Wichita County LEMA Written Testimony

January13th, 2026

Respectfully Submitted:

Western Kansas Groundwater Management District No. 1

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Section 1 – Introduction: Wichita County LEMA in Review

This testimony is submitted in support of the request of the Western Kansas Groundwater Management District No. 1's ("GMD1") for renewal of the Wichita County Local Enhanced Management Area ("*WC LEMA"*) for the period January 1, 2026, through December 31, 2030.

WC LEMA was originally developed by GMD1 and approved by the Chief Engineer in February 2021, following public hearings held in August and November 2020. The WC LEMA was established in response to long-standing and well-documented declines in groundwater levels within the Ogallala Aquifer in Wichita County, caused by withdrawals that historically exceeded recharge. The purpose of the WC LEMA has been to slow those declines and extend the usable life of the aquifer for the long-term benefit of the area and the public interest.

The original WC LEMA was implemented for the years 2021–2025 and was built upon substantial local stakeholder involvement, including the earlier formation of the Wichita County Water Conservation Area in 2017. Together, these locally driven efforts represented a significant commitment by water users in Wichita County to address groundwater depletion through collective action.

Based on water-use data from the first four years of the WC LEMA period, the WC LEMA has performed as intended. Average pumping during 2021–2024 has been not only below the WC LEMA's stated goal, but also approaching the Kansas Geological Survey's most recent estimate of Q-Stable for the WC LEMA area, indicating a transition toward stabilized groundwater levels. These results, combined with extensive public input throughout the LEMA period and particularly obtained during the fourth-year review, form the basis for GMD1's request to renew the WC LEMA with targeted adjustments for the 2026–2030 period.

WC LEMA Summary:

1. Originally Established for the period 2021-2025
2. Allocations required a reduction in groundwater pumping by 25% from the 2009-2015 average for most.
3. If the WC LEMA allocations are fully utilized, the WC LEMA would achieved a 14.7% reduction in use if vested rights use and allocations are included, or a 20.4% reduction from the 2009-2015 baseline if only regulated appropriation rights are considered.
4. Allocations are assigned by point of diversion, except for combined well units.

Overview of Testimony

This testimony is presented in the following order to provide a detailed analysis of the WC LEMA through it's initial period (*2021-2025*) and to present data and rationale as to why the Renewal WC LEMA should be approved as submitted. **Section 2** discusses the need for and benefit of continuing the WC LEMA using data, sociological observations, and economic reasoning to support the position. **Section 3** provides a technical review of the WC LEMA's performance, in conjunction with the Kansas Geological Survey. **Section 4** provides a review of the extensive public outreach that took place as part of this Renewal Plan's development. **Section 5** presents an analysis as to the sufficiency of the corrective controls to accomplish the goal of the Renewal WC LEMA and **Section 6** provides a conclusion and respectively requests approval as submitted, by the Chief Engineer.

Section 2 –Need for and Benefit of Continued Regulation in the WC LEMA Area

In Testimony previously submitted as part of the Initial WC LEMA Hearing in 2021, the boundary for the WC LEMA was determined to be the entire County area due to water level declines and aquifer similarities within the County. While pumping and the rate of groundwater declines has been reduced, after an extensive review of water level data, groundwater pumping during, the WC LEMA period, the community of Wichita County with the Board of GMD1of Directors identified that a continuation of the WC LEMA is needed to maintain the achievements seen in stabilizing of water levels which has considerable economic benefit to the regional community. In order to capture this importance, the GMD1 has worked with researchers such as Dr. Bill Golden of Kansas State University to assess the relationship between the WC LEMA plans and long-term economic viability for the community.

Since the establishment of the Wichita County WCA in 2017 and then the WC LEMA in 2021, a very apparent cultural shift has been present. The GMD1 has seen substantial investment by producers, into new water saving technologies, as well as cropping changes such as increased sorghum and triticale (*less water intensive crops)*. There has been a notable shift towards community driven water conservation initiatives, which has included coordination with stock water right holders, confined animal feeding facilities and municipalities, all dedicated to doing their part to achieve Q-Stable as a County. Annually, the GMD1 holds public outreach meetings and participation has been consistently high for Wichita County stakeholders.

Economically, the WC LEMA provides a conservation framework aimed at sustainability and long-term viability for the local economy. The 2022 USDA Census of Agriculture notes that the total market value of agricultural products annually is $590,279,000, and the number of family farms has increased since 2017. As water levels have begun to stabilize the GMD1 has been

notified of private projects investing significant funds into businesses and confined feeding facilities due to this shift in water management, which inevitably keeps jobs in the region. This is a strong indicator that the WC LEMA plans and the overall water savings have direct economic impacts on the community. Similarly, its been observed that while historically approximately 2,000 acres per year were transitioning from irrigated to dry-land, this figure has slowed in recent years to approximately 600 acres per year, which is another significant impact.

These economic benefits support the continuation of the WC LEMA for the coming 5 years under terms similar to the current LEMA.

The Wichita County community and GMD1, is dedicated to prolonging the life of the aquifer for all stakeholders (*Irrigation, stock water, industrial, domestic & municipal*) by managing the resources at the local level. As a whole community, this observed shift and focus towards enhanced conservation is sociologically critical and noteworthy.

Section 3: Evaluation of Groundwater Conditions, Groundwater Pumping and LEMA Performance

Introduction: This section summarizes the extensive evaluation of groundwater conditions, recent groundwater pumping, evaluation of LEMA performance and related analyses, completed by the District, with significant input from the KGS.

KGS Analysis of trends in groundwater level changes, pumping, and precipitation (Q-stable)

The Kansas Geological Survey (*KGS*) has assisted the GMD1 in evaluating the performance of the WC LEMA through its Q-Stable and related analyses, which examine trends in groundwater use, water-level change, and irrigation-season precipitation. These analyses and their implications have been shared with stakeholders and the Board of GMD1 over the past two years as part of the process of determining an appropriate Q-Stable value for the county and evaluating how recent water use compares to that benchmark.

Figure 1 below (*excluding the area shaded in light green, discussed separately*) is KGS's most recent summary graphic (*December 2025*), integrating multiple lines of analysis into a single figure. The KGS analyses include all groundwater use within the portion of Wichita County located in GMD1, including non-irrigation uses and vested irrigation rights. Recent non-irrigation use accounts for approximately 6.1 percent of total groundwater use, with stock water comprising the largest share at 5.1 percent. Vested irrigation use represents approximately 2.6 percent of total use.

- **Upper left graph.** This graph shows annual trends in total groundwater use and average water-level change in Wichita County since 2009. As expected, years with higher groundwater use are generally associated with greater water-level declines.
- **Upper right graph.** This graph plots annual groundwater use against average annual water-level change and is used by KGS to estimate the Q-Stable value for the county. Based on the most recent two analyses, KGS estimates a Q-Stable value ranges between approximately 31,500 – 33,500 acre-feet per year for the WC LEMA area. In this analysis, KGS further estimates that this Q-Stable condition can be achieved with an approximately 4 percent reduction relative to average groundwater use during the 2017–2024 period.
- **Bottom graphs.** The two graphs in the lower portion of the slide relate irrigation-season precipitation (*March–August, inches*) on the x-axis to irrigation use (*acre-feet per year*) and irrigation depth (*inches*) on the y-axis. Both graphs show a clear reduction in total irrigation use and irrigation depth in recent years under comparable precipitation totals. This is an indication that reductions in water usage are not merely an artifact of rainfall.

The inset shaded in light green in the lower right was added by the GMD1's consultant and reflects information presented at the December 2025 Four County LEMA stakeholder meetings for Wichita County. Using the precipitation–pumping relationship from the 2009–2015 period, expected irrigation pumping for 2021–2024 was estimated based on observed precipitation and then compared to actual reported pumping. This comparison supports the conclusion that irrigation pumping in the WC LEMA area has declined by approximately 40 percent relative to prior pumping.

According to the KGS, this has resulted in a roughly 85% reduction in the rate of groundwater decline. KGS attributes the decline in irrigation usage to an approximately 28% reduction in water application depth (*AF/Acre*) on current irrigated acres along with an approximately 19% reduction in irrigated acres.

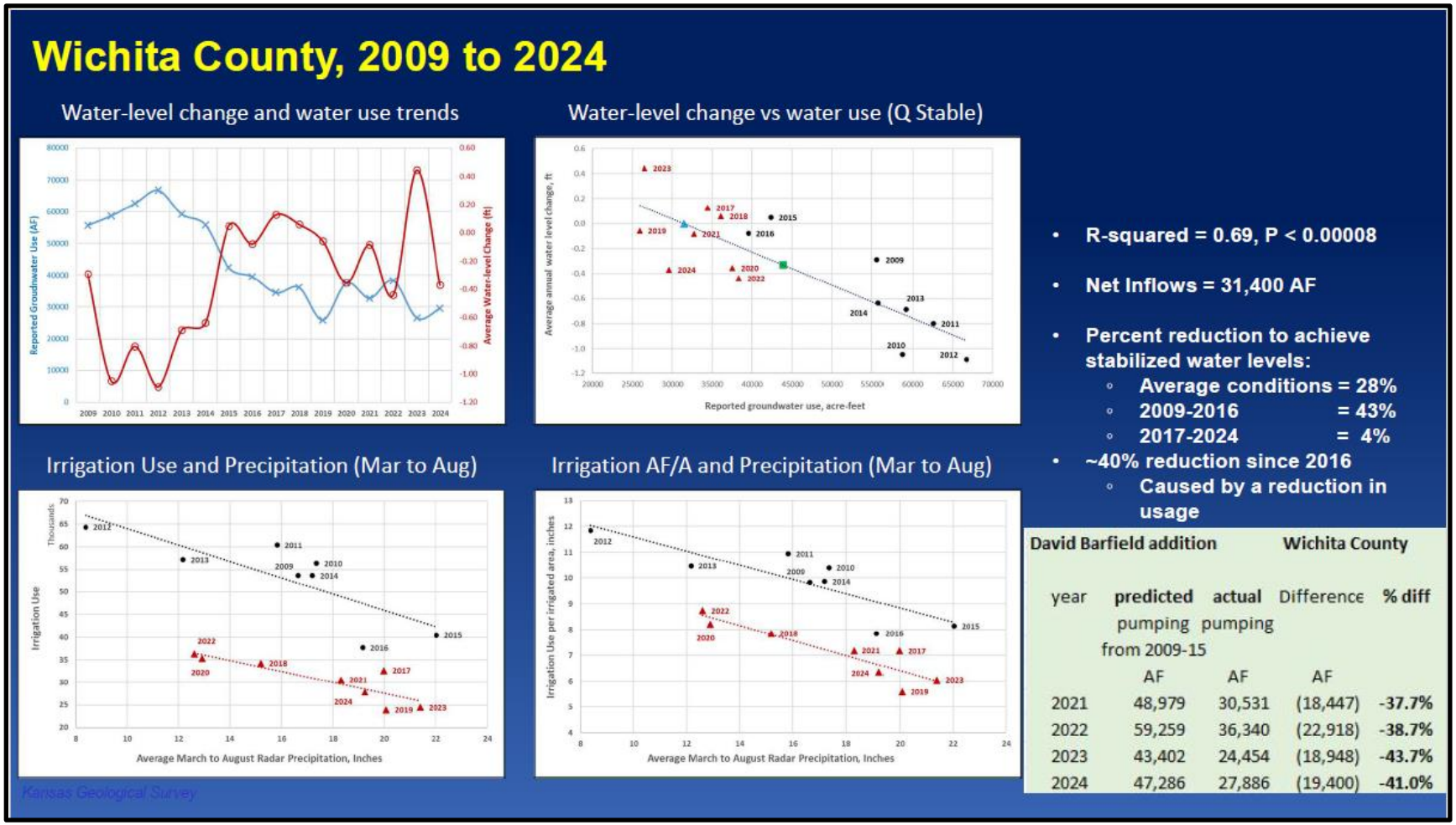

Figure 1 KGS Evaluation Summary for Wichita County

Overall Performance of the Wichita County LEMA

Figure 2 below illustrates the overall performance of the WC LEMA by comparing regulated irrigation use since 2000 (dark blue line) with two benchmarks:
(1) average irrigation use during the historic period 2009–2015 (*orange line*), and
(2) the average annual WC LEMA allocation for the initial WC LEMA period (*2021–2024*) (*light blue line*).

The 2009–2015 historic period is significant because it served as the basis for establishing individual WC LEMA allocations and represents the benchmark against which reductions in pumping are measured. That period was also used for the Wichita County Water Conservation Area, which preceded the WC LEMA. The Board of GMD1 elected to maintain consistency by using the same reference period.

This version of the figure differs from earlier presentations by excluding irrigation use and allocations associated with vested water rights. Under the original WC LEMA, vested irrigation rights were granted allocations equal to five times their authorized quantities and were given the option to voluntarily enroll in the WC LEMA to take advantage of its flexibilities. No vested rights elected to enroll. As a result, vested irrigation rights are not included in the Renewal WC LEMA, and their removal here provides a more accurate depiction of the portion of irrigation use actually regulated by the WC LEMA, both currently and in the future.

When vested rights are included, average irrigation use during 2009–2015 was 57,896 acre-feet per year and total WC LEMA allocations were 49,377 acre-feet per year, corresponding to a required reduction of 14.7 percent prior to appeals. When vested rights are excluded, average non-vested irrigation use during 2009–2015 is 56,845 acre-feet per year and total WC LEMA allocations are 45,248 acre-feet per year, corresponding to a required reduction of 20.4 percent prior to appeals.

This change does not alter historical pumping behavior, but it does clarify the portion of use subject to WC LEMA corrective controls.

As shown, regulated irrigation pumping has been substantially below average annual WC LEMA allocations for all four years of the initial WC LEMA period for which data are available (*2021–2024*). Average irrigation use during 2021–2024 was approximately 62 percent of the average annual WC LEMA allocation, representing a 38 percent reduction, and approximately 53 percent of average 2009–2015 use, representing a 47 percent reduction.

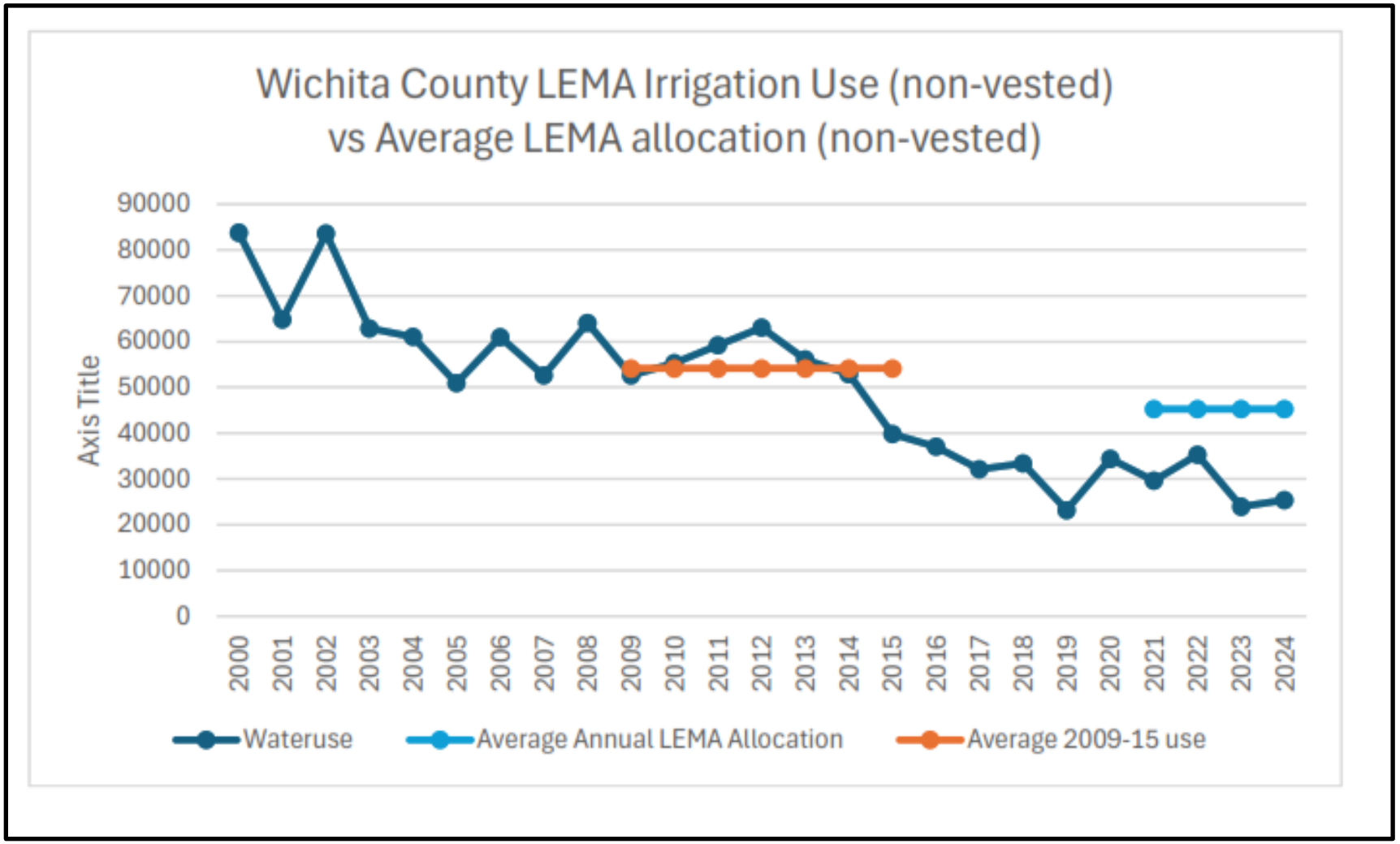

Figure 2 Overall Performance of the WC LEMA

Groundwater Level Changes with the Wichita County LEMA

Figure 3 below shows the accumulated average groundwater-level change in Wichita County from 1996 to the present, utilizing the most recent data provided by the Kansas Geological Survey. The figure illustrates a period of sustained decline through approximately 2015, followed by a pronounced flattening of the trend in recent years. From 1997 through 2015, average groundwater levels declined at a rate of approximately 0.7 feet per year. Over roughly the last decade, the rate of decline has slowed to less than 0.1 feet per year, coincident with sustained reductions in groundwater use consistent in the recent record.

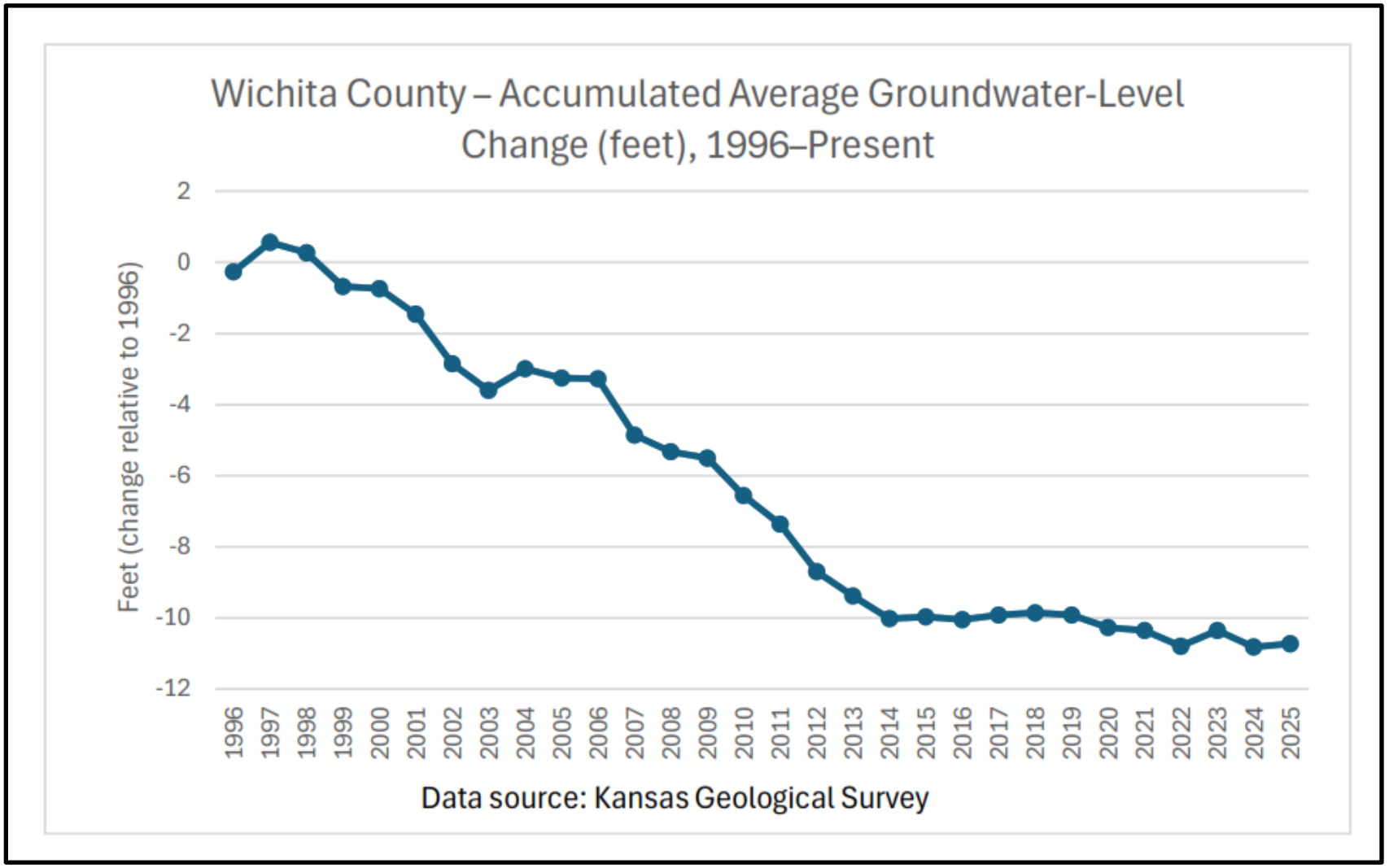

Figure 3 Groundwater Level Changes with the WC LEMA

LEMA Water Use Versus KGS Estimates of Q-Stable

Figure 4 below compares total reported groundwater use within the WC LEMA area to the most recent KGS estimates of Q-stable for the WC LEMA area. Reported use includes all groundwater withdrawals—non-irrigation uses, vested rights, and non-vested irrigation use regulated under the WC LEMA—because the purpose of this figure is not to evaluate WC LEMA compliance, but to assess whether overall pumping levels are consistent with the long-term objective of stabilizing groundwater levels.

The most recent KGS estimates of Q-stable for the WC LEMA area were approximately **33,600 acre-feet per year** (*2024 estimate*) and **31,400 acre-feet per year** (*2025 estimate*).

As shown, recent total groundwater use in Wichita County has been at or near these most recent Q-stable estimates indicating that, at the county scale, pumping levels are consistent with conditions expected to maintain stable groundwater levels over the next decade or two, as defined by KGS. The Board of GMD1 and the stakeholders are acutely aware that the required conditions referenced in KSA 82a-1041 and KSA 82a-1036, as the Chief Engineer originally determined to exist in his original Order, still exist, and remain as clear justification for continued corrective controls.

This provides additional evidence that the existing WC LEMA framework is effectively supporting the transition toward stable groundwater conditions.

While WC LEMA allocations exceed recent use, this comparison demonstrates that actual pumping behavior including those controlled by the WC LEMA's corrective controls, rather than allocation limits alone, is the controlling factor in achieving Q-stable conditions.

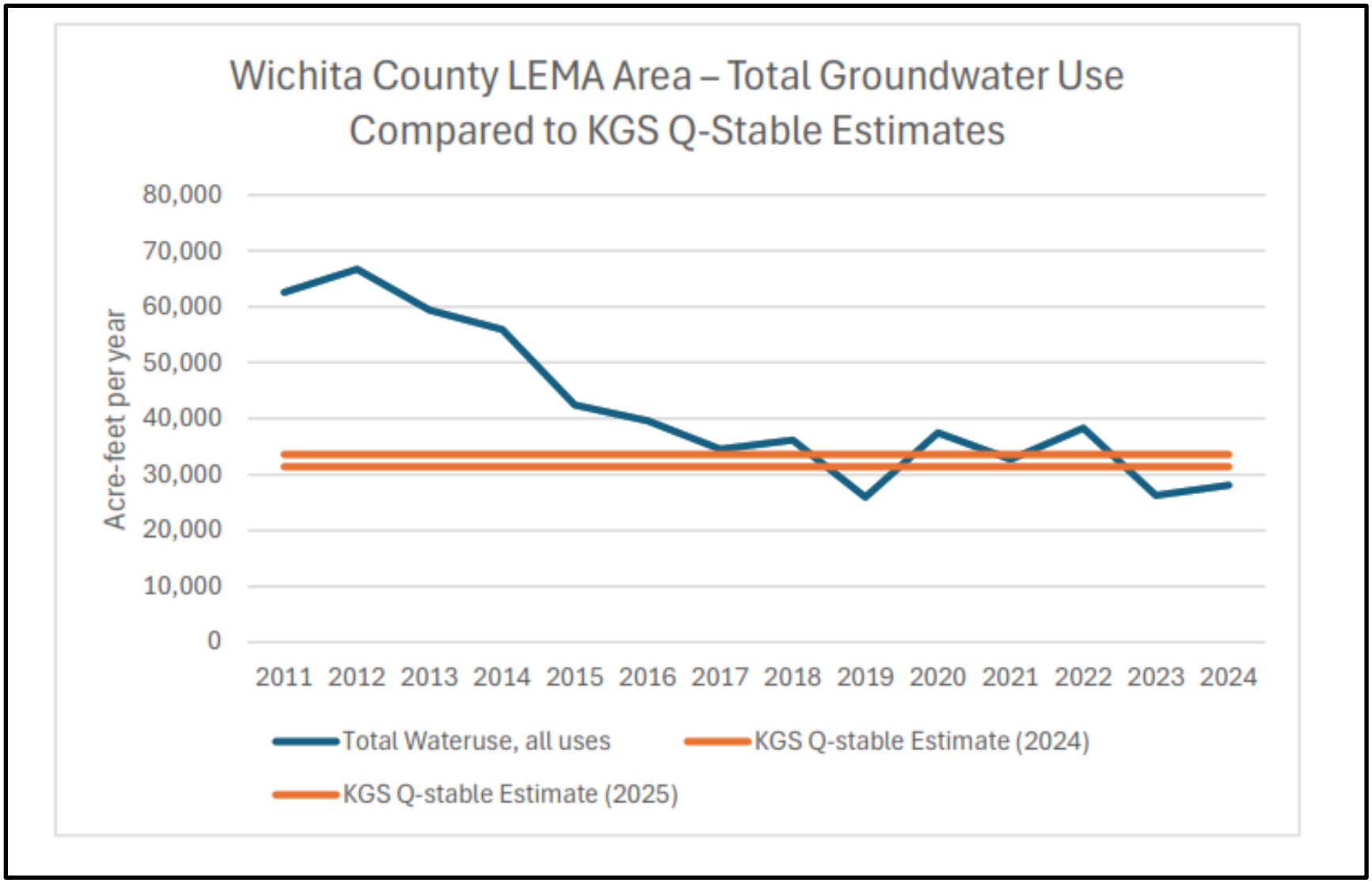

Figure 4 WC LEMA Water Use Versus KGS Estimates of Q-Stable

Individual PD/ Group Performance Under the Wichita County LEMA

While several analyses in this testimony evaluate overall groundwater use within the WC LEMA, it is also important to understand how individual points of diversion/ groups are performing under the WC LEMA. The WC LEMA's effectiveness does not depend solely on aggregate reductions, but on whether its corrective controls meaningfully constrain pumping for the water right holders whose use would otherwise exceed sustainable levels.

Allocations under the WC LEMA are generally assigned at the point of diversion (PD), with provisions allowing multiple wells to be grouped, most commonly through Combined Well Units. Reported irrigation use for the first four years of the WC LEMA period (*2021–2024*) was summed for each PD/group, projected to a full five-year period by multiplying by five-fourths, and compared to the PD/group's total five-year WC LEMA allocation. The resulting difference represents the projected unused allocation for the initial WC LEMA period.

Here, the projected unused allocation is expressed in terms of years of allocation remaining, where one year represents 20 percent of a five-year allocation. This metric provides a consistent way to assess how close individual PD/groups are to their WC LEMA limits and to distinguish between PD/groups whose pumping is actively constrained by the WC LEMA and those whose use is limited by other factors.

The results of this analysis are summarized in **Table 1**. Of the 520 PD/groups evaluated:

- 20 percent (*104 PD/groups*) made no irrigation use during 2021–2024 and are projected to have the full five years of allocation unused. These groups account for approximately 30,462 acre-feet of the total five-year allocation. This non-use is expected to continue, although the Renewal Plan makes provision for PD/groups to return to use at any time to reactivate the allocation. These PD/groups will receive a zero allocation for the renewal period (*2026-2030*) so the WC LEMA Renewal goal more accurately reflects anticipated future conditions.
- An additional 50% percent of PD/groups made limited or moderate use of their allocations. This use is also expected to continue as it reflects a combination of limited pumping capacity, voluntary conservation, or participation in other management programs.
- In contrast, approximately 30 percent of PD/groups are projected to have less than one year of unused allocation remaining. These groups account for approximately 75,757 acre-feet of allocated water and represent the subset of water right holders whose pumping is actively constrained by the WC LEMA's corrective controls.

This distribution is consistent with expectations in this depleted, over-appropriated groundwater system. Most wells are no longer physically capable of pumping at historic rates and while others have chosen to conserve more than required. At the same time, a substantial portion of water right holders remain subject to binding allocation limits under the WC

LEMA. It is this subset of users for whom the WC LEMA's corrective controls are most consequential.

Accordingly, although overall the WC LEMA regulated groundwater use in Wichita County is well below total WC LEMA allocations, this does not indicate that the WC LEMA is ineffective or unnecessary. Rather, the analysis demonstrates that the WC LEMA continues to play a critical role in constraining pumping for approximately one-third of water right groups, those whose use would otherwise threaten continued progress toward stable groundwater levels. Maintaining these corrective controls is therefore an essential component of sustaining recent gains and preventing future increases in pumping that could reverse observed improvements.

Table 1 Projected Individual Point of Diversion /Group Use Relative to WC LEMA Allocations (2021-2025)

Projected unused allocation (years of 5-year allocation)	Number of PD/groups	Percent of total PD/groups	Total allocation in group (acre-feet)
5 years (no projected use)	104	20.0%	30,461.76
4–5 years unused	18	3.5%	5,005.78
3–4 years unused	42	8.1%	16,422.50
2–3 years unused	85	16.3%	38,427.41
1–2 years unused	118	22.7%	65,202.15
0–1 year unused	110	21.2%	59,368.73
Projected overuse, ≤1 year)	35	6.7%	13,615.96
Projected overuse, 1-2 years	4	0.8%	1,648.58
Projected overuse, >2 years	4	0.8%	1,123.65
Total	520		231,276.52

Note: Projected use is estimated as five-fourths of reported irrigation use for 2021–2024.

Section 4 – Overview of Public Outreach and Renewal Plan Development

Public outreach, education, and consistent communication have been integral to the development of both the original WC LEMA and the proposed Renewal WC LEMA. Throughout the initial WC LEMA period, GMD1 maintained regular communication with stakeholders through annual reviews, public meetings, mailed notices, the GMD1's website, social media, and local media outlets. A summary of these public outreach meetings, as well as the results from a public survey, are available in the appendices of this testimony. The proposed renewal WC LEMA plan reflects both demonstrated performance and stakeholder direction supported by significant technical analysis.

Formal annual reviews were conducted in 2022 and 2023, principally examining water use relative to allocations using 2021 and 2021–2022 data, respectively (*see appendices*). These early reviews demonstrated strong compliance and confirmed that total pumping was substantially below allocated levels. Because 2024 represented the fourth year of the WC LEMA period, GMD1 conducted a more comprehensive review as part of a structured public renewal process. This review incorporated 2021–2023 data and included a deeper evaluation of individual compliance, projected total use over the five-year WC LEMA period, and the magnitude of unused allocations that could potentially carry forward into a subsequent WC LEMA period.

By the time the Renewal Plan was finalized and submitted to the Chief Engineer, 2024 water-use data were available and incorporated into the analysis. As a result, the Board of GMD1's deliberations and the Renewal Plan reflect the most complete and current information reasonably available.

Three public outreach meetings were held in Wichita County as part of the renewal process.

- **August 28, 2024:** KGS and GMD1 presented updates on the Wichita County Water Conservation Area and WC LEMA performance, followed by a facilitated discussion on potential renewal approaches. A written public survey was distributed and collected at the meeting. See attachment documents (*presentations and other materials*)
- **November 20, 2024:** Updated analyses and multiple renewal options were presented. Survey results were shared, and approximately 30 producers participated in an extended roundtable discussion.
- **April 2, 2025:** A draft summary of the proposed Renewal WC LEMA was presented for feedback prior to preparation of the formal plan.

At these meetings, stakeholders consistently expressed support for continuation of the WC LEMA framework and acknowledged its success in reducing pumping and stabilizing groundwater levels. Public input focused primarily on how best to preserve conservation incentives, maintain flexibility for producers, and ensure that any plan changes remain consistent with commitments made under the original WC LEMA.

Key Issues Raised, Board Deliberations, and Resulting Plan Changes

Input received during this review process and associated public meetings identified several key issues that informed the Board of GMD1's decisions on the Renewal WC LEMA. These included the length of the renewal period, flexibility mechanisms such as Combined Well Units and appeals, and—most significantly—the treatment of unused allocation and carryover into the Renewal WC LEMA period.

WC LEMA Duration and Structural Continuity

Stakeholders discussed renewal periods ranging from two to ten years. Based on public input and experience gained during the initial WC LEMA period, the Board of GMD1 determined that a second five-year WC LEMA (2026–2030) strikes an appropriate balance between long-term planning and adaptive management. This approach maintains continuity while preserving the ability to revisit key provisions as conditions evolve.

Combined Well Units and Flexibility

There was broad support for reopening and maintaining the ability to form Combined Well Units throughout the Renewal WC LEMA period, subject to review for consistency with water-saving goals. In many instances, water rights and or points of diversion were already physically overlapped or plumbed together. Allowing for a combined well unit to be filed at any time throughout the WC LEMA period will help to ensure that operational changes, or legal overlapping of water rights can be appropriately applied, within the WC LEMA.

Additionally, per HB 2634 the WC LEMA plan would allow for flexibility in water use within the five-year WC LEMA allocation, as long as the total five-year quantity is never exceeded.

Appeals

In the public outreach meetings, there was discussion highlighting the need for an appeals process that accommodates limited circumstances and for cases of non-use prior to and during the initial WC LEMA period, without undermining the overall conservation framework. The Board of GMD1 concluded to allow limited appeals throughout the Renewal WC LEMA period using procedures requiring the appeal to be reviewed on a case-by-case basis by GMD1 staff and the Board of GMD1 will improve fairness while remaining administratively manageable and respectful to the corrective controls of the WC LEMA.

Carryover of Unused Allocation

The carryover of unused allocation was the most complex and consequential issue addressed during the renewal process. The original WC LEMA Plan stated that unused allocations from the original WC LEMA period would be allowed to carry forward, essentially without limit, to a subsequent WC LEMA period. As the WC LEMA was evaluated through the processes outlined above, it became clear that it was performing successfully with water use remaining well below the allocations, which would result in unusually large carryover amounts.

Stakeholders emphasized that carryover is a critical incentive for conservation and an essential mechanism for moving away from "use it or lose it" behavior. Many producers noted that the ability to bank unused allocation provides reassurance in the face of climatic uncertainty and encourages experimentation with new crop varieties, technologies, and management practices that often result in additional water savings. From a broader economic perspective, stakeholders also noted the importance of allocation flexibility in supporting Wichita County's agricultural economy, including forage production for confined animal feeding operations that depend on reliable water supplies during critically dry years.

At the same time, the Board of GMD1 recognized carryover suggested by the initial LEMA Plan could complicate long-term management if accumulated allocations substantially exceeded sustainable pumping levels. After extensive discussion, the Board of GMD1 adopted a compromise approach that allows carryover of up to **two years of unused Base WC LEMA allocation** into the Renewal WC LEMA period. This approach preserves a conservation incentive while preventing unlimited accumulation of unused allocation.

Because the amount of carryover affects the total volume of water that could be available during the Renewal WC LEMA period, the Board of GMD1 directed that the Renewal goal and allocation framework be evaluated carefully to ensure consistency with long-term sustainability objectives. That evaluation is documented in Attachment D to the Renewal Plan.

Lastly, the opportunity to have carryover of unused allocation rewards those that used less water during the initial WC LEMA period, as only those who used less than their original WC LEMA allocation have carryover to begin with. It is an earned benefit that the Board of GMD1 felt needed to be recognized. Sociologically, it has been observed that the macro effect of the WC LEMA is significant, however on the micro level many producers find themselves more motivated to save even more, when they know it (*unused carryover*) may be available to them in a very dry year where higher application may be needed to save a crop. The ability to maintain carryover builds trust and is critical to maintaining and furthering conservation in the region. It is significantly evident that producers do not intend to increase pumping but view this banked quantity as an emergency water supply during a very dry crop year and are quite adamant in holding fellow community members accountable.

GMD1 Board Commitment to On-going Evaluation and Adjustments to Maintain Q-Stable

The WC LEMA plan includes a statement of the Board of GMD1's commitment to continued evaluation with the KGS and to revisiting WC LEMA goals, allocations, or carryover provisions if future average pumping exceeds Q-Stable benchmarks. This commitment reflects the Board of GMD1's intent to preserve recent gains and to ensure that the WC LEMA remains an adaptive, locally driven management tool.

The GMD1 works regularly with KGS to assess the effectiveness of the WC LEMA plan, and its direct effect on aquifer water levels. However, it has been noted that more monitoring wells are needed to truly enhance these Q-Stable estimates on a smaller scale. Therefore, the GMD1 is currently working with KGS as well as irrigation engineer Lee Wheeler to identify several new monitoring wells throughout the region. Additionally, Board of GMD1 recently was selected to have an airborne electromagnetic mapping analysis conducted throughout the region, and this data is being used by the KGS to update the GMD1's groundwater model, and to create an interactive Q-Stable monitoring tool that will allow producers to gauge progress within their region, and also incentivizes additional self-monitoring and management to achieve and maintain Q-Stable on a micro level. Programs such as the Irrigation Technology Initiative in partnership with the Kansas Water Office and the Division of Water Resources have been very popular and successful in Wichita County as producers work to address these concepts of long-term sustainability on a well-by-well basis.

If the Board of GMD1, in coordination with KGS were to assess that the progress achieved within the WC LEMA was threatened or regressing in any way, they may consider taking appropriate action to protect the overall intent and integrity of the WC LEMA achieving and maintaining Q-Stable.

Section 5 – Adequacy of the WC LEMA's Corrective Controls to Meet the WC LEMA's Stated Goal

Attachment D to the WC LEMA Renewal Plan provides documentation demonstrating that the Plan's proposed corrective controls are adequate to meet the stated goal for the 2026–2030 Renewal Period, as required by K.S.A. 82a-1041 and implementing regulations. Specifically, the Renewal Plan establishes a goal of limiting non-vested irrigation withdrawals within the WC LEMA boundaries to **252,425 acre-feet over five years**, and Attachment D explains both how that goal was derived and why it is reasonable to expect it will be achieved. The Board of GMD1 is committed to revisiting the controls put forth with annual reviews and KGS monitoring, reinforcing adaptive management rather than fixed regulations.

The following graphic is the basis of the goal statement for the WC LEMA Renewal period, 2026-2030. It was developed during the fall of 2025 after removing vested allocations (*and average use from the 2009-15 historical period average*), using best estimates of anticipated carryover limited to 2-years, and removing allocations and carryover associated with PD/groups with no use during the 2021-24 period

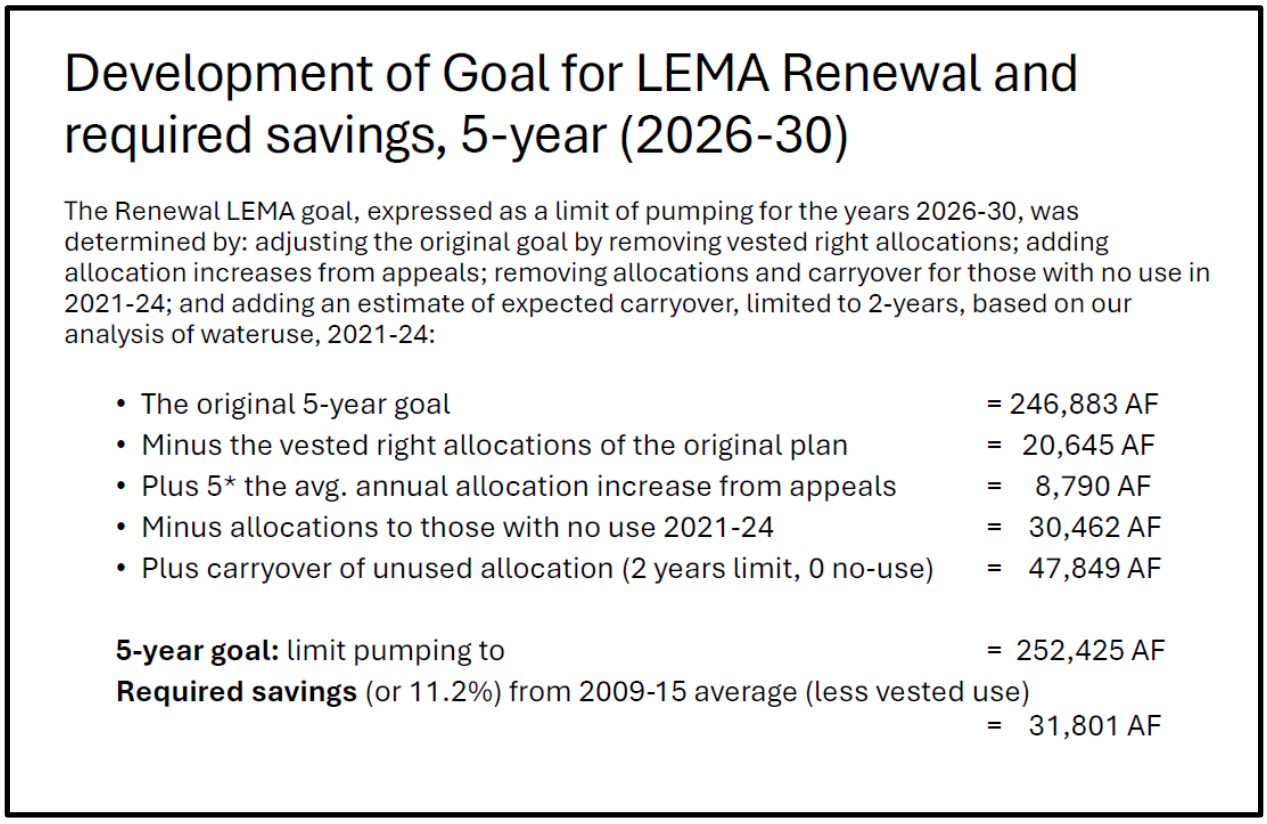

Figure 5 Renewal WC LEMA Goal

The Renewal goal is based on the allocations established under the original 2021–2025 WC LEMA, with targeted adjustments that reflect experience gained during the initial WC LEMA period. These adjustments include removal of vested water rights from the allocation framework, incorporation of allocations granted through appeals, removal of allocations for points of diversion with no use during 2021–2024, and allowance for limited carryover of unused allocations from the initial WC LEMA period. These adjustments are necessary and appropriate to update the Renewal WC LEMA goal to reflect the reality of vested rights non-participation, appeals grants, non-use by water rights which appear to no longer support irrigation use, and to incentive continued conservation by granted limited carryover of unused allocations to the next period.

Attachment D identifies two principal sources of uncertainty that could affect achievement of the Renewal goal:
(1) variability in final carryover amounts from the initial WC LEMA period, and
(2) additional allocations that may be granted through appeals during the Renewal Period.

With respect to carryover, Attachment D shows that even under relatively wet conditions, when pumping is lowest and carryover is therefore maximized, the potential increase in carryover represents a very small fraction of the overall Renewal goal. Using recent KGS (KGS) data relating irrigation use to irrigation-season precipitation, the analysis demonstrates that a wet year comparable to recent conditions would increase total carryover by approximately **3,200 acre-feet**, or roughly **1.3 percent** of the Renewal goal. Drier years would result in less carryover and therefore reduce, rather than increase, pressure on the goal.

With respect to appeals, Attachment D explains that the categories of appeals allowed under the Renewal Plan are narrow and are expected to result in limited additional allocations. Based on experience from the initial WC LEMA period, total additional allocations from appeals are expected to be well below those granted previously and to represent only a small percentage of the total Renewal goal.

Importantly, Attachment D also identifies several counterbalancing influences that strongly support the conclusion that actual pumping will remain **below** allocated amounts. These include the well-documented tendency for water right holders to pump less than their full allocations, continued participation by many in the Wichita County Water Conservation Area with their demonstrated use below WC LEMA allocations, and clear evidence of a sustained shift in pumping behavior since 2017. KGS data show that, for comparable precipitation conditions, irrigation pumping since implementation of conservation measures has been substantially lower than during the historic comparison period, with recent average pumping levels near or below KGS estimates of Q-Stable.

Taken together, the analysis in Attachment D demonstrates that the expected non-vested irrigation pumping during the WC LEMA renewal period can reasonably be expected to be below the WC LEMA renewal goal and thus the Renewal WC LEMA's corrective controls are sufficient to achieve the stated goal for the 2026–2030 period and to maintain recent progress toward stabilized groundwater levels in Wichita County.

Section 6 – Conclusion: Why the Proposed WC LEMA Renewal Should be Approved

The WC LEMA was established in response to long-standing groundwater-level declines caused by withdrawals that exceeded sustainable levels within the Ogallala Aquifer. Those conditions have not disappeared. While recent trends in water level declines show substantial improvement, continued management is necessary to preserve progress and to prevent a return to unsustainable pumping.

The record developed via the WC LEMA's annual reviews and the extensive public engagement and evaluation over the year 2 years demonstrates that the WC LEMA has performed as intended. Groundwater use has declined substantially relative to historic levels, recent pumping has been at or near KGS estimates of Q-stable, and average groundwater-level declines have slowed markedly over the past decade. These outcomes reflect both the direct effect of WC LEMA corrective controls and broader changes in pumping behavior supported by local conservation efforts.

The Renewal WC LEMA Plan builds on this demonstrated performance. The proposed adjustments are targeted refinements informed by four years of implementation experience, updated technical analysis, and extensive meaningful public input. The Board of GMD1 carefully evaluated how to preserve incentives for conservation, maintain flexibility for producers, and ensure that the WC LEMA's overall goal remains clear, enforceable, and consistent with long-term sustainability objectives for economic and community longevity.

Importantly, detailed evaluation of individual water right group performance shows that approximately 30 percent of PD/groups remain actively constrained by WC LEMA allocations. These constraints are a necessary component of maintaining countywide pumping levels near Q-stable and would be lost if the WC LEMA were discontinued.

The Renewal WC LEMA Plan also includes explicit provisions whereby the Board of GMD1 will continue its regular evaluation and engagement with stakeholders specifically on whether pumping continues at or near levels to stabilize water levels and a commitment by the Board of

GMD1 to revisit allocations or other corrective controls if future pumping exceeds Q-stable benchmarks.

The analysis documented in Attachment D demonstrates that the Renewal WC LEMA's corrective controls are adequate to achieve the stated goal for the 2026–2030 period. While some uncertainty is inherent in projecting future use, the identified uncertainties are modest and are substantially outweighed by counterbalancing influences, including a continued cultural shift towards conservation, preservation of local management, limited pumping capacity in many areas, participation in complementary management programs/initiatives, and the presence of binding allocation limits for a meaningful subset of water right holders.

Despite the fact that Renewal Allocations are 2.4% greater than the initial allocations and that allocations are greater than recent use, if the WC LEMA and its corrective controls remain, it is reasonable to assume water use will not increase under the Renewal WC LEMA. Given the observed pumping behavior, cultural shift as well as the stakeholders' commitment to carefully monitor use in conjunction with available tools and resources through KGS and the WKGMD1, it is expected that the WC LEMA as proposed will continue to build upon the achievements of the first WC LEMA period.

The Renewal LEMA reflects a locally driven, adaptive management approach that is consistent with Kansas law and the public interest. It preserves recent gains from locally driven conservation, maintains accountability, and provides a practical framework for continued progress toward stabilizing groundwater levels. The Board of GMD1's decision reflects both stakeholder input, its statutory responsibility to ensure long-term sustainability, and the trust forged between the Board of GMD1 and Wichita County stakeholders.

For these reasons, GMD1 respectfully requests that the Chief Engineer approve the WC LEMA Renewal Plan as submitted.

Section 7 – References & Appendices

References

- Brownie Wilson, Kansas Geological Survey
- GMD1 testimony at Initial WC LEMA Hearing titled; “WRITTEN TESTIMONY OF THE WESTERN KANSAS GROUNDWATER MANAGEMENT DISTRICT #1; To Hearing Officer Christopher W. Beightel, Division of Water Resources, Kansas Department of Agriculture; For the Hearing Scheduled August 14,2020; Submitted by: Kyle Spencer
- GMD1 testimony the Second WC LEMA Hearing titled: “WRITTEN TESTIMONY OF THE WESTERN KANSAS GROUNDWATER MANAGEMENT DISTRICT #1; To Hearing Officer Earl D. Lewis, Jr., Division of Water Resources, Kansas Department of Agriculture; For the Second WC LEMA Hearing, Scheduled November 20, 2020; Submitted by: Kyle Spencer, Manager
  - Kansas Statutes Annotated 82a-1041 and 82a-1036
  - Kansas Administrative Regulations Agency 5, Article 19

Appendices

- WC LEMA Reviews
- Public Outreach Meeting Materials & Stakeholder Surveys
- WC LEMA Development Materials