The saturated thickness within each section was calculated as follows:

1. From the Project Report, the water table elevation was estimated from the predevelopment water table elevation using ESRI's Topogrid tool and assigned to sections.
2. The bedrock elevation was subtracted from the predevelopment water table elevation.
3. The shaded sections without a numeric value have zero saturated thickness.

The Kansas Geological Survey and the Eastern Kansas Groundwater Management District do not guarantee the accuracy of this map or any underlying data and disclaim any responsibility or liability for damages that may result from the use of this data or the information obtained from it.
Estimated Percent Change in Saturated Thickness, Predevelopment to Average 2017-2019, of the High Plains Aquifer in Western Kansas GND No. 1 (KGS Open-File Report 2019-10)

Percent change was computed by dividing the actual change by the predevelopment Saturated Thickness (ST). The percent change was calculated as follows:

1. Field water level measurements taken in March 2017 and 2019 were averaged at each well location.
2. Data was collected during summer and winter from 2015 to 2018.
3. Estimated drying periods and recharge intervals were determined from field water levels in 2015 to 2018.
4. The difference between the 2017 and 2019 average was determined.
5. The percent change is calculated for saturated thickness (ST) for each of the monitoring areas.
6. Estimated drying periods and recharge intervals were calculated for the saturated thickness (ST) for each of the monitoring areas.
7. Drains were estimated without a vertical water flow area compared percent change in saturated thickness.
8. The Kansas Geological Survey and the Western Kansas Groundwater Management District do not guarantee this map to be free from errors or omissions and disclaim any responsibility or liability for use of products other than the base of the Kansas Groundwater}

Scale = 1:220000
1) Winter water level measurements taken between 1997 and 1999 were averaged at each well location. The mean saturated thickness within each section was calculated as follows:

2) An interpolated surface of the average 1997-1999 water table elevation was created from the well interpretations from the map or decisions based thereon.

The change in mean saturated thickness within each section was calculated as follows:

1. Water level measurements taken between 2017 and 2019 were averaged at each well location.
2. A grid was created with data from 2017-2019 mean water level elevations; data from each location was assigned to sections.
3. The change in water level was subtracted from the average 2017-2019 water level to determine the average water level change within each section.
4. The change in mean saturated thickness within each section was calculated as follows:

\[ \text{Change in Saturated Thickness} = \frac{\text{Average Water Level Change}}{\text{Saturated Thickness}} \]

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Prepared at the Kansas Geological Survey by John J. Volesky and Sherrice Wilkins