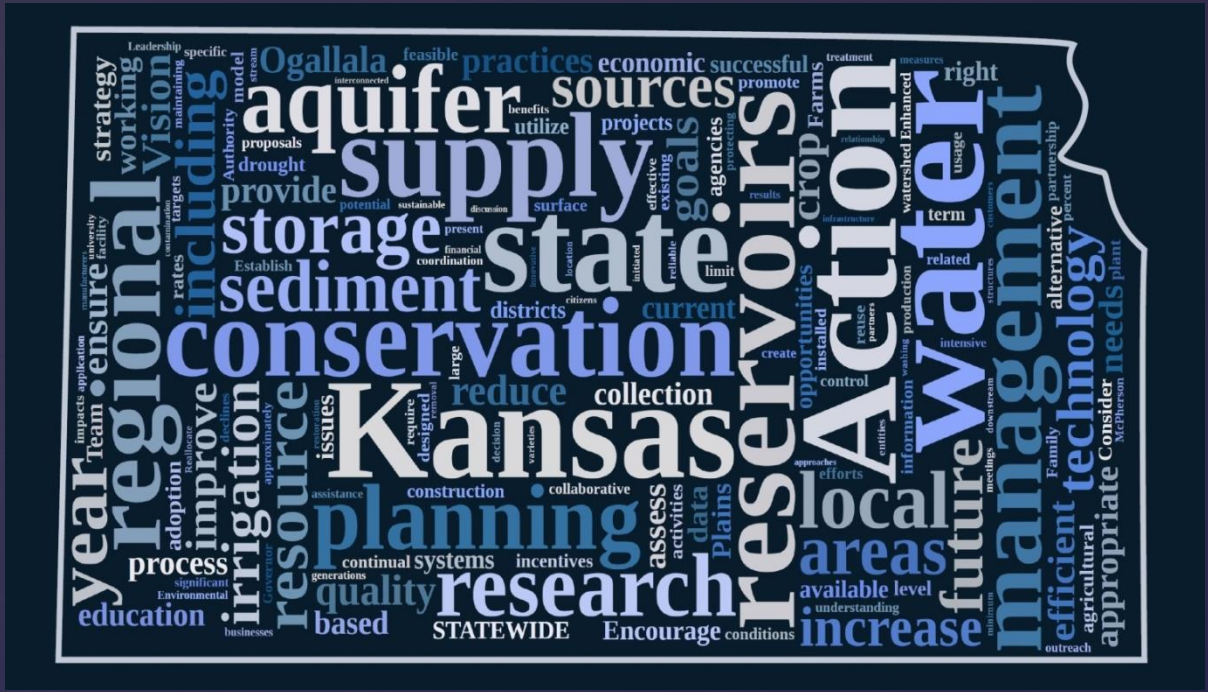


Kansas Water Vision

Vision Statement

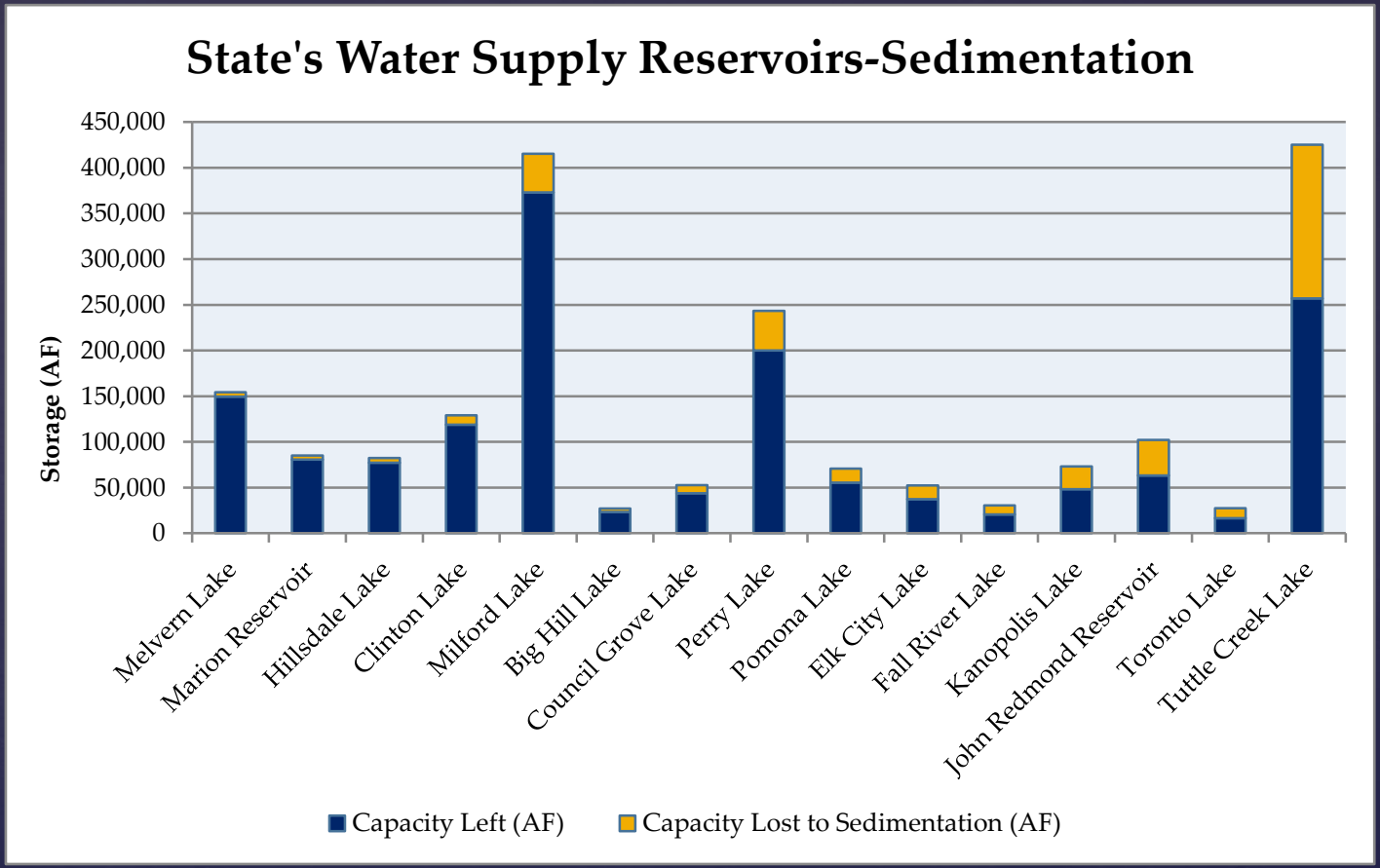
Kansans act on a shared commitment to have the water resources necessary to support the state's social, economic and natural resource needs for current and future generations.

“Measuring progress towards meeting the Vision requires a firm understanding of the current conditions of the state’s water resources.”

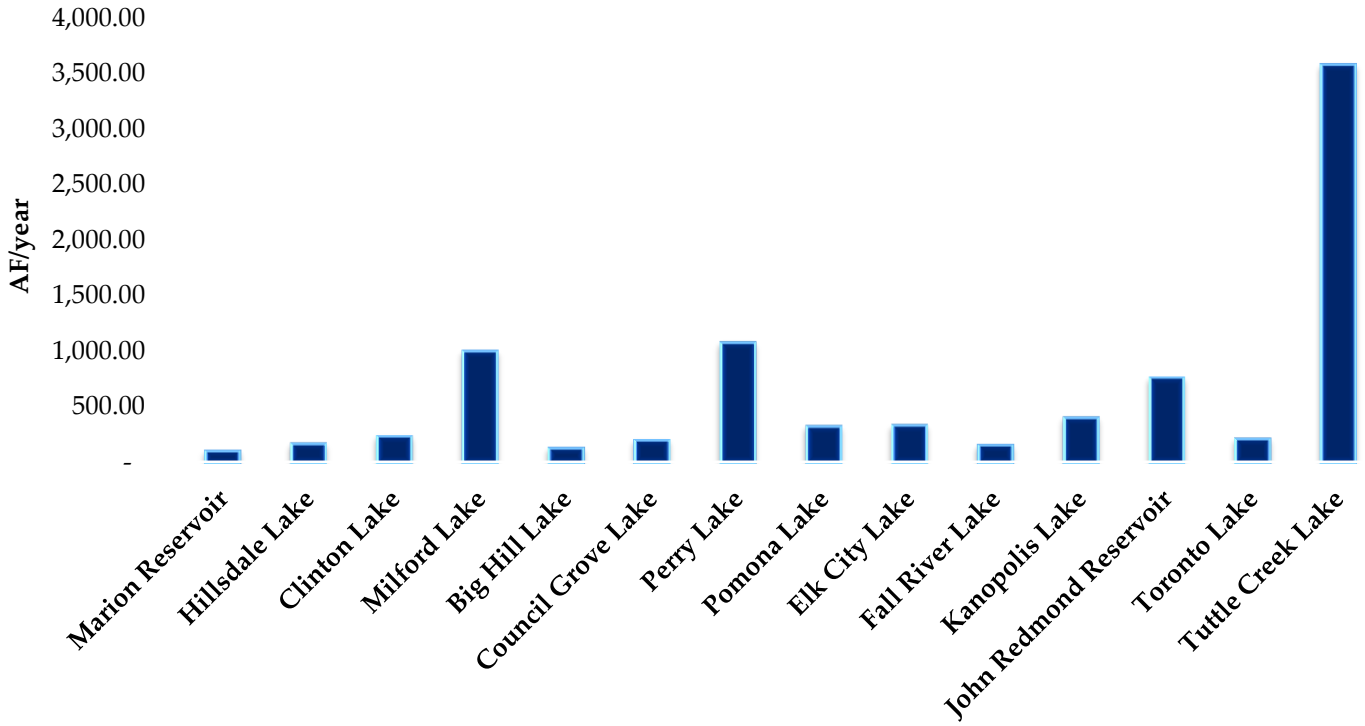
Surface Water Supply

Earl Lewis

Kansas Water Office

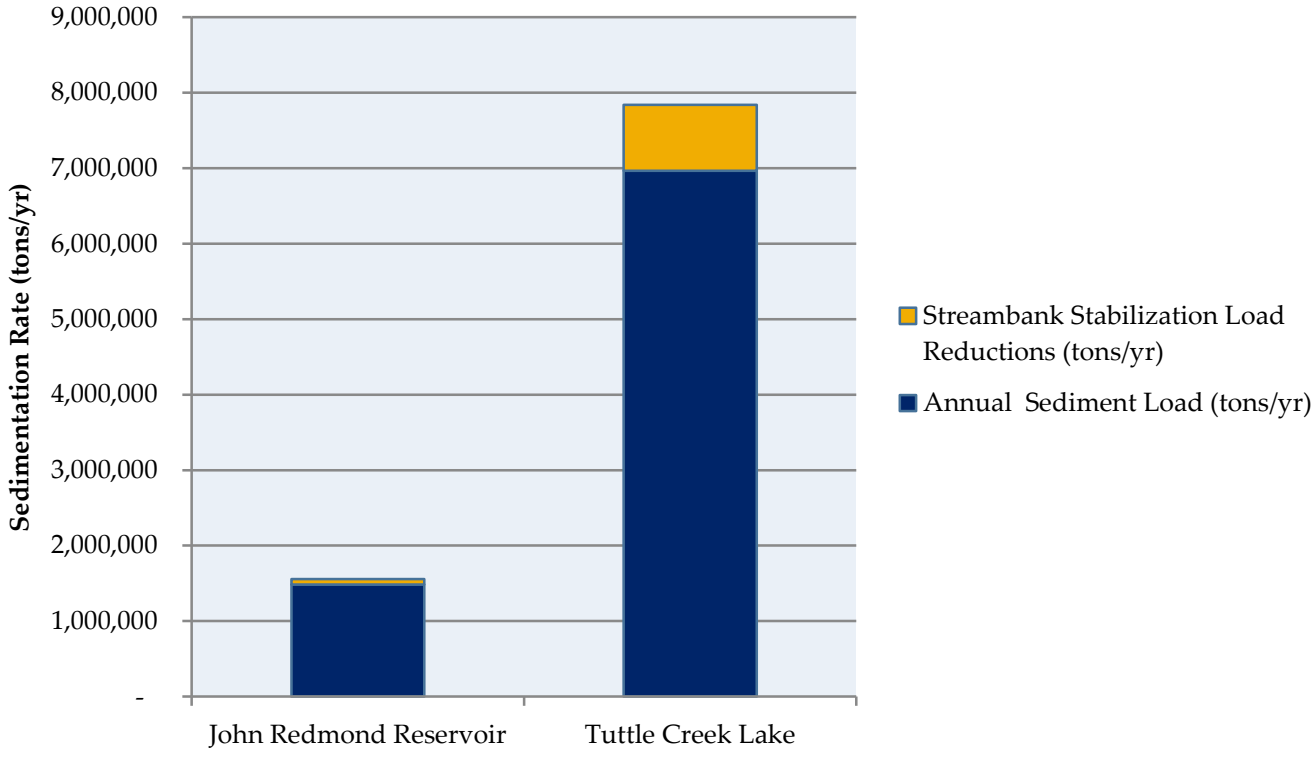

State's Water Supply Reservoirs-Sedimentation
Storage (AF)
450,000
400,000
350,000
300,000
250,000
200,000
150,000
100,000
50,000
0
Melvern Lake
Marion Reservoir
Hillsdale Lake
Clinton Lake
Milford Lake
Big Hill Lake
Council Grove Lake
Perry Lake
Pomona Lake
Elk City Lake
Fall River Lake
Kanopolis Lake
John Redmond Reservoir
Toronto Lake
Tuttle Creek Lake
Capacity Left (AF)
Capacity Lost to Sedimentation (AF)

State Water Supply Reservoirs Sedimentation in Acre Feet per Year



Legend
Stabilized Streambanks
Actively Eroding Streambanks
Priority Watersheds
Tuttle Creek
Perry
John Redmond
RP
WS
MS
NM
BR
DP
CD
AT
CY
PT
RL
JF
LV
WY
SN
GE
WB
DG
JO
DK
SA
MR
OS
FR
MI
LY
MP
MN
CS
CF
AN
LN
0
10
20
40 Miles

Streambank Stabilization Load Reduction



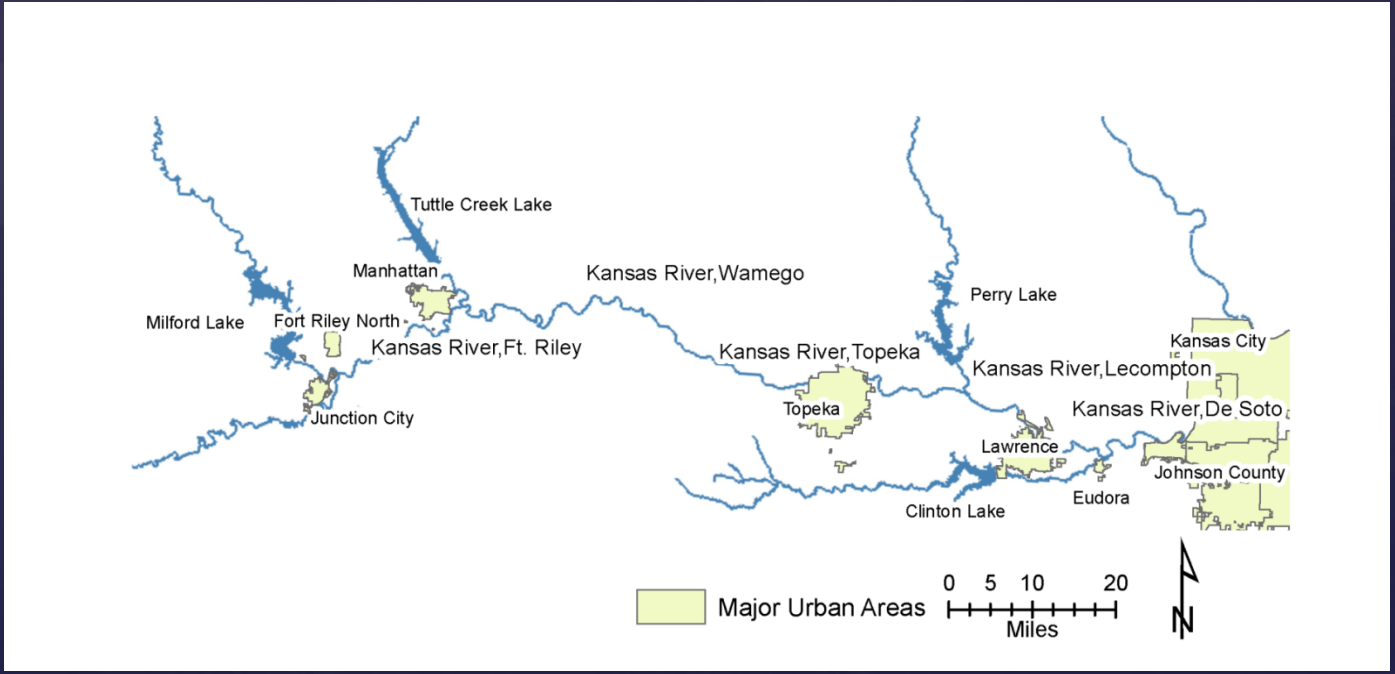
John Redmond Dredging Disposal Areas

August 2016

October 2017

Kansas River Sediment Analysis and Transport Model

Two-year agreement PAS

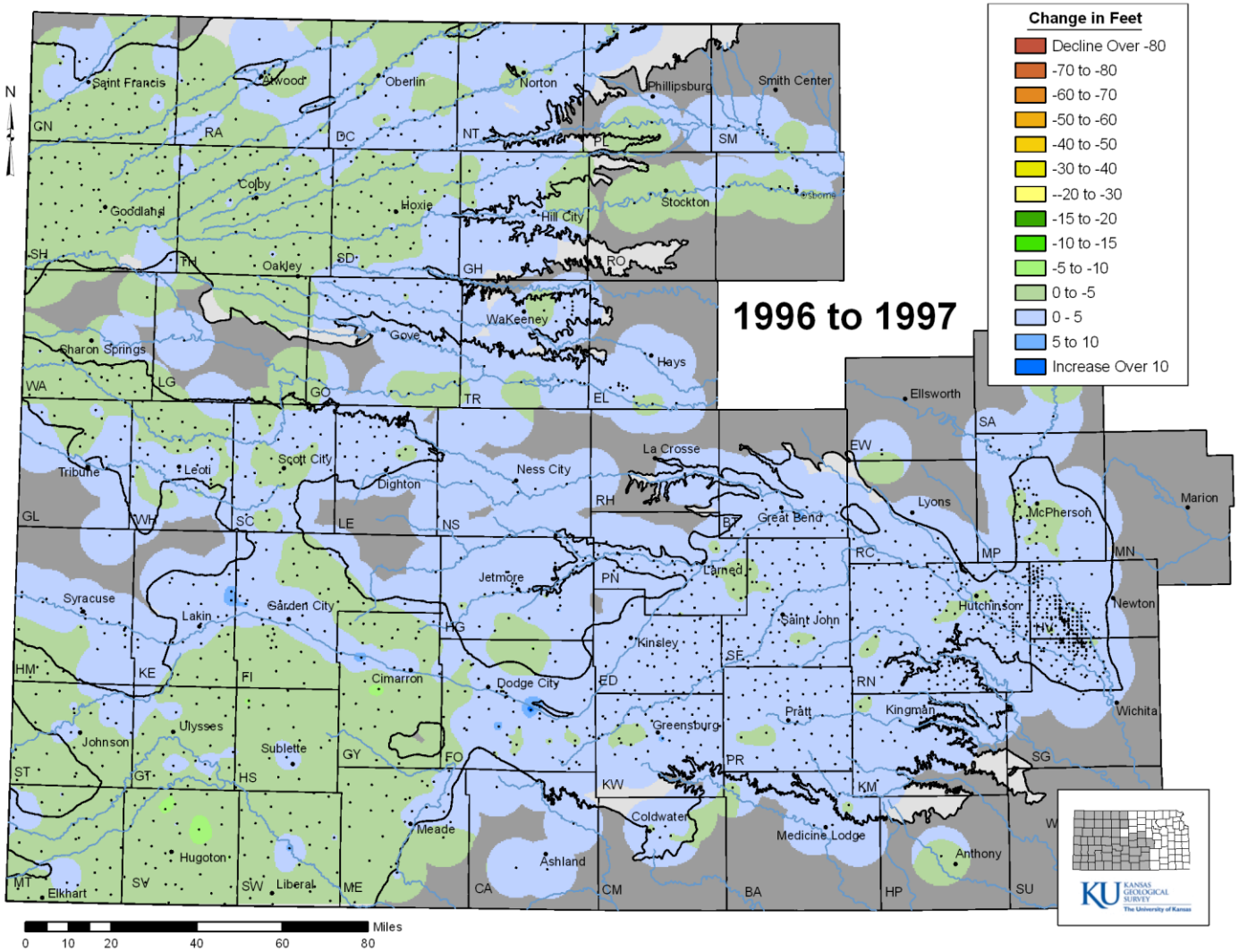


Improving Reservoir Operations

- Reservoir Modeling
- Drought Tournaments with Marais des Cygnes, Neosho and Verdigris Regional Advisory Committees

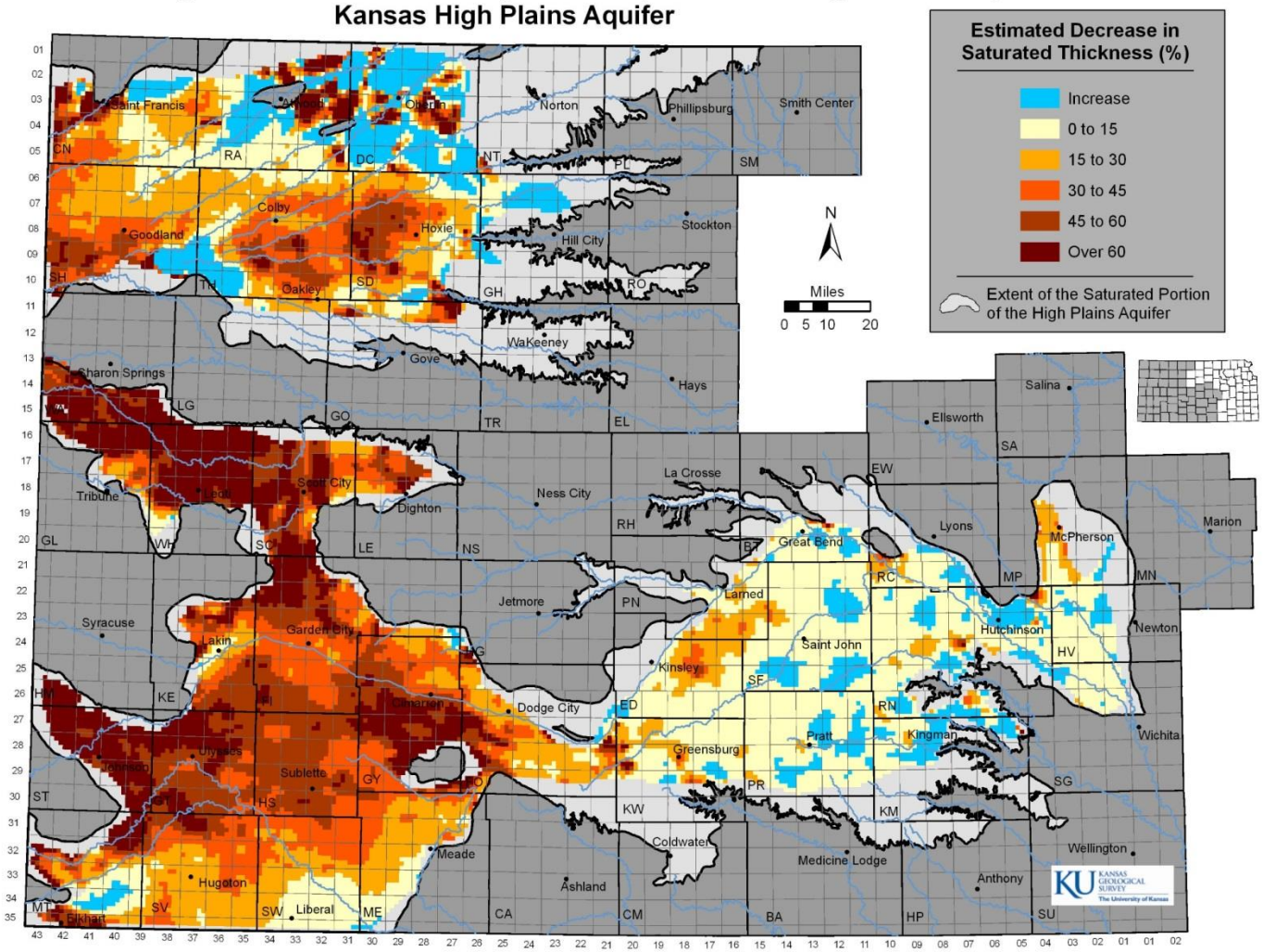
Groundwater Supply

Chris Beightel
Kansas Department of Agriculture

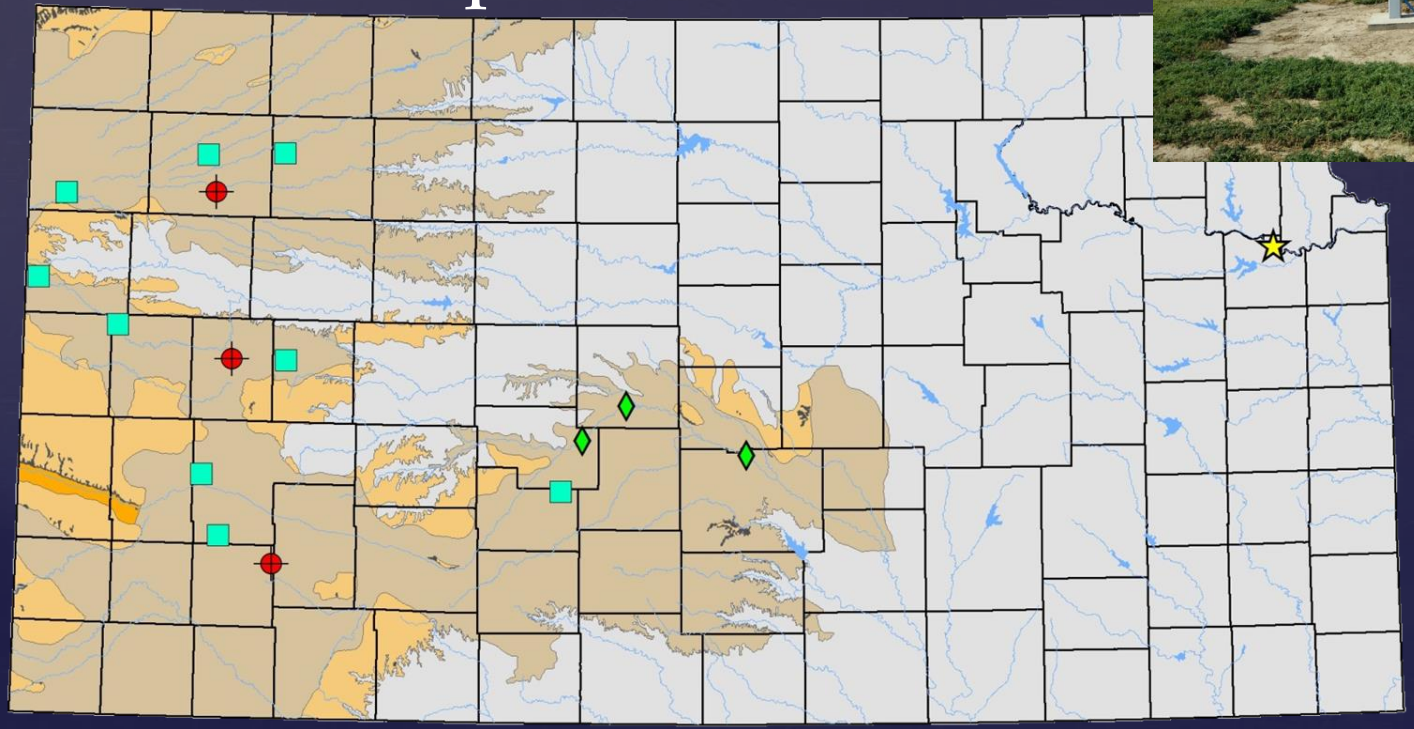


Continue to further develop and disseminate information about the state's water resources, including additional data, maps and reports to improve understanding of the Ogallala-High Plains Aquifer as an aid to water management in western Kansas

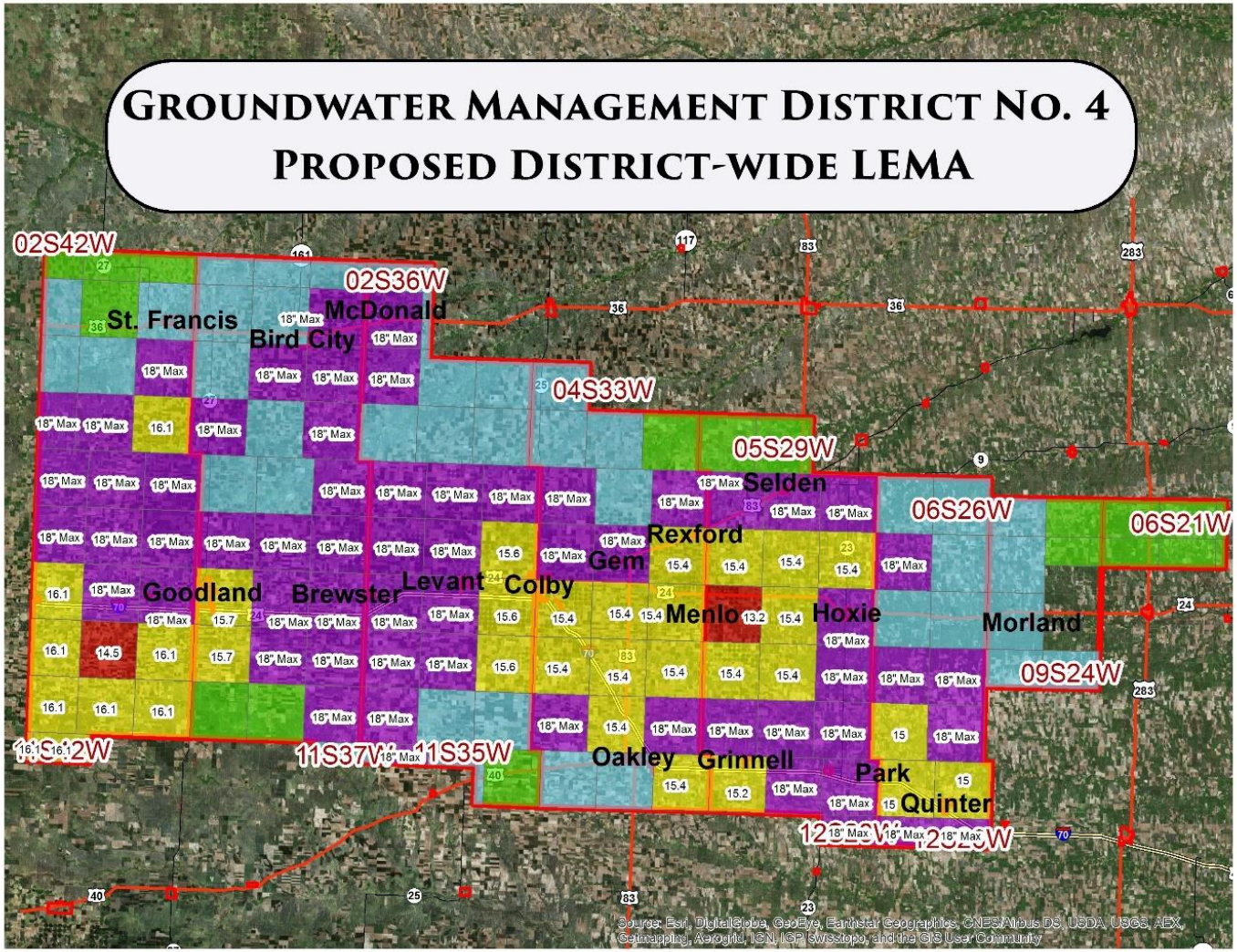
Percent Change in Saturated Thickness, Predevelopment to Average 2015-2017, Kansas High Plains Aquifer



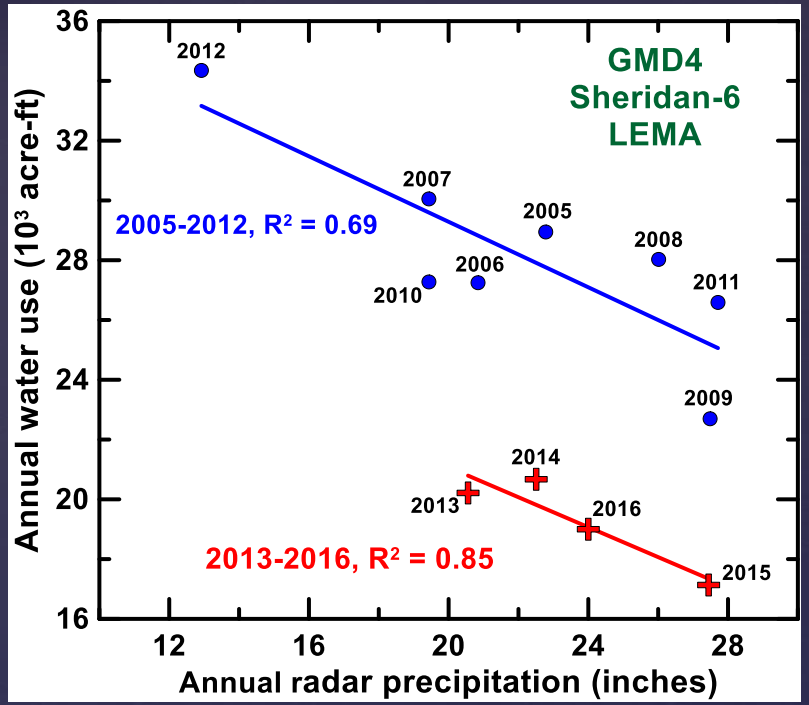
Expand observation well network in the High Plains Aquifer

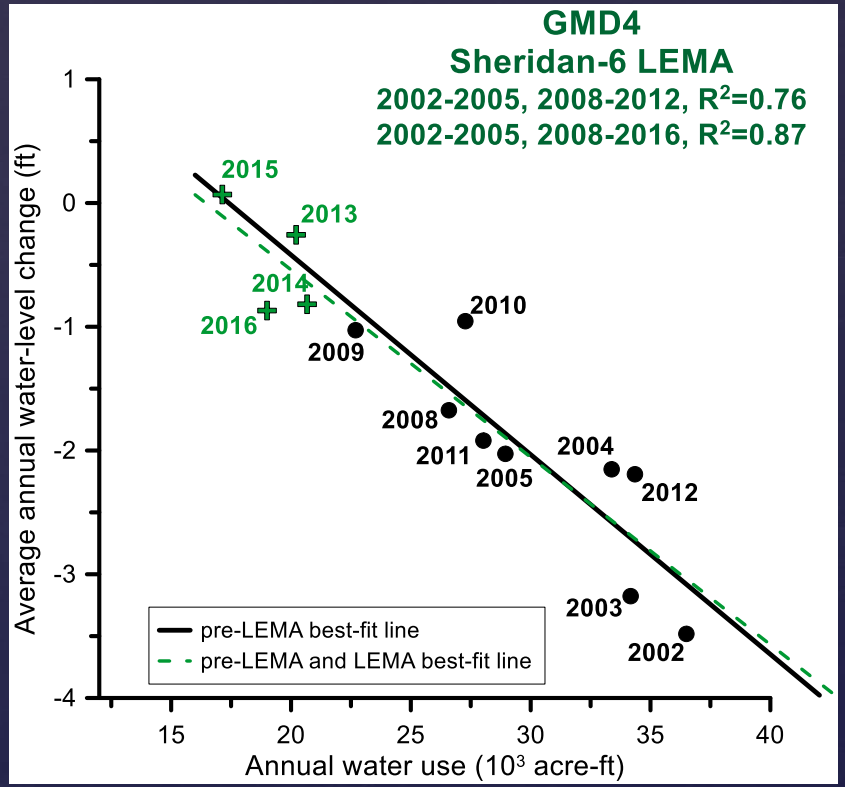


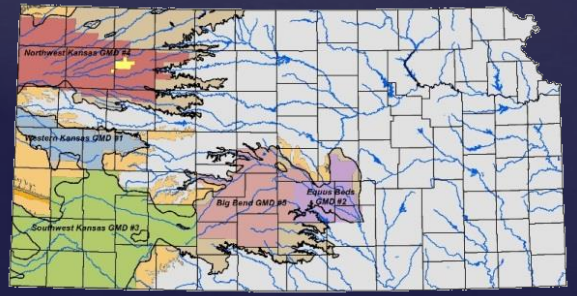
Improve characterization of the Kansas River alluvial aquifer including installing and monitoring observation wells



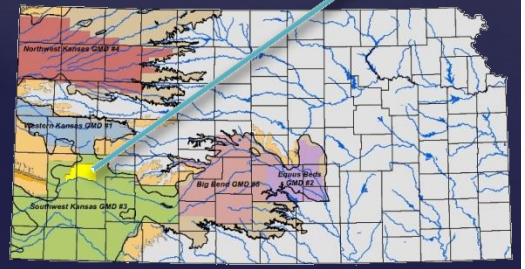
Increase support and promotion of Local Enhanced Management Areas (LEMAs)

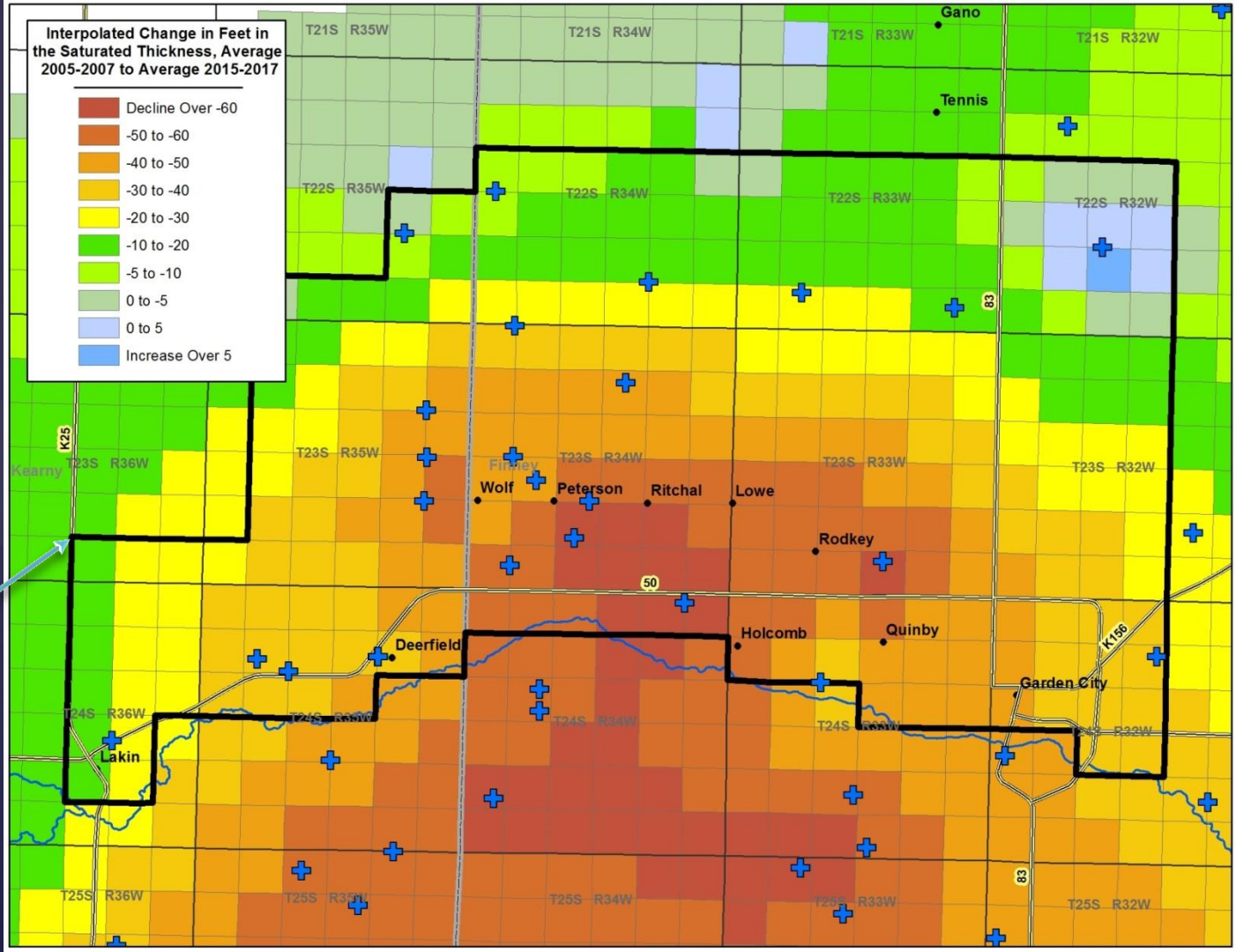

GMD4
Sheridan-6
LEMA
2005-2012, R² = 0.69
2013-2016, R² = 0.85
2012
2007
2005
2008
2006
2010
2011
2009
2014
2013
2016
2015
Annual water use (10³ acre-ft)
Annual radar precipitation (inches)
36
32
28
24
20
16
12
16
20
24
28


GMD4
Sheridan-6 LEMA
2002-2005, 2008-2012, R²=0.76
2002-2005, 2008-2016, R²=0.87
2015
2013
2014
2016
2010
2009
2008
2011
2005
2004
2012
2003
2002
pre-LEMA best-fit line
pre-LEMA and LEMA best-fit line
Average annual water-level change (ft)
Annual water use (10³ acre-ft)
1
0
-1
-2
-3
-4
15
20
25
30
35
40


Northwest Kansas GMD #4
Western Kansas GMD #1
Big Bend GMD #5
Pawnee Rock GMD #2
Southwest Kansas GMD #3

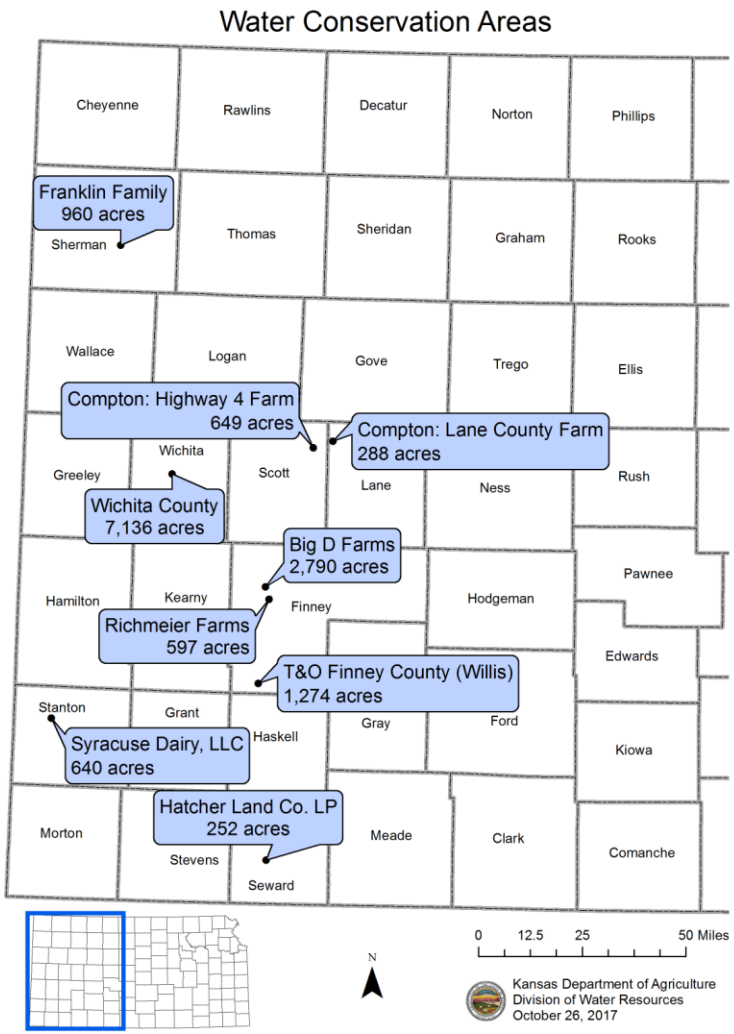
Increase support and promotion of Local Enhanced Management Areas (LEMAs)





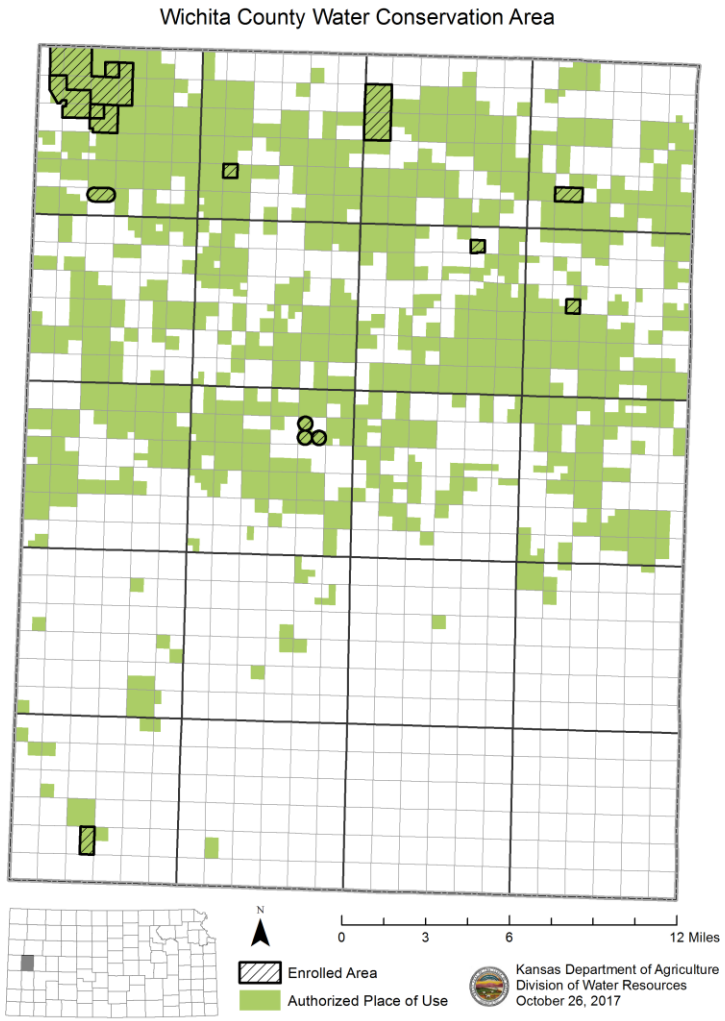
Water Conservation Areas

Expand the LEMA concept so a proposal can come forward to the Chief Engineer from either GMDs, directly from local water rights holders or other entities such as county conservation districts.



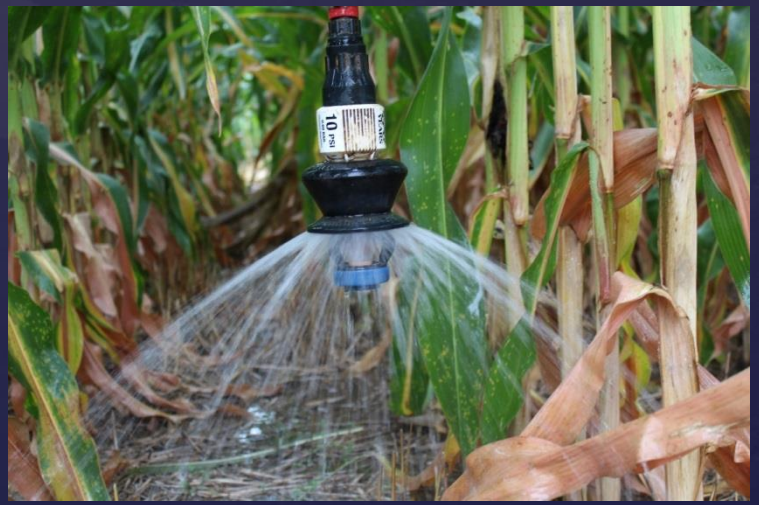
Wichita County WCA

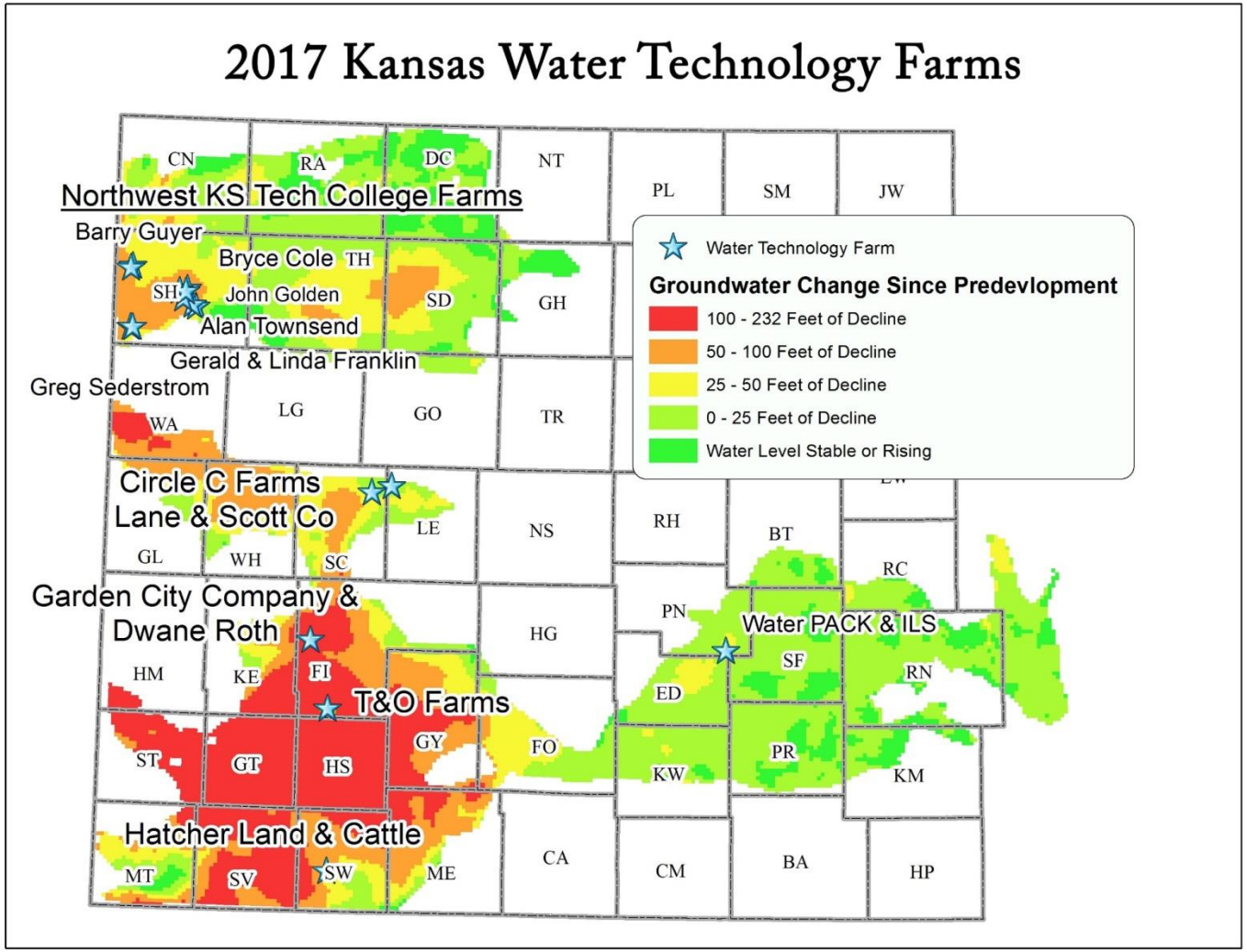
Expand the LEMA concept so a proposal can come forward to the Chief Engineer from either GMDs, directly from local water rights holders or other entities such as county conservation districts.



Water Technology Farms

Develop Water Technology Farms at locations throughout the Ogallala-High Plains Region, targeting Local Enhanced Management Areas (LEMAs) by working in concert with irrigation technology manufacturers and the irrigation research community.





Develop Water Technology Farms at locations throughout the Ogallala-High Plains Region, targeting Local Enhanced Management Areas (LEMAs) by working in concert with irrigation technology manufacturers and the irrigation research community.

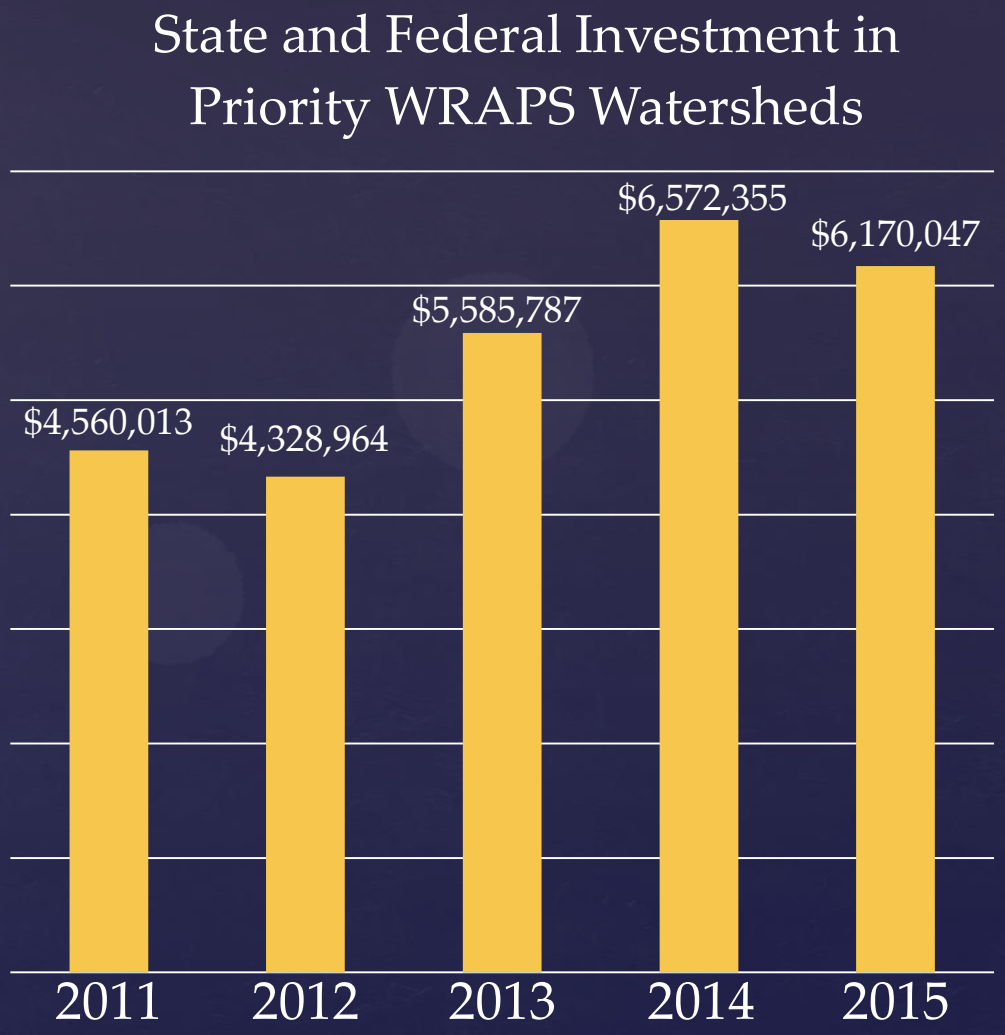
Water Quality

Jaime Gaggero

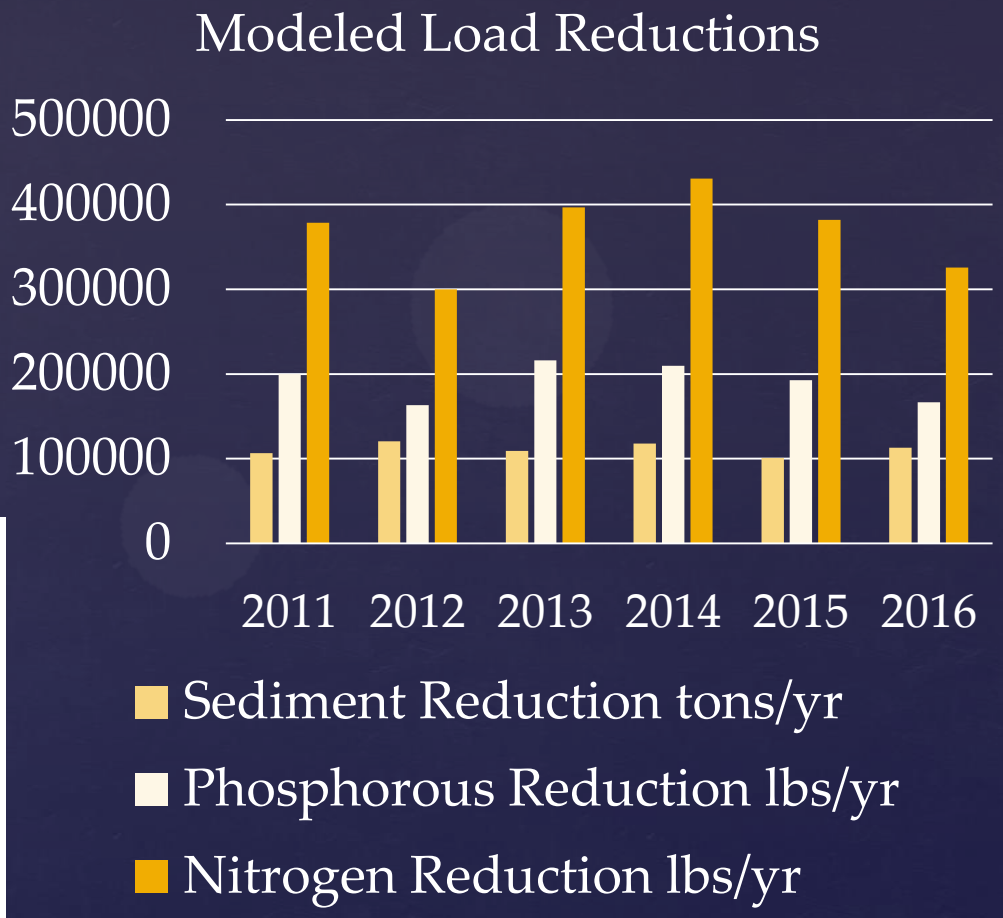
Kansas Department of Health and Environment

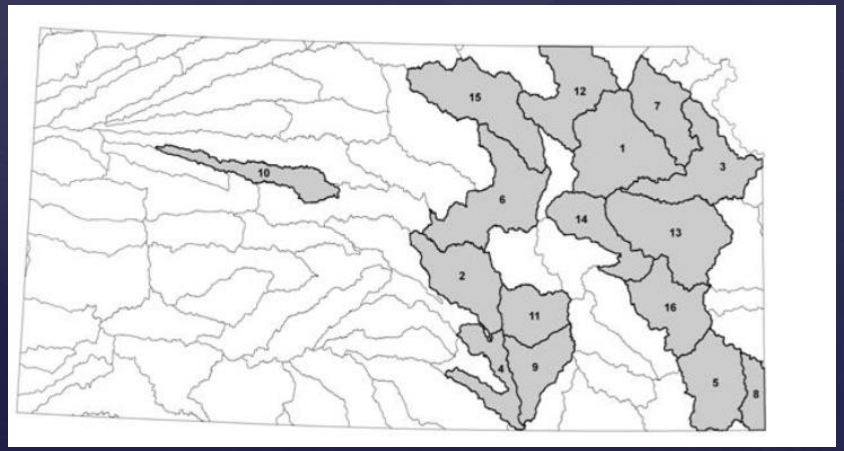
Increase Adoption of Watershed Practices

Prioritize and implement targeted funding in priority watersheds by working with local, state and federal conservation programs and partnerships



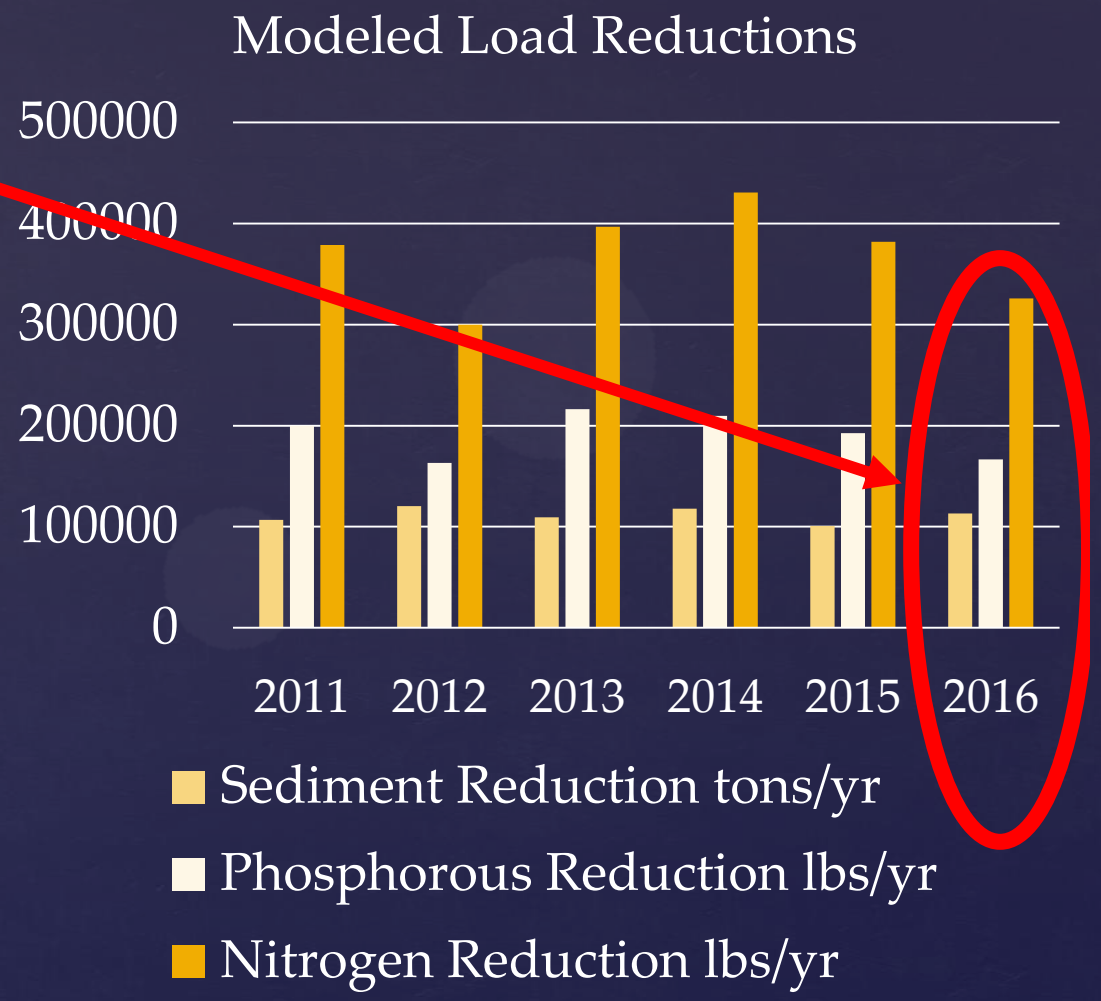
Watershed Practice Results



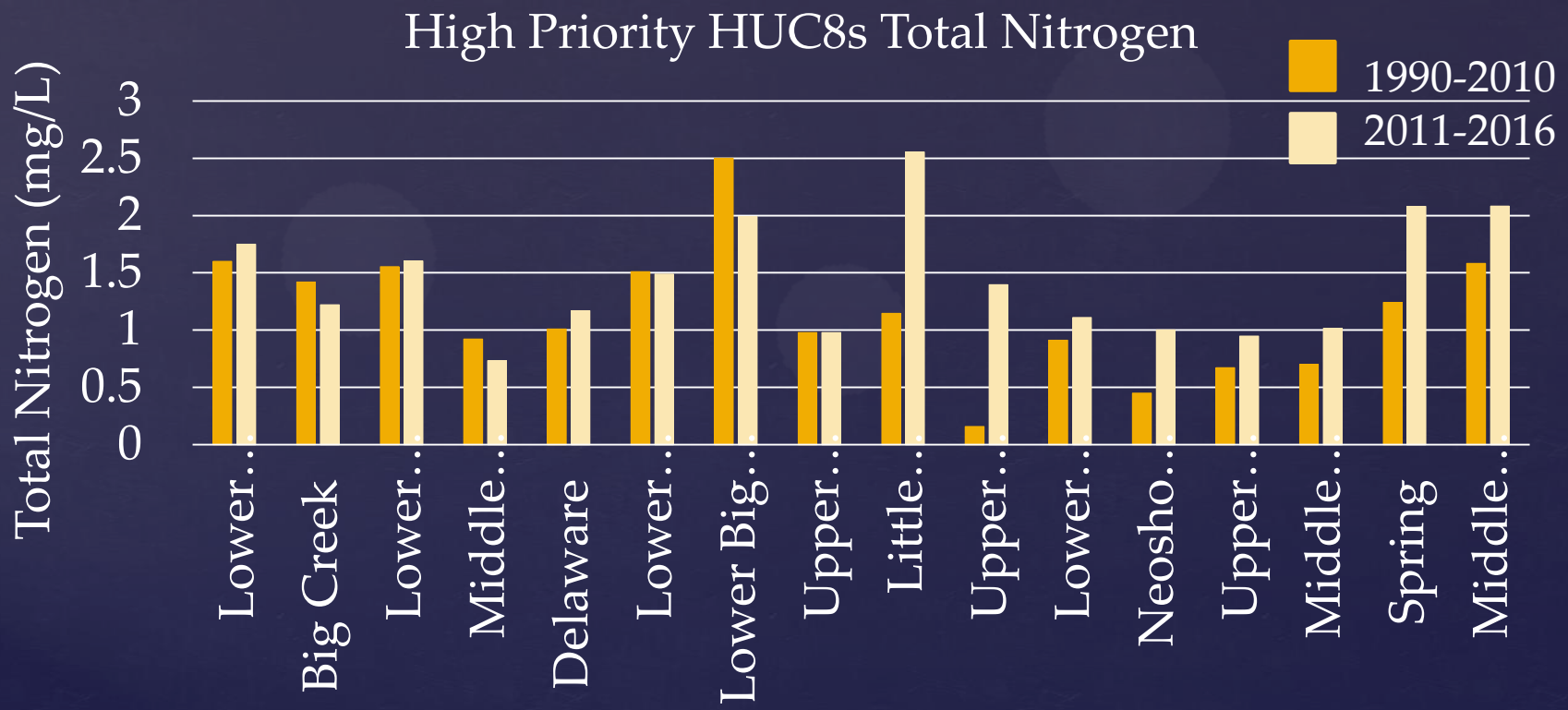


2016 Kansas Ranked

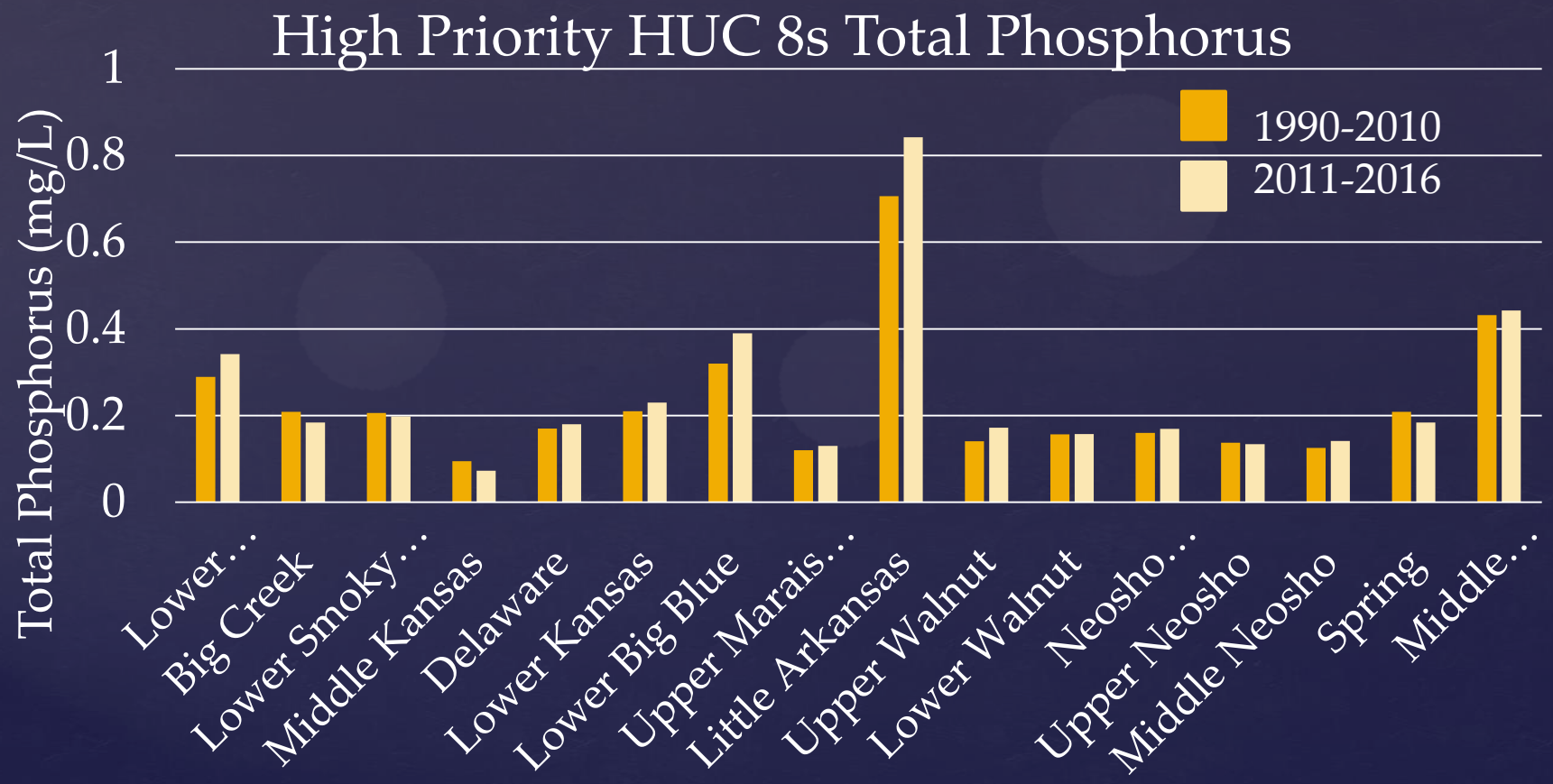
3rd in the Nation – Sediment Reduction
6th in the Nation – Phosphorous Reduction
6th in the Nation – Nitrogen Reduction



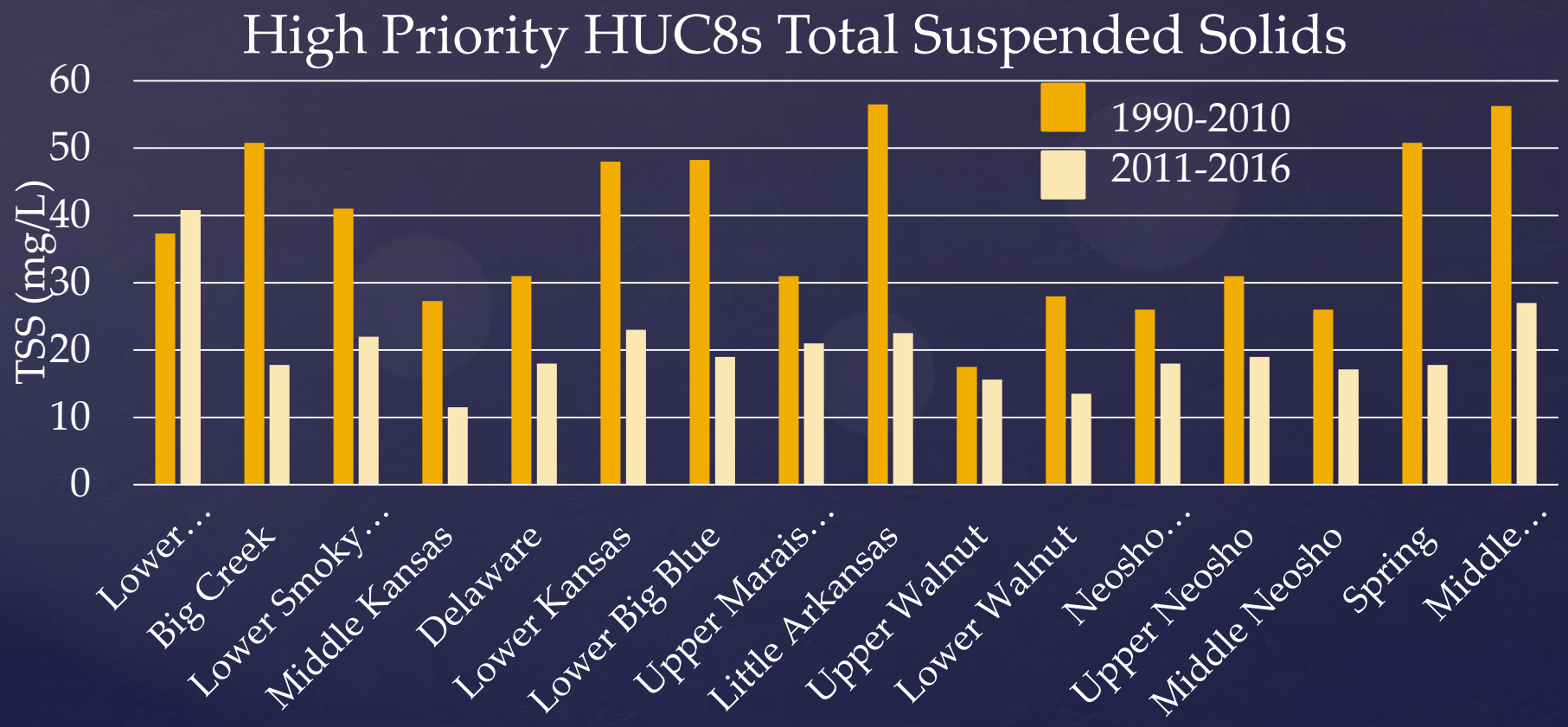
Water Quality Monitoring Data: Total Nitrogen



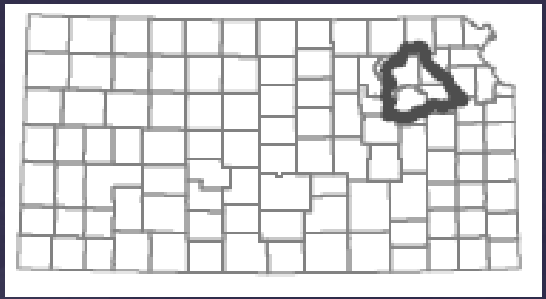
Total Phosphorus

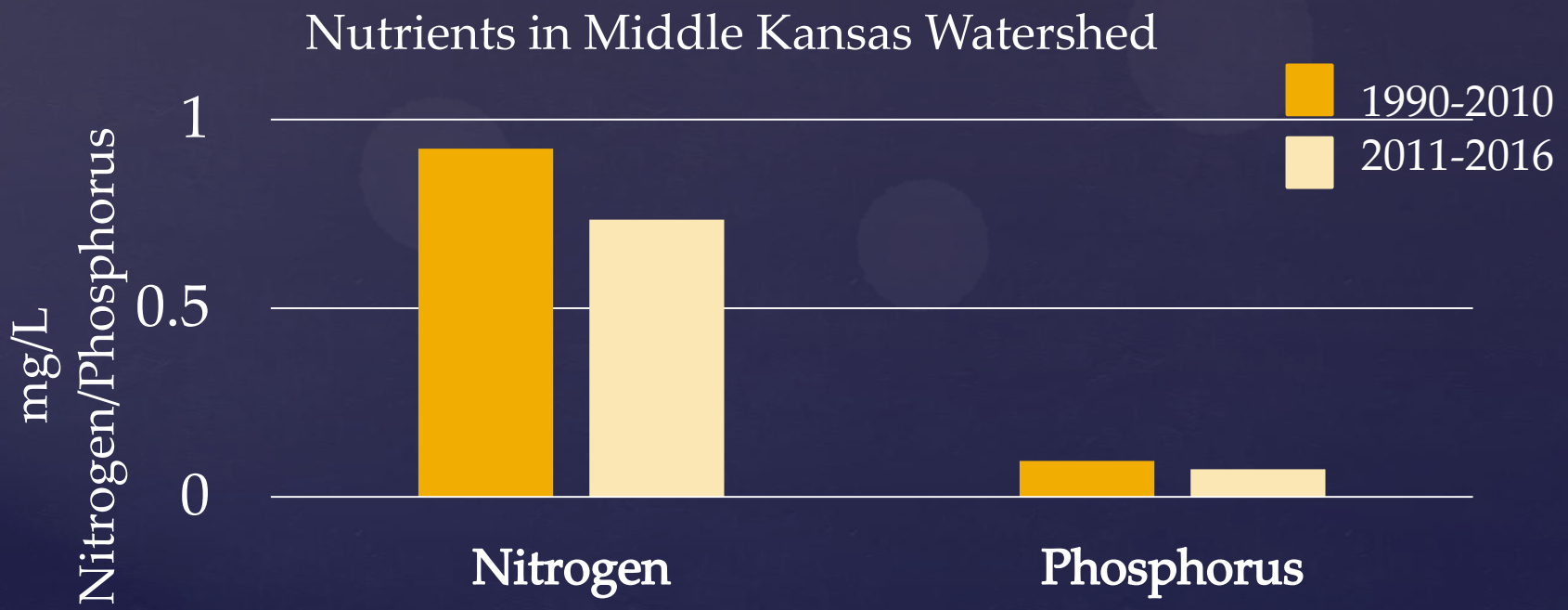


Reservoir Action Items

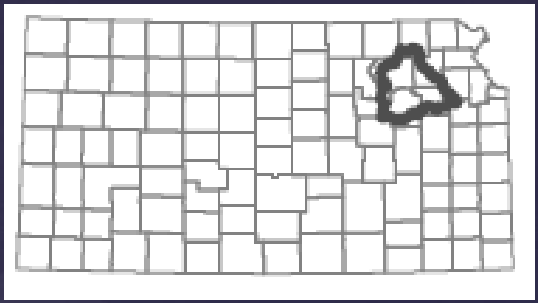


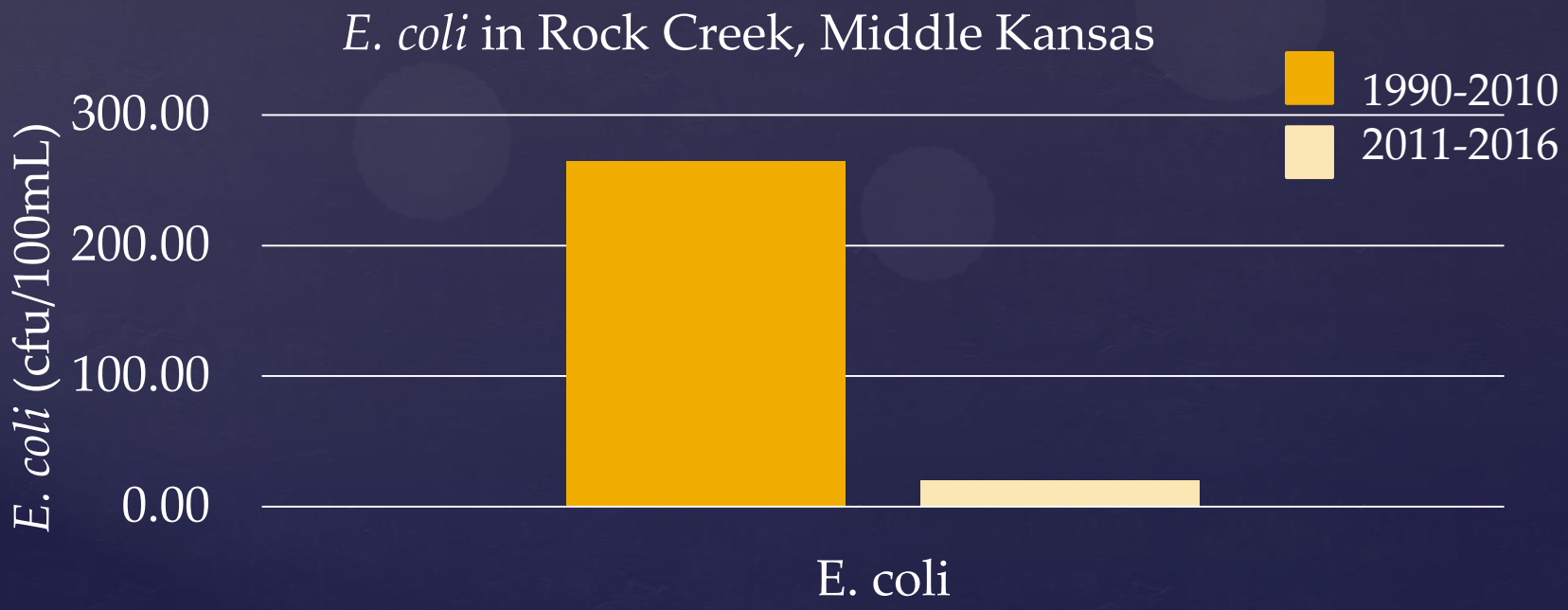
Kansas RAC



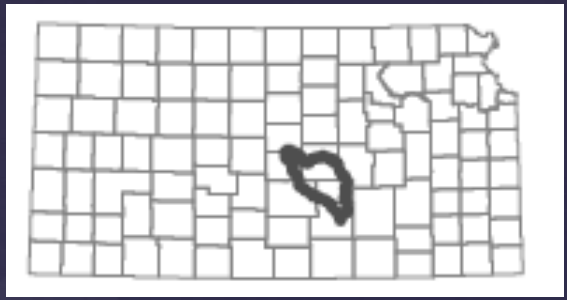

Nutrients in Middle Kansas Watershed
1990-2010
2011-2016
mg/L
Nitrogen/Phosphorus
1
0.5
0
Nitrogen
Phosphorus

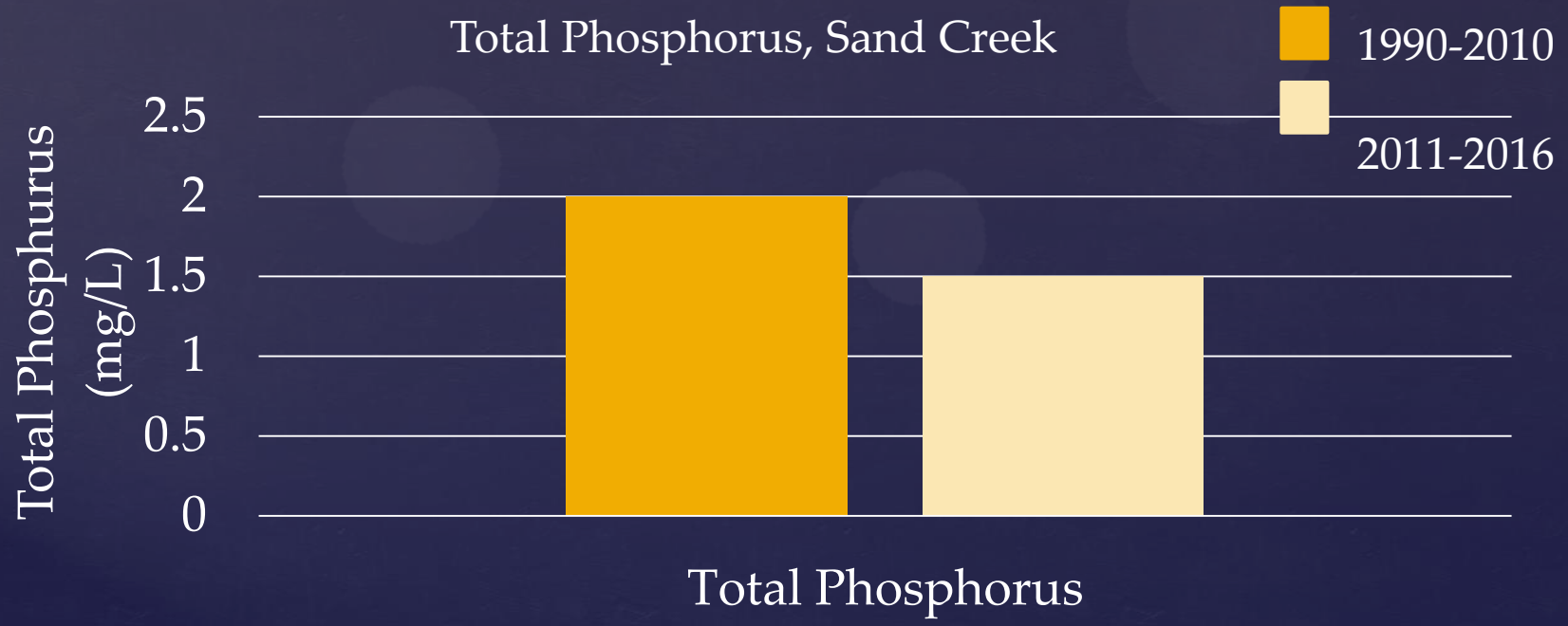
E. coli in Rock Creek, Middle Kansas





Role of Point Sources





Education

Earl Lewis

Kansas Water Office

Phase I	Phase II				
Research	Brand Development	Campaign Development	Media	Awareness Assessment
Discovery	Brand Positioning	Campaign Concepting	Strategy	Mid-Campaign Survey
Qualitative Research	Brand Identity	Creative Execution	Planning + Buying	Post Campaign Survey
Quantitative Research	Style Guide		Stewardship + Maintenance	
Analysis + Insights				

Thank you