Estimated Change in Saturated Thickness, Predevelopment to Average 2017-2019, of the
High Plains Aquifer in Western Kansas GMD No. 1 (KGS Open-File Report 2019-16)
No data
Increase
0 - 25 feet decrease
26 - 50 feet decrease
51 - 75 feet decrease
76 - 100 feet decrease
101 - 135 feet decrease
-50
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
2017-2019 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
6 0 6 Miles
Scale = 1:220000
N
Wallace
Logan
Gove
Trego
Greeley
Wichita
Scott
Lane
Ness
Sharon Springs
Tribune
Horace
Leoti
Scott City
Dighton
Utica
Prepared at the Kansas Geological Survey by John J. Woods and Brownie Wilson
The change in mean saturated thickness within each section was calculated as follows:
1) Winter water level measurements taken between 2017 and 2019 were averaged at each well location.
2) An interpolated surface of the average 2017-2019 water table elevation was created from the well locations using ESRI's Topogrid tool and was assigned to sections.
3) Estimates of 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 bedrock elevation was subtracted from the average 2017-2019 and predevelopment water table elevations to estimate the saturated thicknesses (ST).
5) The predevelopment ST was then subtracted from the average 2017-2019 ST to estimate the actual change.
6) Light yellow sections without a numeric value have zero computed change in saturated thickness.
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