The Upper Macoupin Creek Watershed Partnership

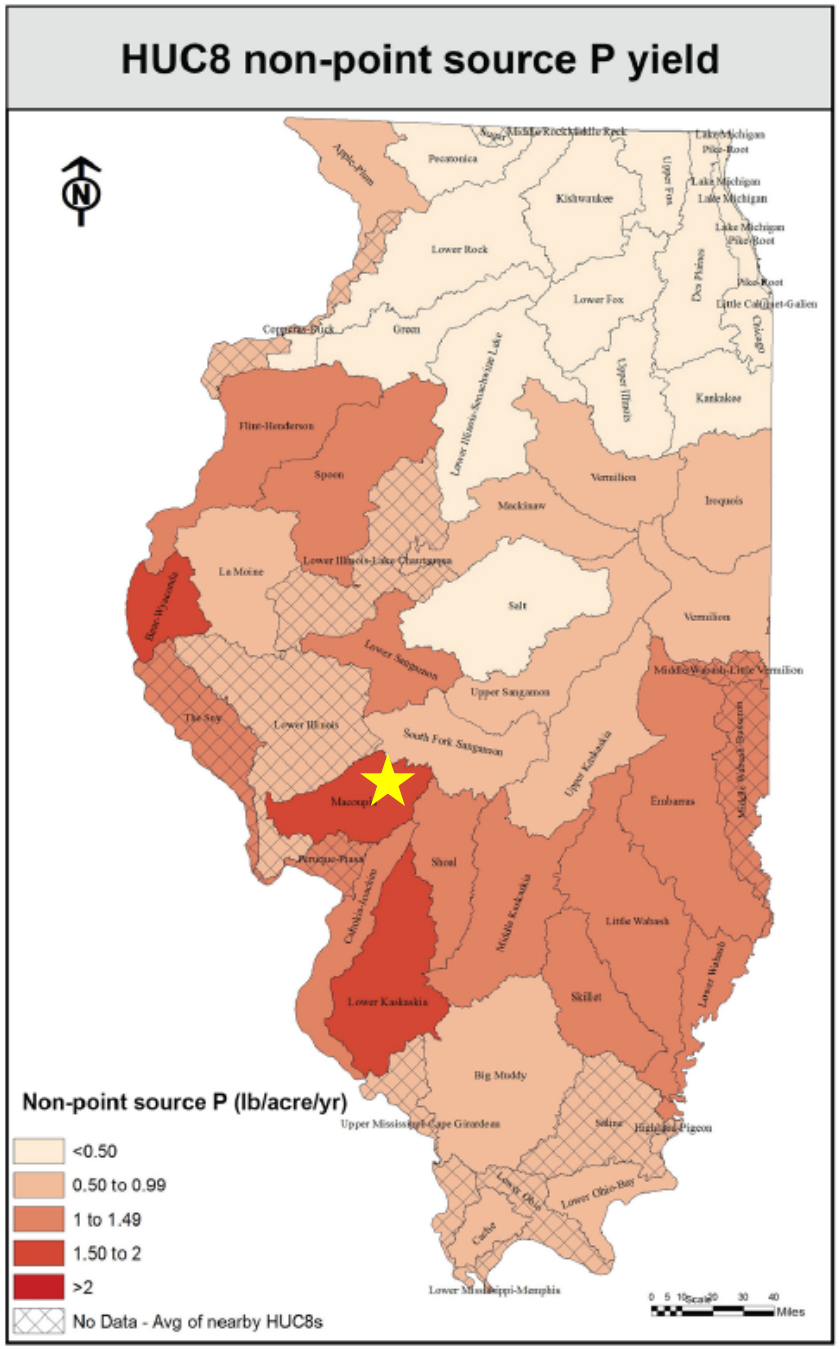
American Farmland Trust
SAVING THE LAND THAT SUSTAINS US

Jennifer Filipiak
Kris Reynolds

1.063 M lbs/yr

1.70 lb/ac/yr

45% reduction
=.94 lb/ac/yr



Mississippi River Basin Healthy Watershed Initiative (MRBI)
Natural Resource Conservation Service

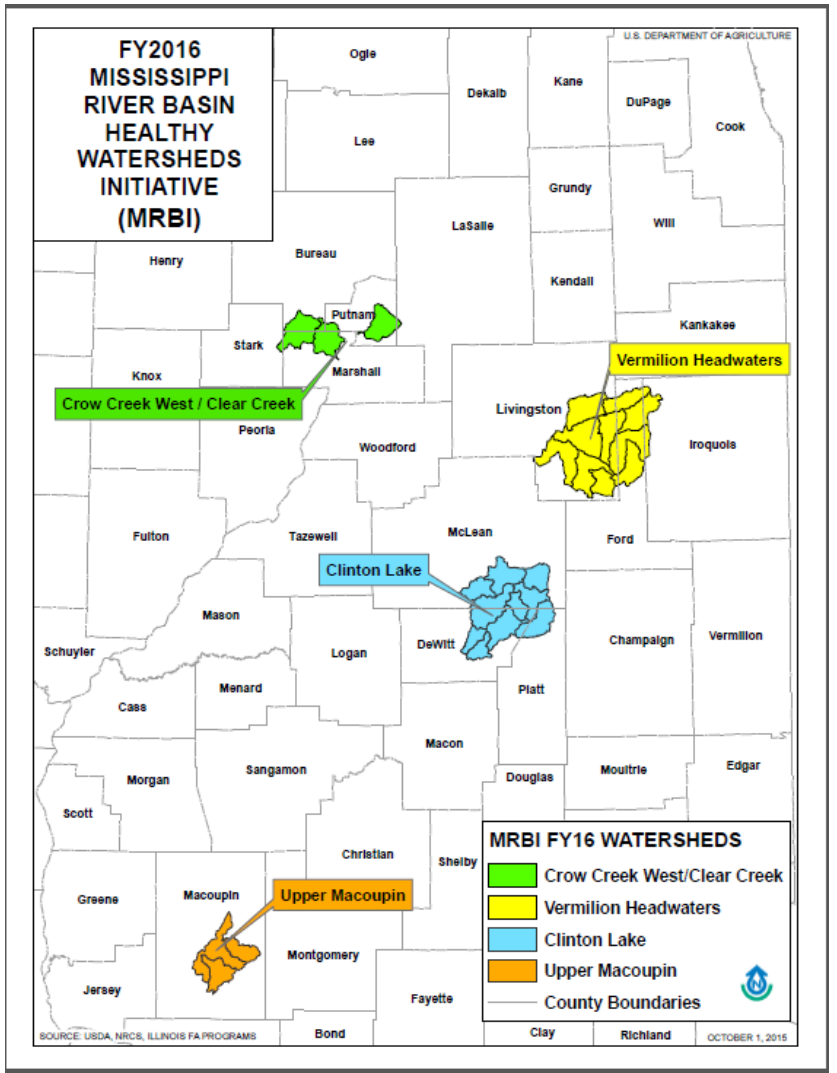
- Created in 2009 to improve water quality and enhance wildlife habitat within selected watersheds of the 13-state area of the Miss. River Basin.
- First phase ran from 2010-2013 (2008 Farm Bill) provided $80M funding nationwide. Funding provided through EQIP and CSP programs.
  - Indian Creek Watershed in Livingston County
- Second phase announced in 2015 (2014 Farm Bill), investing $100M funding nationwide.

Mississippi River Basin Healthy Watershed Initiative (MRBI)
Natural Resource Conservation Service

- Macoupin Watershed
  - Funding FY16-FY18, Total $1M

Current Implementation to date

- FY 16: 12 applications approved
- FY 17: 14 applications received
- Practices include:
  - Dry dams
  - Grassed waterways
  - Cover crops
  - Strip-till/No-till



Regional Conservation Partnership Program (RCPP)

- The Regional Conservation Partnership Program (RCPP) encourages partners to join in efforts with producers to increase the restoration and sustainable use of soil, water, wildlife and related natural resources on regional or watershed scales.
- Through the program, NRCS and its **partners** help producers install and maintain conservation activities in selected project areas. Partners leverage RCPP funding in project areas and report on the benefits achieved.

Regional Conservation Partnership Program (RCPP)

- **NRCS implements RCPP conservation program contracts and easement agreements through four existing NRCS programs authorities.**
- Agricultural Conservation Easement Program (ACEP)
- Environmental Quality Incentives Program (EQIP)
- Conservation Stewardship Program (CSP)
- Healthy Forests Reserve Program (HFRP)

- USDA plans to invest $1.2B through 2018, with $1.2B in partner *contributions*.

RCPP-Three Funding Pools

		
Critical Conservation Areas For projects in eight geographic areas chosen by the Secretary of Agriculture. These receive 35 percent of funding. Learn more.	**National** For nationwide and multistate projects. These receive 40 percent of funding.	**State** For projects in a single state. These receive 25 percent of funding.

- Excess/Insufficient Water/Drought
- Water quality degradation
- Soil quality degradation
- Inadequate habitat for fish and wildlife (and invertebrates)
- Air quality impacts
- Degraded Plant Condition (specific to certain CCA only)
- Energy
- Climate Change

RCPP Projects in Illinois

- 2014-2015
  - Il Dept. of Ag-Cover Crops and Soil Health $1.3M
  - Macon County SWCD and Decatur Sanitary District-Edge of field practices and water quality testing. $500,000
- 2016
  - Il Forestry Development Council $2.3M
  - Il Corn Growers-Precision Conservation Management $5.3M
- **2017 Macoupin Creek Watershed Partnership $1M**

Upper Macoupin Watershed Funding

Regional Conservation Partnership Program

$1 Million for practices, $1 Million in contribution
Late 2017 - 2021

Mississippi River Basin Initiative

$1 Million, through 2018

PARTNERS

American Farmland Trust
Blackburn College
CHS Shipman
Cities of Gillespie & Carlinville
Environmental Tillage Systems
Illinois Corn Growers Association
Illinois Department of Agriculture
Illinois Environmental Protection Agency
Illinois Stewardship Alliance
M&M Service
Macoupin County Farm Bureau
Macoupin County Pork Producers
Macoupin County SWCD
USDA-NRCS

Watershed Activities

Reduce the amount of phosphorus lost to Macoupin Creek!

- Field days and workshops
- Technical Assistance
- Water quality monitoring
- Monitoring practice adoption
- Habitat restoration
- Financial assistance to farmers and landowners

Forest Restoration

Soil Warrior – strip till

PROGRAMS AND PARTNERSHIPS

- SWCD: Supplemental Environmental Program funding, tile water testing
- SoilWarrior Program
- IL Corn Growers: PCM program
- Nat. Corn Growers: Soil Health Partnership
- Upper Macoupin Creek Cooperators Program
- Forestland and Grassland habitat Restoration Programs
  - IDNR, Quail Forever-Honey Cr/Lake Carlinville

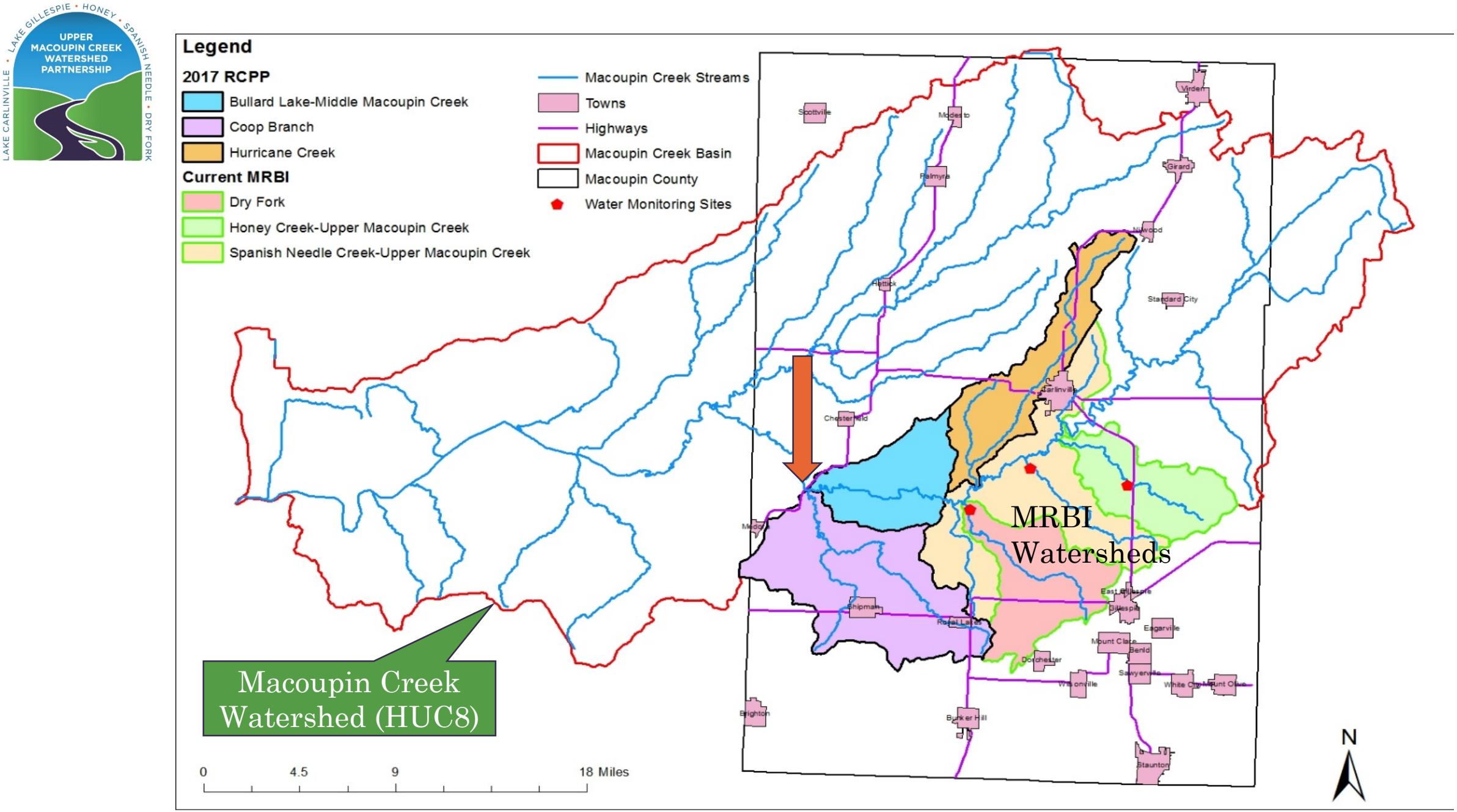
WATER QUALITY MONITORING

Water Quality Monitoring

- Partnered with Blackburn College to conduct WQ Monitoring
  - Two Graduate Students
    - Grab Samples
  - Illinois EPA providing equipment, shipping, lab analysis, data management
  - QAPP was developed and approved by Illinois EPA QA/QC officer.
  - Sampling began October 2015

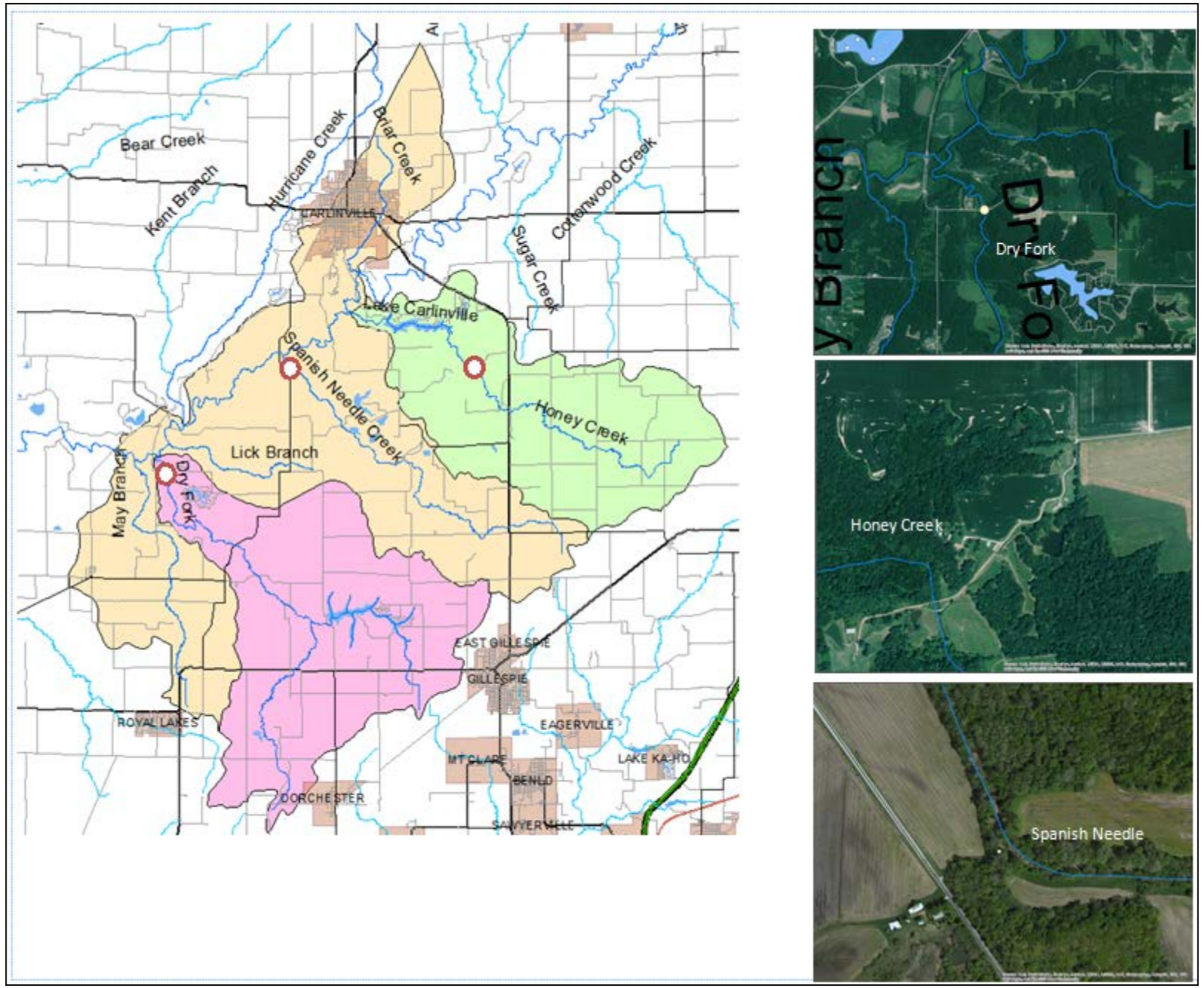
Water Quality Monitoring

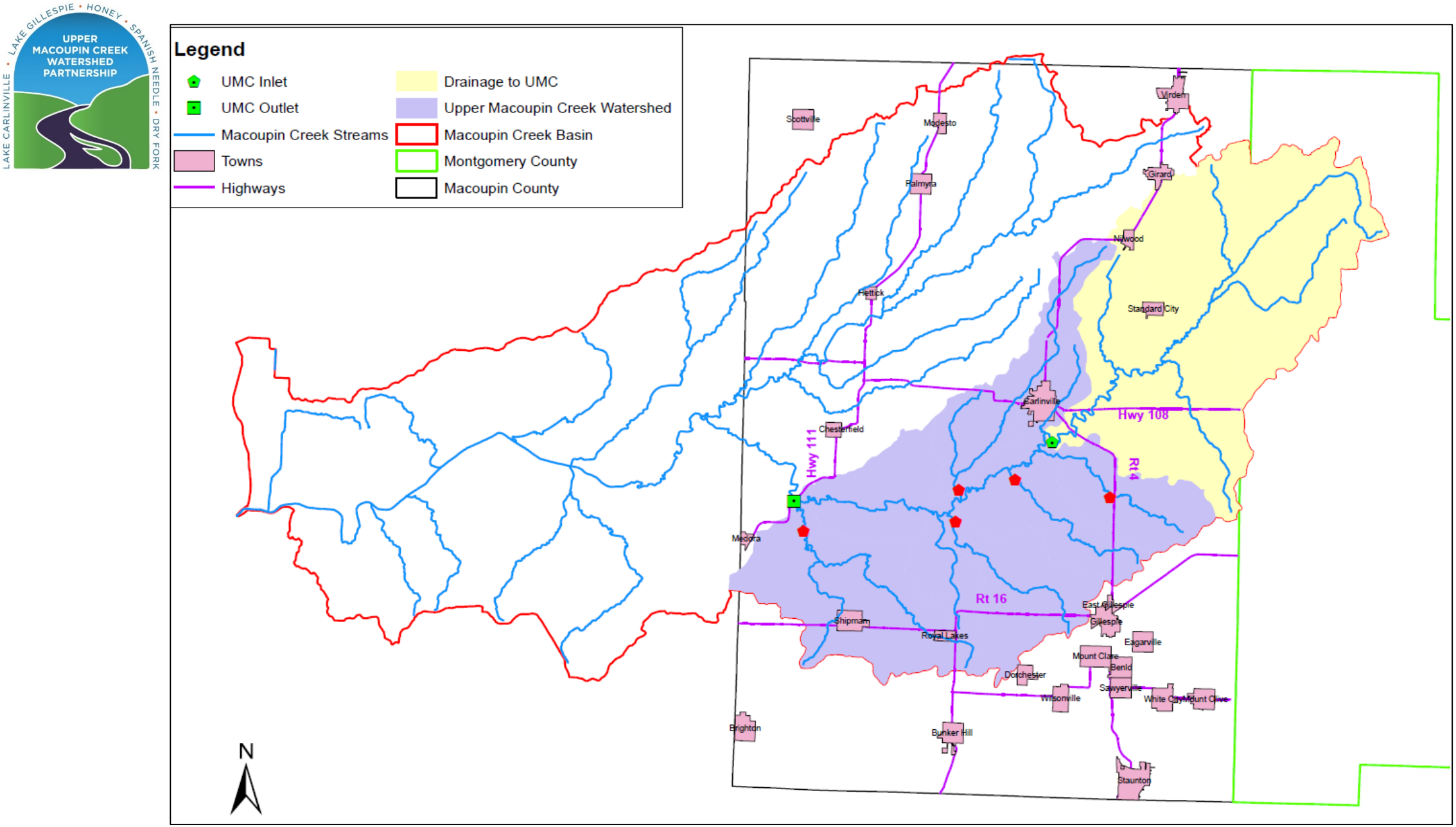
- Monthly Grab Samples
- Total Phosphorus
- Total Suspended Solids
- Volatile Suspended Solids
- NVSS calculated (surrogate for sediment)
- Gage height


UPPER MACOUPIN CREEK WATERSHED PARTNERSHIP
LAKE CARLINVILLE • LAKE GILLESPIE • HONEY • SPANISH NEEDLE • DRY FORK
Legend
2017 RCPP
Bullard Lake-Middle Macoupin Creek
Coop Branch
Hurricane Creek
Current MRBI
Dry Fork
Honey Creek-Upper Macoupin Creek
Spanish Needle Creek-Upper Macoupin Creek
Macoupin Creek Streams
Towns
Highways
Macoupin Creek Basin
Macoupin County
Water Monitoring Sites
MRBI Watersheds
Macoupin Creek Watershed (HUC8)
0
4.5
9
18 Miles
N

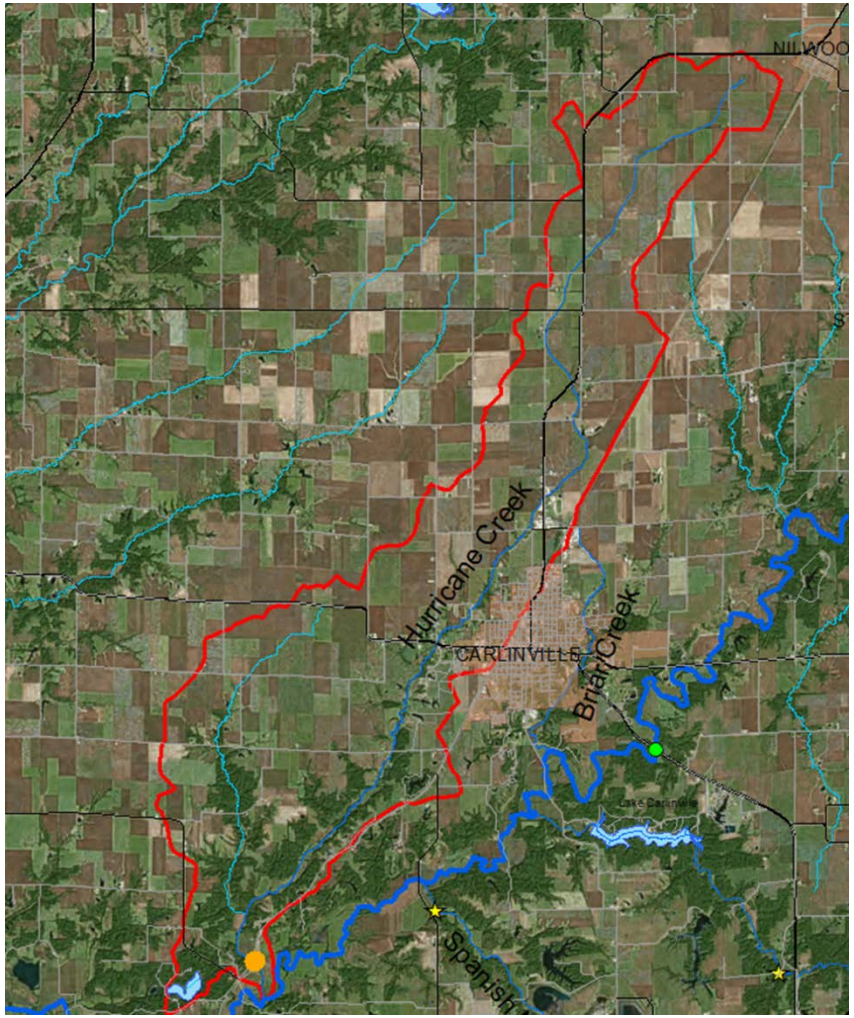
UPPER MACOUPIN CREEK WATERSHED PARTNERSHIP

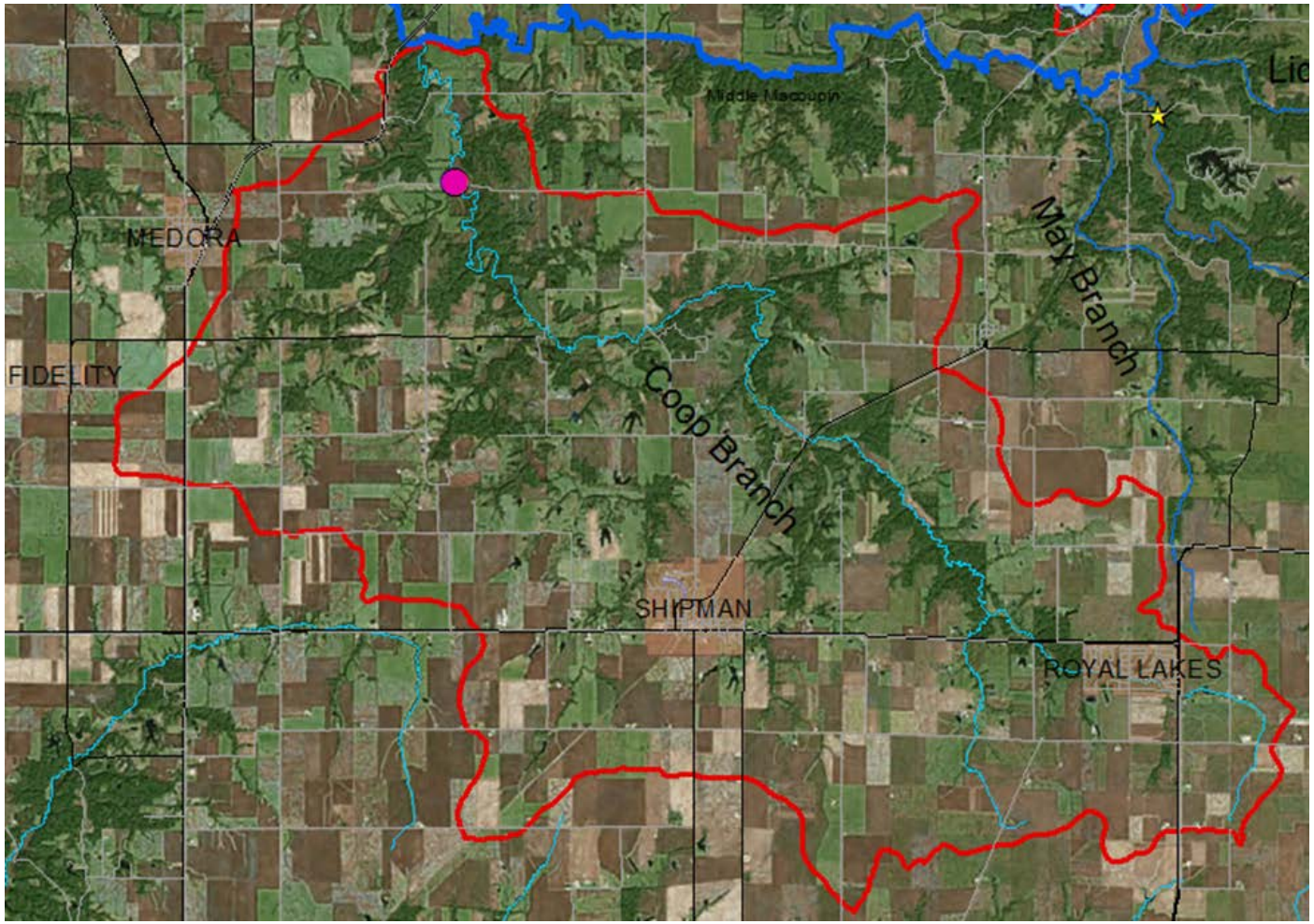
LAKE CARLINVILLE • LAKE GILLESPIE • HONEY • SPANISH NEEDLE • DRY FORK




UPPER MACOUPIN CREEK WATERSHED PARTNERSHIP
LAKE CARLINVILLE • LAKE GILLESPIE • HONEY • SPANISH NEEDLE • DRY FORK
Legend
UMC Inlet
UMC Outlet
Macoupin Creek Streams
Towns
Highways
Drainage to UMC
Upper Macoupin Creek Watershed
Macoupin Creek Basin
Montgomery County
Macoupin County
Scottville
Modesto
Palmyra
Virden
Girard
Nilwood
Hettick
Standard City
Carlinville
Chesterfield
Hwy 111
Hwy 108
Rt 4
Medora
Rt 16
Shipman
Royal Lakes
East Gillespie
Gillespie
Eagarville
Mount Clare
Benld
Dorchester
Sawyerville
Wilsonville
White City
Mount Olive
Brighton
Bunker Hill
Staunton
N

Additional WQ Stations
Hurricane Creek and Coop Branch
Sampling began January 2017





USGS MONITORING PROPOSAL

- Auto Sampler at two sites to capture samples at regular intervals and storm events.
  - Two liters per sample: One for sediment, one for nutrients
    - TSS, Total and Dissolved Phosphorus, Orthophosphate
- Two continuous streamflow stations will be established to calculate loads.

USGS MONITORING PROPOSAL

Table 1. Preliminary budget for watershed-scale water quality monitoring - Upper Macoupin Creek Watershed						
	Partial FFY17: Apr. 1, 2017 to Sep. 30, 2017	FFY 2018: Oct. 1, 2017 - Sep. 30, 2018	FFY 2019: Oct. 1, 2018 - Sep. 30, 2019	FFY 2020: Oct. 1, 2019 - Sep. 30, 2020	FFY 2021: Oct. 1, 2020 - Sep. 30, 2021	
Component	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
Equipment purchase and installation	$ 45,000	$ -	$ -	$ -	$ -	
Annual Operation and Maintenance	$ 40,000	$ 41,200	$ 42,436	$ 43,709	$ 45,020	
Laboratory Analysis and Shipping	$ 9,200	$ 19,400	$ 19,982	$ 20,581	$ 21,199	
Labor: sample collection, data analysis and interpretation	$ -	$ 2,000	$ 2,060	$ 2,122	$ 5,000	
Miscellaneous - travel and vehicles	$ 5,000	$ 2,600	$ 2,678	$ 2,758	$ 2,841	
Research Presentations and Publications	$ -	$ -	$ -	$ -	$ 25,000	
Administrative Management and Expenses	$ 24,800	$ 16,300	$ 16,789	$ 17,293	$ 24,765	
Total	**$ 124,000**	**$ 81,500**	**$ 83,945**	**$ 86,463**	**$ 123,825**	**$ 499,734**
Fundraising status						
Funding sources, in hand from AFT:	$ 28,000	$ 20,000				
Funding sources, proposed, >75% likelihood, from AFT:	$ 10,000	$ 10,000				
Funding sources, proposed, >75% likelihood, from USGS:	$ 30,000	$ 25,000	$ 25,000	$ 25,000	$ 40,000	
Funding sources, proposed, 50/50, from AFT:	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	
Subtotal potential funds	**$ 78,000**	**$ 65,000**	**$ 35,000**	**$ 35,000**	**$ 50,000**	**$ 263,000**
Funding gap each year	$ 46,000	$ 16,500	$ 48,945	$ 51,463	$ 73,825	$ 236,734

Field Days and Conservation Practices

Soil Health Field Day

Wednesday March 22, 2017

Program: 10am to 12 pm

Agenda includes:

Kris Reynolds with American Farmland Trust

- Discussion on different cover crop species
- Discussion on terminating cover crops in the spring before planting
- Exploring soils under different management via soil pits
- ETS SOILWARRIOR® STRIP-TILL machine will be on display and a representative will be available to talk about STRIP-TILL

Mike and Jeff Johnson will be speaking on what they have learned over the years growing cover crops; they will also explain how cover crops have improved their cattle operation.

For more information contact the Carlinville USDA office at (217) 854-2626 Ext. 3

- Reduced tillage: strip till and no till
- Variable rate technology (efficient placement of nutrients)
- Deep placement of phosphorus
- Cover crops
- Grassed waterways, filter strips, water/sediment control basins
- Forest restoration (native species regeneration)


Questions?