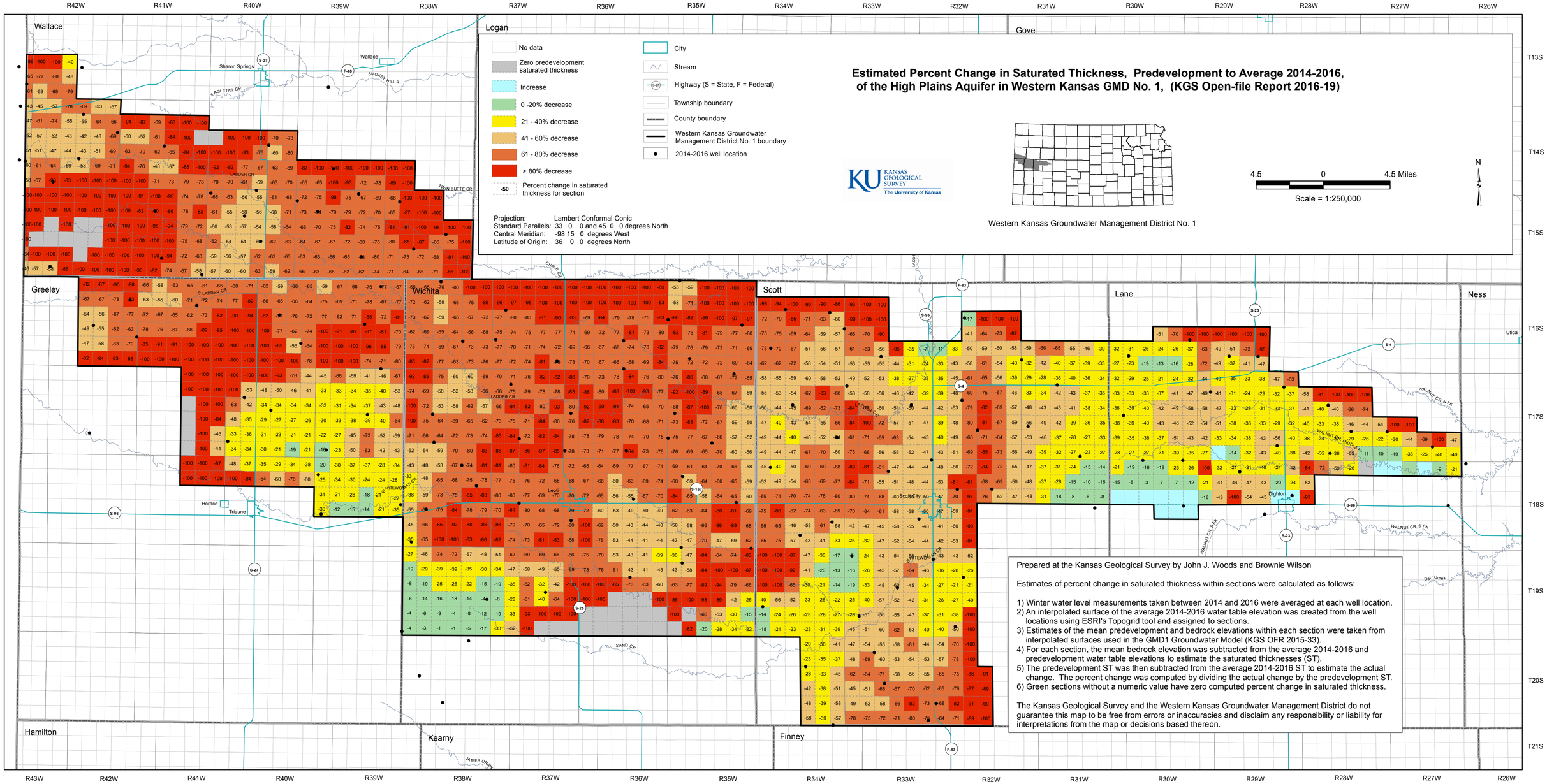
Estimated Percent Change in Saturated Thickness, Predevelopment to Average 2014-2016, of the High Plains Aquifer in Western Kansas GMD No. 1, (KGS Open-file Report 2016-19)
No data
Zero predevelopment saturated thickness
Increase
0 -20% decrease
21 - 40% decrease
41 - 60% decrease
61 - 80% decrease
> 80% decrease
-50 Percent change in saturated thickness for section
City
Stream
Highway (S = State, F = Federal)
Township boundary
County boundary
Western Kansas Groundwater Management District No. 1 boundary
2014-2016 well location
Projection: Lambert Conformal Conic
Standard Parallels: 33 0 0 and 45 0 0 degrees North
Central Meridian: -98 15 0 degrees West
Latitude of Origin: 36 0 0 degrees North
KU KANSAS GEOLOGICAL SURVEY The University of Kansas
Western Kansas Groundwater Management District No. 1
4.5 0 4.5 Miles
Scale = 1:250,000
N
Wallace
Logan
Gove
Greeley
Wichita
Scott
Lane
Ness
Hamilton
Kearny
Finney
Sharon Springs
Leoti
Scott City
Dighton
Utica
Horace
Tribune
R42W R41W R40W R39W R38W R37W R36W R35W R34W R33W R32W R31W R30W R29W R28W R27W R26W
R43W
T13S T14S T15S T16S T17S T18S T19S T20S T21S
Prepared at the Kansas Geological Survey by John J. Woods and Brownie Wilson
Estimates of percent change in saturated thickness within sections were calculated as follows:
1) Winter water level measurements taken between 2014 and 2016 were averaged at each well location.
2) An interpolated surface of the average 2014-2016 water table elevation was created from the well locations using ESRI's Topogrid tool and assigned to sections.
3) Estimates of the mean predevelopment and bedrock elevations within each section were taken from interpolated surfaces used in the GMD1 Groundwater Model (KGS OFR 2015-33).
4) For each section, the mean bedrock elevation was subtracted from the average 2014-2016 and predevelopment water table elevations to estimate the saturated thicknesses (ST).
5) The predevelopment ST was then subtracted from the average 2014-2016 ST to estimate the actual change. The percent change was computed by dividing the actual change by the predevelopment ST.
6) Green sections without a numeric value have zero computed percent change in saturated thickness.
The Kansas Geological Survey and the Western Kansas Groundwater Management District do not guarantee this map to be free from errors or inaccuracies and disclaim any responsibility or liability for interpretations from the map or decisions based thereon.