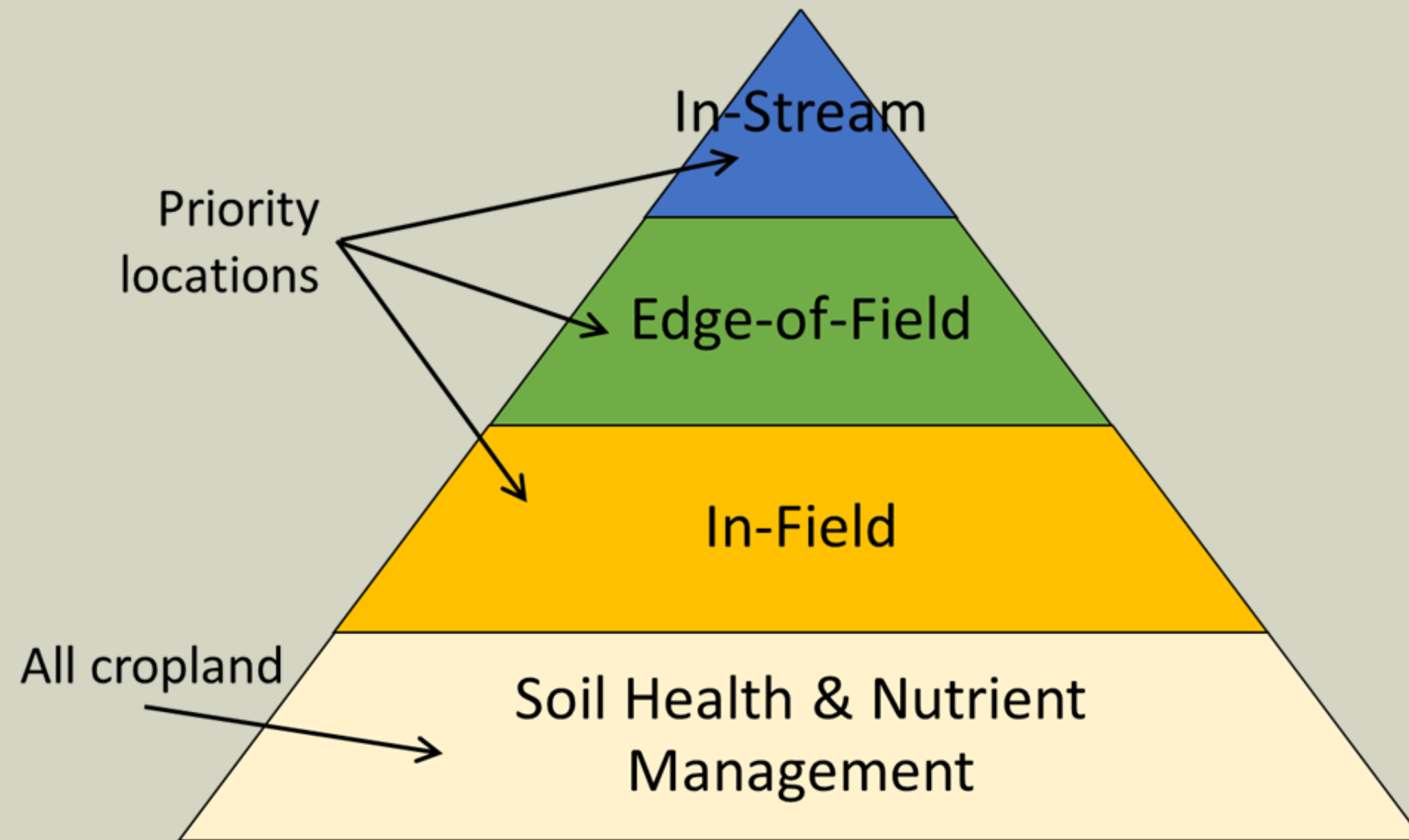
Iowa Soybean Association
Environmental Programs & Services



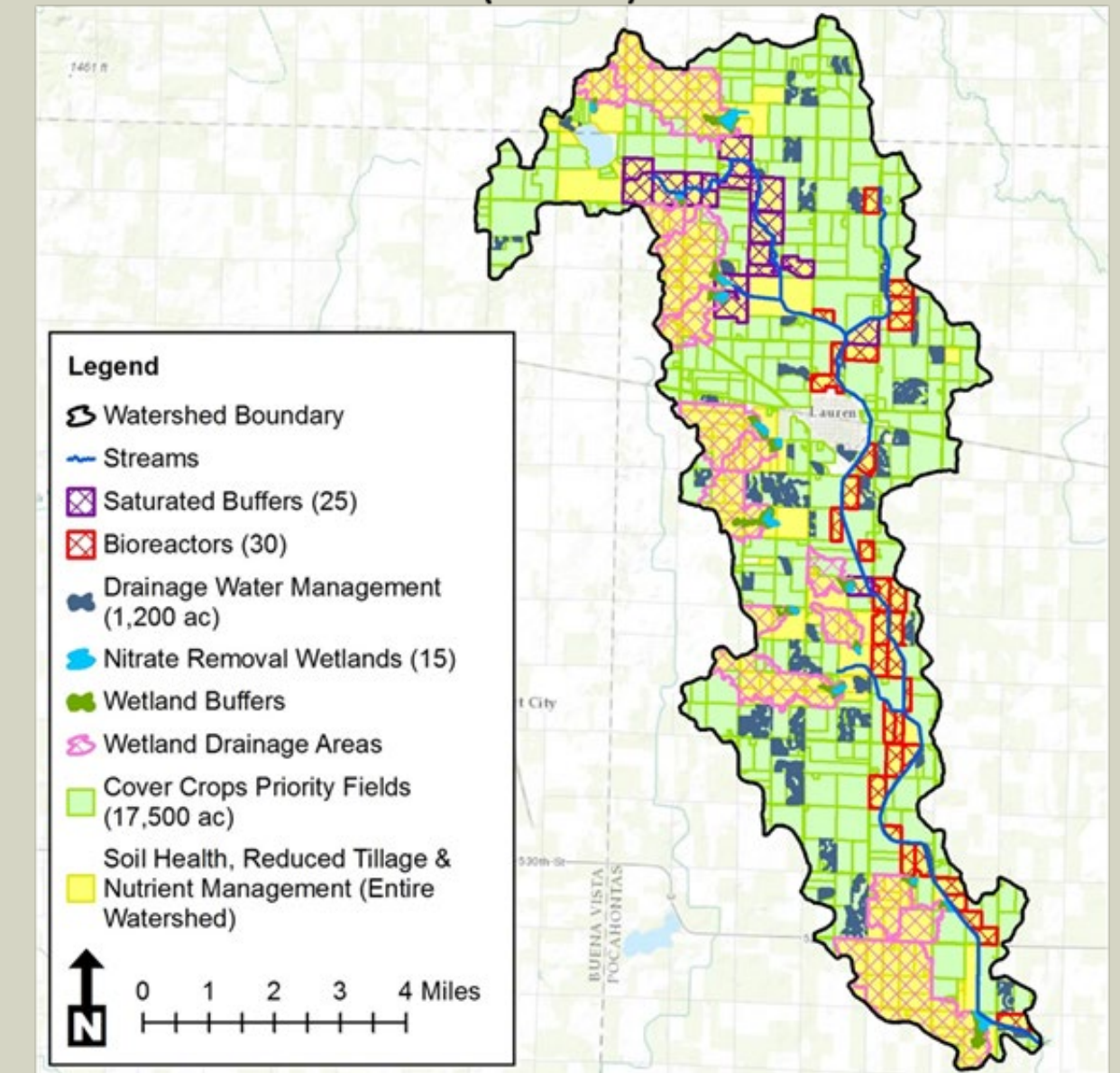
A watershed plan identifies
goals and the best approaches
to achieve them



The Conservation Pyramid – Scale and Geography Matters

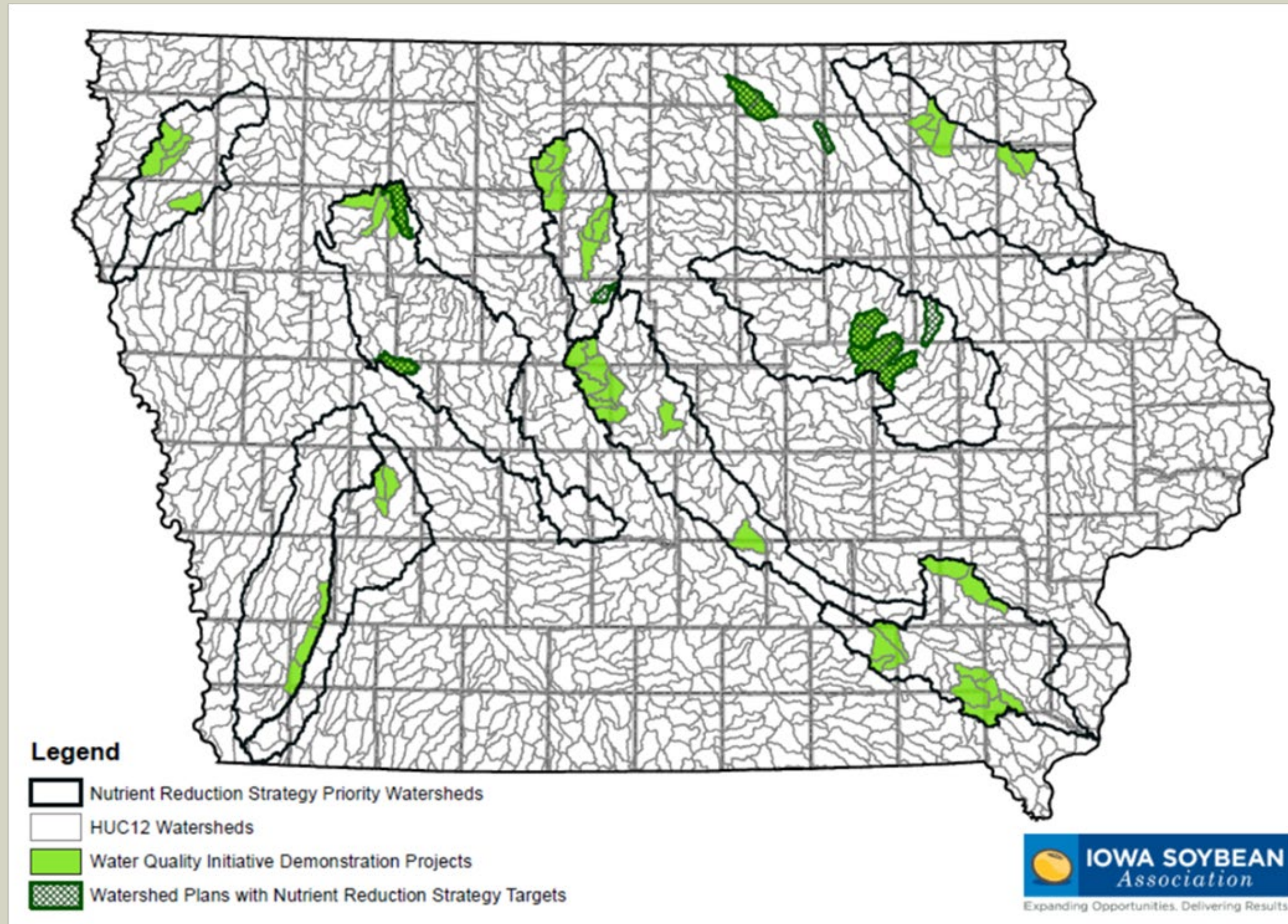


Agriculture Conservation Planning Framework (ACPF)



SCALING UP

Taking the Iowa Nutrient Reduction Strategy from the demonstration phase to full scale implementation



- 2015 -2020 ISA staff developed 25 small scale watershed plans
- Meets EPA's Nine Step Plan requirements and aligns with USDA programs
- ISA secured \$900K to development of plans
- Local partners secured over \$38 MM in state, federal and philanthropic support for implementation

Middle Cedar Partnership Project (MCPPE)

Collaborating for Soil & Water Quality



Collaboration and Coalition

- Connecting Upstream and Downstream Stakeholders on mutual concerns and values
- Urban and Rural

MCPP

WHY COLLABORATE?

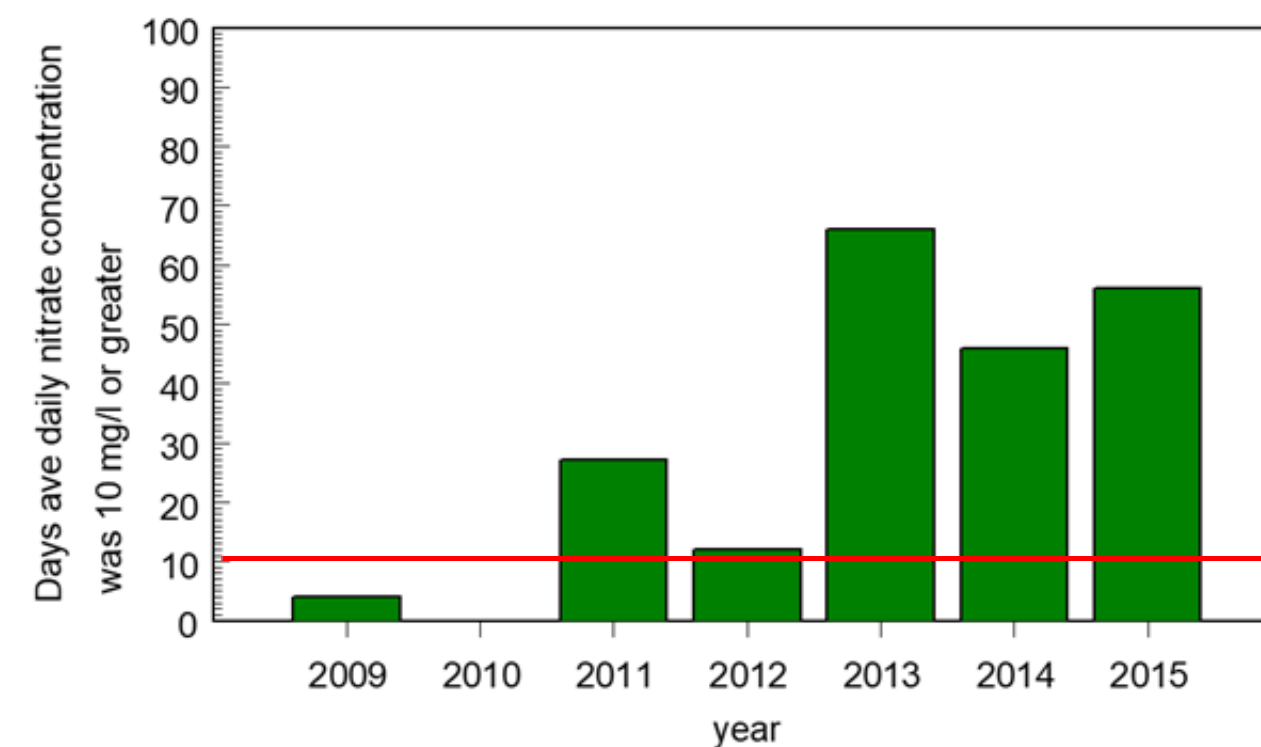
Historical Flood Crest in 2008 and Source Water Nitrate Trends



Nitrate concentrations in the Cedar River 2009-2015

Cedar River at Cedar Rapids, IA

(April through October)



WHY AGRICULTURE IS IMPORTANT TO CEDAR RAPIDS



World's Grain Capital

- **#1 in corn processing**, using roughly 3% of all the corn produced in the country
- Industries use **20% of the world's oat crop**
- Approximately **1.3 million bushels of corn** are hauled to CR daily.



MCPP

PARTNERING FOR SUCCESS MIDDLE CEDAR PARTNERSHIP PROJECT

NRCS through
Regional
Conservation
Partnership
Program (RCPP)
contributing \$2.0M
Primarily financial,
some technical
assistance



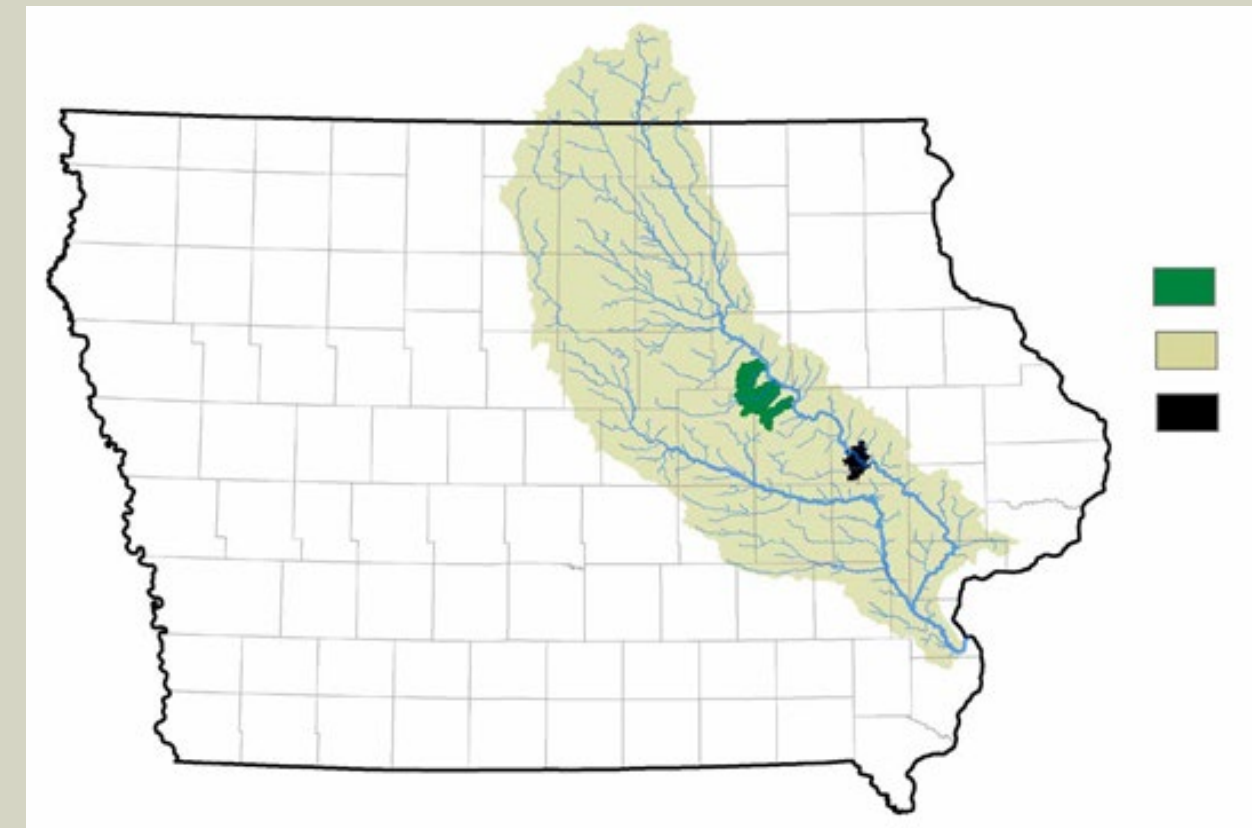
16 MCPP
partners
contributing
\$2.3M
Primarily
technical, some
financial
assistance



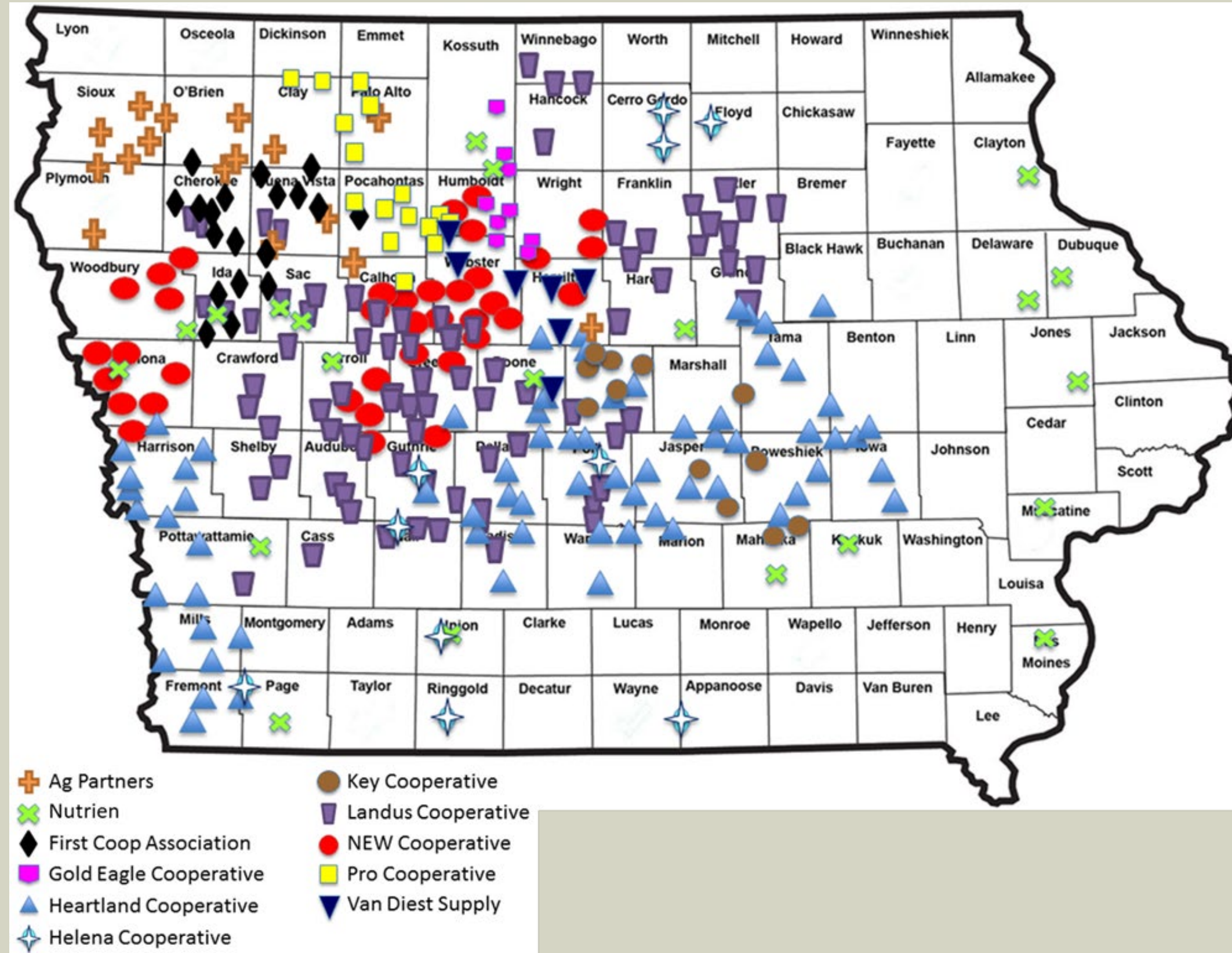
\$4.3M available
over the next
five years



Clock started
June 5, 2015



Agriculture's Clean Water Alliance Member Footprint



Collaboration and Coalition

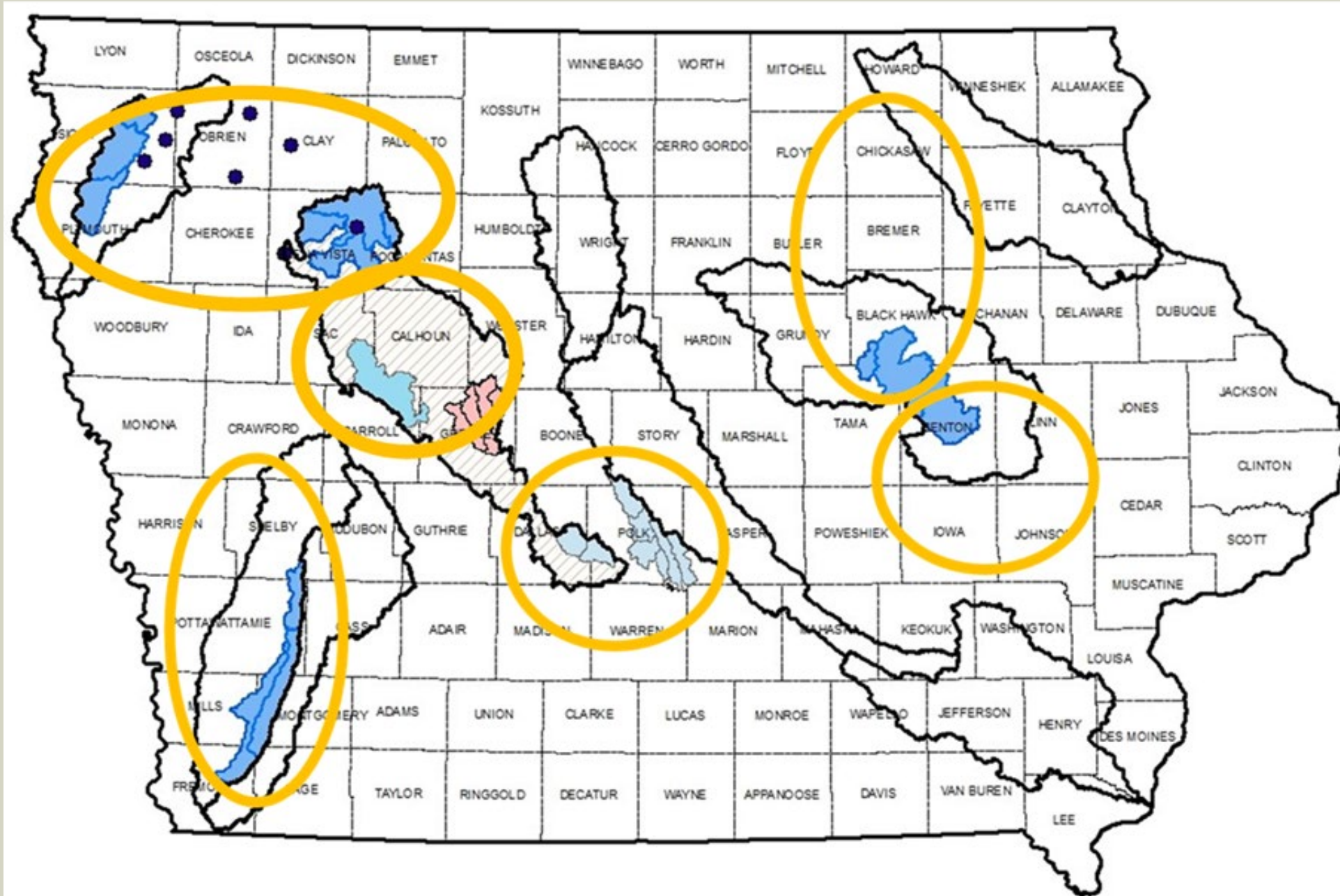
Group of 17 Agriculture Retailers and Associate members with common mission to identify and advance solutions that reduce nutrient loss, build healthier soils and improve Iowa's waters.

Supports:

- Collaborative partnership projects
- Technical support
- Water monitoring

Technical Infrastructure Support Conservation Agronomist's

Coalition Partnership with Ag Retail



- In 2020 ISA working with Agriculture's Clean Water Alliance has network of 6 Conservation Agronomist's embedded with-in Ag Retail outlets
- Provides technical outreach to farmers to assist with practice adoption
- Leveraging retail sales agronomists
- Interfaces with other coalitions and collaboration

Summary

Keys to Building Coalitions

- **Leadership with Horsepower**
Administrative enterprise with a willingness to lead
Supportive policy and programs with funding cash flow
- **Shared Reasons and Values**
Business and economy
Health and well-being
- **Research, Data, Tools, Technologies, and Processes**
Watershed planning AND implementation
Measurable and verifiable outcomes leading to results delivering value and impact





Thank you!