

KDA-DWR Report

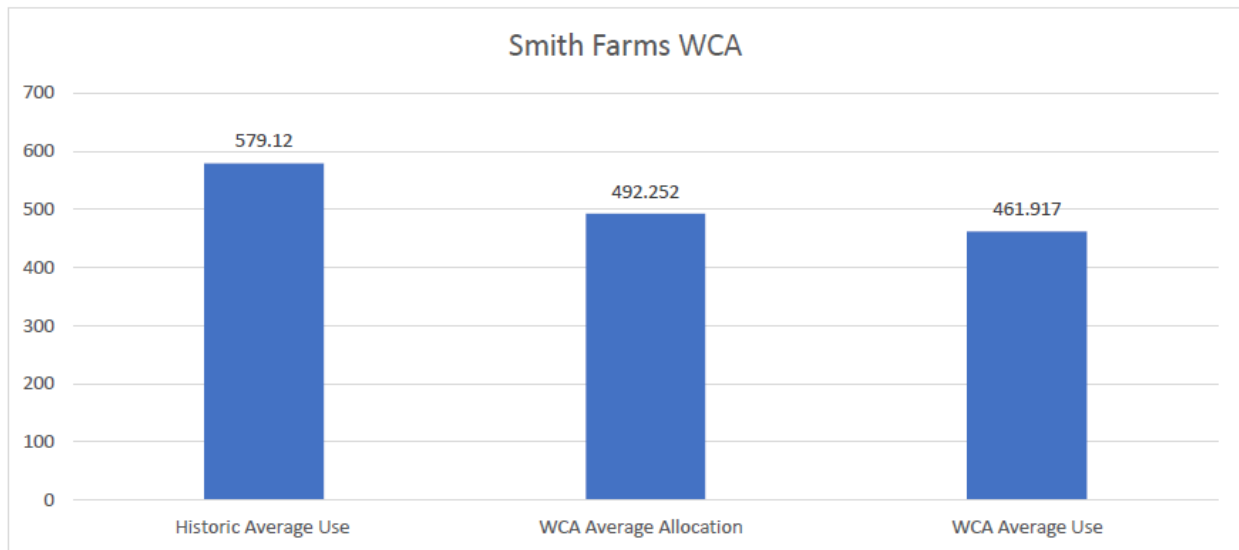
Official Review of a Water Conservation Area (WCA) Smith Farms WCA; Greeley & Wallace Counties, KS January 2017 through December 2026

Review of Total Water Use of Water Rights Enrolled:

During the term of this WCA, water use was limited to 2,461.260 acre-feet during the first 5-year period. The total water use reported annually, under the referenced water rights, during the term of this WCA are as follows:

2017 Use (AF)	2018 Use (AF)	2019 Use (AF)	2020 Use (AF)	2021 Use (AF)	Total WCA Use (AF)	Unused WCA Allocation (AF)	Total WCA Limit (AF)
321.429	569.283	386.44	688.405	344.026	2309.583	151.678	2,461.26

The total use during this first 5-year WCA period was 2309.583 acre-feet. The total amount of unused WCA allocation for this WCA period was 151.678 acre-feet.



Review of Corrective Control Provisions:

The corrective controls reviewed during this first 5-year period were as follows:

- Water right #19986 cannot exceed 320 AF in any calendar year.
- Water right #28296 cannot exceed 250 AF in any calendar year; and cannot exceed 1,050 AF (5 x 210 AF) within the 5-year periods of this WCA.
 - Review of Water right # 28296, the well diverted 230.86 AF during 2020.

- The two points of diversion under water right #28295 cannot exceed 373 AF in any calendar year; and cannot exceed 1,865 AF (5x 373AF) within each of the 5-year periods of this WCA.
 - The point of diversion located in section 14-16S-41W, under water right #28295, may use up to 240 AF in any calendar year but cannot exceed 1,115 AF (5x 223AF) within each of the 5-year periods of this WCA.
 - The point of diversion located in section 13-16S-41W, under water right #28295, may use up to 167 AF in any calendar year but cannot exceed 835 AF (5x 167 AF) within each of the 5-year periods of this WCA.

Review of all controls, only File No. 28,296 was utilized beyond the base water right but was within its control.

- Unused WCA allocation may be carried over up to 1/5th (Any unused WCA allocation from 2017-2021 WCA period up to 492.252 AF) of the annual authorized and added to a subsequent WCA period after calendar year 2021.
 - Based on the review of the water use the last 5-years, it appears that 151.678 AF can be carried over to the next 5-year period during this WCA.

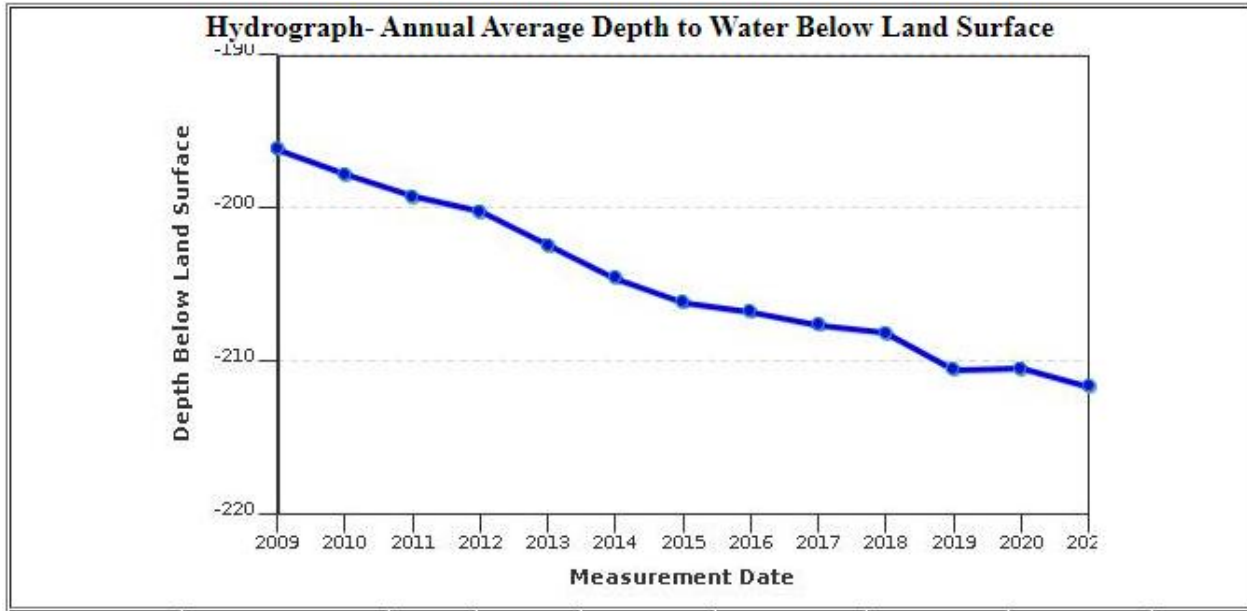
Review of Compliance Monitoring and Enforcement:

During the period of this WCA, there were no compliance or enforcement issues relating to the water right and the corrective controls of the management plan.

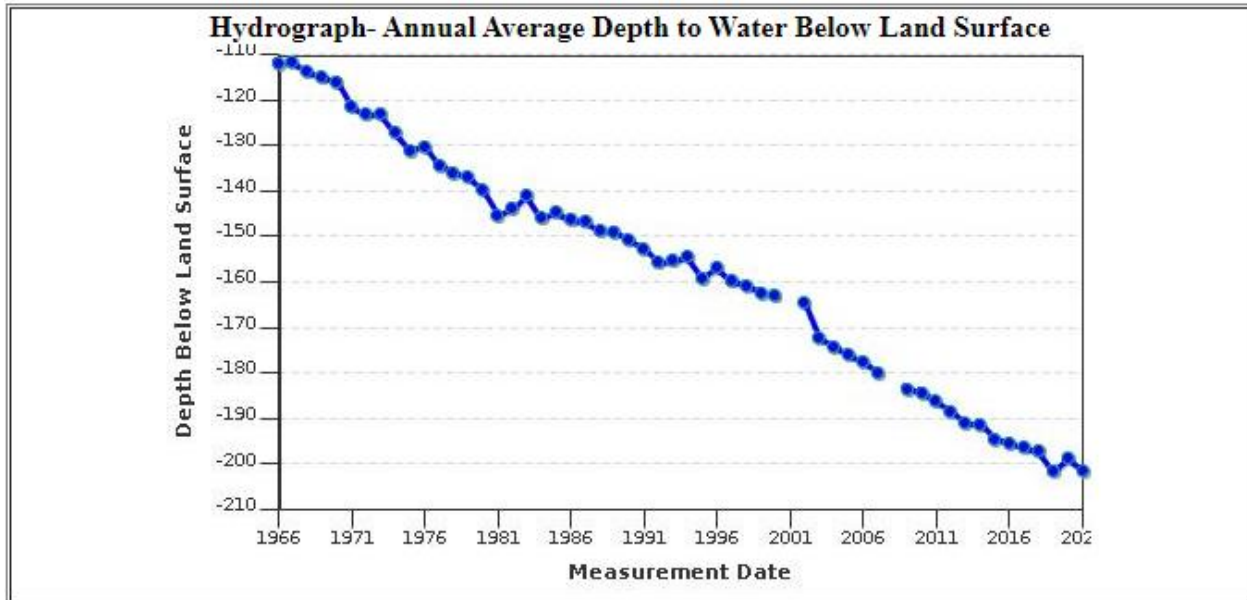
Review of Water Level Changes:

Below are the nearby observation wells documented in the management plan. Note that the measurements were taken in the early calendar year months. Outliers measured outside of this time range are labeled with the month they were measured.

Location: 16-41W-11CCB



Location: 15-41W-36DDB



Review of Economic Impacts:

No official economic reports have been published at this time but after speaking with the Kansas Water Office regarding the Water Technology Farm that exists on the WCA geographic boundaries (Homeland Farms Water Technology Farm), that is also associated with this WCA, it has been stated that reducing water use does save money. The owner/operator of the Smith Farms WCA, Ray Smith, stated that by making the appropriated measures to increase irrigation efficiency this ultimately reduced the need to pump more water; thereby reducing the cost per bushel of grain and increasing the return per acre foot of water pumped. As well as other methods to increase crop yield required less inputs on the crops overall and have saved additional costs by the end of the season. In conclusion, this WCA in conjunction with a Water Technology Farm has provided more yield with less, thereby allowing for more profit after harvest.

Review of Public Interest:

The Smith Farms WCA has had no appreciable negative impacts on the public interest. Conversely, it can be stated that the conservation of water along with extending the useable life of the Ogallala Aquifer in that regional area, on the ground under the Smith Farms WCA has positively impacted the public interest area. Along with the existing Water Technology Farm, concentrating on technology to conserve water, Water Technology Farms have grown statewide to approximately 18 farms by the end of calendar year 2021.

Summary of Review by KDA-DWR:

It is determined that the Smith Farms WCA has met its goals throughout the designated first term. Over the course of the WCA the owner conserved an additional 6% of its WCA goal the first 5-years. The owner also met all requirements and had no enforcement issues with KDA-DWR. In summary, the WCA should continue to operate under their existing corrective controls for the next 5-years and have the carry-over of unused water documented for potential use if needed.