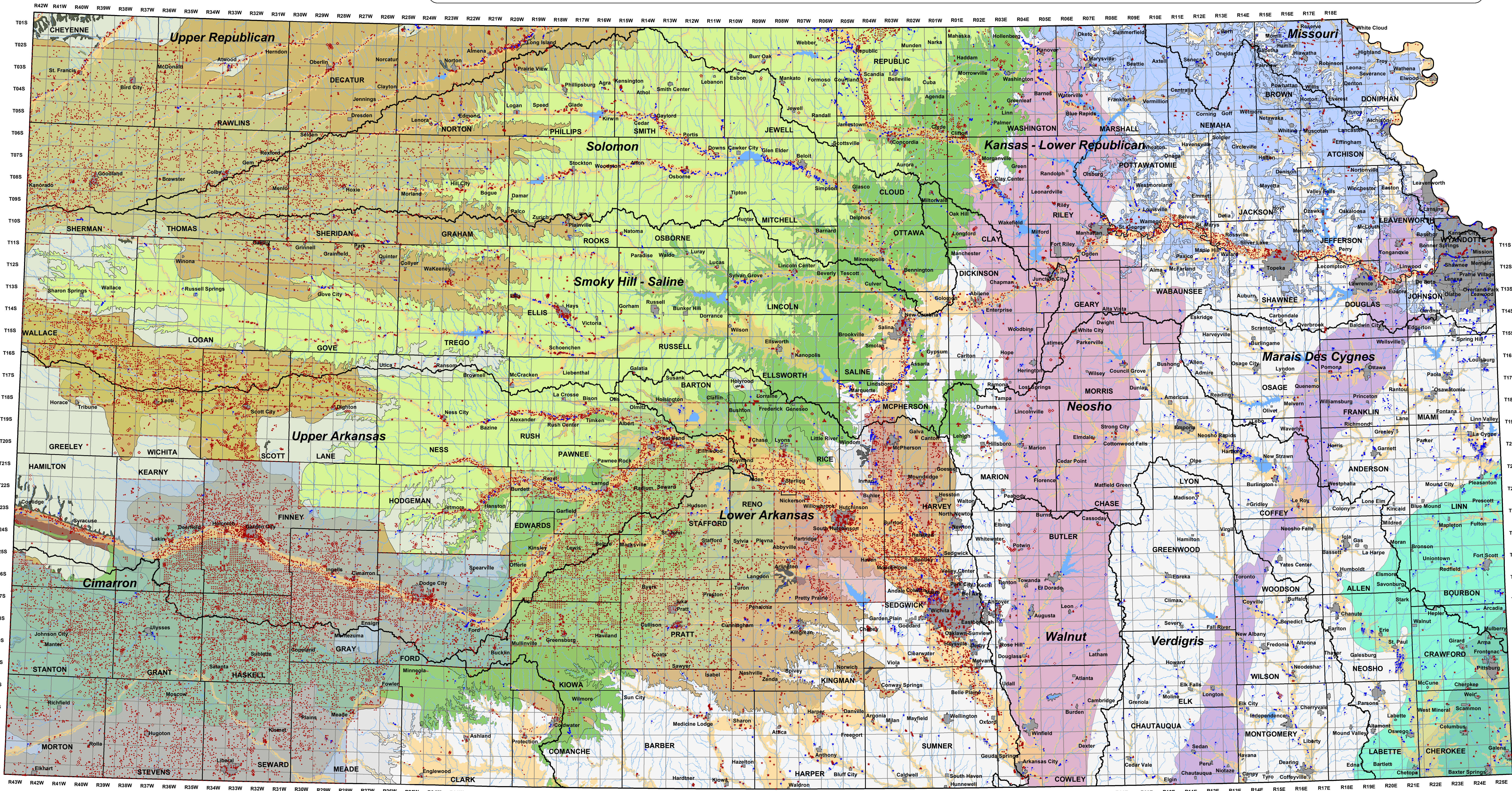


Water Right Development and Regional Aquifer Systems in Kansas

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Water Rights

- Artificial Recharge
- Contamination Remediation
- Dewatering
- Domestic
- Fire Protection
- Hydraulic Dredging
- Industrial
- Irrigation
- Municipal
- Recreation
- Stockwater
- Water Power
- Thermal Exchange

Use Made of Water

- Ground
- Surface

Source of Water Supply

- High Plains Aquifer
 - Some Saturated Thickness
 - Little Saturated Thickness
 - Arkansas River Alluvium
 - Outcrop
- Dakota Aquifer
 - Confined Region
 - Outcrop/Subcrop Units
- Estimated Extent of Other Aquifer Systems
 - Flint Hills
 - Glacial Drift
 - Osage
- Other Map Features
 - Western Kansas GMD #1
 - Equus Beds GMD #2
 - Southwest Kansas GMD #3
 - Northwest Kansas GMD #4
 - Big Bend GMD #5
 - PLSS Township Boundaries
 - County Boundaries
 - Cities and Towns

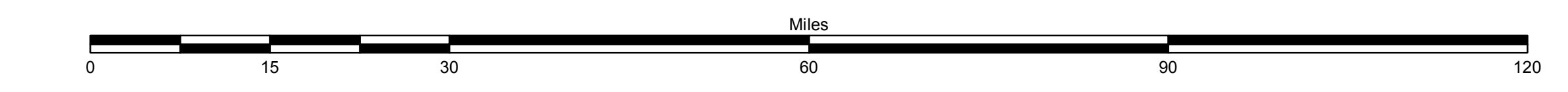
Hydrologic Features

- Surface Water Systems
 - River Basins
 - Rivers and Streams
 - Reservoirs and Lakes
 - Water Bearing Alluvial Deposits
- Ozark Aquifer
 - Usable Water
 - Freshwater

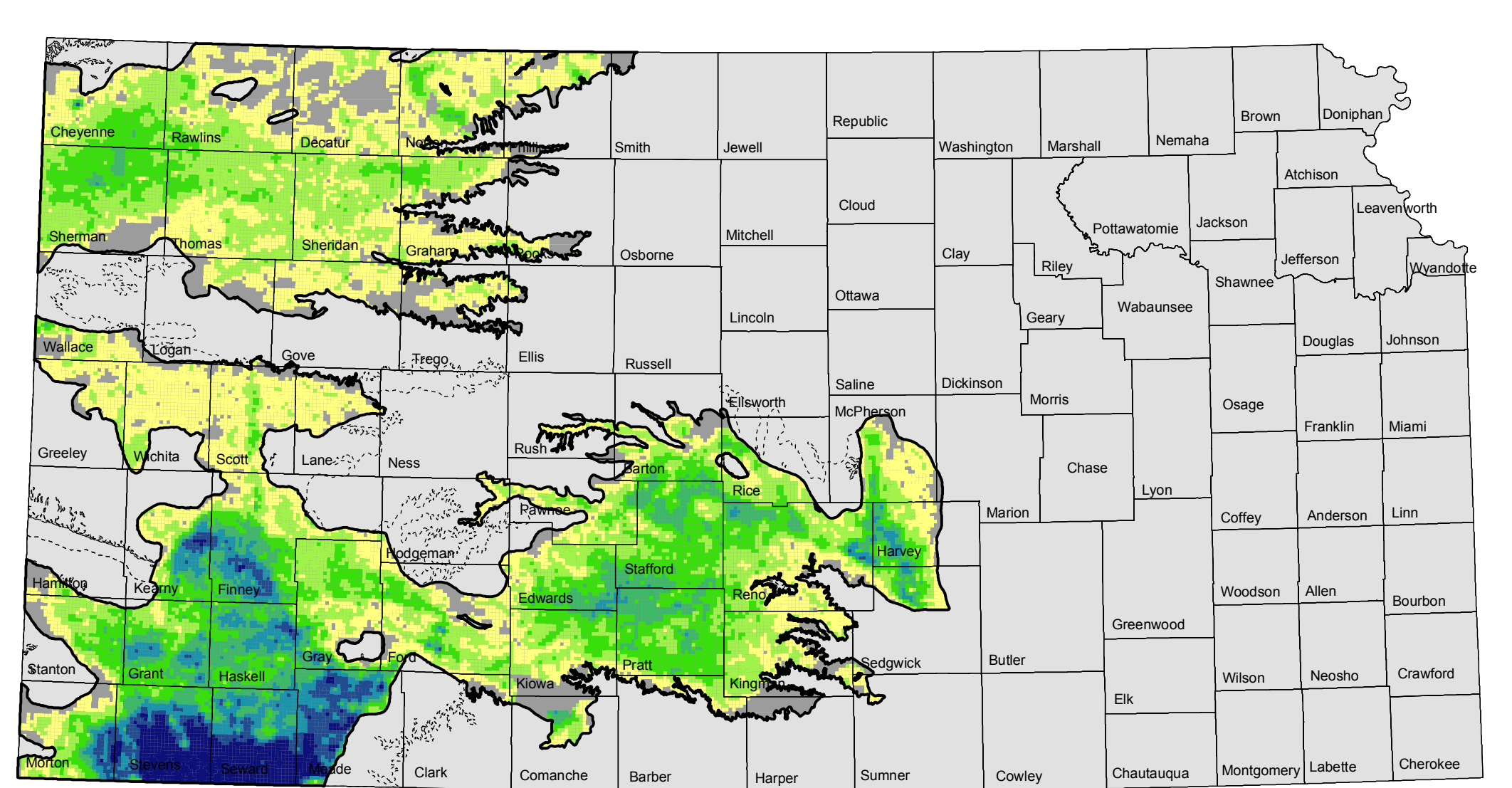
Other Map Features

Kansas Geological Survey Open-File Report 2004-11
 (modified to represent water right conditions as of 11/05/2015)

Water right information on this map represent conditions as of November 5, 2015 and was obtained from the Kansas Department of Agriculture, Division of Water Resources' Water Rights Information System database. The Kansas Geological Survey made a conscientious effort to ensure the accuracy of this map. However, the Kansas Geological Survey or the Kansas Department of Agriculture, Division of Water Resources do not guarantee this document to be completely free from errors or inaccuracies and disclaims any responsibility or liability for interpretations based on data used in the production of this document or decisions based thereon. This report is intended to make results of research available at the earliest possible date, but is not intended to constitute final or formal publication.



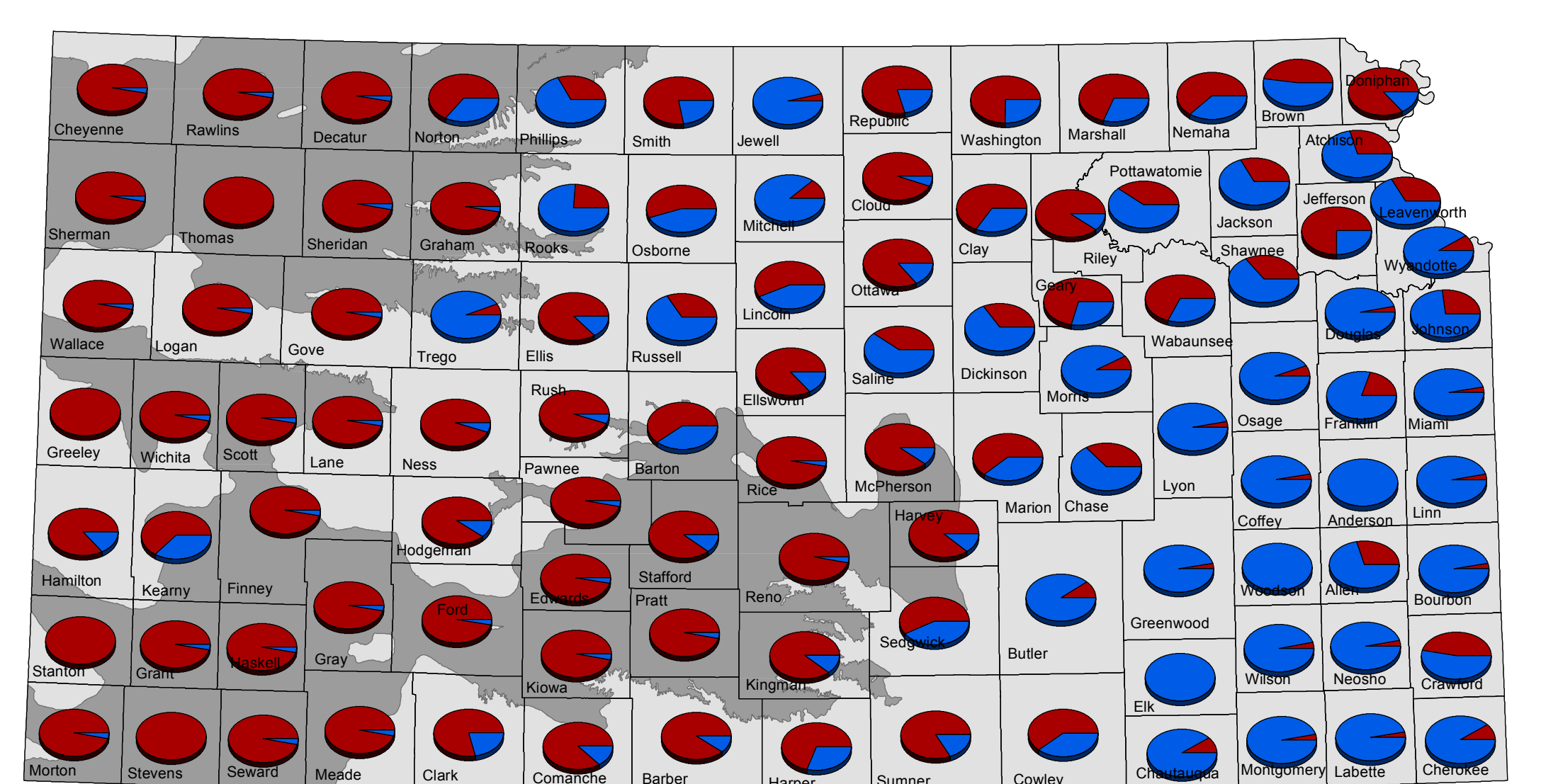
Average 2013-2015 Saturated Thickness of the Kansas High Plains Aquifer



Thickness in Feet

- Under 50
- 50 to 100
- 100 to 150
- 150 to 200
- 200 to 250
- 250 to 300
- Over 300

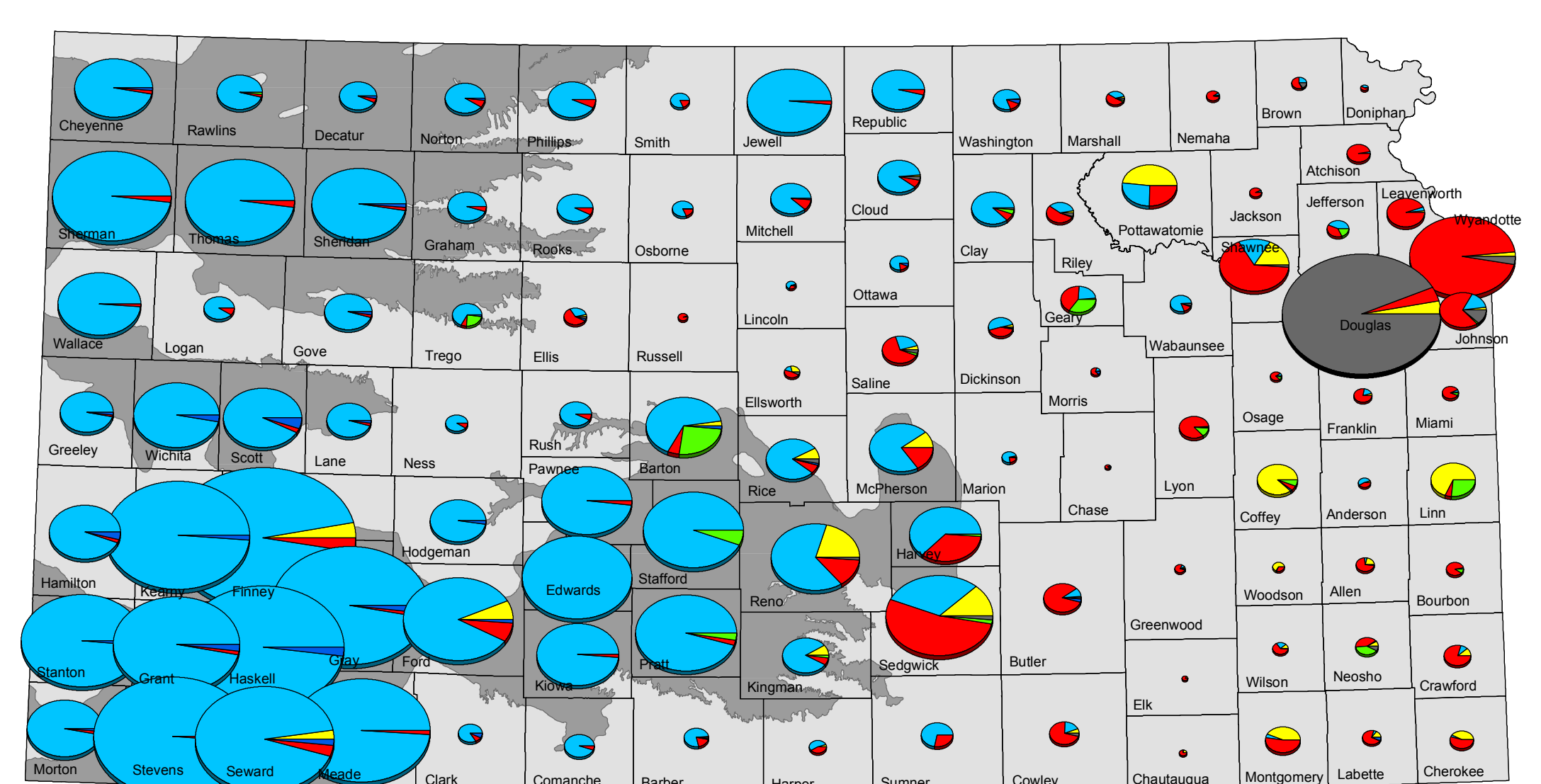
Ratio of Annual Authorized Quantity, by Water Source and County, as of November 5, 2015



Groundwater

Surface Water

Average Annual Reported Water Used, by Use Made of Water and County, 1995 to 2014



Irrigation

Municipal

Recreation

Stockwater

Industrial

Other

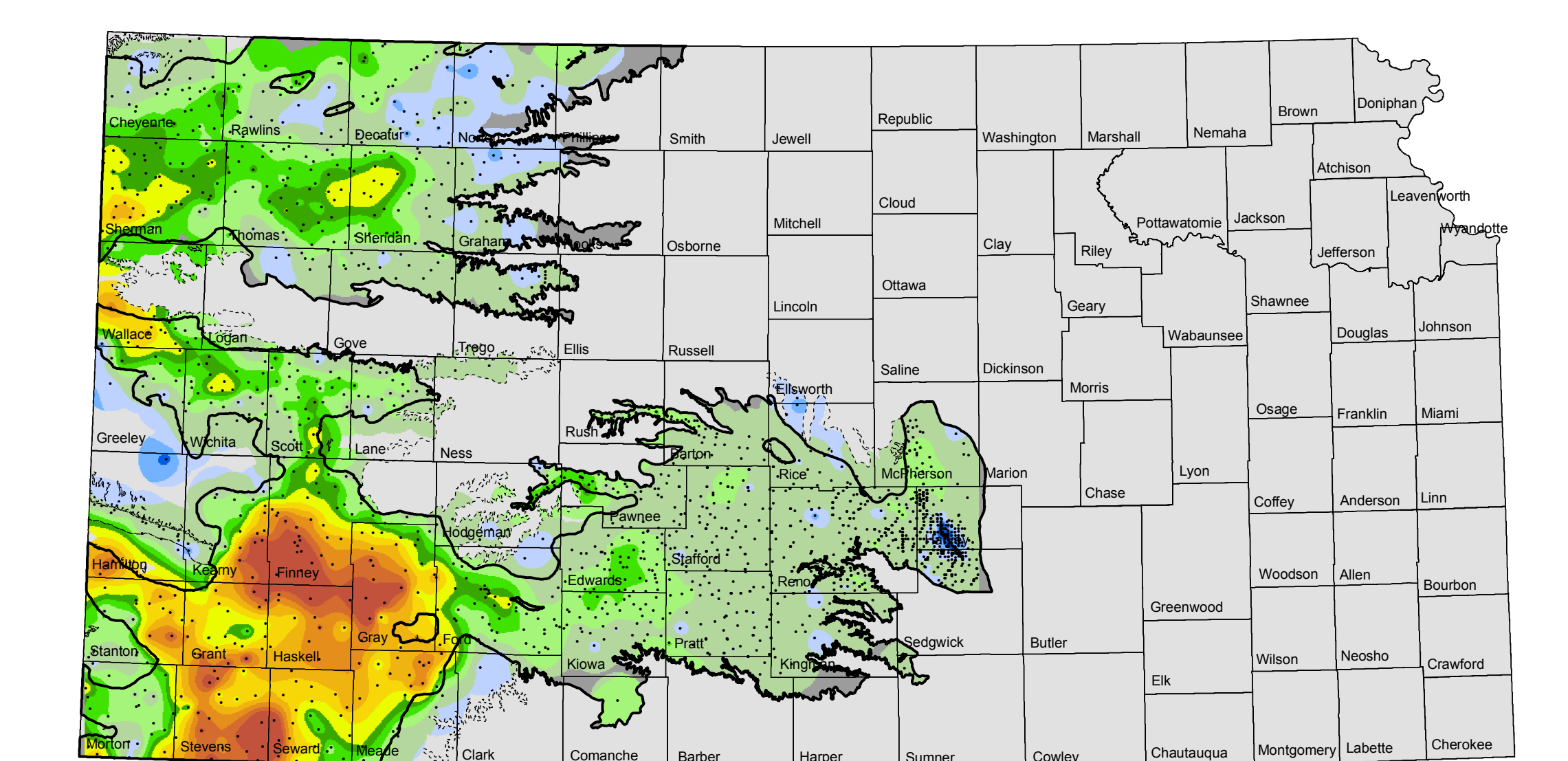
Finney 320,698 AF

Sheridan 82,897 AF

Meade 174,686 AF

Rice 26,472 AF

Interpolated Water Level Change, Kansas High Plains Aquifer, Average 1995-1997 to Average 2013-2015



Change in Feet

- Declines Over -70
- 60
- 50
- 40
- 30
- 20
- 15
- 10
- 5
- 0
- 5
- Increases Over +10

Monitoring Well