

Iowa League of Cities

Mississippi River Basin & Gulf Coast Regional Forum Session

EPA-USDA National Workshop of Water Quality Markets



Developing a Water Quality Offset System in Iowa

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Iowa League of Cities

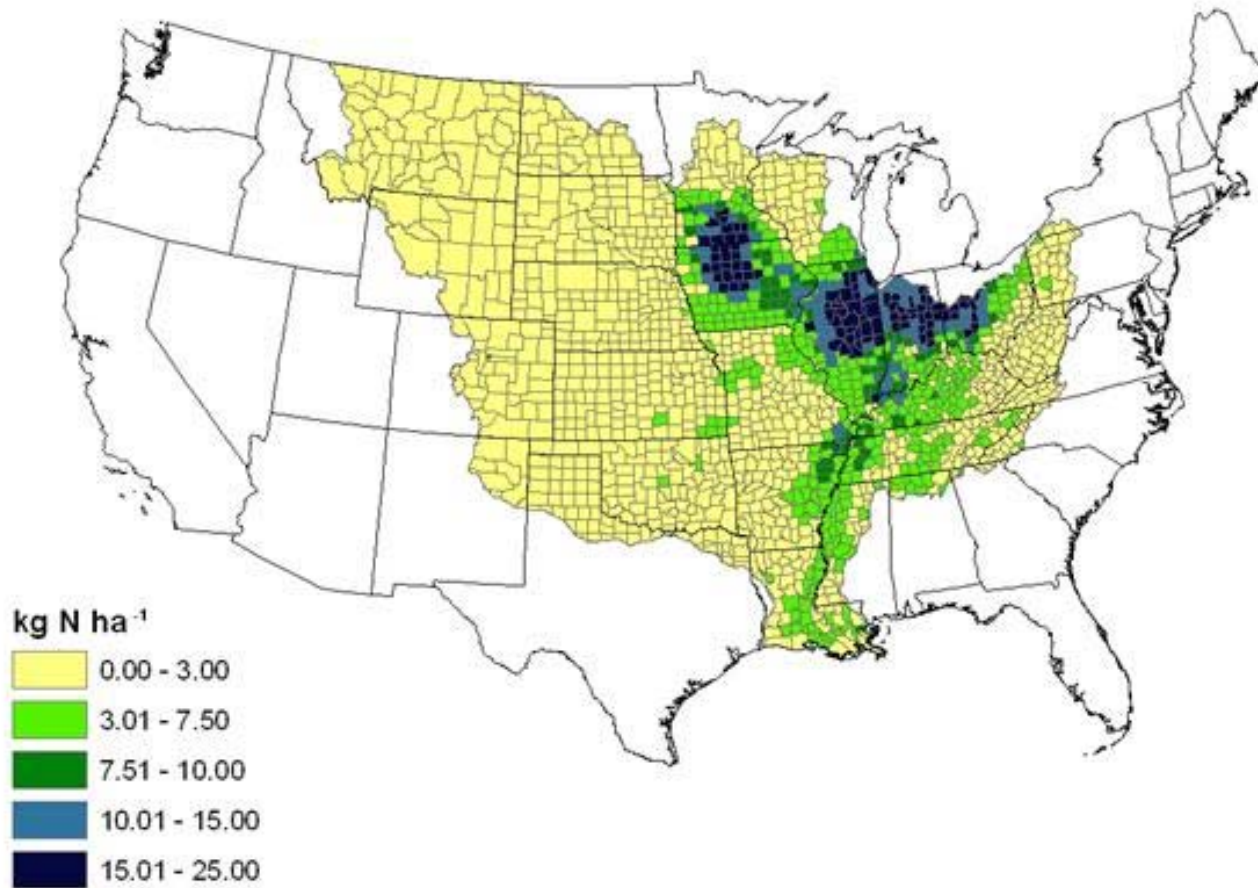
- **Founded in 1898**
- **Serves as the unified voice of cities, providing advocacy, training and guidance to strengthen Iowa's communities.**
- **Over 870 members with 945 cities**
- **Environmental Coordinating Committee**

Iowa Economic Linkage to Agriculture

- **Total Population is 3,046,869**
- **Over 500 cities are under 500 in population and only cities over 50,000**
- **Agriculture is \$112 Billion of Economic Output (33% of Total Economy)**
- **418,777 Jobs (21% of Total Jobs)**

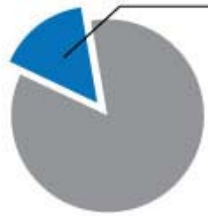
Source: 2014 Iowa Ag Economic Contributions Study

Average Nitrate Loss



Source: Sources of Nitrate Yields in the Mississippi, David, et Al, 2006 University of Illinois

Grain Production

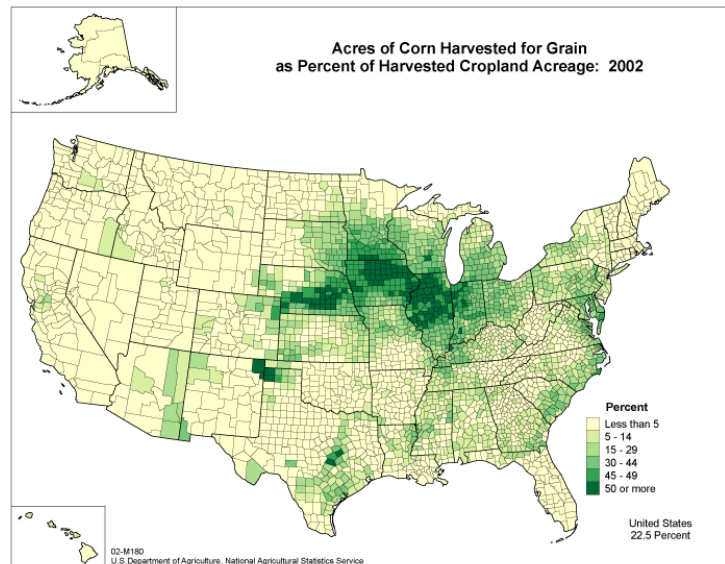
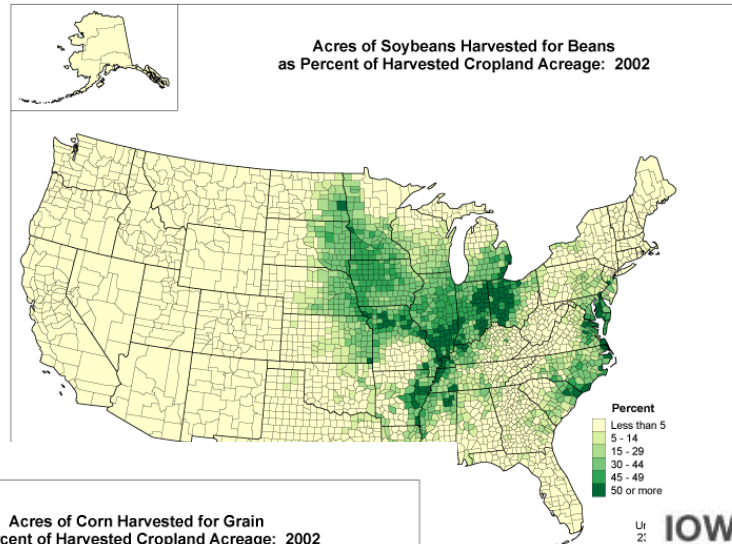


15.5%
OF THE TOTAL U.S.
CORN
PRODUCTION

12.5%
OF THE TOTAL U.S.
SOYBEAN
PRODUCTION



SOURCE: USDA, 2013



IOWA RANKS

#1

IN THE NATION
IN THE
PRODUCTION OF

**CORN
PORK
EGGS**

SOURCE: USDA, 2013



IOWA NUTRIENT REDUCTION STRATEGY

Iowa Nutrient Reduction Strategy Overview

- **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
- **Total Reduction Goal:** 45% for Non-Point Source (NPS) and Point Source (PS)

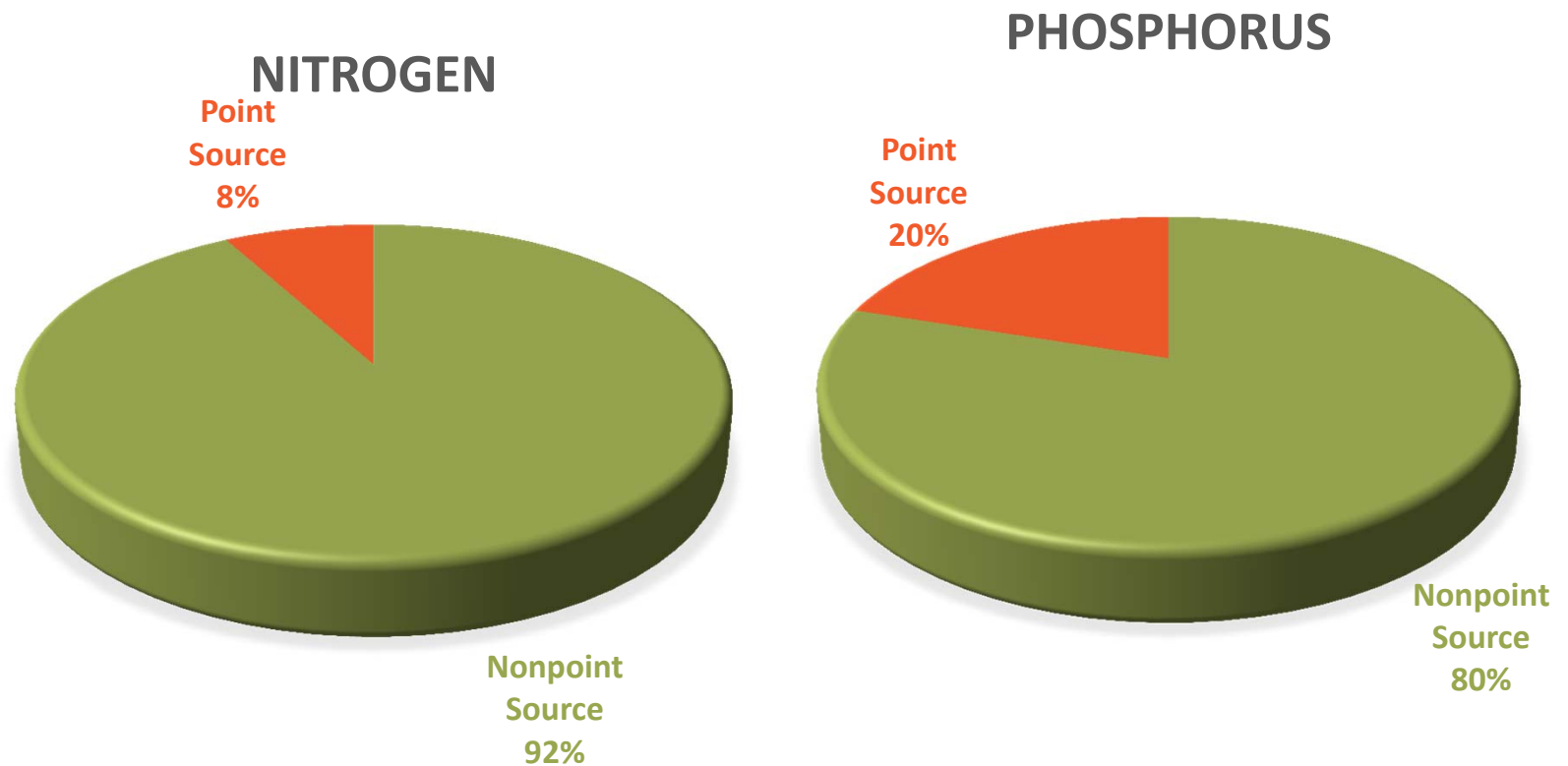


Iowa Nutrient Reduction Strategy Implications for Point Sources

- **Covered**
 - Initially 102 Major Municipal Wastewater Facilities that serve 55-60% of all wastewater handled by Iowa Cities.
 - Initially 28 Permitted Industrial Facilities.
- **Implementation of technically and economically feasible process changes**
 - 75% Reduction for Total Phosphorus (P)
 - 66% Reduction for Nitrogen (N)
- **Anticipated Reduction**
 - 11,000 tons N and 2,170 tons P reduction per year
- **Cost**
 - Capital and operation costs over 20 years of approximately \$1.5 billion



Pollutant Makeup



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

Role of Cities in Water Quality

Unique Position as:

- Regulated through Waste and Storm-Water Permits
- Regulators through Pretreatment Permits
- Users as Drinking Water Sources

CWA Success Has a Price Tag

One solution was water quality trading.



Credit Trading in the Iowa Nutrient Reduction Strategy

Credit Trading

- In 2003, the U.S. EPA released guidance for a new National Water Quality Trading Program. This policy calls on states to develop programs for trading water pollution reduction credits, similar to what has been done with air pollutants for several years. There is potential for credit trading to be helpful in restoring water quality in watersheds where it is more economical to address sediment and nutrient causes of impairment through nonpoint source efforts versus point source controls regulated by the Clean Water Act.*
- Iowa point sources, IDNR, IDALS and the WRCC will work to develop an environmental credit trading program based on need and available resources. The partners will include nonpoint sources in this program. The partners may establish and implement voluntary market-based approaches or incentives, such as prioritized use of State Revolving Funds.*



Activities

- May 2013 INRS Final Draft Released
- Spring 2014 Identification of Pilot Cities
- Summer 2014 Research of other trading programs
- Sept 2014 State Conservation Innovation Grant – IIHR
- 2014-2015 Building Support from Agricultural, Environmental and Industrial Sectors along with State Government
- Summer 2015 Research other trading programs from NPS perspective
- Sept 2015 Technical Advisory Committee
- Sept 2015 National Conservation Innovation Grant



Different Goals and Perspectives

- **Point Sources want Certainty**

- Regulatory
 - Needs to impact current or future regulatory requirements
- Cost
 - Save cities millions in costly construction with diminishing return on the investment

- **Non-Point Source**

- Increased Resources for Conservation Practices
- Simplicity and Familiarity of Usage

- **Environmental**

- Nutrient Reduction and Improved Water Quality
- Flood Mitigation
- Habitat Development



Fields of Opportunity

- **Iowa is Unique...Kind of**
- **Iowa Nutrient Reduction Strategy and Pre-Regulatory**
 - Incentivize Good Behavior
 - Focus on Land, Not Actors
- **“Thin Market”**
- **Conservation Resources Demand and Familiar Vehicle**
 - Cost Share Rate
 - Understanding Producers’ Bottom Line
- **University Support**
 - ISU: Iowa Nutrient Research Center
 - U of I: IIHR
- **SRF Sponsored Projects**
- **Des Moines Water Works Lawsuit**



Questions?



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