

# Acceptance of the Mississippi River Healthy Watershed Initiative by Land Managers in the Yazoo Basin

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# Water Resource Concerns in the Yazoo Basin: A History Lesson : 303d List & Sediment TMDLs



# Bee Lake Watershed Project



# Steele Bayou Watershed Project



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# Wolf & Broad Lake Watershed Project

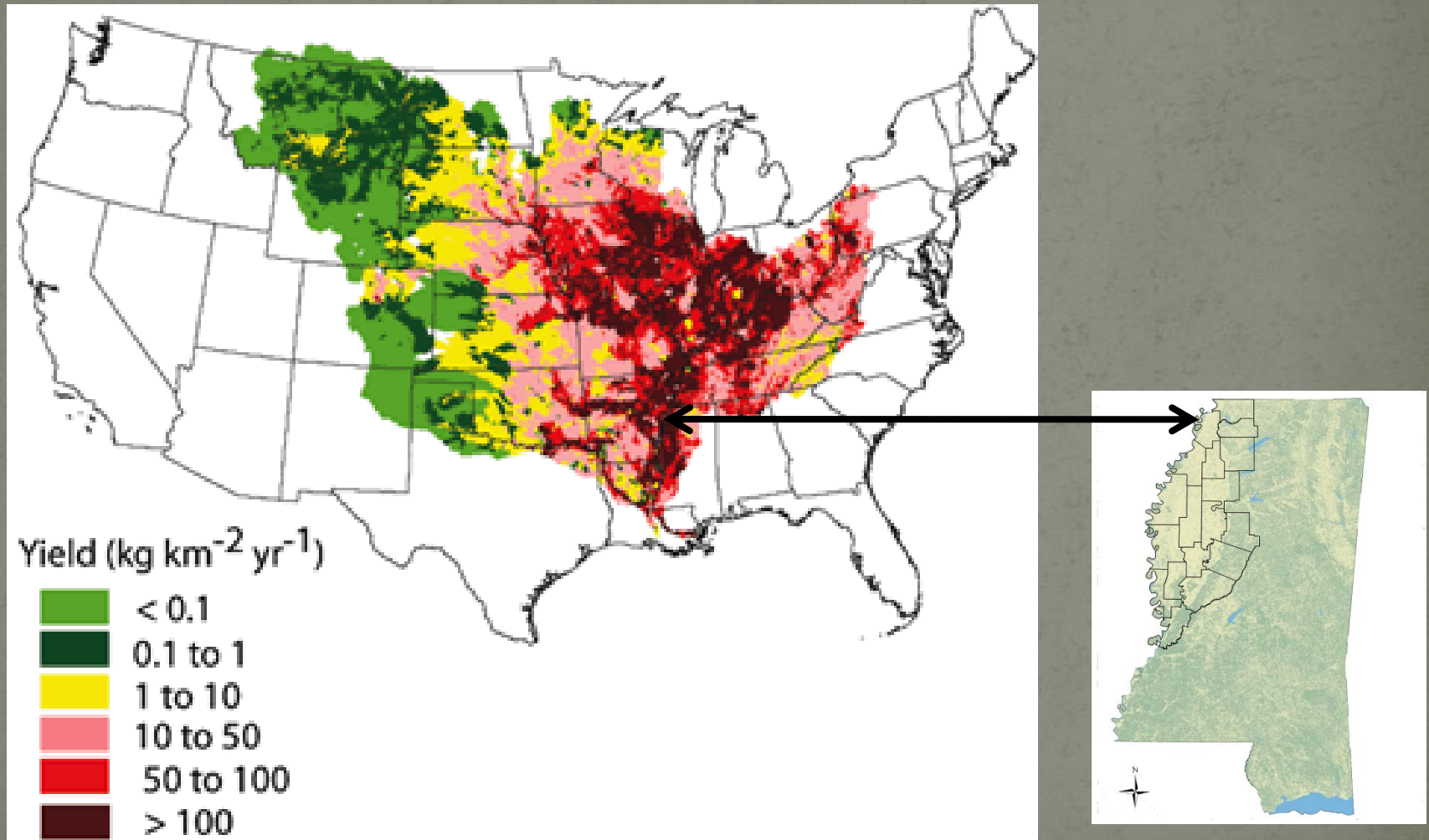


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# New Water Resource Concerns



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# Mississippi Delta Nutrient Reduction Strategies



**IMPLEMENTATION DRAFT  
DECEMBER 15, 2009**

## DRAFT DELTA NUTRIENT REDUCTION STRATEGIES – AUGUST 14, 2009



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### Participants, Affiliations

#### Visioning Team

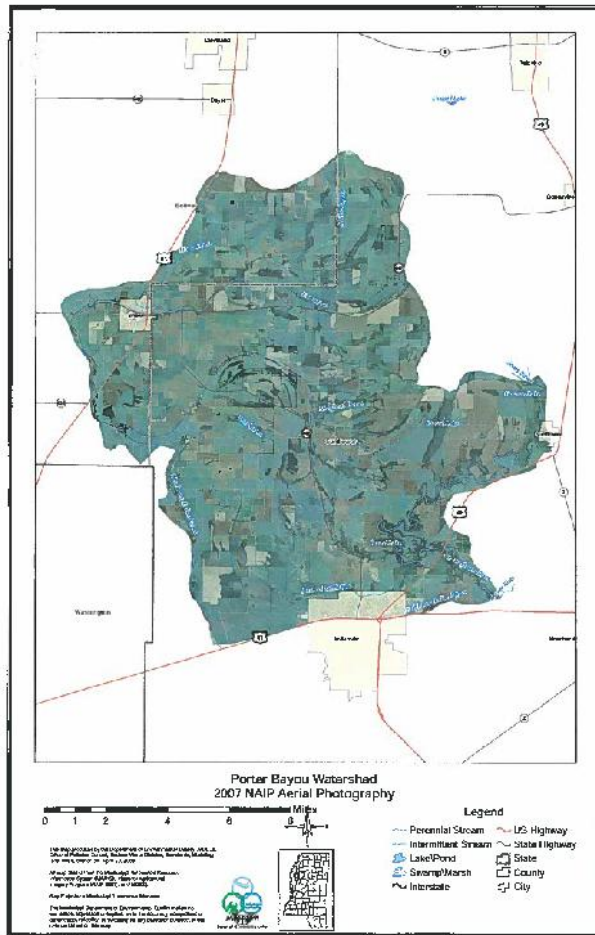
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Kenneth Dean, EPA Region 4  
Andy Whittington, Farm Bureau  
Kay Whittington, MDEQ (TMDLs)  
Dr. Kent Thornton, FTN Associates, Ltd. (facilitator)



# Porter's Bayou Watershed Project



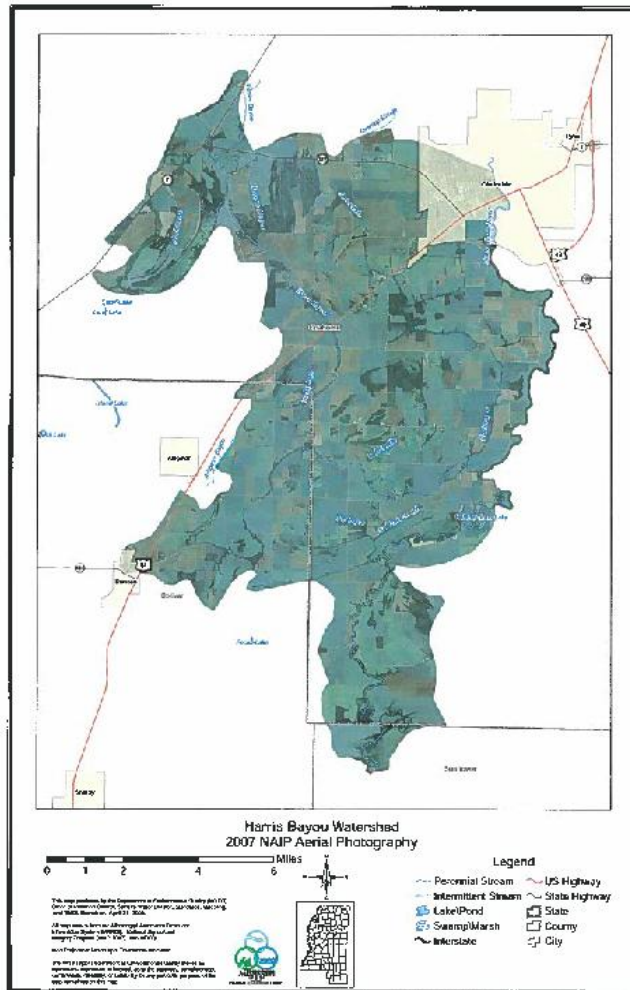
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Conservation Service

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# Harris Bayou Watershed Project



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# Cooperative Conservation Partnership Initiative (CCPI)



## Primary BMPs:

- Constructed wetlands
- Tail-water recovery systems
- Low-grade weirs
- Water control structure
- Nutrient management
- Riparian buffers



## Area Prioritization:

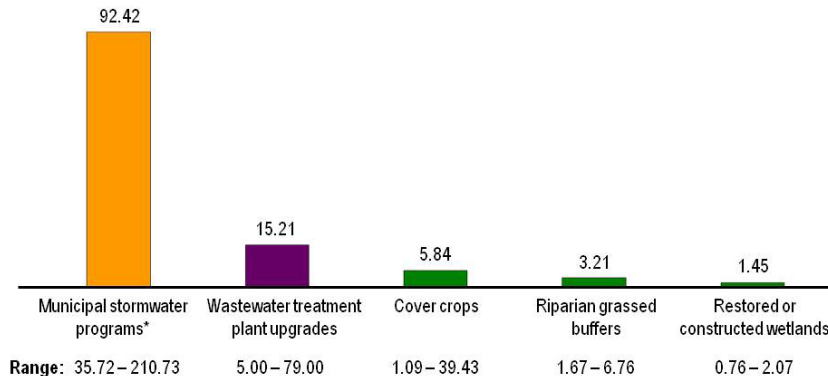
Delta Nutrient Reduction Strategy Priority Areas

# Nutrient Trading



**Figure 3. Cost of Selected Nitrogen Reduction Measures**

Average dollars per pound of annual nitrogen load reduction



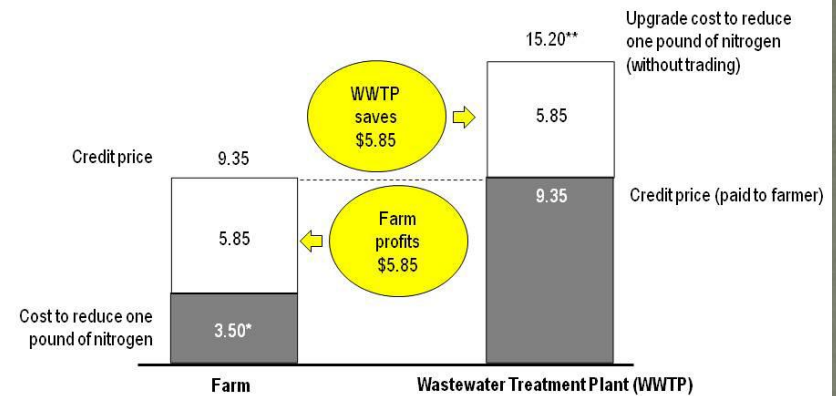
\* Also called Municipal Separate Storm Sewer Systems (MS4s). Reflects nitrogen reduction costs for new development, which are usually much lower than costs for retrofitting existing MS4s.

Note: Cost estimates do not take into account the baseline or minimum practices that agriculture will have to implement prior to selling credits. Depending on which practices farmers implement first, the costs of agricultural nutrient reduction measures may be higher or lower. Costs represent the costs of achieving the nitrogen reduction only. Actual credit prices under a nutrient trading program will be affected by per-facility administrative costs and geography of region (e.g., distance from the main stem of the Bay, slope of land, soil structure, rainfall).

Sources: WWTP cost: Bacon, E. and C. Pearson, Jr. 2002. *Nitrogen Credit Trading in Maryland: A Market Analysis for Establishing a Statewide Framework*. Alexandria, VA: Water Environment Research Foundation.; All other data: Wieland, Robert, et al. 2009. "Costs and Cost Efficiencies for Some Nutrient Reduction Practices in Maryland." Maryland Department of Natural Resources Coastal Program.

**Figure 5. Benefits of a Trade between a Farm and Wastewater Treatment Plant**

Dollars per pound of annual nitrogen load reduction



\* Average cost to reduce one pound of nitrogen across three best management practices: cover crops, riparian grassed buffers, and restored or constructed wetlands. Wieland, Robert, et al. 2009. "Costs and Cost Efficiencies for Some Nutrient Reduction Practices in Maryland." Maryland Department of Natural Resources Coastal Program. Cost estimates do not take into account the baseline or minimum practices that agriculture will have to implement prior to selling credits. Depending on which practices farmers implement first, the costs of agricultural nutrient reduction measures may be higher or lower. Analysis assumes benefits are split equally between farmer and stormwater program. Assumes no discounting or transaction costs.

\*\* Average cost to reduce one pound of nitrogen among selected WWTPs in Maryland. Bacon, E. and C. Pearson, Jr. 2002. *Nitrogen Credit Trading in Maryland: A Market Analysis for Establishing a Statewide Framework*. Alexandria, VA: Water Environment Research Foundation.

# Farmer to Farmer Exchange



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# Fellowship for a Healthier Gulf



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# Private and State Investment



\$21,700,000.00



# Mississippi River Basin Initiative

**NRCS** Natural Resources  
Conservation Service

CCPI



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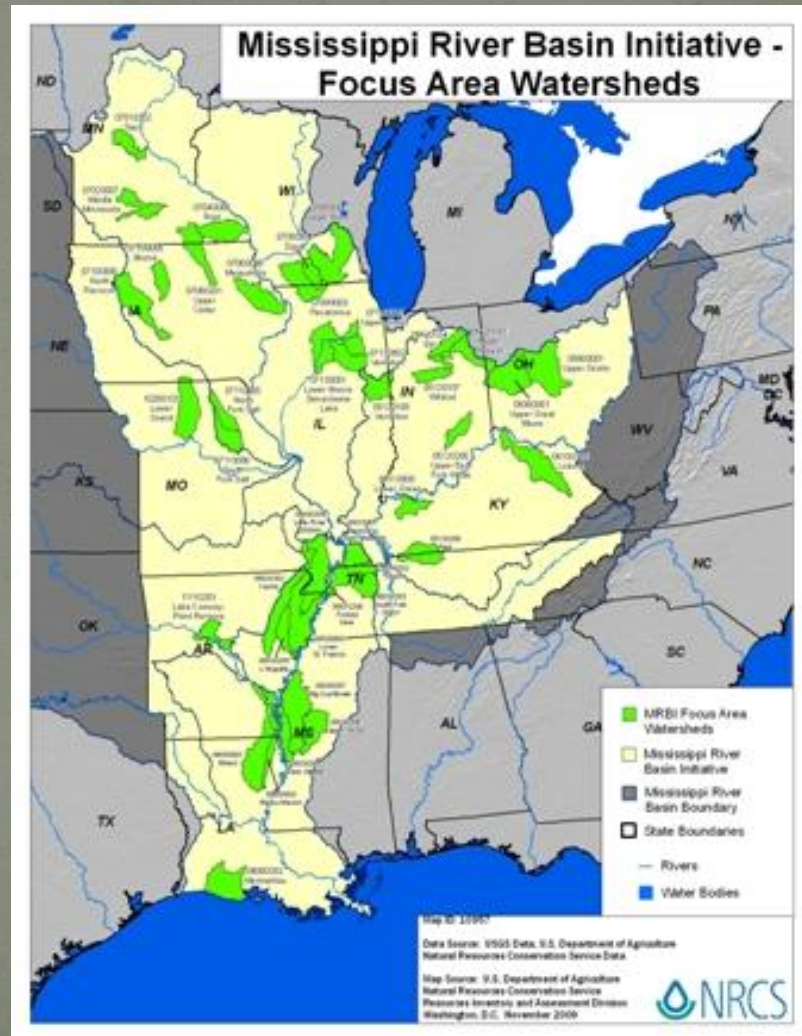
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# Mississippi MRBI Watersheds: By the Numbers

## Sunflower Watershed

MRBI Funds Received

2010 = \$3,530,548.31

2011 = \$2,543,854.41

## Steele Bayou/Deer Creek Watershed

MRBI Funds Received

2010 = \$347,506.16

2011 = \$662,372

## Upper Yazoo Watershed

MRBI Funds Received

2010 = \$556,185.60

2011 = \$340,845.44

## Coldwater River Watershed

MRBI Funds Received

2011 = \$2,580,000

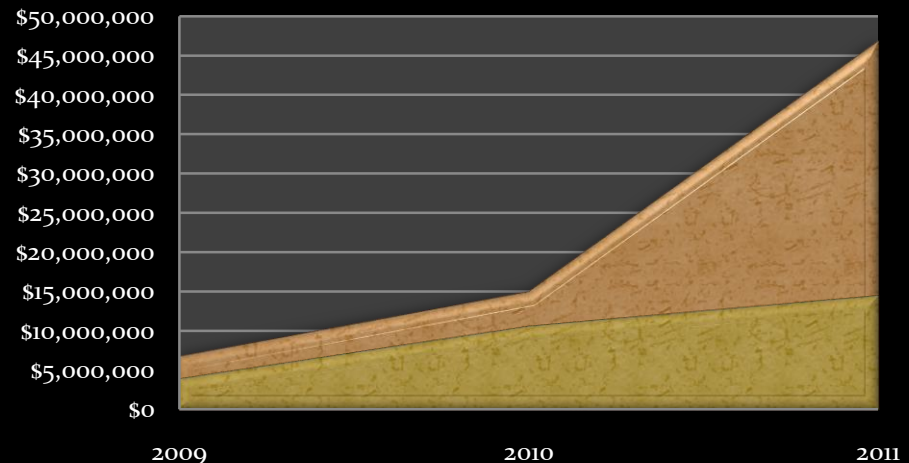
## Producer Applications Submitted in MRBI Watersheds:

2009 = \$6,815,890.42

2010 = \$15,034,822.67

2011 = \$46,877,903.84

## EQIP Money Requested vs Funded



# Questions



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