

KDA-DWR Report

Official Review of a Water Conservation Area
(WCA) McCarty-Rexford WCA; Thomas County.

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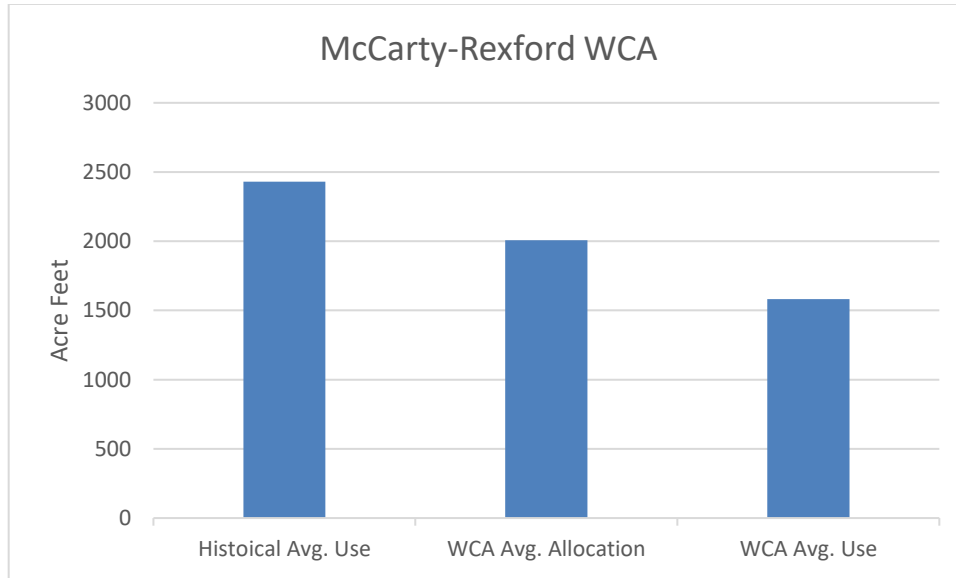
January 2018 through December 2022

Review of Total Water Use of Water Rights Enrolled:

During the term of this WCA, water use was limited to 10,040 acre-feet (AF) for Irrigation and Stockwater uses. The total water use reported annually, under the listed water rights, during the term of this WCA are as follows:

2018 Water Use (AF)	2019 Water Use (AF)	2020 Water Use (AF)	2021 Water Use (AF)	2022 Water Use (AF)	Total WCA Water Use (AF)	Unused WCA Water Allocation (AF)	Total WCA Limit (AF)
1102.690	909.026	1876.823	2174.211	1846.48	7909.230	2130.770	10040

The total average use during this WCA was 1,581.846 acre-feet.



Review of Corrective Control Provisions:

This WCA had 13 Irrigation wells within its geographic boundaries which were used for irrigation purposes and 2 Stockwater wells. The irrigation well authorized by water right no. 19489 may divert up to an additional 67 AF/YR for a total of 180 AF/YR and the 2 stockwells (primary and stand-by wells) authorized by water right no. 19489 may divert up to an additional 50 AF/YR for a total of 300 AF/YR, so long as the total WCA allocation is not exceeded within the designated 5-year term.

As of the end of the 2023 calendar year, no adverse impacts have been noted and no concerns were received from nearby well/landowners.

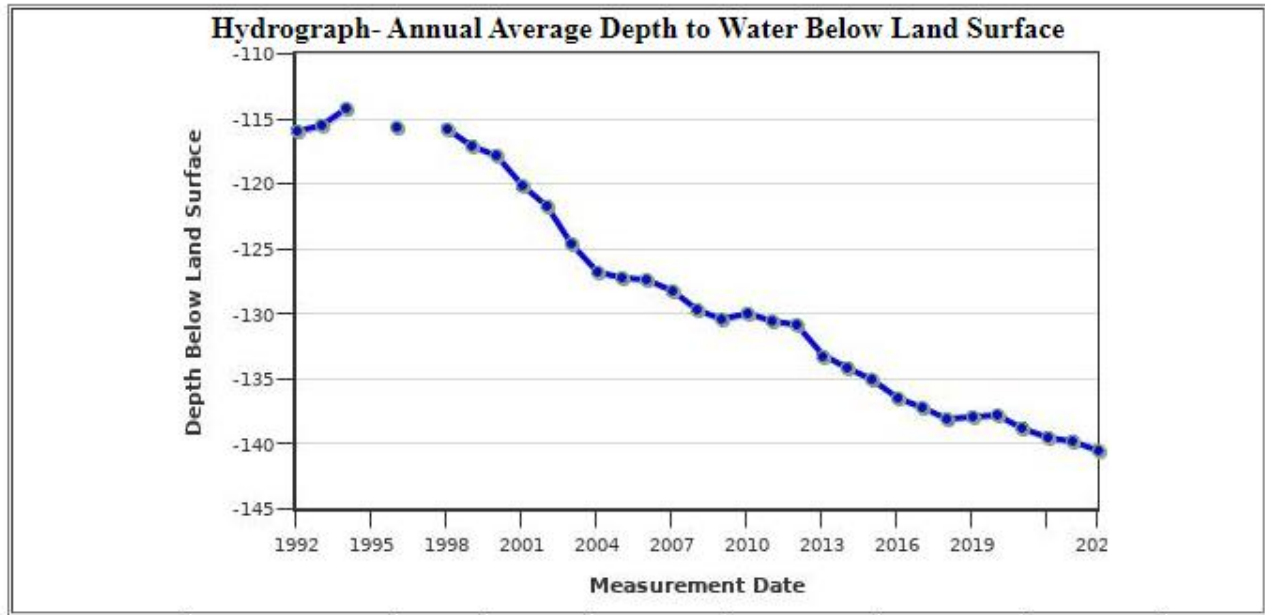
Review of Compliance Monitoring and Enforcement:

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

Review of Water Level Changes:

Below are the nearby observation wells documented in the management plan.

Location: 7S 32W 13DBD 01



Review of Economic Impacts:

Over the years of 2013-2017, Dr. Bill Golden conducted a study monitoring the economic impacts of the Sheridan 6 Local Enhanced Management Area (SD-6 LEMA), located within the boundaries of Groundwater Management No. 4 (GMD4). The SD-6 LEMA is a smaller scale LEMA operating with similar goals and challenges as a WCA.

During this study Dr. Golden discovered that producers can mitigate losses through innovation. By adopting more efficient irrigation technology practices, producers can implement strategies to maintain returns, while applying less water.

He also noted that producers are subject to law of diminishing marginal returns when irrigating crops. Higher input costs may lead to larger yields, but less profit and efficiency is key. Data supplied by producers within the LEMA boundary suggests that reducing groundwater use has had a minimal impact on cash flow.

Review of Public Interest:

The WCA has conserved water, thereby extending the useable life of the Ogallala Aquifer in the Regional area and serving the public interest.

Summary of Review by KDA-DWR:

It is determined that this WCA has met its goals throughout the designated term. This WCA conserved almost 35% of its WCA allocation; thereby saving water beyond the agreed original WCA reduction. The owners of this WCA met all requirements of the WCA Consent Agreement and Order. In summary, we see no need to deny a request from the owner(s), should they request another WCA in the near future.