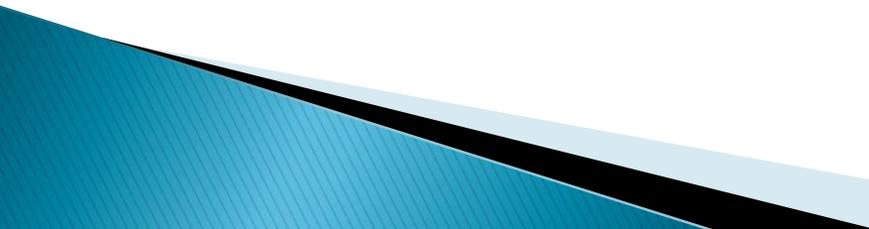


Environmental Challenges Facing Louisiana Agriculture

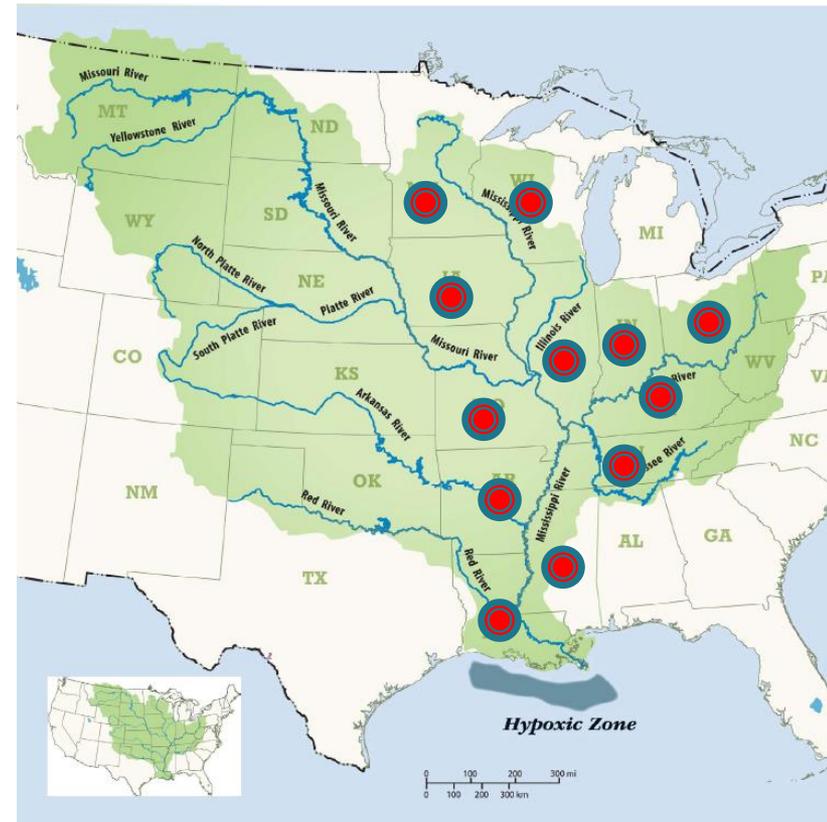
Carrie Castille, PhD
Associate Commissioner
Louisiana Department of
Agriculture and Forestry

February 14, 2014



Mississippi River Gulf of Mexico Watershed Nutrient Task Force (Hypoxia Task Force)

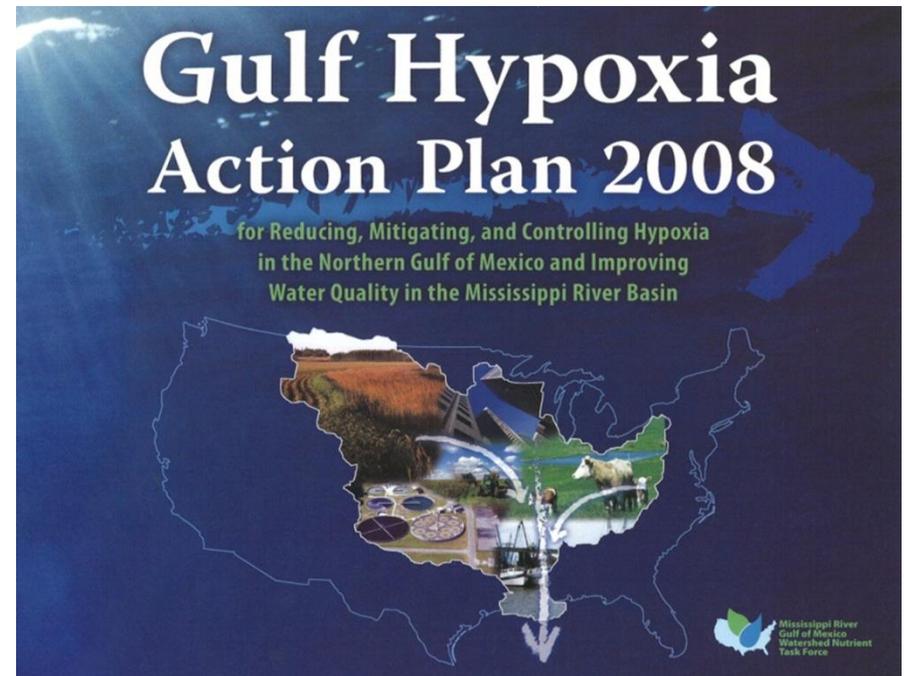
- 5 Federal Agencies (EPA, NOAA, USDA, USACE, DOI)
- 12 States (AR, IA, IL, IN, KY, LA, MN, MS, MO, OH, TN, WI)
- National Tribal Water Council



Gulf Hypoxia Action Plan 2008

First Action:

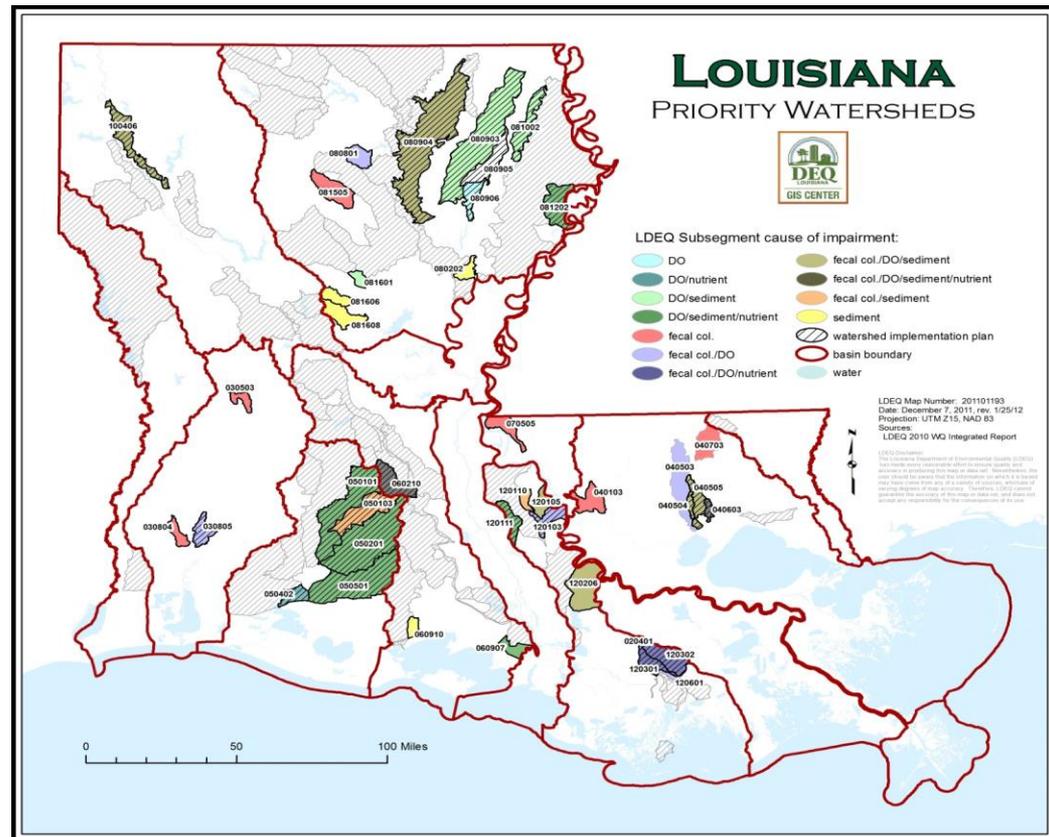
Develop and promote state-level nutrient management strategies



Targeting High Priority Water Bodies

- ▶ Suspected pollutants
- ▶ Suspected sources
- ▶ Model outputs
- ▶ Address the issues
- ▶ Best management practices (BMPs)
- ▶ Leverage partnerships

*** To Improve/Restore
Quality of Louisiana 's
Water Bodies
Implement Solutions

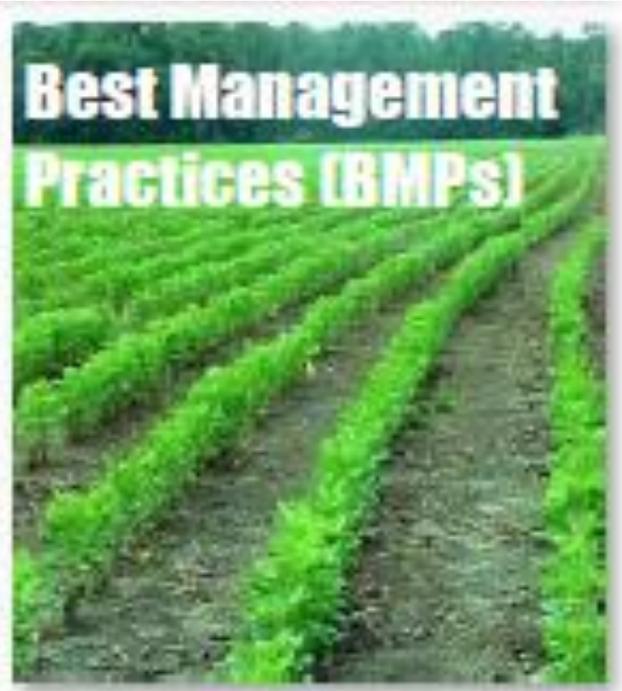


Nutrient Management Strategy

- ▶ **Goal:** Reduce nutrient levels in inland and coastal waters, including the Gulf of Mexico hypoxic zone
- ▶ **Methods:** Voluntary, Voluntary, Voluntary
 - 1) Pollution controls
 - Minimize point source and nonpoint source nutrients from entering state waters (avoiding and controlling nutrients)
 - Farm, Urban, Forestry Best Management Practices (BMPs)
 - New Technologies/Applications
 - 2) Nutrient capture
 - Large scale coastal riverine diversions
 - Wetland/overland Point Source assimilation
 - Irrigation of Agricultural areas
- ▶ **Incentives:**
 - 1) Grants/Loans/Cost-share programs
 - 2) Credit Trading
 - 3) Business Forces/Economics

LOUISIANA NUTRIENT MANAGEMENT STRATEGY

it takes a watershed community to manage nutrients



What Are We Doing Now?

- Louisiana Department of Agriculture and Forestry:
 - Master Farmer Program
 - Scientifically based best management practices (BMPs) are implemented to target reduction of pollutants into the air and waters of the state.
 - Firmly rooted in state law, is backed by sound science and is a critical component of Louisiana's overall water resource management programs.
- Louisiana Department of Environmental Quality:
 - Louisiana Pollutant Discharge Elimination System (LPDES) Permits
 - Industrial Water Permits
 - Municipal & General Water Permits
 - Nonpoint Source Pollution (NPS) Program
 - Louisiana Environmental Leadership Pollution Prevention Program (LaELP)
- Louisiana Department of Natural Resources:
 - Coastal Non-Point Pollution Control program
 - Works jointly with LDEQ's NPS Program to educate Louisiana coastal resource users about the available best management measures and to reduce pollutants that may impact coastal waters of Louisiana.
- Coastal Protection Restoration Authority:
 - River Diversions
 - Intercepting nutrients prior to reaching the Gulf



Strategy Features

Goal = To manage nutrient levels in inland & coastal water bodies

- ▶ Goal-oriented
- ▶ Measurable environmental outcomes
- ▶ Watershed approach
- ▶ Broadly collaborative
- ▶ Strategic micro- and macro-watershed planning approaches
- ▶ Leverage new technologies
- ▶ Comprehensive statewide water quality improvements
- ▶ Improvement projects tracked
- ▶ Progress monitoring and reporting

Louisiana's Nutrient Management Strategy Development & Implementation

- ▶ **Appropriate**
 - Regionally, temporally, etc.
- ▶ **One Size Does NOT Fit All**
- ▶ **Sustainable**
- ▶ **Identify Real Issues ⇔ Implement Real Solutions**

Timeline

Stakeholder Engagement Meetings - Early 2013

- Forum for stakeholders to contribute
 - How are you **currently** managing nutrients?
 - How do you plan to manage nutrients in the **future**?
 - What are **specific practices** that you are implementing?
 - What are **barriers** to implementing?
 - What **can be done** to help implement?
 - What nutrient management **programs** do you know of?



Jan- Apr 2013:
Team Engages Stakeholders

May-Sep 2013
Team Compiles Feedback

Dec 31, 2013
Final Draft
Strategy Ready

Stakeholders Share
Ideas By
Apr 30, 2013

Oct-Dec 2013
Team Prepares Strategy

2013

www.LANutrientManagement.org

▶ Stakeholder Surveys

▶ Contact Us

<http://LANutrientManagement.org/contact>

Louisiana Nutrient Management

Home About Nutrient Management Stakeholder Engagement Resources Contact Us

Welcome to the Louisiana Nutrient Management Website

Nutrient impacts and eutrophication are a nationwide water quality concern. Many entities, including the [Mississippi River Gulf of Mexico Watershed Nutrient Task Force \(Hypoxia Task Force \(HTF\)\)](#), [Gulf of Mexico Alliance \(GOMA\)](#), [U.S. Environmental Protection Agency \(EPA\)](#), and the [Gulf Coast Ecosystem Restoration Task Force \(GCERTE\)](#) recognize the need to address excess nutrients within the nation's water bodies.

Louisiana has created an interagency team comprising the Coastal Protection and Restoration Authority of Louisiana (CPRA), Louisiana Department of Agriculture and Forestry (LDAF), Louisiana Department of Environmental Quality (LDEQ), and the Louisiana Department of Natural Resources (LDNR). The team will develop and implement a statewide nutrient management strategy to combat nutrient issues impacting water bodies within the State.

These state agencies are working cooperatively to develop a comprehensive strategy for nutrient management that takes into account nonpoint and point sources and includes agricultural management practices, wastewater treatment technologies, coastal programs and restoration activities in an effort to manage nutrient levels while meeting regulatory requirements under the Clean Water Act and while developing incentive-based approaches for participation of all stakeholders within the watershed community.

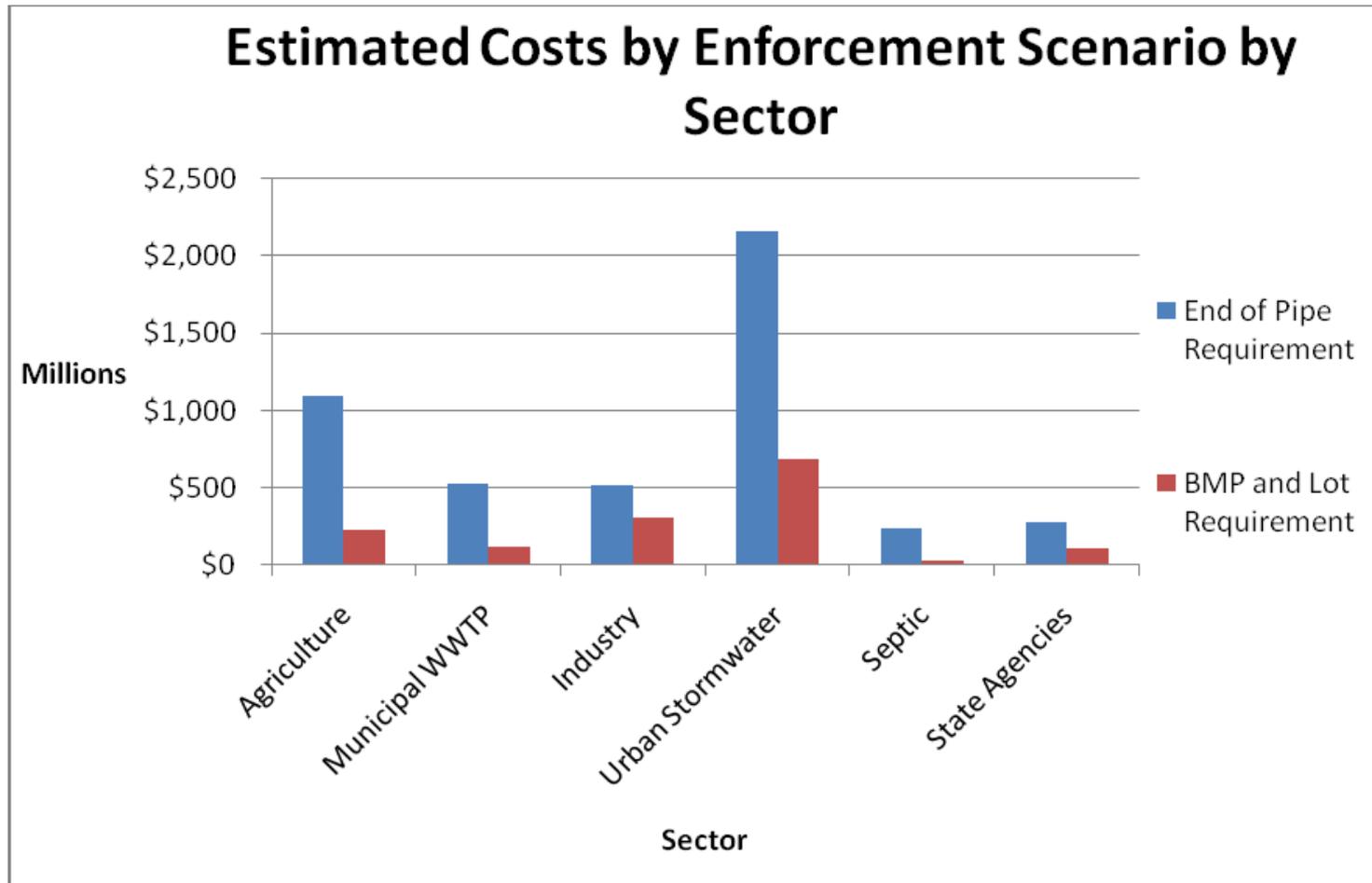
Stakeholder input is an important step to building a nutrient management strategy to improve water quality within the State. Whether you represent business, industry, a municipality, agriculture, academia, government, non-government organization, or are a homeowner, your contribution is essential to the success of this strategy. If you are interested in learning more, please [contact us](#).



Earthjustice vs EPA (Florida)

- ▶ In 2009, EarthJustice and the environmental groups they represented filed a lawsuit against the EPA because they felt that Florida was taking too long to implement their own numeric criteria.
 - ▶ As a result, EPA announced that Florida would be the first state to have statewide federal nutrient limits imposed on its waterways.
 - ▶ Reports were commissioned that estimated the standards would cost Florida tens of billions of dollars to implement and maintain.
- 

Florida Nutrient Criteria Implementation Cost Estimates



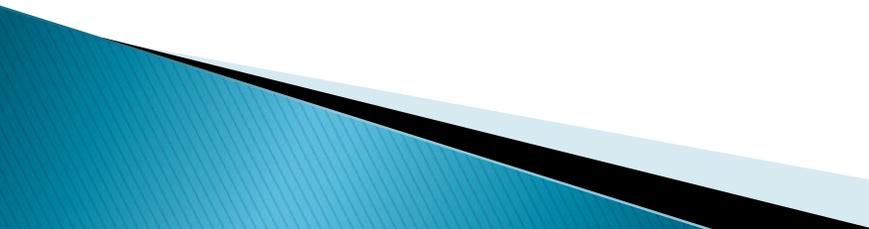
Earthjustice vs EPA (Florida)

- ▶ Florida filed a lawsuit against EPA in 2010 and won its argument on a key provision.
- ▶ In another win for Florida in November of 2012, EPA approved Florida's scientifically-based criteria for its lakes, rivers, streams, springs and estuaries.
- ▶ This resulted in the Florida Department of Environmental Protection moving forward with rule-making and legislation and to finish setting limits for Florida's waterways.
- ▶ In March of 2013, the Florida Department of Environmental Protection (DEP) and the U.S. Environmental Protection Agency (EPA) reached an agreement that granted the state the right to set nutrient limits for its waterways.

This can happen in Louisiana

- ▶ The Louisiana Department of Agriculture and Forestry has joined with a number of public and private agencies (Dept. of Environmental Quality, Dept. of Natural Resources, Louisiana Farm Bureau, American Farm Bureau Federation and 14 other state Farm Bureau organizations) in filing a motion seeking to intervene in *Gulf Restoration Network, et al. v. Jackson, et al.*, a lawsuit seeking to force the Environmental Protection Agency to establish federal numeric nutrient water quality standards for all states in the Mississippi River Basin.

Gulf Restoration Network vs Lisa Jackson, EPA lawsuit

- ▶ Resolution of the lawsuit could be significant for farmers, municipalities and others throughout the 31-state basin because numeric nutrient standards could lead to more costly and stringent limits on nutrient runoff to waters that ultimately contribute to the Mississippi River.
 - ▶ Under the Clean Water Act, states may use either “narrative” or “numeric” standards as a method for determining water quality.
 - ▶ Most states in the Mississippi River Basin use narrative standards, such as “no nutrients at levels that cause a harmful imbalance of aquatic populations.”
- 

Gulf Restoration Network vs Lisa Jackson, EPA lawsuit

- ▶ If this lawsuit is successful, EPA would be forced to override existing state standards with federal water quality standards and to express those standards as specific numeric limits on nutrients.
- ▶ Setting appropriate numeric nutrient standards is a complex and difficult scientific undertaking and farmers have no reason to believe that EPA can establish scientifically defensible standards for 40 percent of the U.S. land mass.
- ▶ The LDAF, DEQ, DNR and others are seeking to intervene in the lawsuit to clarify the limitations of the EPA to set water quality standards in the federal District Court in Louisiana, where the case is being heard.

If nutrient criteria is mandatory, this could cost Louisiana agriculture almost \$400 million annually

- ▶ According to the LSU AgCenter:
 - Restricting N levels at 10–30% could result in losses of \$153.7–256.0 mil. for total state acreage.
 - Restricting P levels at 10–30% could result in losses of \$57.6–206.1 mil. for total state acreage.
 - Restricting combine N + P levels at 10–30% could result in losses of **\$170.5–340.8 million** for total state acreage.

Louisiana Agriculture and Forestry Nutrient Management Task Force

Will study the topics related to agricultural nutrient issues and evaluate their impact on our agricultural industries. The Task Force will eventually be charged to support the agency in multiple water-related issues, but the immediate priority is to review and make recommendations on the following topics:

- ▶ The need for research, education and training in the selection and application of agricultural fertilizer and soil nutrients in the state;
- ▶ Identifying practices that apply to the selection, purchase, storage, and application of agricultural fertilizer and soil nutrients, including the reasonableness of rules for their on-farm storage;
- ▶ Identifying state level ag certainty certification programs that encourages the implementation of best management practices in the generation, handling or land application of nutrients in Louisiana;
- ▶ Formulating a systematic and economically viable nutrient management program that will both maintain agricultural profitability and improve water quality in Louisiana;

Louisiana Agriculture and Forestry Nutrient Management Task Force

- ▶ This Task Force is an excellent example of producers, industry, universities and state governments working together to address nutrient concerns and will continue to do so in a manner that is consistent with sound science and practical application.
- ▶ Task force members include representatives from Louisiana agriculture and forestry stakeholders and industry. Representatives are from the following organizations:
 - Louisiana Cooperative Extension Service
 - Louisiana Agriculture Experiment Station
 - Louisiana Association of Conservation Districts
 - Louisiana Farm Bureau Federation
 - Louisiana Soybean and Grain Association
 - Louisiana Forestry Association
 - Louisiana Landowners Association
 - Louisiana Agriculture Consultants Association
 - Louisiana fertilizer industry
 - LA Cattleman's Association
 - LA poultry industry
 - American Sugarcane League
 - Louisiana Rice Growers Association

Lower Mississippi Valley Nutrient Management Initiative

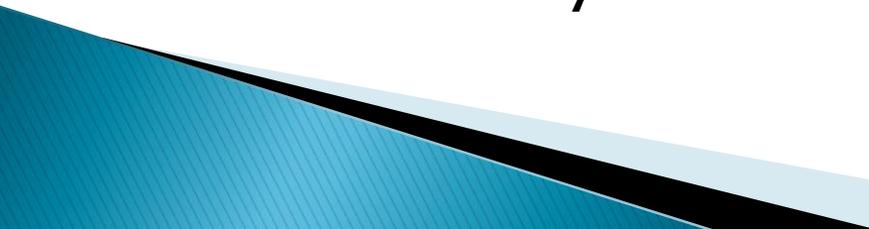
- ▶ The primary goal of the Compact is to develop a multi-state plan outlining the voluntary, incentive-based programs to insure agricultural profitability and environmental sustainability.
- ▶ Agricultural leaders in the Lower Mississippi River Valley states will develop a consensus supported strategic plan that addresses what it will take to achieve locally led environmental stewardship that is cost-effective, non-regulatory, incentive-based and sensitive to the economic needs of agricultural producers
- ▶ Members are leaders from the State Departments of Agriculture from Louisiana, Mississippi, Arkansas, Missouri, Illinois, Kentucky and Tennessee

Lower Mississippi Valley Nutrient Management Initiative

This voluntary, incentive-based action plan is based on core Compact principles that maintain a strong agriculture and a healthy environment:

- Focus on private lands and encourage leadership from the agricultural community
- Support policy and programs necessary to maintain the economic viability of agriculture and keep farmers on the land
- Utilize non-regulatory/voluntary approaches
- Develop and implement locally led projects through accelerated technical and financial assistance
- Provide technical assistance based on decisions derived from sound science
- Achieve wide public and governmental support and coordinate continually
- Enhance the research and extension capacity of the Land Grant University systems
- Forge partnerships with nonagricultural agencies and organizations to promote, develop and implement cost effective, scientifically based conservation programs and site specific practices in the Lower Mississippi Valley

Upcoming Challenges

- ▶ Waters of the U.S. – guidance expected to be released March 2014
 - ▶ National CAFO Enforcement Initiative – ongoing
 - ▶ TMDL's for nutrients
 - ▶ Draft Guidance Documents for Evaluating Pesticide Spray Drift: Proposals Would Further Protect Communities near Fields Where Crops Are Grown
 - ▶ Agriculture Burning
 - ▶ Food Safety Modernization Act
- 

Thank You!

Questions???

