

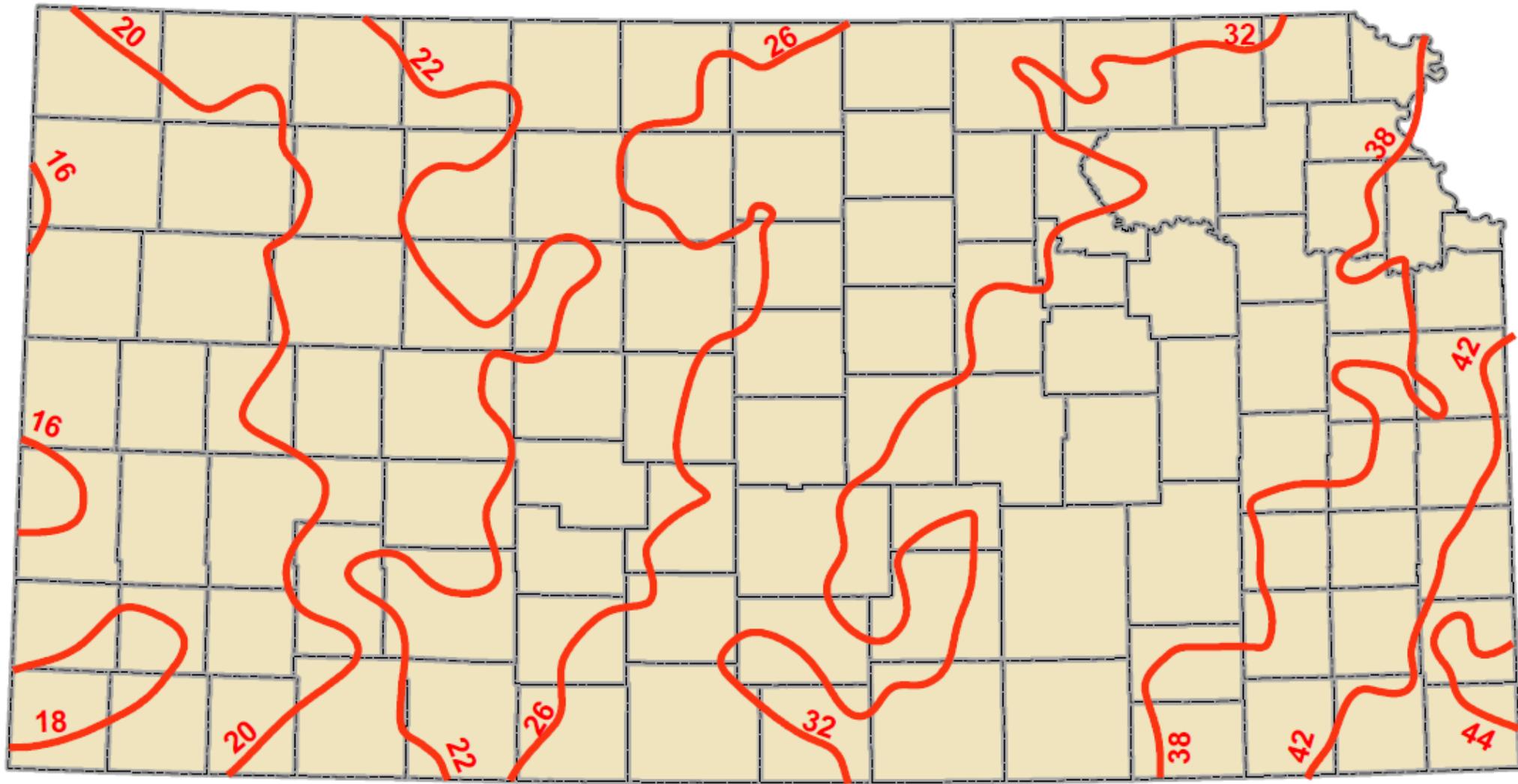
Long-Term Vision for the Future of Water Supply in Kansas

Kansas Dam Safety Conference

March 6, 2018



Kansas Precipitation

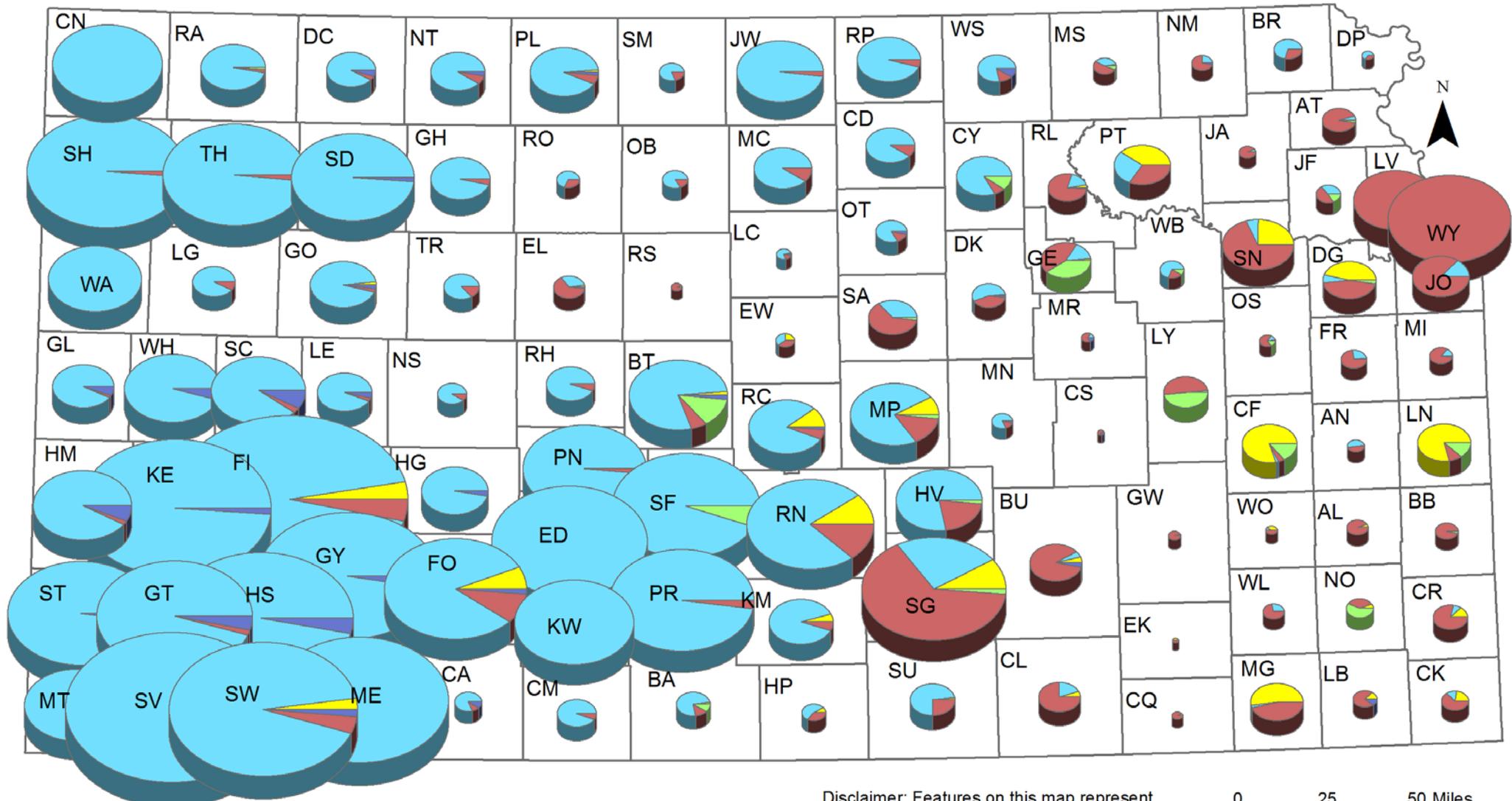


80 40 0 80 Miles

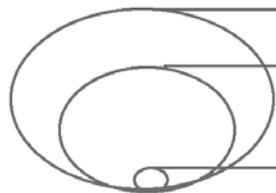
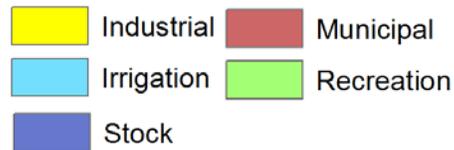
 Precipitation Contour

Data Source: National Climate Data Center (NCDC)
Prepared for Kansas Water Plan 2008

2015 Reported Water Use for Kansas Counties



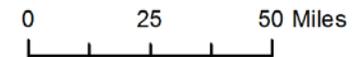
Use Made of Water



Seward: 164,720 AF
 Reno: 76,622 AF
 Wabaunsee: 2,644 AF

Disclaimer: Features on this map represent conditions as of the date of the map and are subject to change. The user is referred to specific policies, regulations and/or orders of the Chief Engineer.

Uses of water for artificial recharge, contamination remediation, dewatering, domestic, fire protection, hydraulic dredging, thermal exchange and water power use are not shown on the charts.

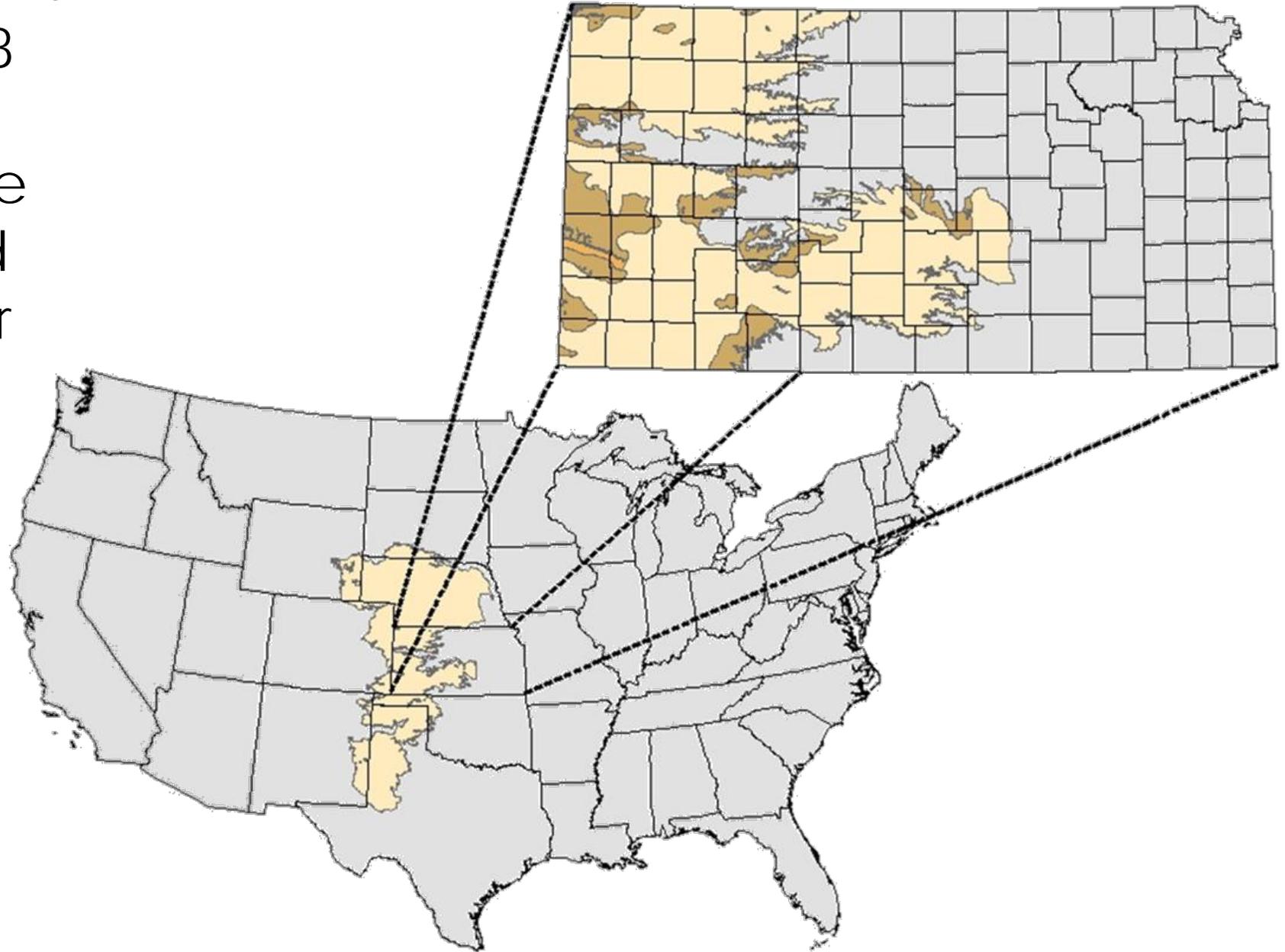


This map is intended for planning purposes only.

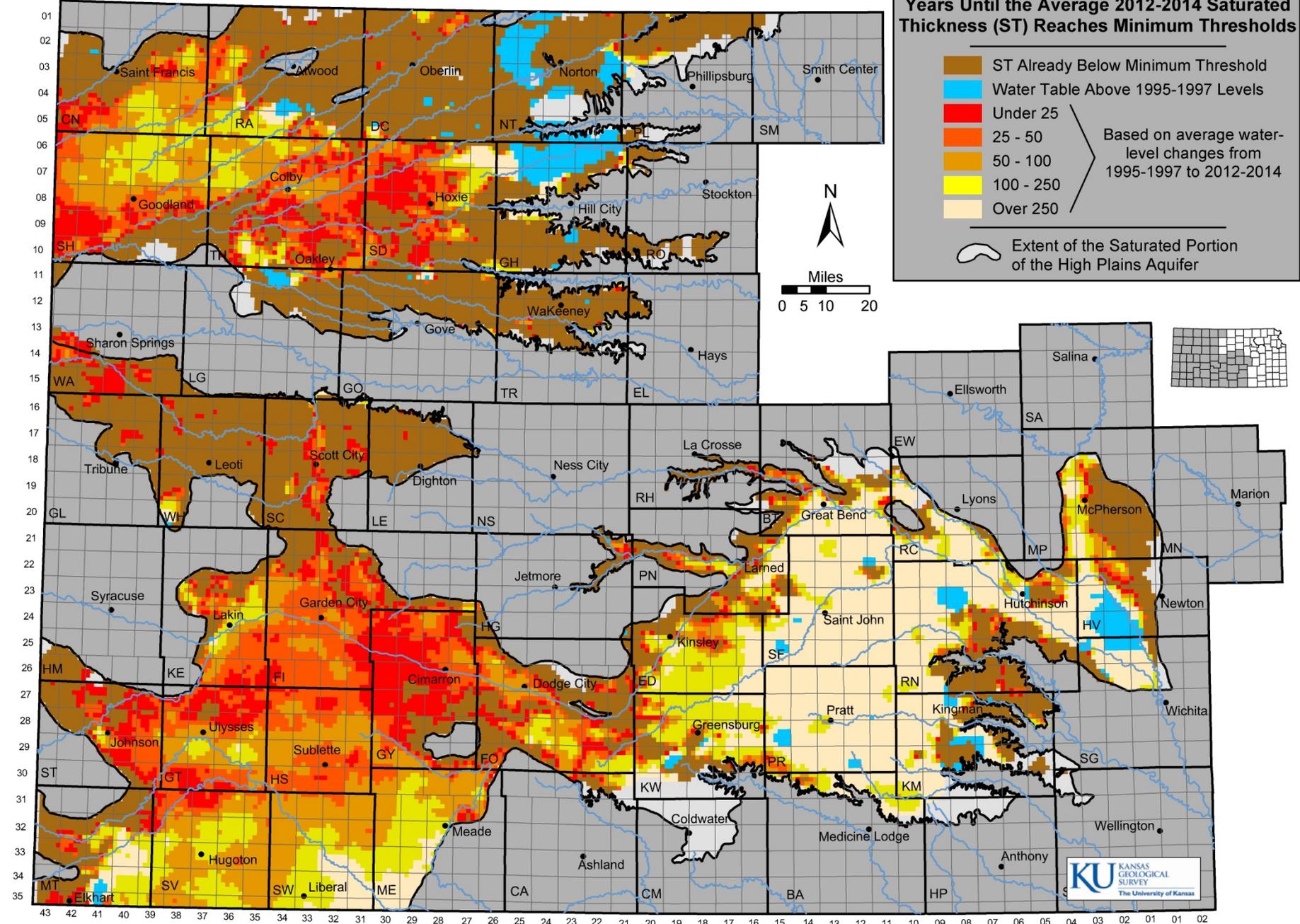


Kansas Department of Agriculture
 Division of Water Resources
 February 13, 2017

Ogallala-High Plains
Aquifer covers 8
states provides
nearly 30% of the
nation's ground
water supply for
irrigation.

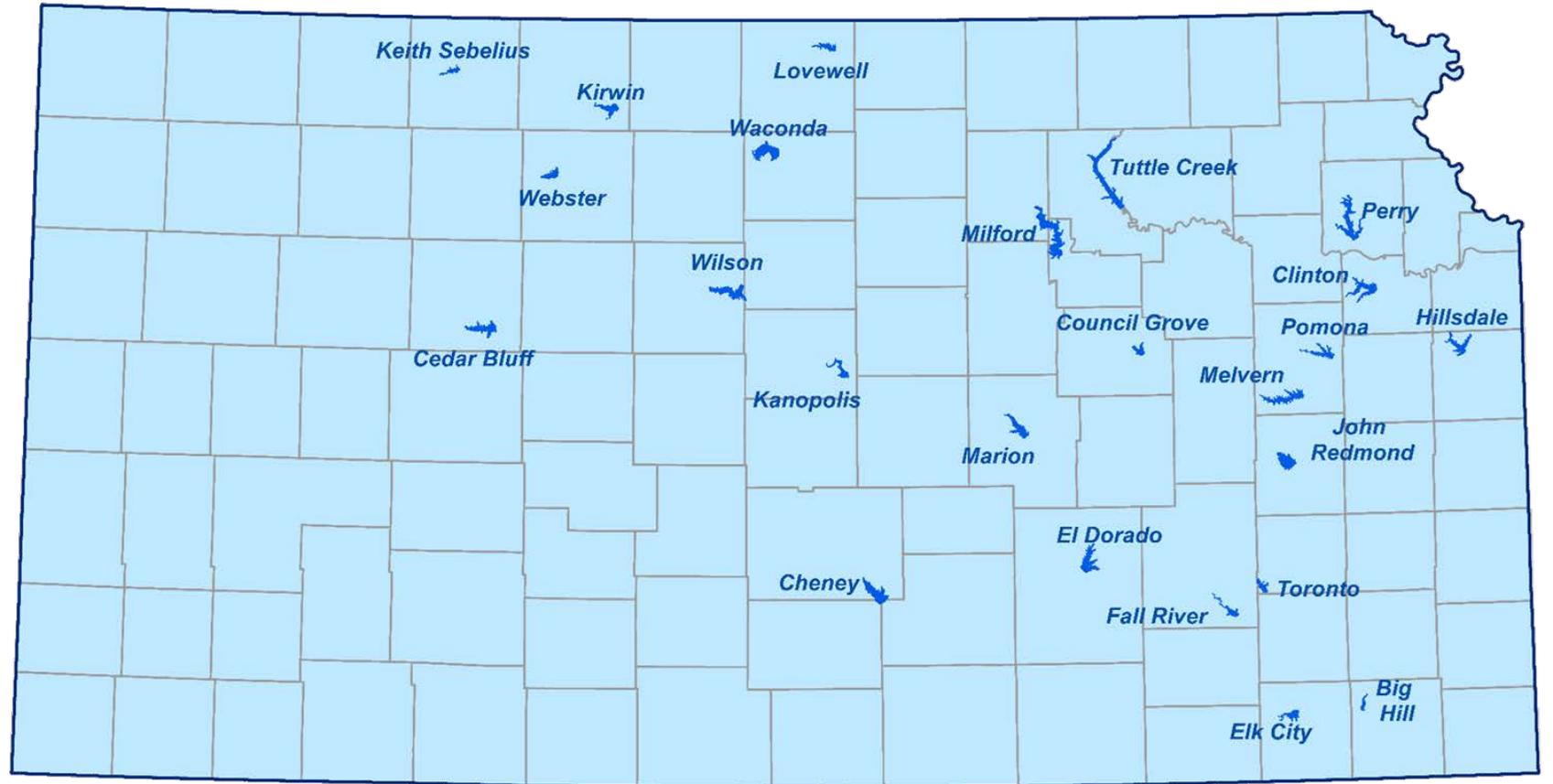


Estimated Usable Lifetime for the High Plains Aquifer in Kansas (Based on ground-water trends from 1995-1997 to 2012-2014 and the minimum saturated thickness required to support well yields at 400 gpm under a scenario of 90 days of pumping with wells on 1/4 section)

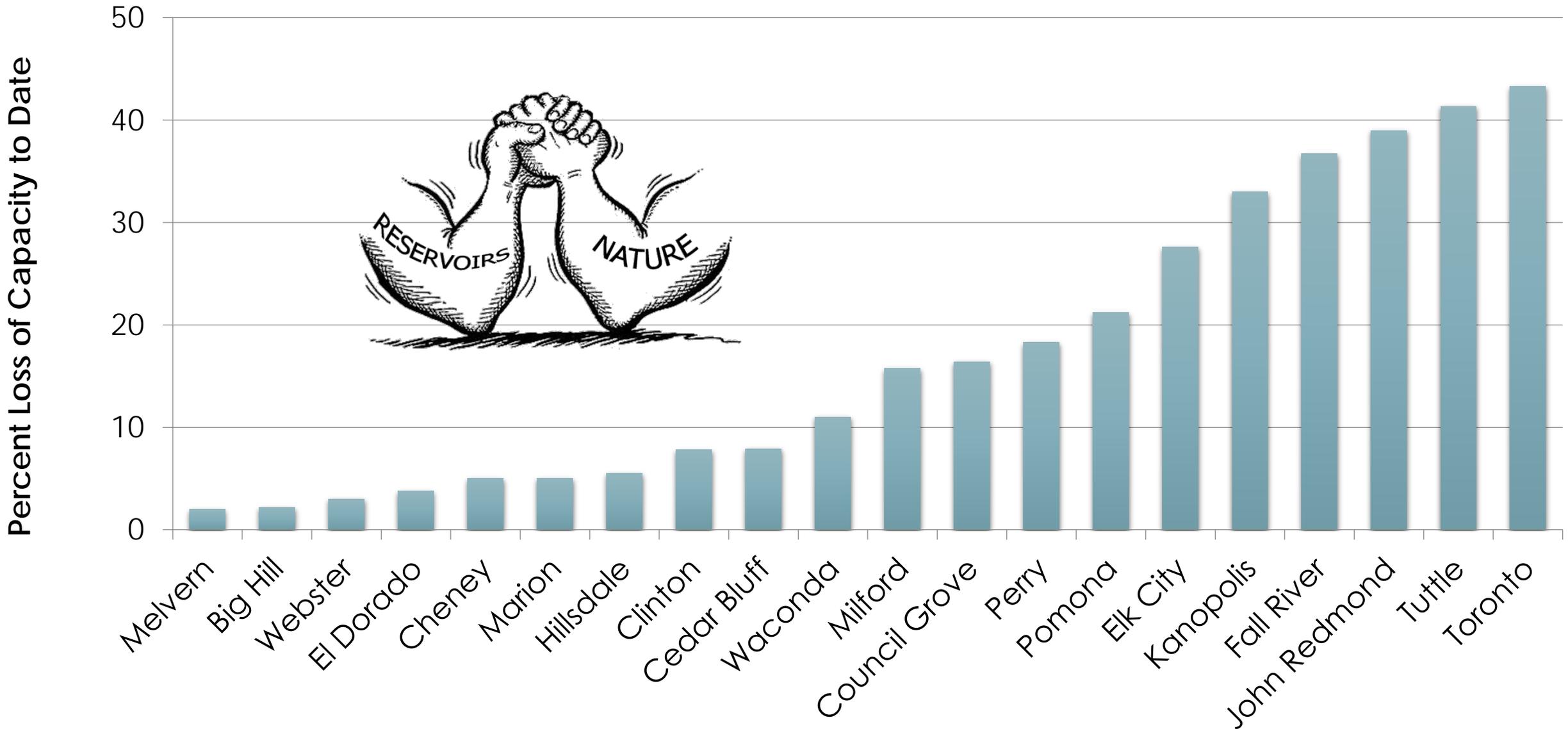


Federal Reservoirs in Kansas

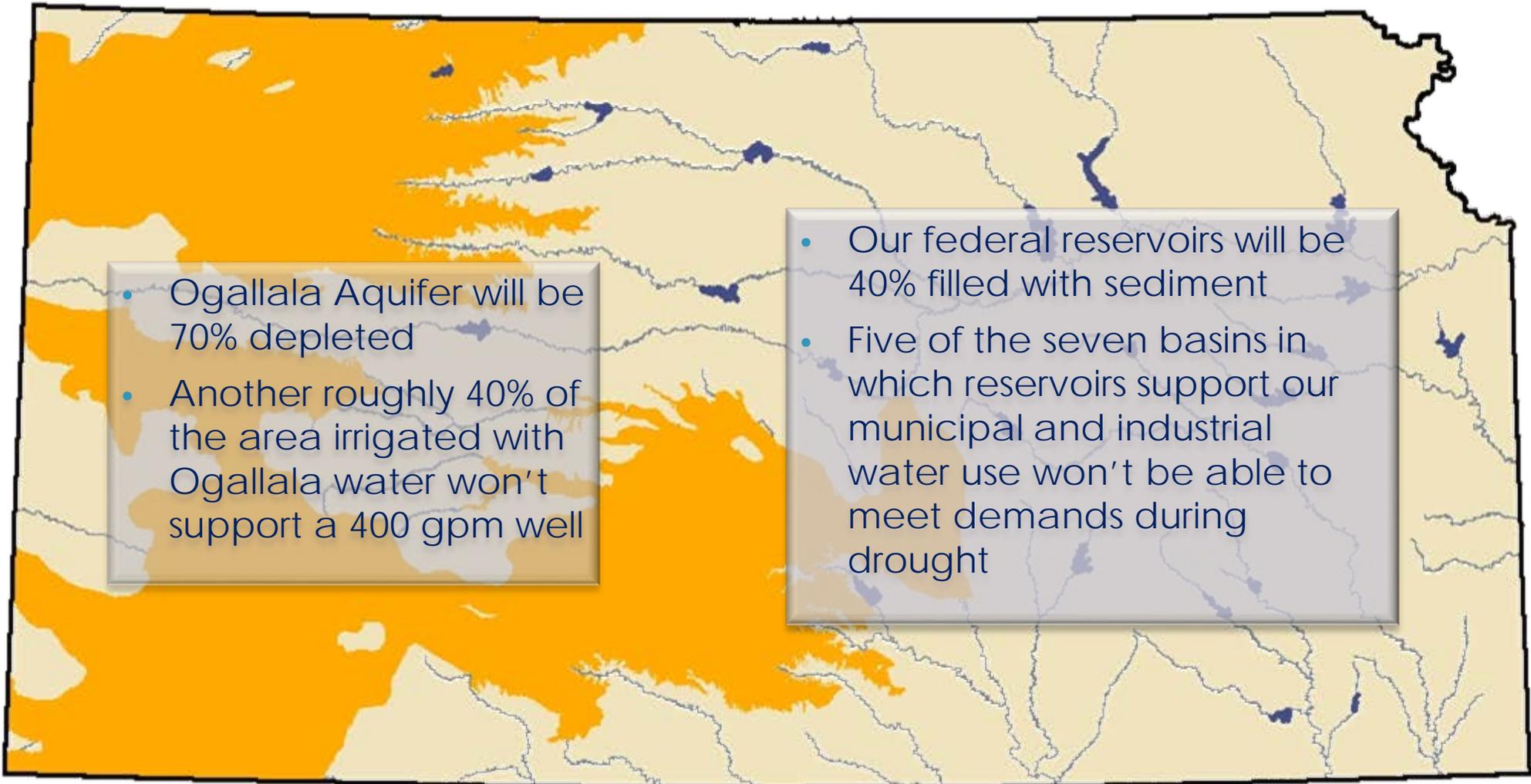
Nearly **two-thirds** of the state's population and nearly **60%** of the energy produced in Kansas depends on the water stored in our reservoirs.



Kansas Reservoir Loss of Capacity



If we do nothing, in the next 50 years...



Water Vision in Action...

- 100% of Phase I Action Items & more than 50% of the Phase II Action items underway
- Active discussion on sustainable funding
- Education supplement added

Water Technology Farms



- First three Water Technology Farms established for 2016 growing season.
- KSU providing technical assistance at all three.
- More than 10 additional Water Technologies Farms throughout additional regions planned for 2018.

Showcase on a field scale, the latest technologies in irrigation infrastructure, irrigation water management, soil moisture management, conservation tillage, automation telemetry and other agronomic practices aimed at reducing water use.

Water Conservation Areas (WCAs)

- Allows for a water right owner or a group of water right owners to develop their own conservation plan
- Participation within a WCA may also afford flexibilities that are not available to water right owners outside of a WCA
- More than 30 management plans approved

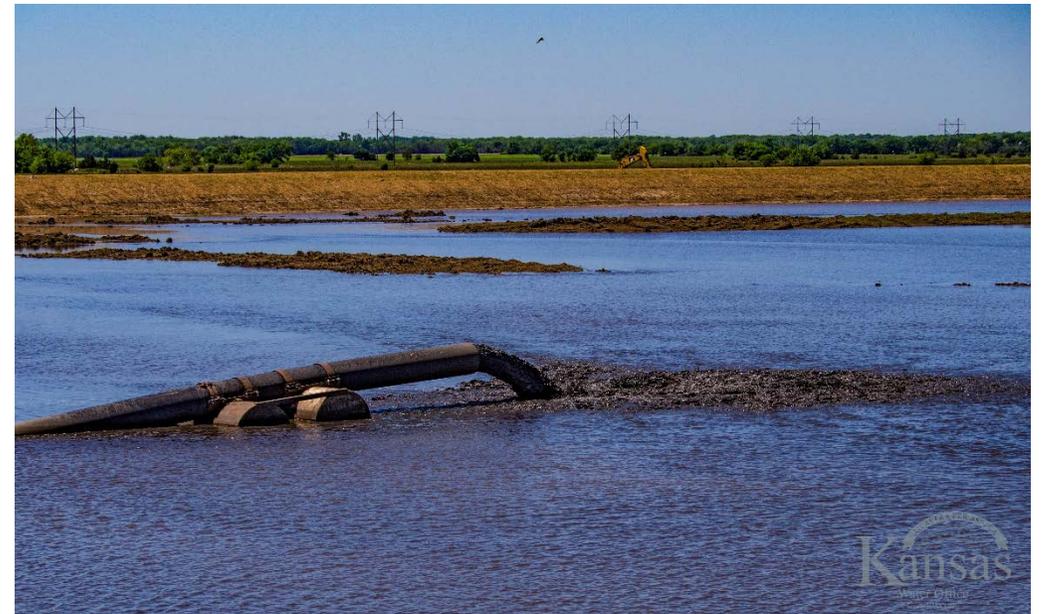


Expand the LEMA concept so a proposal can come forward to the Chief Engineer from either GMDs, directly from local water right holders or other entities such as county conservation districts.

John Redmond Reservoir Dredging



3,000,000 million cubic yards of deposited sediment removed



More than 1,800 acre-feet of storage restored

Restore and dispose up to three million cubic yards of sediment from John Redmond Reservoir.

Improved Interstate Cooperation



- Kansas, Colorado, and Nebraska agree to long-term resolutions
- 20 miles of open canal converted to pipe in Kansas Bostwick Irrigation District
- Holding stakeholder meetings about resolutions and potential for special irrigation district

Develop a long term strategy for representing Kansas in interstate water issues that best serves Kansas and its citizens.

Increase adoption of watershed practices

- Increase adoption of cover crops to reduce field soil loss while improving overall soil health
- Promote streambank restoration projects
- Develop and implement a sediment and nutrient reduction program in watersheds above targeted federal reservoirs



Increase adoption of watershed practices that reduce future water supply loss

Increase Other Sources of Available Storage

- Coordinating with watershed districts in Verdigris to identify structures to reduce sediment in to Fall River reservoir
- Reallocation of storage and review of minimum release schedules in the Marais des Cygnes basin
- Piloting hydrosuction as a tool for sediment management at Tuttle Creek reservoir

Vision Education Supplement

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Building Water Resource Workforce



PRECISION AGRICULTURE



Encourage the development of community college, technical programs and university programs to prepare future workforce to work in irrigation efficiency technologies and with necessary expertise in less water intensive crops and crop varieties.

Kansas Youth Water Advocates





Questions & Discussion

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