
Kentucky's Nutrient Reduction Strategy Update
Kentucky Division of Water
TEAM KENTUCKY
ENERGY AND ENVIRONMENT CABINET

Why nutrients?

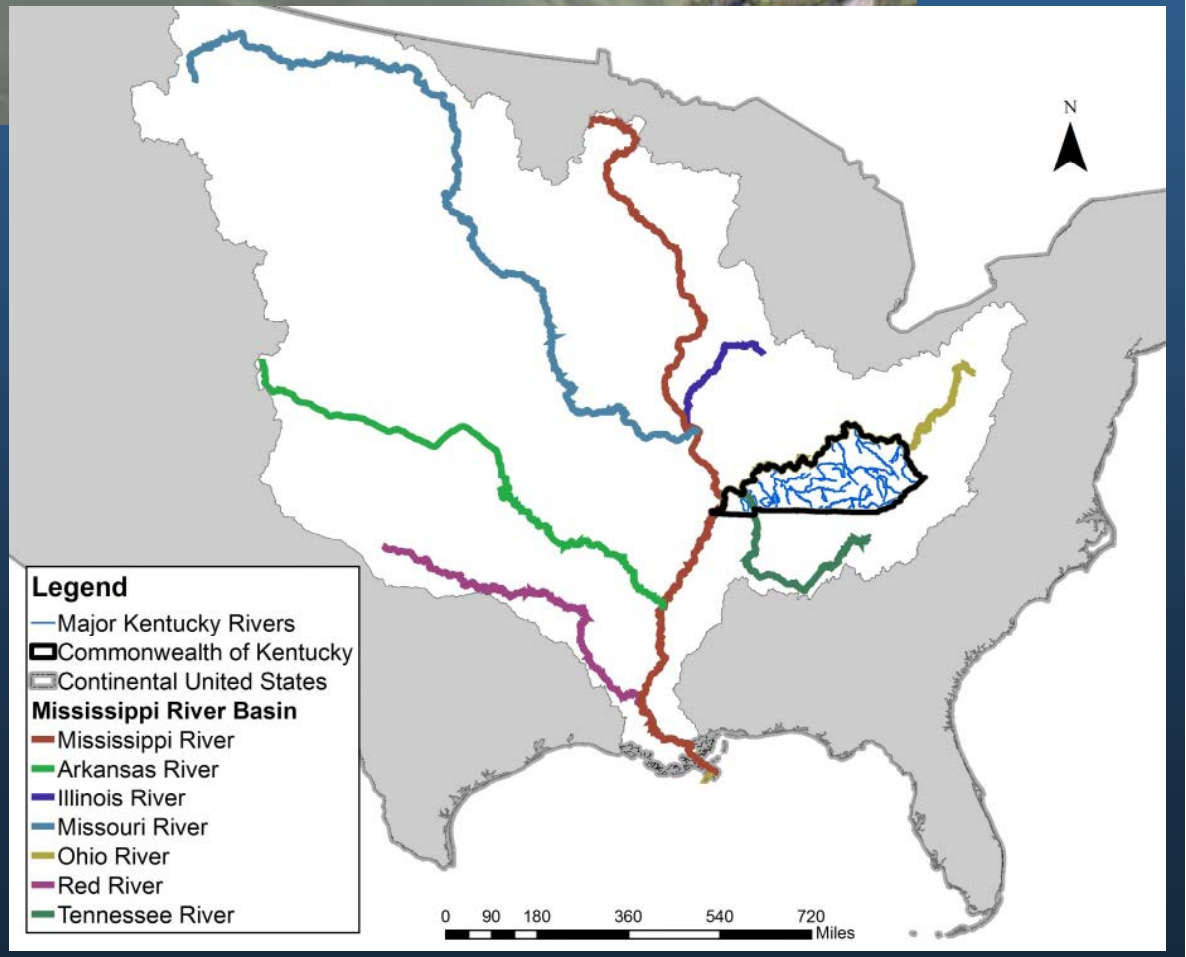
Local issues

- Harmful Algal Blooms
- Drinking water taste/odor
- Erosion of productive soil

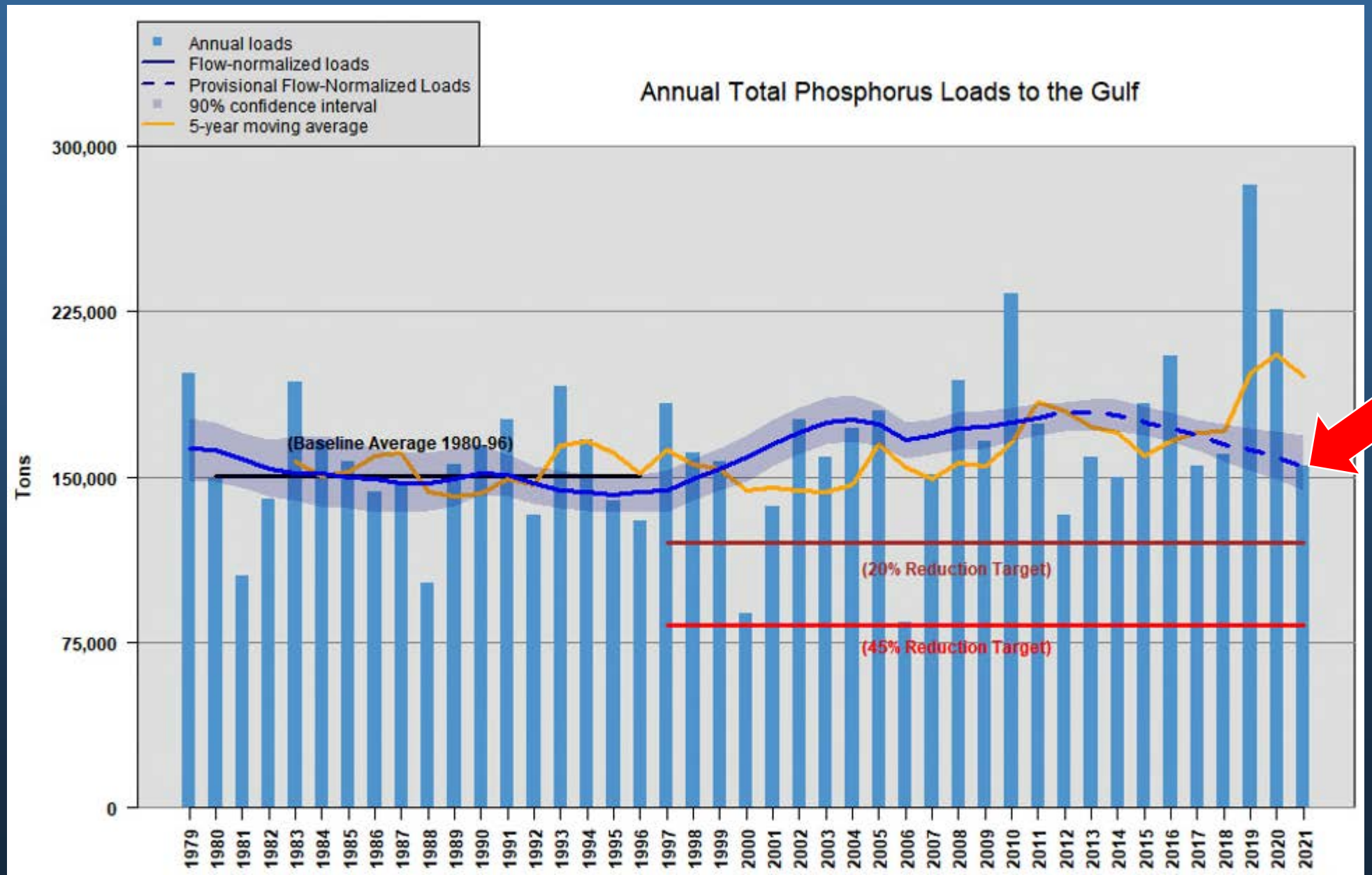
Regional & National Issues

- Inter-state drinking water sources
- Gulf of Mexico Hypoxic Zone

Maysville 2015
Source: Ohio EPA



Phosphorus Trends in the Mississippi River Basin



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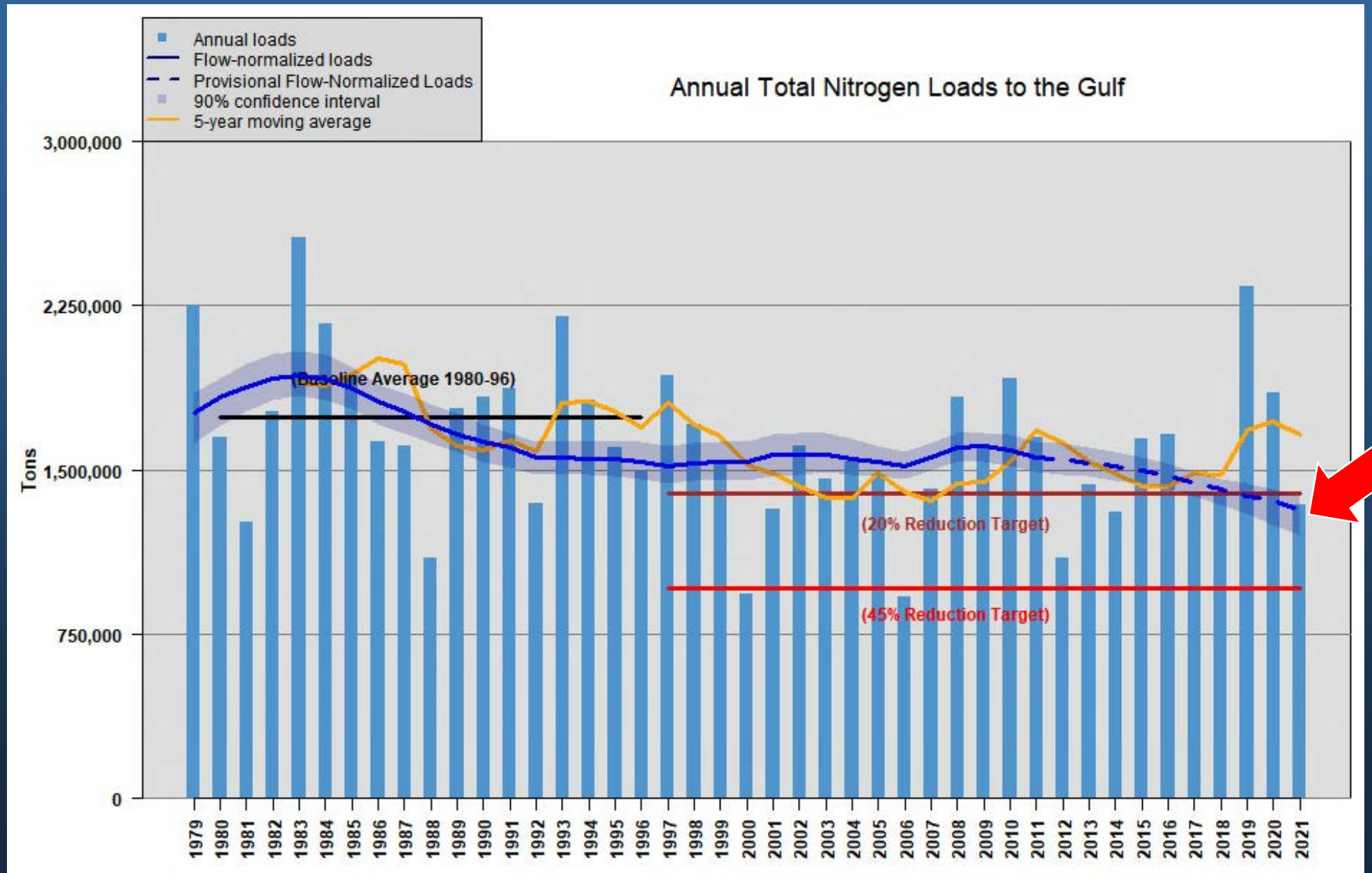
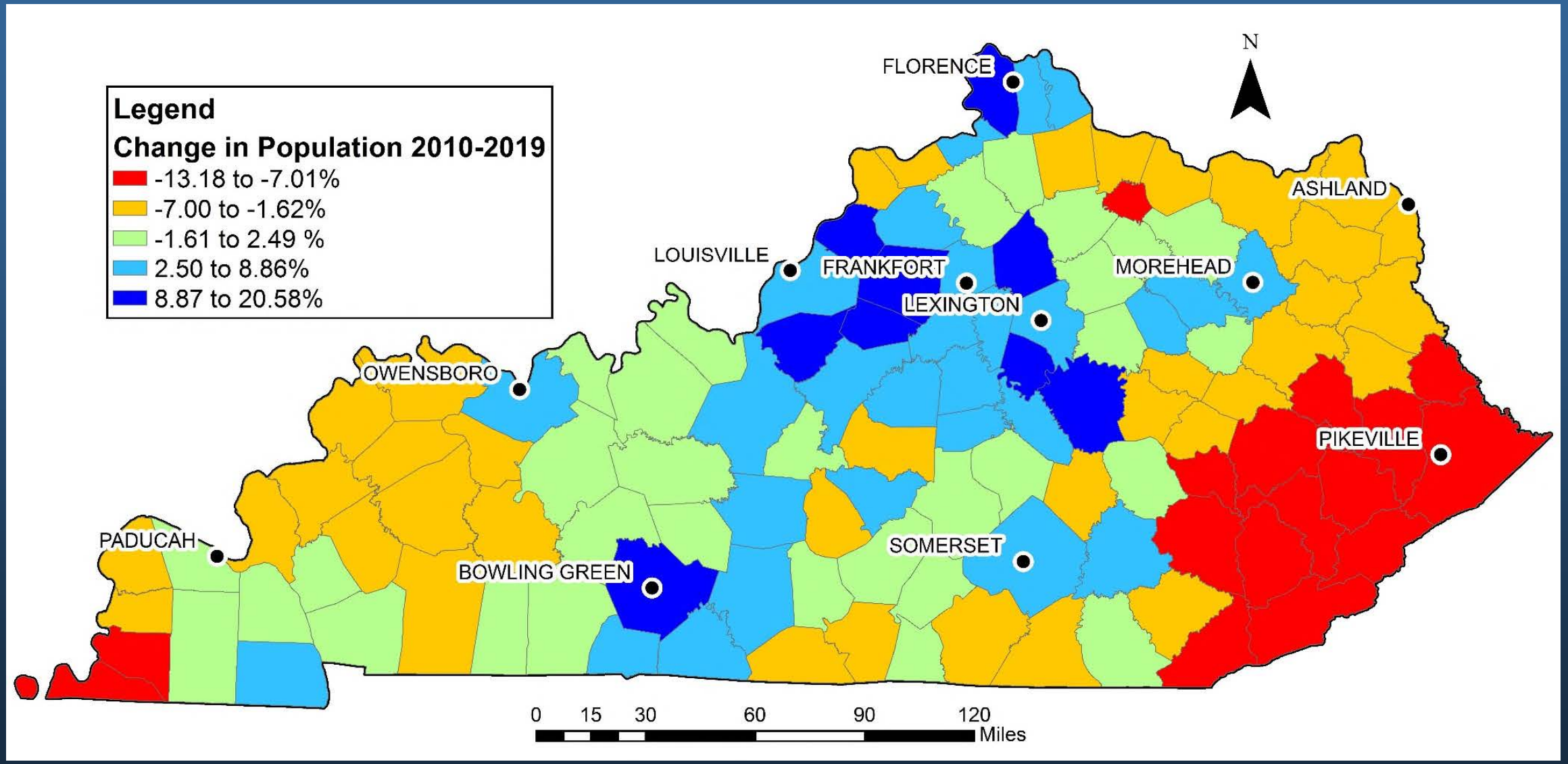


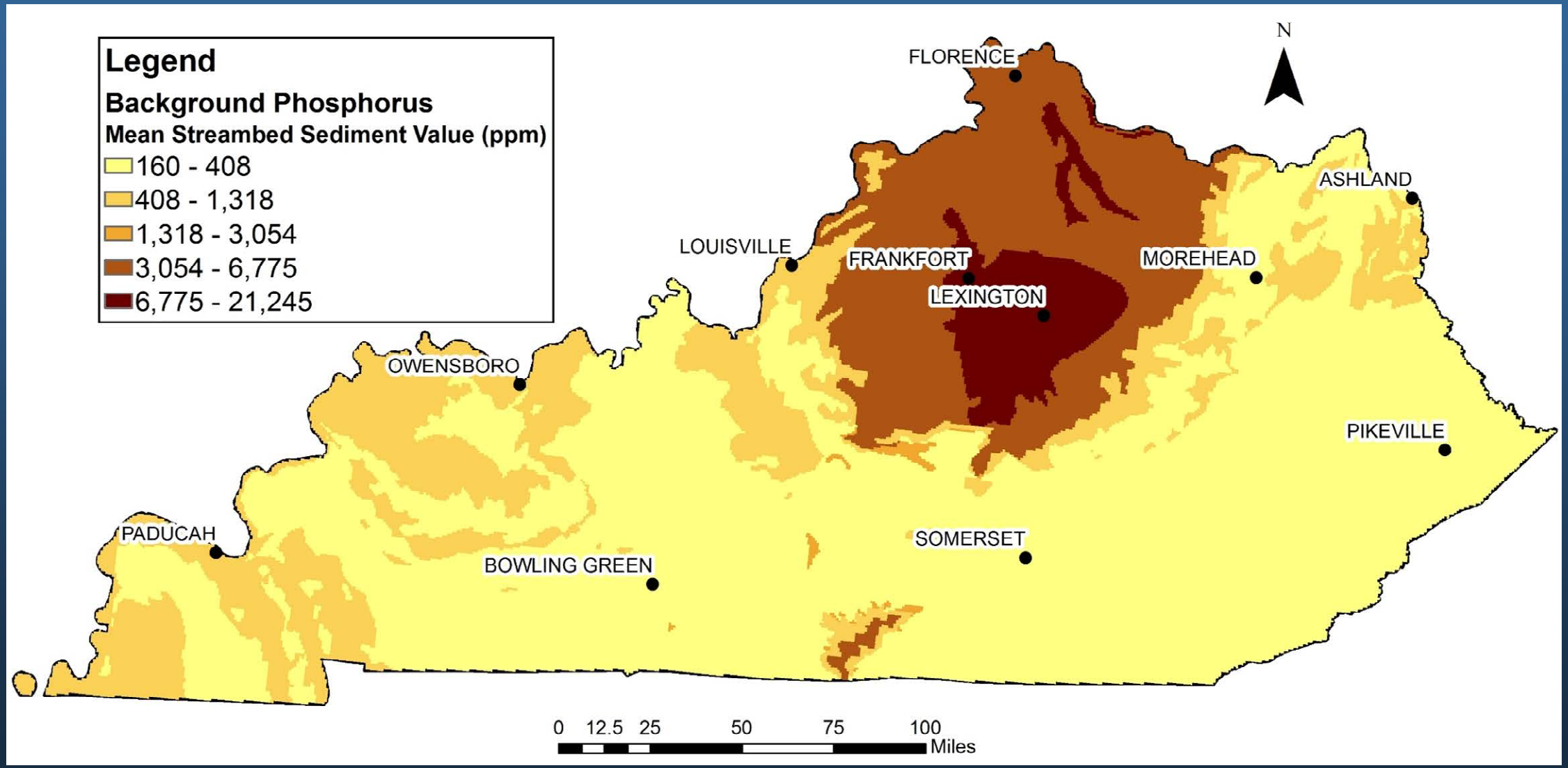
Kentucky's Profile

- KY is 6.7% of the Gulf of Mexico watershed by drainage area but contributes an estimated 10.6% of total phosphorus load.
- More than 90,000 miles of streams flow in Kentucky.
- ~75,000 farms cover ~51% of Kentucky's landmass.
- Approximately 40% of KY households are served by septic systems.
- KY has the largest beef cattle herd east of the Mississippi River.
- Population density of 109.9 people/sq.mi. ranks 22nd highest among states.

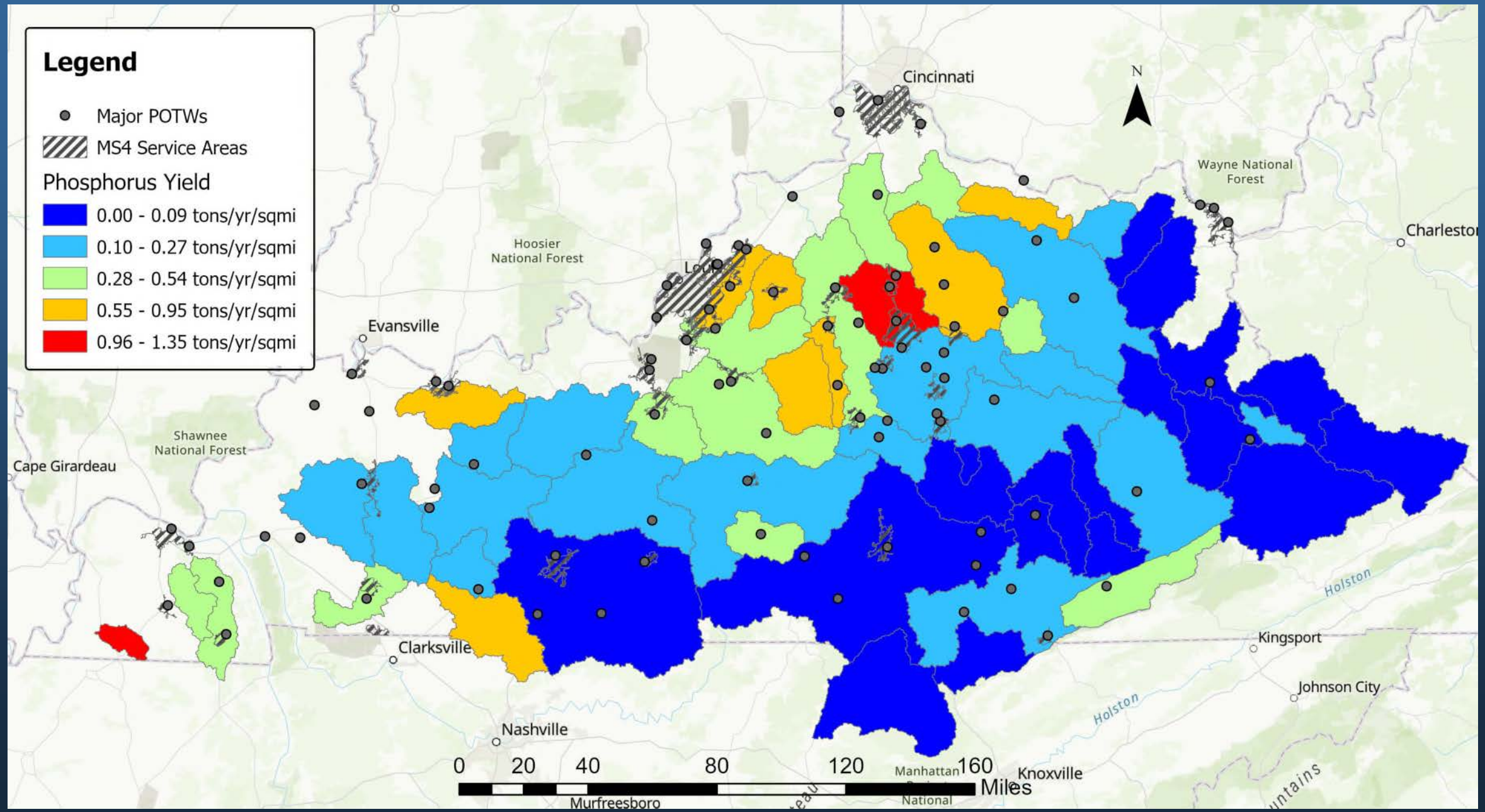
What does population growth tell us?



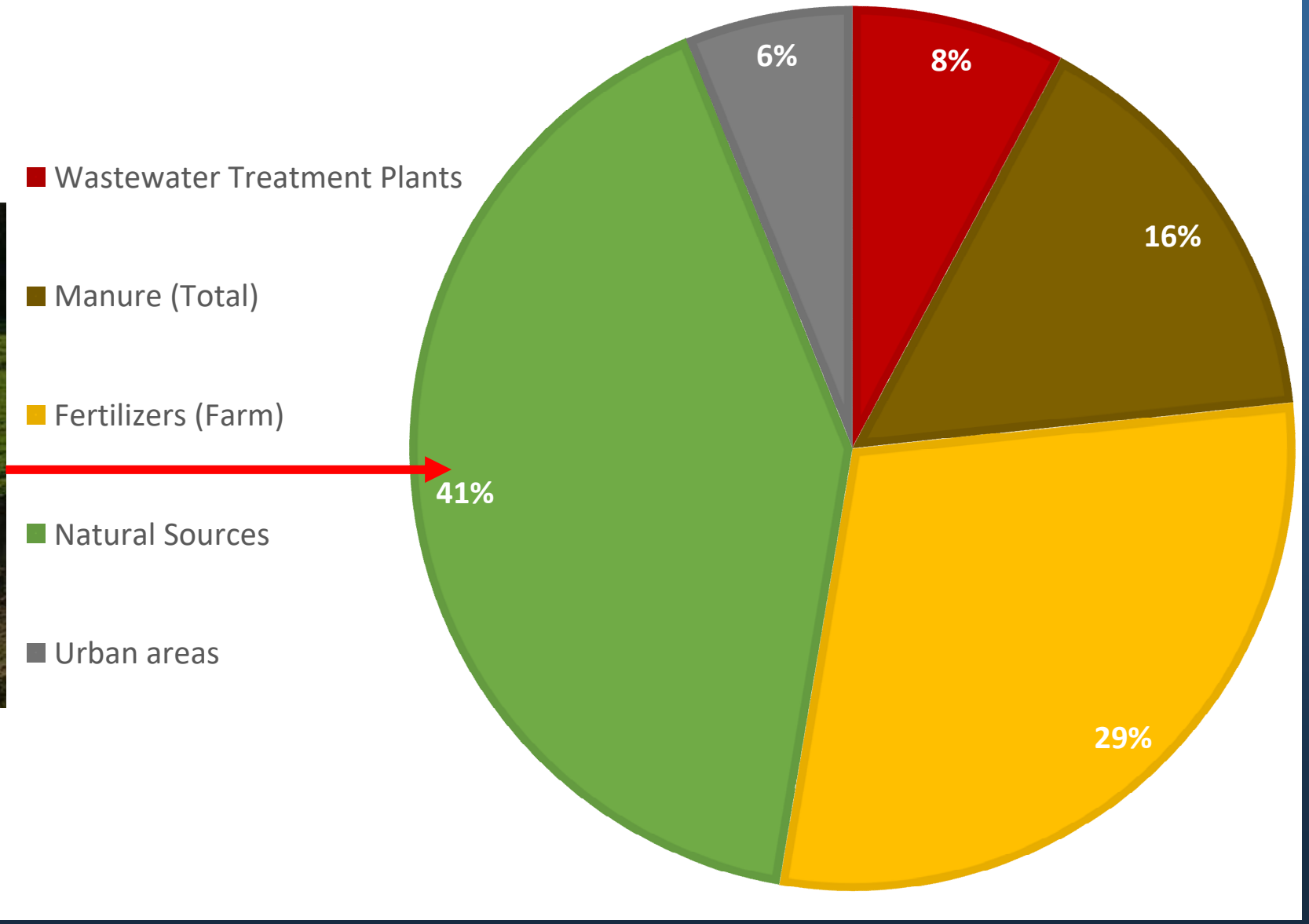
Soil phosphorus in Kentucky



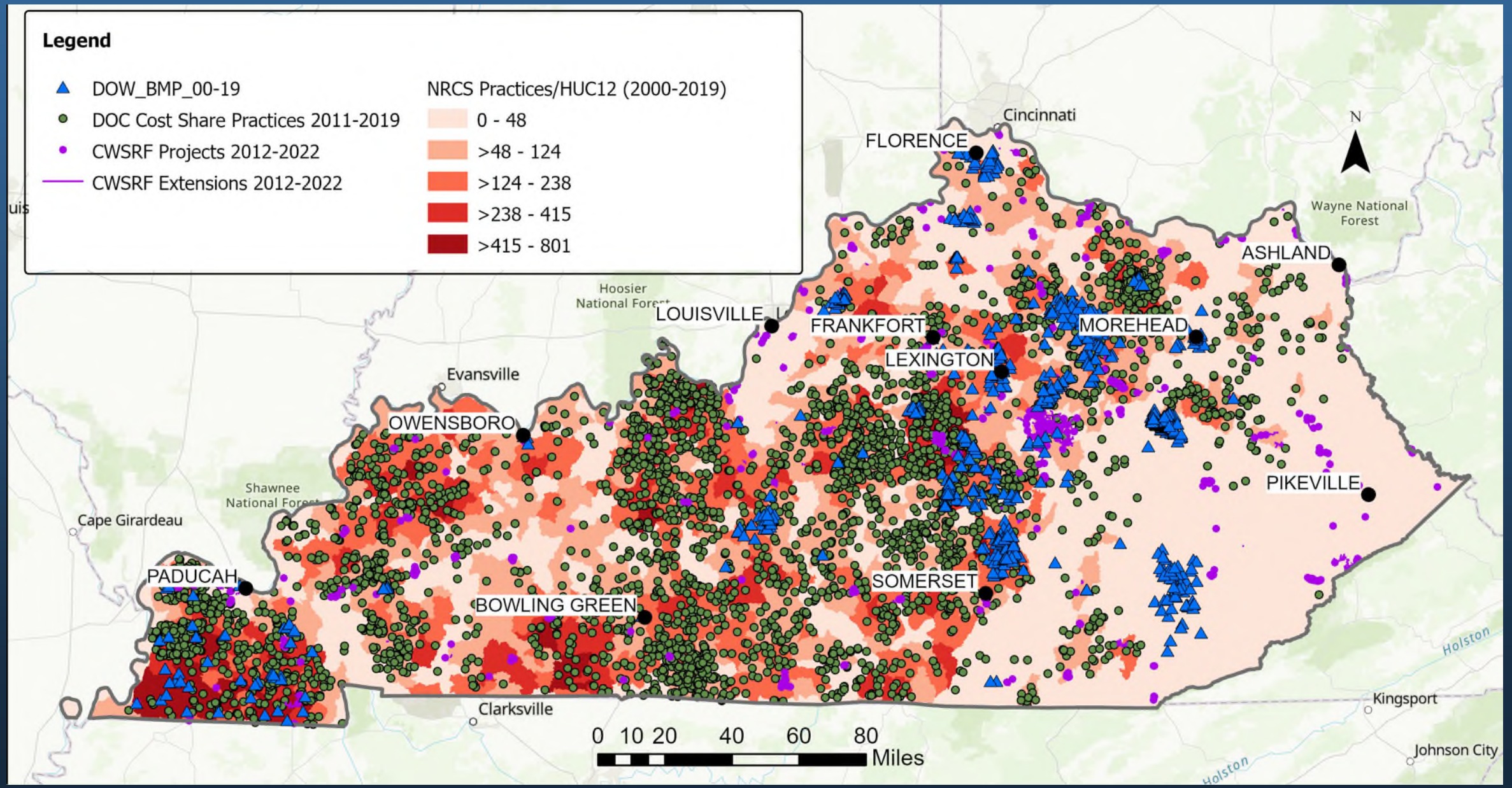
Data confirms Kentucky's complex landscape.



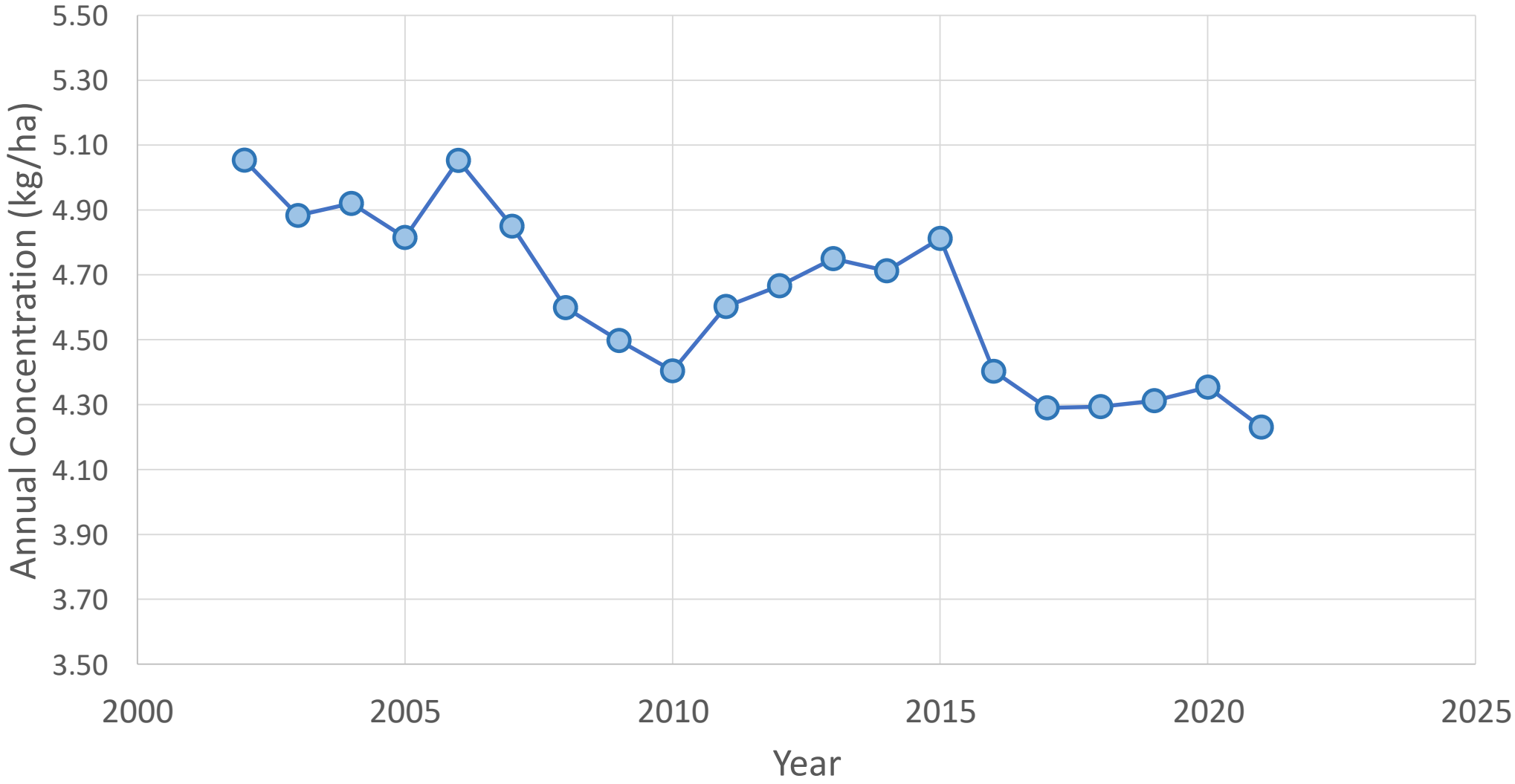
SPARROW Modeled Phosphorus Sources in Kentucky



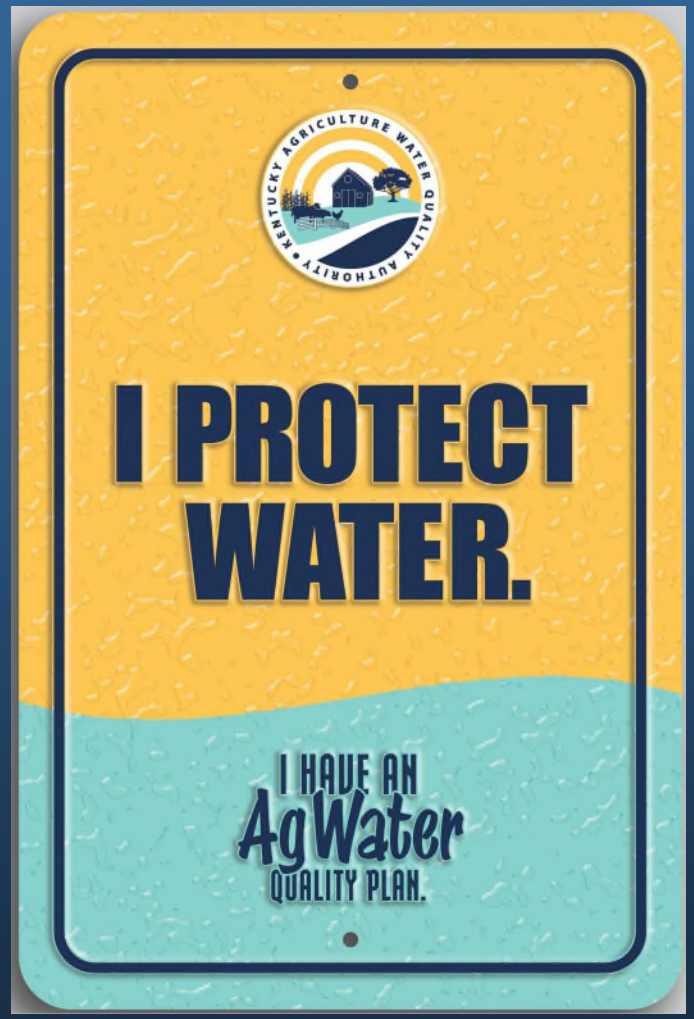
What has been accomplished so far?



Rolling 5-Year Average of Total Inorganic Nitrogen Deposition in Kentucky (2002-2021)



Ag. Water Quality Act Planning Tool



Ky Ag Water Quality Planning Tool

(*) indicates a required field; (✓) indicates a field may be required based on user input or is an optionally required field

provides additional information about the field when mouse pointer is hovered

General Info | Farmstead BMPs | Livestock BMPs | Plan Summary

Farm Information

Farm Name(*)	Approximate Farm Acreage(*)
North Riverside Farm	200
Connection to Farm(*)	**Farm Number/FSA Number(*)**
Owner/Operator	12345678910

Farm Address

Street Address	City(*)	County
361 Sower Blvd	Frankfort	Franklin
State(*)	**Zip Code(*)**	**Contact #/ Phone(*)**
Kentucky	40601	502-564-3410
Latitude(decimal degrees)(✓)	**Longitude(decimal degrees)(✓)**	
38.186231	-84.846146	

Display Map

Farm Mailing Address ☑ Check this box if mailing address is same as farm address

Street Address(*)	City(*)	County(*)
300 Sower Boulevard 3rd Floor	Frankfort	Franklin
State(*)	**Zip Code(*)**	
Kentucky	40601	

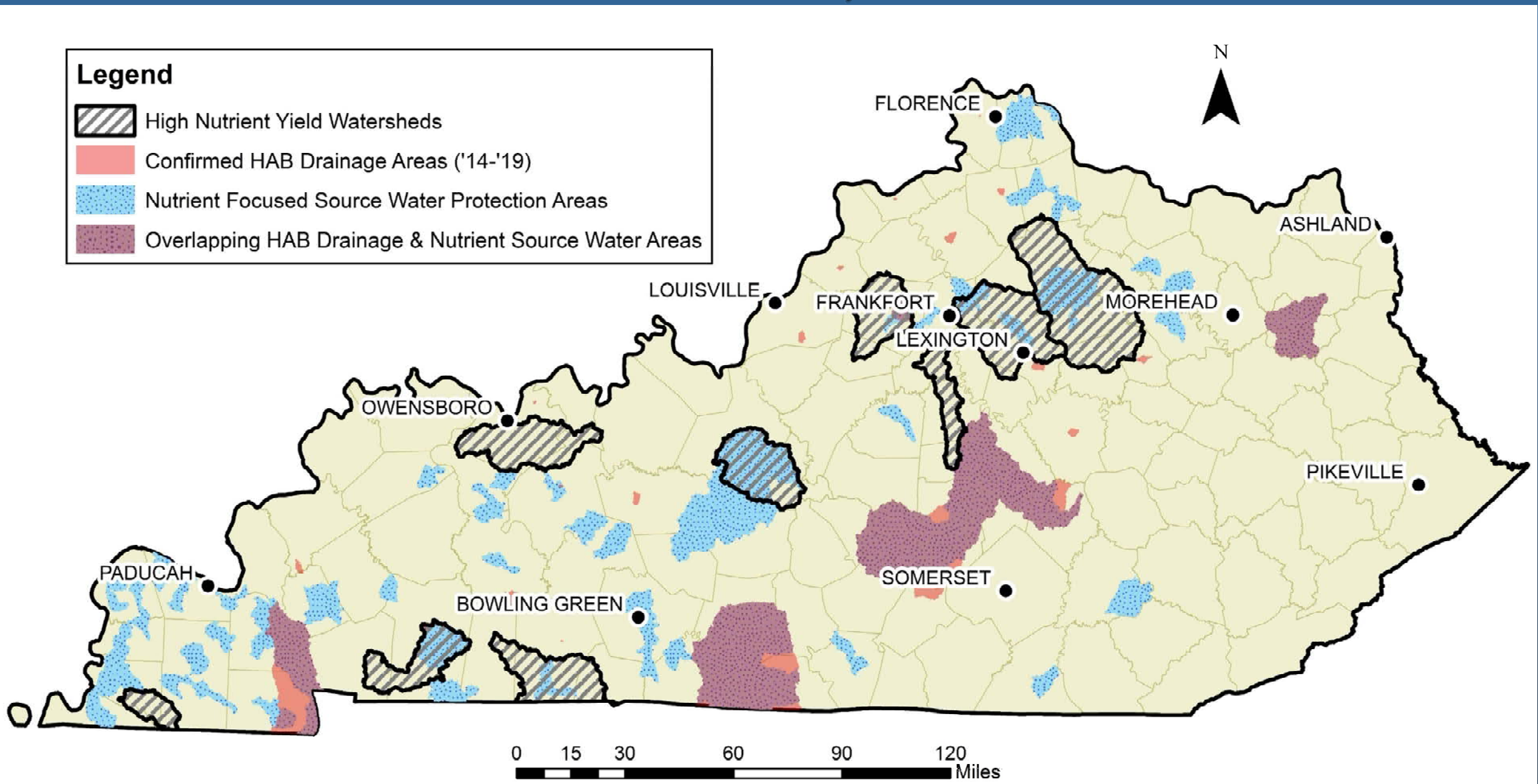
Land Owner Information

Organization Name(✓)		
Kentucky Division of Water		
First Name(✓)	**M.I.**	**Last Name(✓)**
John	Middle Initial	Doe
City(*)	**State(*)**	**Zip Code(*)**
Frankfort	Kentucky	40601

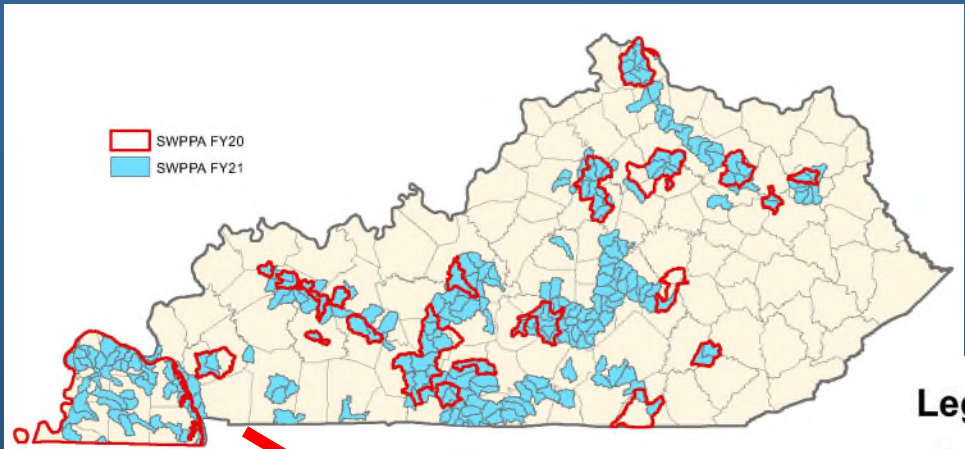
Land User (tenant, manager, etc.) Information ☑ Check this box if land user information is same as land owner information

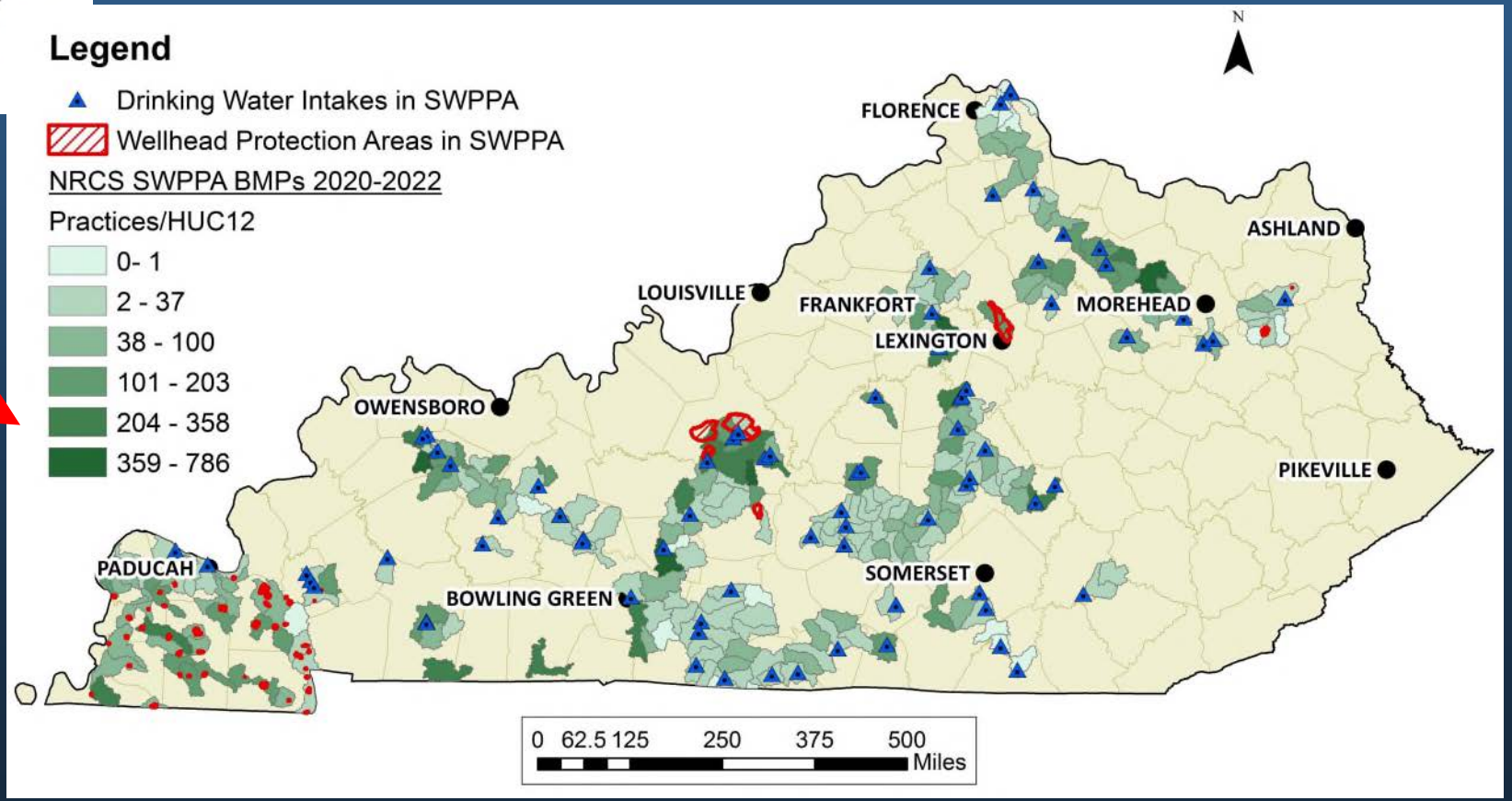
Organization Name(✓)

What are Kentucky's Priorities?

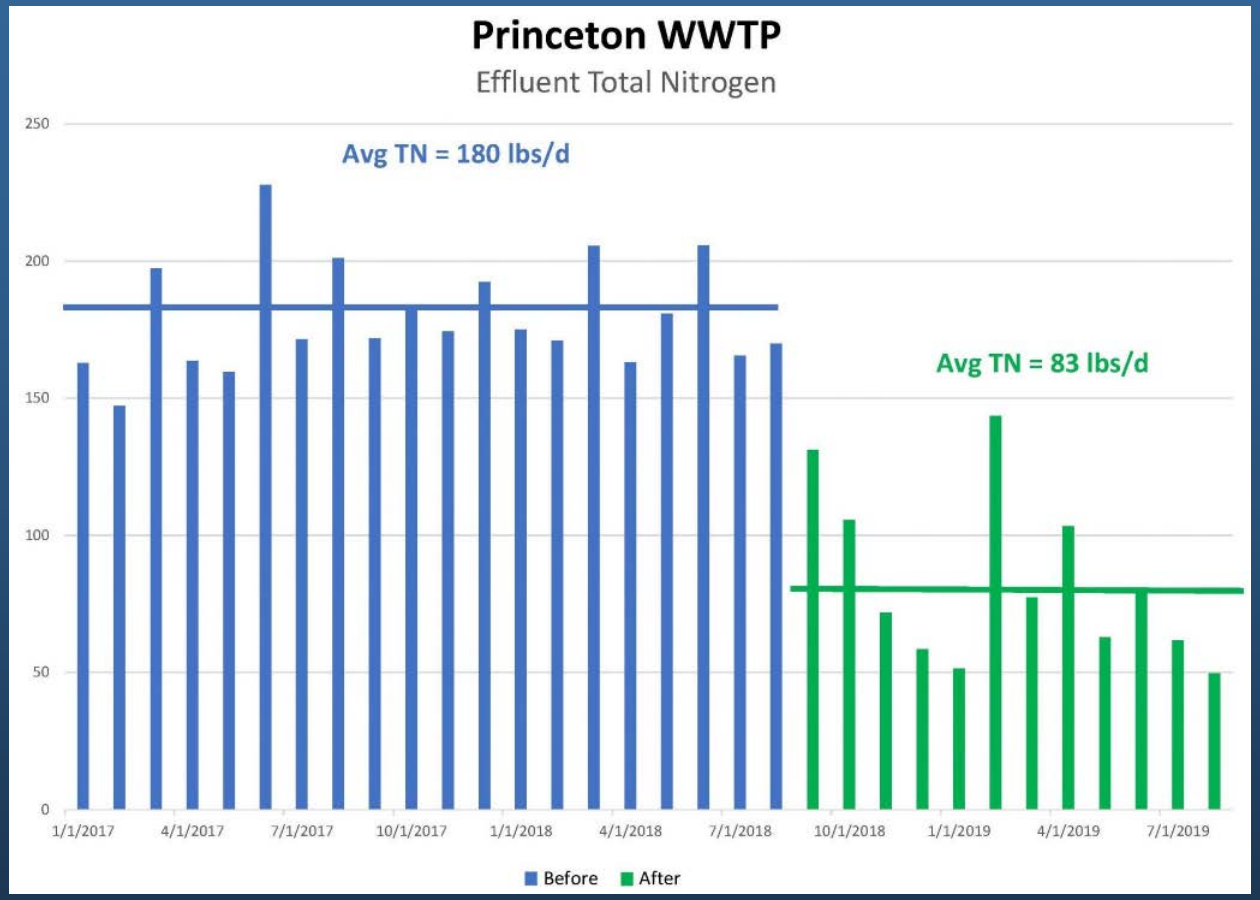


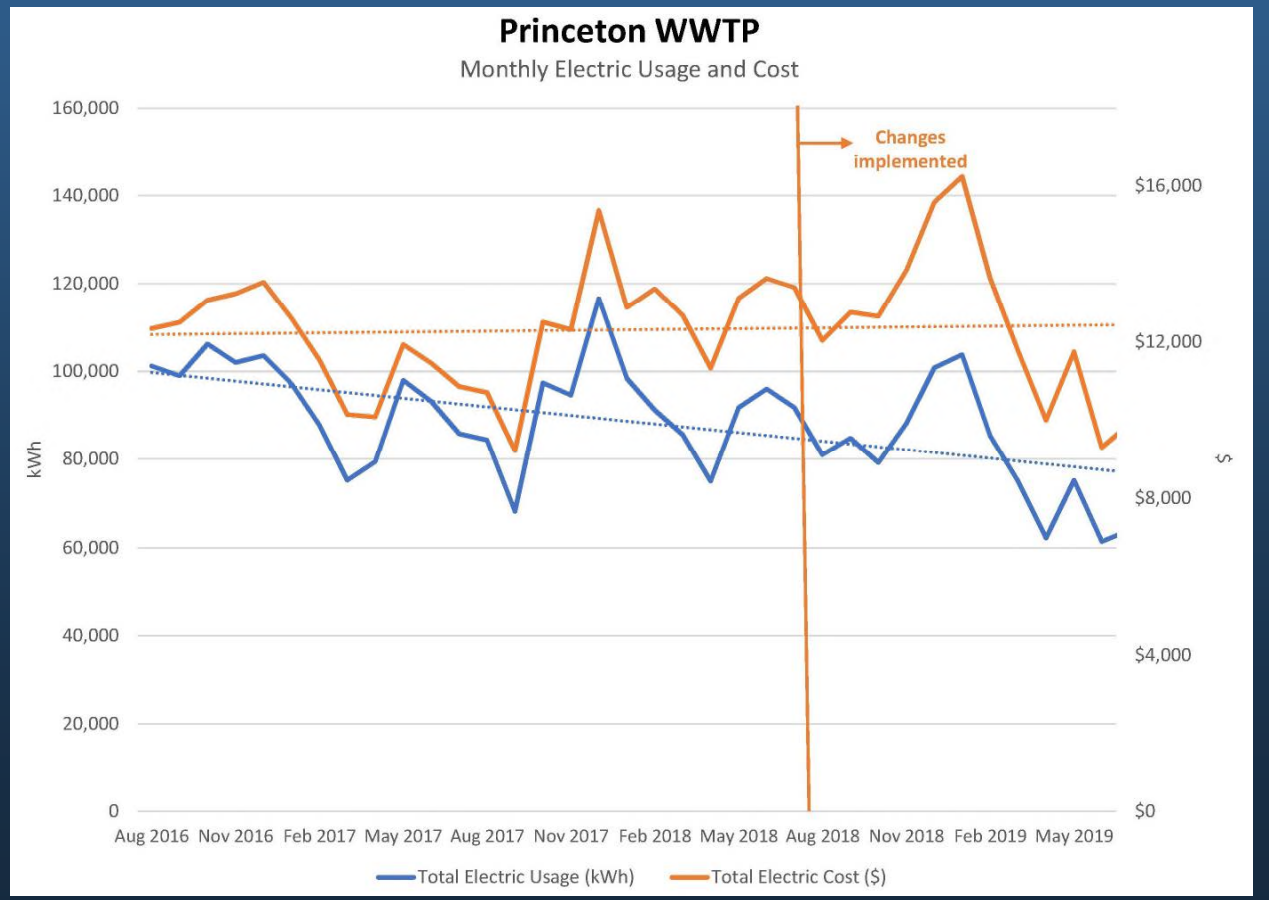
Sourcewater Protection & Nutrient Planning



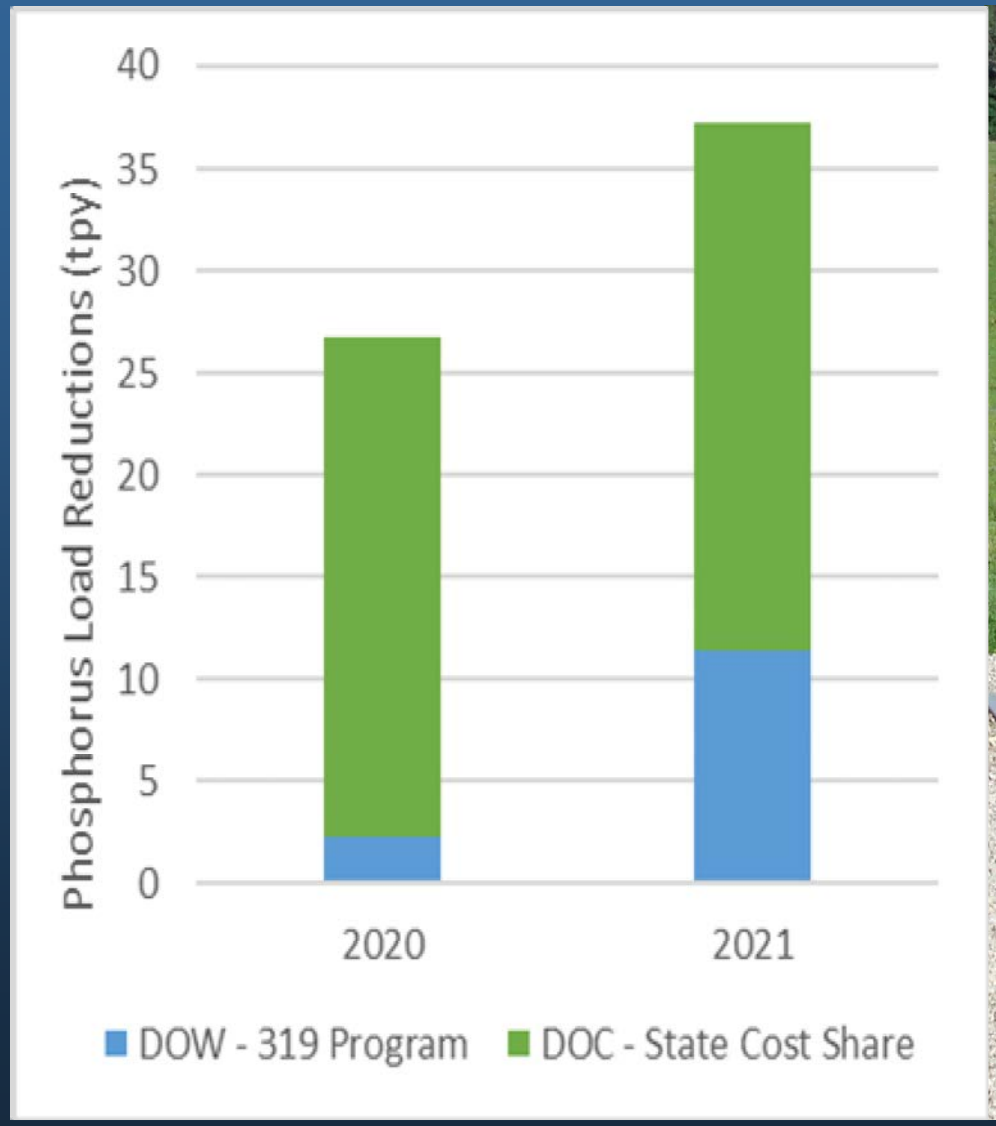


POTW Optimization

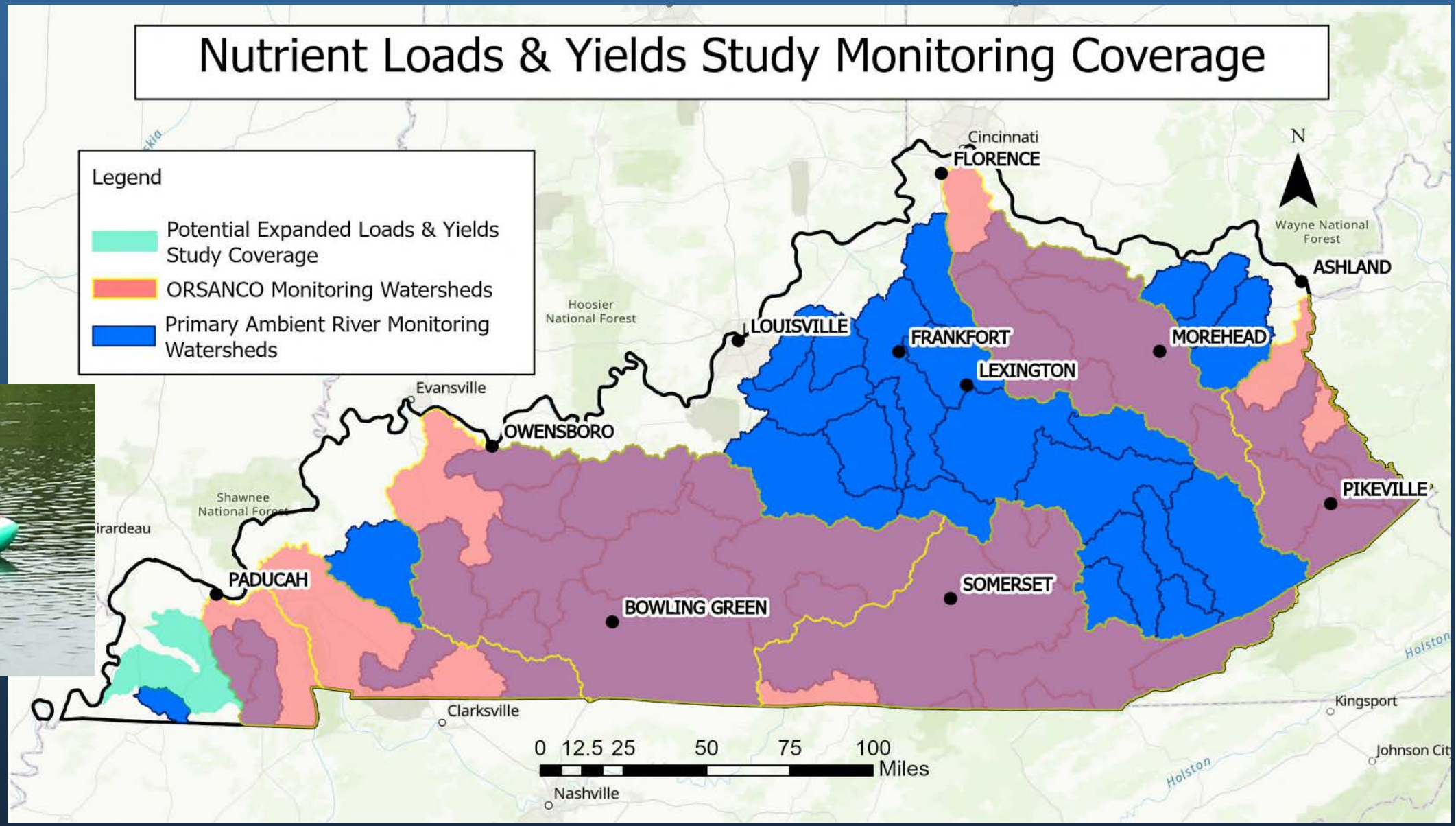




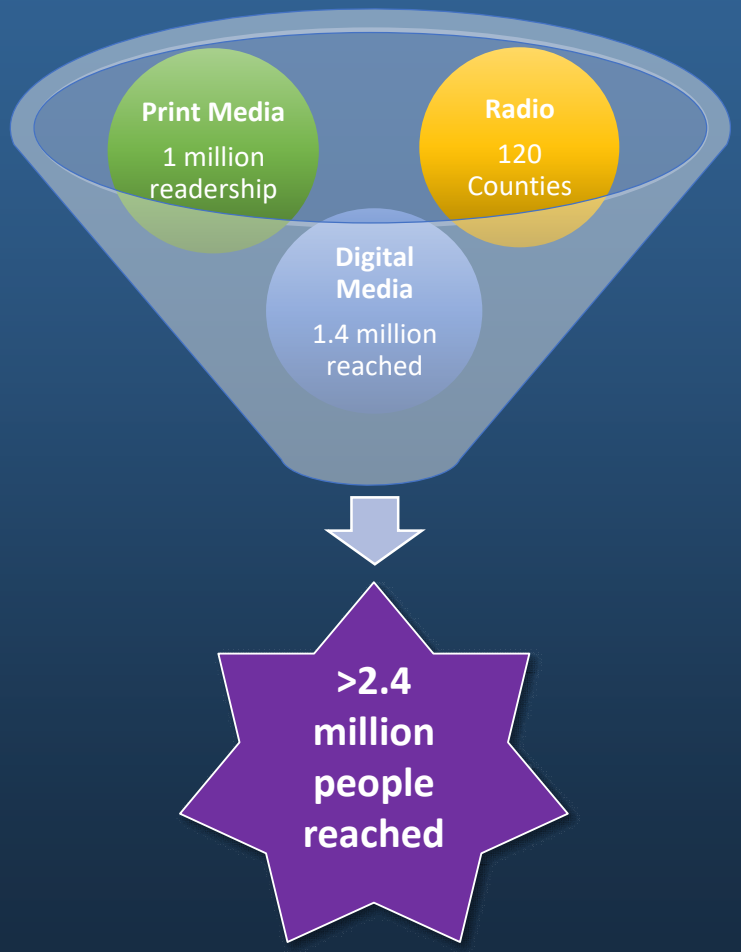
Nonpoint Source Progress Tracking

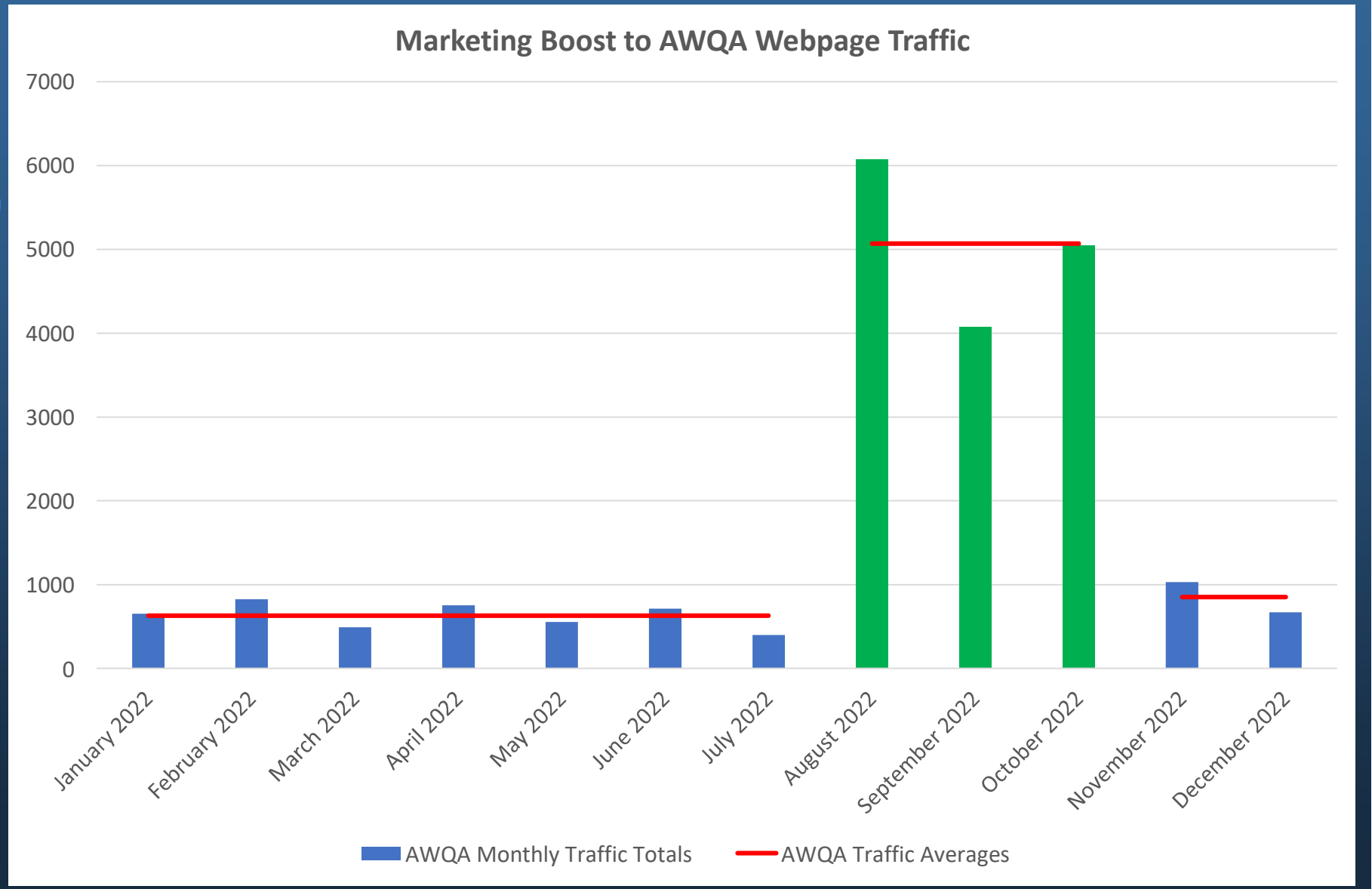


Monitoring Improvements



AWQA Marketing Results





Gulf Hypoxia Program

- **MS4 Training Program**
- **Optimization Toolkit for POTWs**
- **Fund additional agriculture practices focused on erosion**
- **Expand monitoring to track nutrient progress and alert utilities of algal blooms**
- **Staffing for nutrient management planning, partnership building, and program management.**

What Comes Next?

Build the Nutrient Network

Invest in MS4 & POTW resources

Invest in agriculture BMPs

Tell the WHOLE story