

Public Policy Issues around Water Quality

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Addressing Gulf Hypoxia

- Gulf Hypoxia Task Force required plans to reduce N and P load to Gulf by 45%
- States are responsible for creating strategies
- Both point and non-point sources of nutrients are addressed





Iowa Nutrient Reduction Strategy

- Voluntary, science-based
- State goal of 45% reduction of Nitrogen (N) and Phosphorous (P)
- Point sources achieve maximum biological removal rate: 4% N and 16% P
- Non-point source goal 41% N and 29% P

Agricultural Nutrient Reduction Practices





- In-field
- Edge of field
- Land use change
- Both N and P



Point Source Process

- Established a plan for reduction of N and P discharged by the largest industrial and municipal wastewater treatment plants
- Practices determined most feasible and affordable will be required to be implemented



IOWA STATE UNIVERSITY Extension and Outreach

Iowa DNR

Strategy Implementation



Working together to make a positive impact on water quality

pact on www.cleanwateriowa.org/

Strategy Implementation



- Demonstration projects
- Practice scale-up projects
- Statewide costshare
- Agency and organization partnerships

Point Source Progress

- 102 major municipal and 46 industrial wastewater facilities where biological nutrient removal is economically and technically feasible
- 35 NPDES permits have already been issued with plans to implement the strategy
- Intent to issue 20 permits per year

Measuring Progress: NRS Logic Model



Nutrient Reduction Strategy Measure of Success Committee, Water Resource Coordinating Council

WQI HUC12 Demonstration Projects





- People
- Funding
- Agency resources
- Private sector resources



Indicators of Change

- State and federal agency practice implementation data
- Private field-level data (aggregate)
- Point Source implementation data





Indicators of Change

IOWA STATE UNIVERSITY Extension and Outreach

 Calculated load reduction
 Measured loads in priority watersheds

WATER

- Organized watersheds reported load changes
- Measured loads at existing monitoring stations

Increasing Implementation

- Increasing practice effectiveness
- Developing and testing new technologies
- Innovative education and outreach



Saturated Buffer



retaiN N test kits

http://www.extension.iastate.edu/waterquality/

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