

EPA's Water Quality Trading Policy

Promoting Market-Based Mechanisms for Improving Water Quality

Public Webinar
Prepared by the EPA Office of Water
March 5, 2019

Today's Webinar

- Purposes of EPA's February 6, 2019 memorandum
- Overview of the six market-based principles
- Presentation by the Iowa Department of Natural Resources on collaborative approaches to nutrient reduction efforts
- Q&A
 - **To Ask a Question:** Type the question in the 'Q&A' box on the right hand side of your screen and press enter. You may submit a question at any time during the webinar. We will respond to as many as time allows.

Purposes of EPA's Memorandum

1. To reiterate EPA's strong support for water quality trading and other market-based programs to maximize pollutant reduction efforts and improve water quality.
2. To accelerate the adoption of market-based programs that will incentivize implementation of technologies and land use practices that reduce nonpoint pollution in our Nation's waters.
3. To provide additional guidance to states, tribes, and stakeholders regarding the use of market-based programs to reduce water pollution at lower overall cost.
4. To promote increased investment in conservation actions.

The Six Market-Based Principles

1. States, tribes, and stakeholders should consider implementing water quality trading and other market-based programs on a watershed scale.
2. The EPA encourages the use of adaptive management strategies for implementing market-based programs.
3. Water quality credits and offsets may be banked for future use.
4. The EPA encourages simplicity and flexibility in implementing baseline concepts.
5. A single project may generate credits for multiple markets.
6. Financing opportunities exist to assist with deployment of nonpoint land use practices.

Principle 1

States, tribes, and stakeholders should consider implementing water quality trading and other market-based programs on a watershed scale.

- Focusing on a watershed boundary for planning and achieving water quality improvements is often more appropriate than using a municipal or jurisdictional boundary.
- Working within a larger geographic area may facilitate greater market opportunities and participation, resulting in larger scale resource improvements over time.
- The EPA encourages states and tribes to work together to achieve resource improvements through interstate market-based programs and other collaborative approaches.

Principle 2

The EPA encourages the use of adaptive management strategies for implementing market-based programs.

- Demanding too much precision in measuring or predicting pollutant reductions can be an impediment to market-based programs.
- EPA encourages states, tribes, and stakeholders to consider allowing credits to be generated and verified based on scientifically defensible estimates of pollutant reductions from applicable technologies and land-based practices.
- States, tribes, and stakeholders should consider whether third-party credit verification, aggregation, or audit service providers may add value to market-based programs without being overly burdensome or cost prohibitive to participants.

Principle 2 (continued)

The EPA encourages the use of adaptive management strategies for implementing market-based programs.

- Market-based programs should include adaptive management concepts to allow improvement and refinement over time without sacrificing regulatory certainty for existing market participants.
- Policy makers and stakeholders pursuing a small market-based program should consider structuring the program so it can be integrated into a larger regional program in the future.

Principle 2 (continued)

The EPA encourages the use of adaptive management strategies for implementing market-based programs.

- Regulators should consider identifying, recommending, or endorsing current models, or model characteristics, that can provide accountability and near-term regulatory and market certainty for generating and verifying credits.
- A trading program should allow modeling and measurement strategies to evolve and improve over time, without sacrificing certainty for market participants.
- The use of appropriate models and verification practices may reduce or eliminate the need for trade ratios which ultimately reduce the value of a water quality credit and increase the cost of participation.

Principle 3

Water quality credits and offsets may be banked for future use.

- Allowing banking and future use of water quality credits encourages early adoption of pollutant reduction practices, reduces risks associated with practice failures, and will likely broaden and strengthen the marketplace for buyers and sellers, resulting in larger scale resource improvements over time.
- To further reward early adopters, states, tribes, and stakeholders should consider whether existing practices could generate credits or offsets on a look-back basis.

Principle 4

The EPA encourages simplicity and flexibility in implementing baseline concepts.

- Overly rigid and complicated baseline policies and expensive baseline requirements are often a barrier to entry into a market-based program.
- Complicated baseline calculations can create regulatory and market uncertainty.
- Documented current conditions can provide a simple and appropriate baseline.
- In watersheds with approved TMDLs, states, tribes, and stakeholders should consider whether it is appropriate to apply the load allocation baseline uniformly across the watershed, or instead apply it on a geographic basis within the watershed to maximize water quality improvements and minimize the risk of hot spots.

Principle 5

A single project may generate credits for multiple markets.

- Projects that generate multiple types of credits may promote more holistic resource improvements, including habitat and wetland restoration and protection of endangered and threatened species on a local, watershed, or landscape scale.
- The ability to generate multiple types of credits may create additional financial incentives for landowners, conservationists and innovators to participate in market-based environmental improvement projects, and may promote portfolio diversification and increased financial opportunity for existing and future credit providers.

Principle 6

Financing opportunities exist to assist with deployment of nonpoint land use practices.

- The EPA encourages the use of innovative financing mechanisms to promote integrated point and nonpoint pollutant reduction strategies, including the use of environmental and community bonds, Section 319 grants, State Revolving Loan Funds, and Water Infrastructure Finance and Innovation (WIFIA) funds.
- The EPA also offers financial technical support through the Water Finance Center. The Water Finance Center works with communities, financial institutions and experts to explore new and emerging finance approaches that address water quality and quantity challenges such as: Pay for Success, Pay for Performance, green bonds, energy and water performance contracting, water quality trading, and additional conservation financing strategies.



IOWA DEPARTMENT OF NATURAL RESOURCES

LEADING IOWANS IN CARING FOR OUR NATURAL RESOURCES

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IOWA NUTRIENT REDUCTION EXCHANGE

-PROJECT OVERVIEW-

March 5, 2019

IOWA NUTRIENT REDUCTION STRATEGY

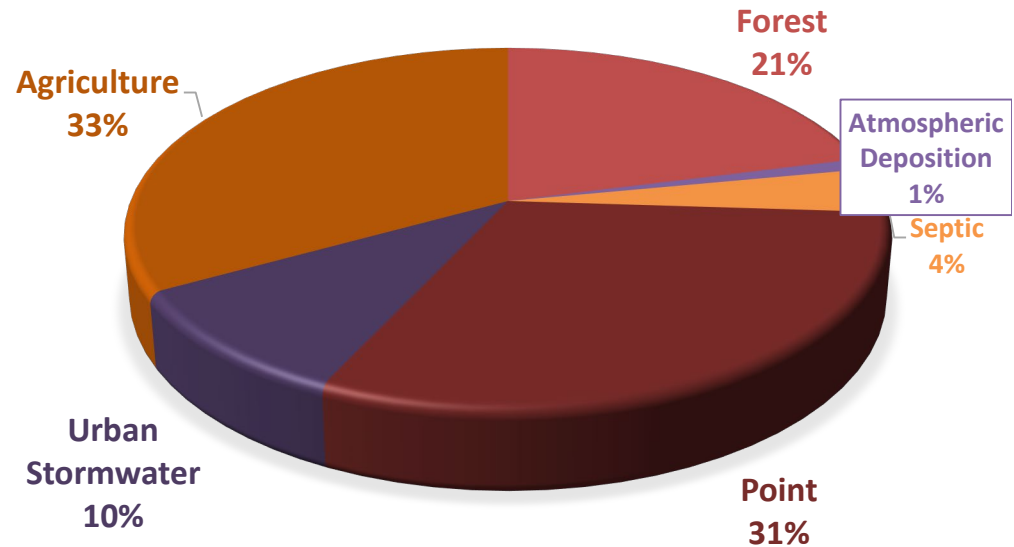
- **Focused on Nitrogen and Phosphorus to the Mississippi River**
 - Finalized in May 2013
 - Total TN & TP Reduction Goal: 45% for Non-Point Source (NPS) and Point Source (PS)
- **Integrated Strategy**
 - Non-Point Source: Science Assessment for NPS agricultural producers with voluntary implementation of conservation practices
 - Point Source: Technology Assessment for major wastewater treatment facilities
- **Estimated Cost**
 - NPS: Initial Investment Costs range from \$1.2 to \$4 billion
 - PS: Capital and operation costs over 20 years of approximately \$1.5 billion
- **Water Quality Trading Included in Final Strategy and Annual Updates**

NITROGEN MAKEUP IN IOWA

IOWA NUTRIENT REDUCTION STRATEGY



CHESAPEAKE BAY TMDL

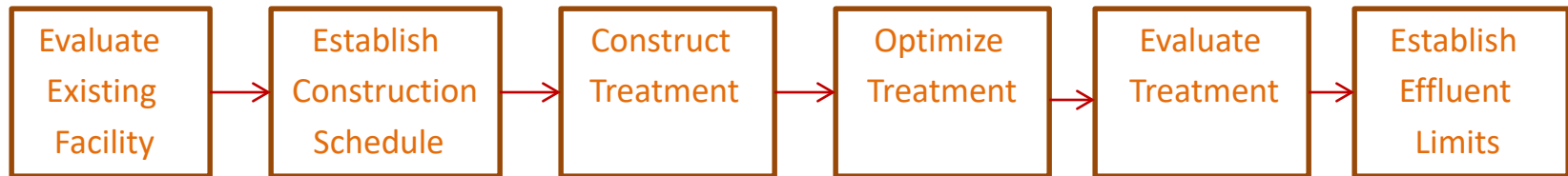


Source: Iowa Nutrient Reduction Strategy and Libra, R.D., Wolter, C.F., and Langel, R.J. 2004. Nitrogen and Phosphorus Budgets for Iowa and Iowa Watersheds. Iowa Geological Survey Technical Information Series 47, 43p

NORMAL PERMITTING PROCESS



NUTRIENT STRATEGY PERMITTING PROCESS



WATER QUALITY TRADING

- **2003 EPA Water Quality Trading Policy**
 - Allows a Point Source to Purchase "Credits" to Reduce Pollutants More Cost Effective Than with Technology at the Plant
- **Previously Solely Compliance Driven with Numeric Nutrient Criteria or TMDL**
- **Too Restrictive and Limited Success**
- **Updated Language in 2016 INRS with Iowa League of Cities' 2015 USDA NRCS Conservation Innovation Grant**

2015 CONSERVATION INNOVATION GRANT

- **Technical Advisory Committee**
- **Storm Lake and Dubuque Pilot Trades**
 - Additional Cities: Des Moines, Iowa City, Sioux City, Northwood, Cedar Rapids...
- **Early Adoption Letter**
- **IDNR Transition**
 - Potential Incentives List: Flexibility, recognition, watershed-based permitting, additional time to comply, preferred trading ratios, etc
 - RIBITS

IOWA NUTRIENT REDUCTION EXCHANGE

- **Utilize Motivations**
 - Environmental benefits, flood mitigation, source water protection, economic development, habitat development, nutrient reduction, increased production
- **Track Multi-Benefit Investments**
 - RIBITS
- **Provide Incentives for Investment**
 - Exploring improved ratios, environmental excellence, longer term schedules, etc.
- **Data Points**
 - Watershed, permit number, project name, funding source, practice type, install data, term of practice (years), type of credits generated (N, P, sediment, etc.), credit calculation method, verifying entity, monitoring, pollutant reductions, ancillary benefits

RESOURCES FOR INVESTMENT

- Iowa SRF Sponsored Project Program
- USDA NRCS – Regional Conservation Partnership Program
- HUD Flood Resilience Grant
- Iowa SF512 Iowa Water Quality Legislation
- Iowa Water Quality Initiative



RIBITS - WQT

Regulatory In-lieu Fee and Bank Information Tracking System - Water Quality Trading Program

« Collapse

TRACKING

MITIGATION NRE

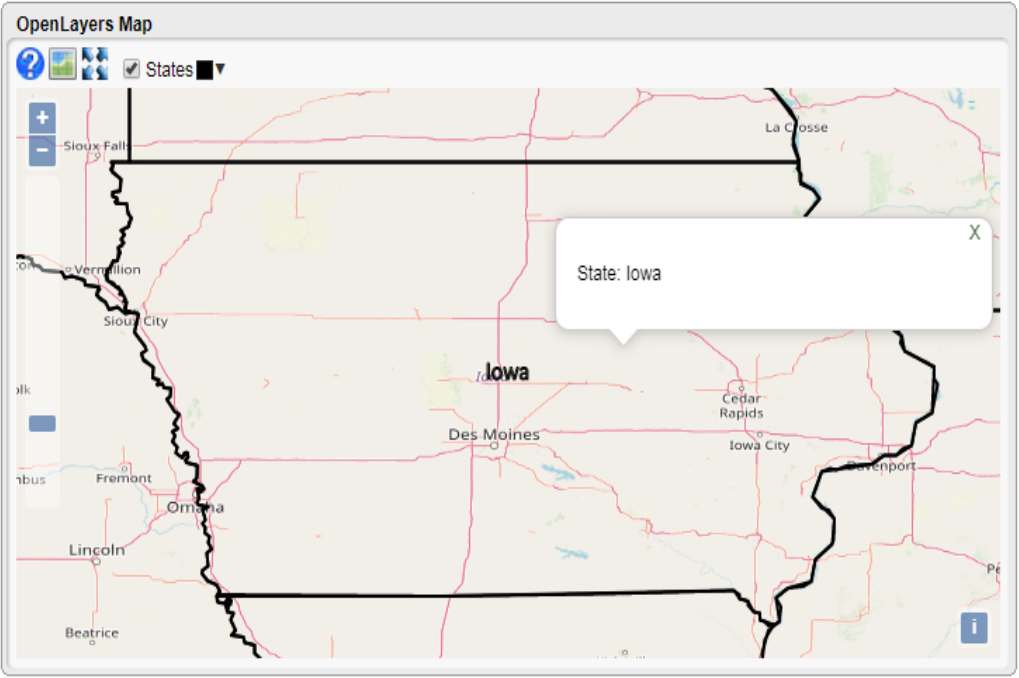
MENU

- NRE Concepts
- NRE Programs
- NRE Projects
- Reporting
- NRE Project Establishment
- NRE Assessment Tools
- Credit Classifications
- Related Sites
- Find Credits
- Help

FILTER

- USACE District
- State
- FWS Field Office
- NOAA Fisheries Region

Iowa



RIBITS Sponsors



About RIBITS

RIBITS (Regulatory In lieu fee and Bank Informa... the U.S. Army Corps of Engineers with support t... the U.S. Fish and Wildlife Service, the Federal F... Fisheries to provide better information on mitiga... fee programs across the country. RIBITS allows... and numbers of mitigation and conservation bar... documents, mitigation credit availability, serv... local policies and procedures that affect mitiga... program development and operation.

Top News

NRE NEXT STEPS

- **Process** – NPDES permit integration (DNR) and practice application submittals (Iowa State University and DNR), MOUs
- **Incentives** – evaluation of regulatory authority and potential for use
- **Database** – USACE RIBITS Iowa Pilot – ensuring an easy to use electronic application submittal process
- **NRE placement** – evaluation of NRE placement in rule or policy
- **Nutrient load reduction model** – evaluation and implementation of a specific model or models for load reduction estimates
- **Financing Opportunities Being Explored** – Pay for success, pay for performance

Q&A

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Next Steps

- To read the memo and for more information about this effort, see: <https://www.epa.gov/nutrient-policy-data/collaborative-approaches-reducing-excess-nutrients>.
- To request a follow up meeting with EPA’s Office of Water, send an email to nutrients@epa.gov.