

*Integrated Market-like Strategies to Meet the
Iowa Nutrient Reduction Strategy
- A Solution to Gulf Hypoxia?
“Nutrient Reduction Exchange” to Unify
Interests & Efforts Under the INRS*

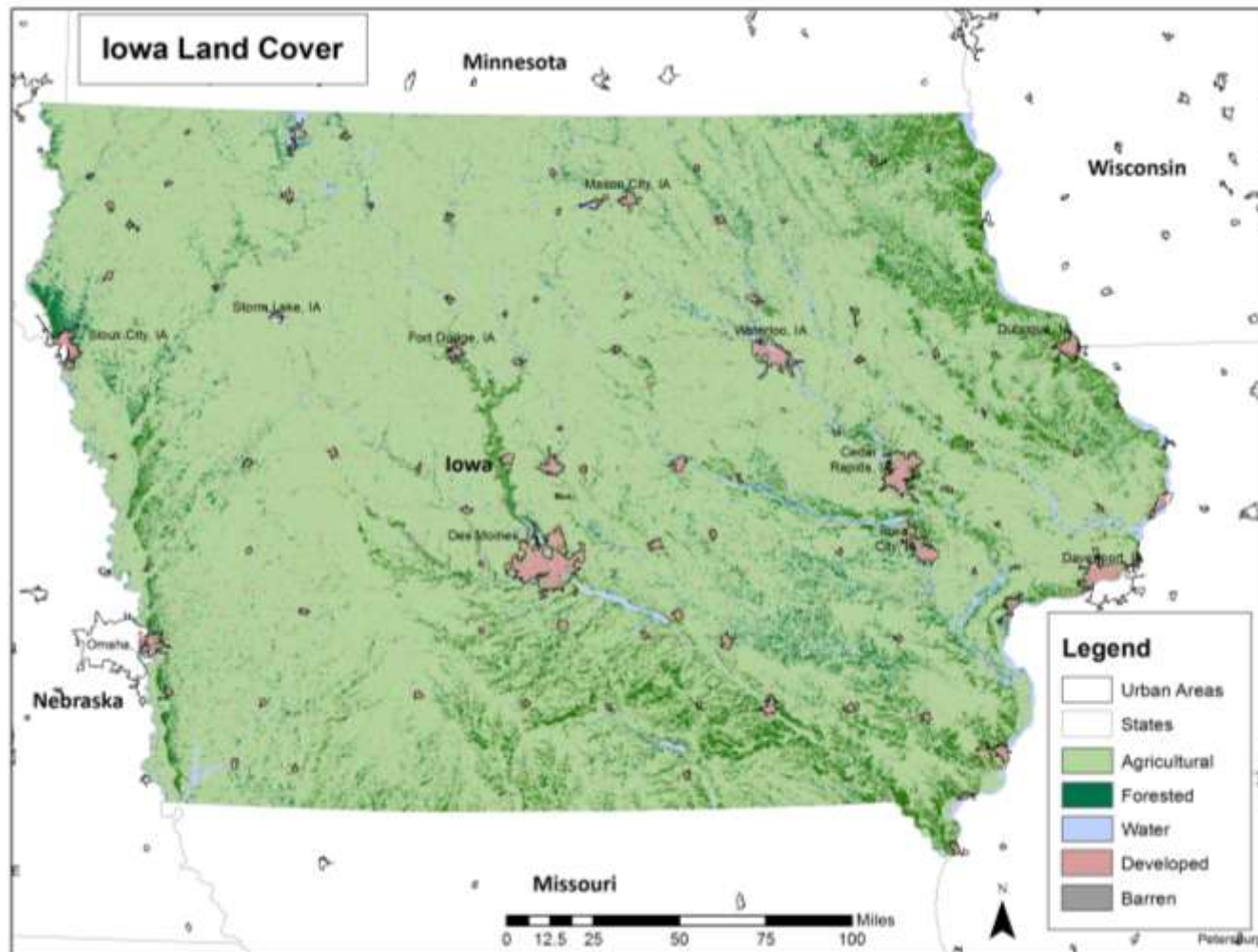


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Iowa Efforts with USDA CIG Support

- IA League of Cities-led
- Develop a WQT framework for Iowa
- Create voluntary Nutrient Reduction Exchange (pre-trading)
- Build upon SRF “sponsored project” opportunities
- Explore stacking of Swampbuster opportunities
- Engage Ag commodity group support
- Watershed targeting of effective practices
- Practice optimization through flood modeling

Ag vs. Urban in Iowa



PSs (~100) in INRS
(65/77% N&P)

Ag 45% N&P goal;
\$4B+



IA Nutrient Reduction Strategy

- Inherently recognizes varying regulatory, economic and social motivations to reduce nutrient loading:
 - Municipalities – wastewater
 - Agriculture – managerial and/or structural practices
- Accommodates OTHER goals:
 - Municipal
 - Economic growth
 - Flood mitigation
 - Stream restoration
 - Habitat
 - Agriculture
 - Increased farm productivity (drainage/yield, soil health, reduced input costs)
- SRF Sponsored (upstream) Projects
- Water Quality Trading options
 - ***“SOMEONE ELSE FIGURE IT OUT”***



Water Quality Trading

- 2003 EPA Water Quality Trading Policy
 - Allows one source to over-control for a pollutant at a lower cost, selling the over-control as “credits” to another source that is not able to reduce pollutants as cost-effectively
- Compliance-driven
- Reality of a thin market in Iowa
- DNR early adoption letter signaling recognition of nutrient reduction projects (11/24/15)
- **No clear path forward for early investments**

Enter the CIG idea for an “NRE”

- Nutrient Reduction Exchange – Tracking mechanism...**consistent with WQT rigor**... to allow nutrient sources across the state to register and track nutrient reductions from projects that target NRS goals
- Pre-trading nutrient credit registration for later compliance use
- Tracking other ancillary benefits



Broad Partners & Interest

- **Agriculture**

- Iowa Soybean Association
- Soil & Water Conservation Districts
- Iowa Corn Growers
- Iowa Farm Bureau Foundation
- Iowa Drainage District Association

- **Municipal**

- IA League of Cities
- Dubuque
- Storm Lake
- Cedar Rapids
- Iowa Association of Municipal Utilities

- **Academic**

- Iowa State University
- University of Iowa

- **Environmental**

- Environmental Law and Policy Center
- Iowa Environmental Council
- The Nature Conservancy
- Iowa Natural Heritage Foundation

- **Government**

- Iowa Department of Agriculture and Land Stewardship
- Iowa Department of Natural Resources
- Environmental Protection Agency

- **Industry**

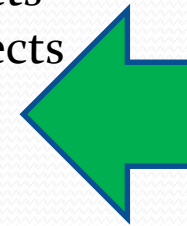
- Bolton & Menk
- Stanley Consultants
- Ecosystems Services Exchange
- Alliant Energy
- Iowa Association of Business & Industry

Nitrogen
Phosphorus
Sediments
Flow
Flood Mitigation
Habitat

**N & P
Reduction
Projects**

Farmers
Drainage Districts
Sponsored Projects
WWTPs
MS4s
Drinking Water
SWCDs

Publicly –
financed
Projects and
those for
Registered
Offsets



**Nutrient Reduction
Exchange** (*registry*)



Accounting
Certification
Verification
Registration
Tracking
Transferability
Certainty
Efficiency
Transparency



**Backstop to
INRS/Offsets
for Growth**

Small
Community
Participation



Regulatory Review
Credit Baselines
Trade Ratio (>1 : 1)

**WQCT for
Compliance**

NRE/WQT Framework Concepts

Nutrient Reduction Exchange

- Voluntary
- INRS-driven
- Supports all sectors
- Regulator-approved
- Reductions: Real & Quantifiable
- Accountable/trackable
- Transparent
- For publicly financed projects and those for registered reductions

Water Quality Trading

- Voluntary
- **Compliance-driven**
- Supports all sectors
- Regulator-approved
- Trading Credits: Real, **Surplus, >1:1**, & Quantifiable
- Accountable/trackable
- Transparent
- For publicly financed projects and those for registered **credits**

City needs
flood
mitigation &
nutrient
credits/
DEMAND

Farmer
needs
improved
drainage
DEMAND

Drainage
District...
Swampbuster

Conservation
Groups

\$ →

←

\$

Satur
buff

Drain
water

Biore

SUPPLY

Nutrie
Credit

Swampbu
Mitigation



NRE Registry

- Formal project recognition for later use
 - INRS progress
 - Offsets for growth
 - Future WQT
- Track other ancillary benefits
 - Informed investments

Registry Information	NRE	WQT
Credit Generating Entity Information (Non-confidential)		
<i>Name/Contact Information</i>	X	X
<i>Watershed Location (HUC#)</i>	X	X
<i>Crediting Project Identifier (i.e., serial #)</i>	X	X
Credit Generation Information		
<i>Credit Generating Practice Type (Ag)</i>	X	X
<i>Crediting Project Installation Date</i>	X	X
<i>Lifetime of Practice</i>	X	X
<i>Lifetime of credits</i>		X
<i>Credit Calculation Method</i>	X	X
<i>Estimated Reductions</i>	X	X
<i>Verifier/verifying entity</i>	X	X
<i>Retirement date of credits</i>		X
<i>Crediting Project Baseline</i>		X
<i>Project Monitoring</i>	X	X
<i>* Actual Credits</i>		X
Type of Credits		
<i>Nutrients (TP, TN)</i>	X	X
<i>Sediments</i>	X	
Ancillary Benefits Reported		
<i>Habitat</i>	X	
<i>Flood mitigation</i>	X	
<i>Carbon</i>	X	
<i>Other</i>	X	
Buyer Information		
<i>"Credits Needed" Board</i>		X
<i>Regulated Discharger Contact/Permit Information</i>		X
<i>Watershed Location (HUC#)</i>		X
<i>Compliance Year (timeframe)</i>		X
<i>Credits Purchased/Used/Retired</i>		X
Public Accessibility to Trading information		
<i>Some</i>	X	X

So what...

- Recognition of early reductions pre-WQT framework
- SRF \$s for upstream investments
- Stacking...*aghhhh!*
- Stakeholders 'on board'
- Driving unified approaches (quantification, tracking)
- Driving informed investments



Thank you...

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