

**Before the Kansas Department of Agriculture
Division of Water Resources**

In the Matter of the Designation of the)
Groundwater Management District)
No. 4 District-Wide Local Enhanced)
Management Area in Cheyenne,)
Decatur, Rawlins, Gove, Graham,)
Logan, Sheridan, Sherman, Thomas,)
and Wallace Counties in Kansas)
)
Pursuant to K.S.A. 82a-1041)
_____)

Case No. 002-DWR-LEMA-2017

**Memorandum in Support of the Chief Engineer Approving the Groundwater Management
District No. 4’s Proposal as requested to be Modified and Designating a Local Enhanced
Management Area**

The Groundwater Management District No. 4, through its counsel, Adam C. Dees submits this Memorandum in Support of the Chief Engineer Approving the Northwest Kansas Groundwater Management District No. 4’s (GMD 4) Proposal (Proposal) as requested to be Modified and Designating a Local Enhanced Management Area (LEMA).

1. Introduction

In 2015 the GMD 4, at its board meetings and with the public, began discussing a LEMA that would regulate groundwater use throughout the GMD 4. This culminated in the GMD 4 requesting the Chief Engineer review and approve a Proposed LEMA. In support of that request, this Memorandum in Support describes the background of the Kansas Water Appropriation Act (KWAA), the Groundwater Management District Act (GMDA), and the Local Enhanced Management Area Act (LEMAA). Then, it describes the process the Chief Engineer uses to review and adopt LEMAs as well as the factual findings the Chief Engineer, or his delegates, needs to make after an initial hearing to implement a LEMA.

Because the Initial Hearing Officer in this matter, Constance C. Owen, made the factual findings necessary for this LEMA, this Memorandum in Support outlines Ms. Owen’s findings. Next, this Memorandum reiterates the LEMA Goal Statement and shows how, based on the oral and written testimony provided, the LEMA reaches the goal statement through its corrective controls. Ultimately, this Memorandum shows why the Chief Engineer should adopt the proposal.

2. Arguments and Authorities

2.1. Background of the KWAA, GMDA, and LEMAA.

In the 1945 the Kansas Legislature, through the Kansas Water Appropriation Act (KWAA), K.S.A. 82a-701 *et seq.*, dedicated the water within the State of Kansas to the use of the people, subject to the control and regulation of the state. K.S.A. 82a-701; K.S.A. 82a-702; *Nelson v. State Dept. of*

Agriculture, 44 Kan. Ap2d 1042, 1047 (2010) citing *Frick Farm Properties v. Kansas Dept. of Agriculture*, 289 Kan. 690, 697 (2009). Then in 1972, the Kansas Legislature recognized it was in the public's interest to create:

“special districts for the proper management of the groundwater resources of the state; for the conservation of groundwater resources; for the prevention of economic deterioration; for associated endeavors within the state of Kansas through the stabilization of agriculture; and to secure for Kansas the benefit of its fertile soils and favorable location with respect to national and world markets.” K.S.A. 82a-1020.

To that end, Kansas created the Groundwater Management District Act (GMDA), K.S.A. 82a-1020 *et seq.* and Groundwater Management Districts (GMD or GMDs).

A Groundwater Management District is formed by steering committee. K.S.A. 82a-1022. The steering committee begins creating a district after filing an intent to form signed by 15 eligible voters within the proposed GMD with the Chief Engineer. Then, the steering committee submits a petition with at least 50 names of eligible voters of the proposed GMD to the Chief Engineer. When the steering committee submits the petition, it also submits a map of the proposed GMD. K.S.A. 82a-1022 & 1023.

On December 19, 1974, after a series of informal meetings were held in the GMD 4 area to sense the will of the people relative to forming a GMD, a steering committee filed a declaration of intent and a map of the proposed district boundaries with Kansas' Chief Engineer. After further discussions between the steering committee, the Division of Water Resources, and the Chief Engineer, the Chief Engineer certified a final description of the district boundaries. It is these boundaries that the Chief Engineer certified in 1979 that are now being used as the boundaries for the proposed LEMA.

In 1975, the water users voted in favor of creating GMD 4. On May 24, 1976, the initial meeting was held in Colby, Kansas. 11 positions were opened for election and all the positions were filled. GMD 4 was established.

Then, in 2012, the Kansas Legislature created the Local Enhanced Management Area Act (LEMAA), K.S.A. 82a-1041 *et seq.* and Local Enhanced Management Areas and gave the GMD boards of directors the opportunity to propose plans to address groundwater declines and other conditions of concern. The LEMA created by a GMD Board of Directors must include specific goals and corrective control provisions sufficient to address groundwater declines and other conditions of concerns. A LEMA must also be consistent with state law. A LEMA is a creature of statute that engages both the KWAA and the GMDA. It must comport with the public interest, a term that figures prominently in both the KWAA and the GMDA, because the Chief Engineer has the statutory duty to regulate the distribution of the state's water resources for the benefit of all of its inhabitants according to the law. K.S.A. 82a-1041(b)(2); K.S.A. 82a-706; K.S.A. 82a-702; K.S.A. 82a-1020.

LEMAs are similar, yet distinct from, other management plans (e.g. Water Conservation Areas (WCAs), Intensive Groundwater Control Use Areas (IGUCAs), Multi-year flex accounts

(MYFAs, etc.) allowed under the KWAA and the GMDA. LEMAs, while borrowing parts of the Intensive Groundwater Control Use Area (IGUCA) statutes, K.S.A. 82a-1036 through 82a-1038, are distinct from IGUCAs because LEMAs must be proposed by a GMD Board of Directors to allow for local autonomy of the management plan. IGUCAs are imposed by the Chief Engineer after the Chief Engineer makes specific findings of fact. LEMAs are also separate from Water Conservation Areas (WCA), K.S.A. 82a-745 in that WCAs can be created by a single owner of a water right or a group of water right owners in a designated area and need not be proposed by a GMD Board of Directors or the Chief Engineer. *See* K.S.A. 82a-745. Under the LEMA statute, the GMDs have a similar opportunity as the Chief Engineer and water users to create a management plan for a specific period of time.

2.2. The Process to Create a LEMA

K.S.A. 82a-1041 describes the process the GMDs and the Chief Engineer must go through to create, control, and regulate groundwater use under a LEMA; the hydrological and policy conditions required to implement a LEMA; the ability of the Chief Engineer, and those he delegates his authority to, to monitor and enforce those corrective controls; and how the Chief Engineer, with the assistance of a GMD, can review and modify the LEMA in the future. In this manner, K.S.A. 82a-1041 combines local GMD control with the Chief Engineer's powers to approve and enforce the plan.

The LEMA statute proscribes a multi-stage process. The process begins by a GMD preparing and submitting a proposal or request for a LEMA. A GMD proposes a LEMA to the Chief Engineer to sufficiently address water level declines, conserve water, and potentially add flexibility in using water during the LEMA period. Then, the proposal goes through an initial hearing and final hearing before the Chief Engineer approves, rejects, or modifies and returns the proposed LEMA to the GMD with suggested changes. *See* K.S.A. 82a-1041. If the Chief Engineer modifies the proposed LEMA and returns it to the GMD for review, then the GMD Board may accept or reject the modified proposal.

Throughout this process, the Kansas Legislature determined how to protect the public's right to be heard during this process. The Kansas Legislature protected that right by requiring notice of the initial and final hearings be published in a paper of general circulation within the GMD and that all the water right holders be sent personal notice of the initial and final hearings at least 30 days before the hearing. K.S.A. 82a-1041(b)(3). The Legislature required the written notice state the time, place, and issues to be heard and determined at those hearings. K.S.A. 82a-1041(b)(3). In this manner, the Kansas Legislature protected the public's right to be heard.

Again, after the GMD submits a proposed LEMA, then the Chief Engineer begins the first stage—an initial review by the Chief Engineer. In the initial review, the Chief Engineer examines the LEMA proposal for the criteria listed in K.S.A. 82a-1041(a). The criteria include whether the LEMA:

1. contains clear geographic boundaries;
2. pertains to an area wholly within a groundwater management district;
3. proposes appropriate goals and corrective control provisions to meet the stated goals;

4. gives due consideration to existing conservation measures;
5. includes a compliance monitoring and enforcement element; and
6. is consistent with state law. *See* K.S.A. 82a-1041(a)(1)-(6).

If the Chief Engineer finds the criteria of the initial review are met, then he accepts the proposal for further review and begins the second stage—he holds an initial public hearing to determine if three specific factual matters are satisfied. K.S.A. 82a-1041(b). The three specific facts include:

1. whether one or more of the circumstances specified in K.S.A. 82a-1036(a)-(d), and amendments thereto, exist;
2. whether the public interest of K.S.A. 82a-1020,¹ and amendments thereto, requires that one or more corrective control provisions be adopted; and
3. whether the geographic boundaries are reasonable.

The hydrological circumstances specified to create a LEMA can be found in the IGUCA statute subsection (a) through (d) of K.S.A. 82a-1036, which include:

- (a) groundwater levels in the area in question are declining or have declined excessively;
- (b) the rate of withdrawal of groundwater within the area in question equals or exceeds the rate of recharge;
- (c) preventable waste of water is occurring or may occur within the area; and
- (d) unreasonable deterioration of the quality of water is occurring or may occur.

If the initial public hearing officer finds those three facts described in K.S.A. 82a-1041(b) are present, then the matter proceeds to the third stage—a final hearing on the merits of implementing the proposal. K.S.A. 82a-1041(b)(3), (c). Within 120 days after the final hearing, the Chief Engineer must issue an Order of Decision (an intermediary step). K.S.A. 82a-1041(d). In the Order of Decision, the Chief Engineer may approve the final plan, reject the final plan, return the plan giving reasons for the return and providing the groundwater management district (GMD) an opportunity to resubmit a revised plan for public hearing, or return the plan to the GMD proposing modifications of the plan based on the testimony at the hearing or hearings, that will improve the administration of the plan but will not impose reductions in groundwater withdrawals that exceed those contained in the plan. K.S.A. 82a-1041(d)(1)-(4). The Order of Decision notifies water users of the creation of the LEMA but does not attach to the water rights; it merely sets the stage for the Order of Designation.

If the Chief Engineer issues an Order of Decision approving the plan, or the Chief Engineer approves the plan with modifications and the GMD accepts those modifications, then the Chief Engineer completes the fourth and final stage of the proceedings—he issues an Order of Designation defining the boundaries of the LEMA, indicating the circumstances allowing for the implementation of the LEMA, and adopting corrective control provisions. K.S.A. 82a-1041(f). In issuing the Order of Designation, the Chief Engineer may adopt one or all of the following corrective control provisions as proposed by the GMD:

¹ The LEMA statute borrows the definition of “public interests” from K.S.A. 82a-1020.

1. Close the LEMA to further appropriation;
2. Determine the permissible total withdrawal of groundwater in the LEMA each day, month, or year, and apportion such permissible total withdrawal among the valid groundwater right holders in such area in accordance with the relative dates of priority of such rights;
3. Reduce the permissible total withdrawal of groundwater by any one or more appropriators thereof, or by wells in the LEMA;
4. Require and specify a system of rotation of groundwater use in the LEMA; *or*
5. Any other provisions making such additional requirements are necessary to protect the public interest. K.S.A. 82a-1041(f)(1)-(5).

The Order of Designation is “final agency action” as defined by K.S.A. 77-607(b)(2). The Kansas Administrative Procedures Act (KAPA) defines an order as a “state agency action of particular applicability that determines the legal rights, duties, privileges, immunities, or other legal interest of one or more specific persons.” K.S.A. 77-502(d). Only the Order of Designation specifically defines the legal rights, duties, privileges, immunities, or other legal interests of one or more specific persons (i.e. the DWR, the GMDs, and the water users) and is the final agency action in this matter.

And yet the Chief Engineer retains jurisdiction over the LEMA after the Order of Designation. An agency has the authority to retain jurisdiction when there is specific authority allowing that retention of jurisdiction. *Clawson v. State Dept. of Agriculture, Div. of Water Res.*, 49 Kan.Ap2d 789, 800-01, 315 896 (2013). The KWAA or GMDA act must grant the Chief Engineer the authority to retain jurisdiction. *Clawson*, at 801-02. Under K.S.A. 82a-1041(j) the Chief Engineer is able retain jurisdiction to review the LEMA if requested to do so by water users or on his own accord. A review must happen within seven years after the Order of Designation is final and a subsequent review at least every 10 years. K.S.A. 82a-1041(j). The public can also request a review, but a public requested review cannot be conducted more than every four years. K.S.A. 89a-1041(j). When the Chief Engineer approves a LEMA through this process, then the LEMA regulates the use of water within its boundaries during its existence.

2.3. Initial GMD 4 LEMA Discussions, Notice to the Public, and Public Input in this case.

In this case, the GMD 4 gave the public multiple opportunities to weigh in on the Proposal before beginning the LEMA approval process. Before requesting the Chief Engineer review the plan and initiate the two hearing process, the GMD 4 held eight public meetings and multiple board of director meetings where the LEMA was discussed. Below are excerpts from the GMD 4 Board of Directors’ meetings, the GMD 4 Annual meeting, and special public meetings about the Proposal. These excerpts do not include all of the GMD 4 Board meetings where the LEMA was discussed but summarize those LEMA discussions. These excerpts highlight the opportunities the public to receive information and the length of time the GMD 4 Board spend discussing this matter. For all of the GMD 4 Board meetings’ minutes that pertain to this matter, please see Kenyon Aff., Timeline of LEMA Public Meetings, Board Meetings, and Notices.

2.3.1. January 13, 2015: Goal statement was adopted by the Board of Directors.

From the minutes:

“Ray Luhman presented a goal statement to the Board of Directors for consideration. There was discussion on the time frame for the goal and if it can be achieved by 2016 and if the goal should state 2017 instead. There was more discussion on the “clearly defined areas” being either by specific water right, section, township or some other type of unit.

Goal Statement:

“By 2016, the GMD 4 Board will have in place a system that establishes “conservation water use amounts” for all of GMD 4. This system will include clearly defined areas and triggers under which current pumpage levels will be required to be reduced in order to come into compliance with these established conservation water use amounts. This system will be established by **BOARD ACTION** and will be included in the GMD 4 Management Program. The system will replace the current high priority area protocol, but will continue to ensure that any needed controls are based on hydrologic and water use parameters. If possible, flexibility shall be afforded so that various allocation alternatives are available for use in any given area. “

Roger Zweygardt moved the goal should be adopted. The motion was seconded by Monty Biggs and passed unanimously by voice vote (no abstentions or “nay” votes).

Roger also requested the goal statement be reported on at the annual meeting.”

2.3.2. February 11, 2015: Goal statement presented to the public at Annual Meeting.

2.3.3. May 7, 2015: May Monthly Board Meeting

From the minutes:

“Board Members submitted a set of questions mailed to them with the Board packets. A discussion began on saving the areas that are problematic and even conservation in areas that are not. Questions were asked on the WCA (Water Conservation Area) currently in legislation. As proposed, it would require 100% participation within an area and would need GMD recommendation.

Ray Luhman then proposed an idea for the sake of discussion whereby, in townships with at least 1% decline per year of some base year, a determination would be made to reduce pumping by 20% based on previous pumping history

derived from a recent set of annual water use reports. The 80% remaining average pumped would then be divided by the max acres reported during the base years to determine the conservation inches per acre. Individual inches per acre for each year of the base period would also be determined for each point of diversion. Each individual well would receive their maximum pumped inches per acre or the calculated inches per acre whichever is less. After this step the remaining conservation acre feet would be divided by the remaining acreage to determine the final conservation inches per acre. Vested rights would not participate. Non irrigation rights would be required to reduce using a calculation of the percentage of total pumped by non-irrigation times 20%. MYFA-like term permits could be made available to allow the annual use in excess of the appropriated right provided the conservation amounts for the period were not exceeded. The Board further discussed the possibility that areas with more than 1% and less than 2% decline might have 10% reductions while areas with declines greater than 2% decline would be required to reduce by 20%. It was suggested that staff create some hypothetical and/or non-identified scenarios for the Board to review. “

2.3.4. June 11, 2015: June Monthly Board Meeting

From the minutes:

“Prior to the board meeting, members were mailed a set of maps showing the townships and sections with a greater than 1% average annual decline using data from 2009-2013. Based on the methodology presented at the May board meeting, three townships were randomly chosen to show how each point of diversion within those example townships would be affected in the amount of inches they would be reduced. Data showing water table elevations for previous years was requested, but was stressed using the 2009-2013 data for reported water use needed to remain no earlier than that. The district was not completely metered until 2009 so errors in reporting with hours and rate could skew data.

Discussion was also had on why some areas in the HPA were not triggered. Those areas have more saturated thickness, but as the water table lowers in those townships, they will eventually be triggered.

A suggestion was made that everyone needed to be reduced by 5%, but another suggestion made to only those in the 1% triggered areas should be reduced by 5%. The idea of taking 5% reduction of the entire township then divvy up the remaining 95%. Others thought that a greater reduction should be made. It was agreed that pumping 24 inches should not be allowed and applying the TH-05 proposal would eliminate that. It was also mentioned that any township in excess of safe yield be reduced by at least 5%.

Townships that are triggered should be reviewed every 3-5 years to see if improvements have been made. Those townships that have not been triggered should be reviewed annually.”

2.3.5. July 9, 2015: July Monthly Board Meeting

From the minutes:

“Board members were given questions to consider for discussion prior to the meeting consisting of potential plan components. Discussion was started with going through the questions. Not all questions were discussed, but good ideas came from the ones that were.

Using the 1% average annual decline as a trigger is well received by most members. Concern still exists with boundaries. Using townships as the area of focus for triggers is also well received, but more data on breaking that down into half and quarter townships is desired.

The years of data for water table elevations was discussed. It was agreed that the more years of data to use, the better. Using the updated water table elevations for 2004 through 2013 would be the best data set to use.

The question of what years to use in computing historical average inches per acres was also discussed. Ray Luhman showed the board a spreadsheet showing the various outcomes for each scenario. Members expressed the need for more information with comparisons. In discussing the number of acres to be used, the process used in the SD-6 LEMA was thought to work well.

Transfers of water were mentioned in the conversation. Some mixed feelings exist, but board members agreed that if transfers were allowed, they could only be within the area of consideration for a trigger. Water could not be transferred from a township, or other designated area, that was not triggered into an area that is.”

2.3.6. August 13, 2015: August Monthly Board Meeting

From the minutes:

“Board members were given a document with questions prior to the July meeting. Not all questions had been reviewed at the July meeting so the Board continued to work through the remaining questions.

Discussion was started with the question of what should be the maximum inches per acre allowed. Several Board members like the idea of using either the 50% or 80% Net Irrigation Requirements as the data is science based. The NIR data is old and it was thought that it should be updated. Other Board members like using the “olympic average” where the low and high average water use is discarded then averaged. Data to show the difference was requested and to continue the discussion with the comparison data.

Non-irrigation water use was reviewed in relation to reductions. It was agreed that they should be required to take some reduction.

In relation to the areas with less than 1% average annual decline, it was discussed that a maximum quantity should be set, but not necessarily a reduction. It is not the intent to reduce those that are already conserving and utilizing best management practices. In these areas, the water table data should be reviewed every year to determine if the decline has become greater than 1%. In the areas with greater than 1% average annual decline, the water table elevations should be reviewed every five years to determine if reductions should still be implemented.

Other items discussed were if the reductions should be aggressive or progressive and if flexibility, such as umbrella accounts, should be allowed. Most Board members thought the progressive approach to reductions would be best and that it was the umbrella accounts that sold the SD6 LEMA and that some flexibility should be considered.

Lastly, the discussion of if there should be a maximum number of inches per acre a water right can be reduced. Most agreed there should not be a limit to the amount of reduction.”

2.3.7. September 3, 2015: September Monthly Board Meeting

From the minutes:

“An email was forwarded to the board from Brownie Wilson and Jim Butler of KGS regarding the size of individual management units. Jim advised that using sub-township level was risky. Justin Sloan feels the areas should be much smaller than even the sub-township level.

Lynn Goossen mentioned a map of Nebraska that has their areas (NRD’s) with triggers labeled. Bert Stramel was able to obtain the map for copies to the board. The map shows the areas much larger than the township level and some with triggers.

Other discussion was had on the legal standpoint. Jeff Mason advised the board that we have to have a rational reason for a reduction. Something is needed as a trigger. The idea of using the 1% average annual decline as a trigger was favored.

Looking at the data presented from previous meetings and looking at the NIR data given in the packets, the idea of reducing everybody to the calculated 100% NIR for corn for the respective counties, the areas with 0-1% average annual decline be reduced to the 80% NIR and any areas above 1% be reduced to the 50% chance rainfall was liked as it kept the methodology simple for understanding. Board asked to see the average inches per acre by county for previous years as well as several township examples.”

2.3.8. December 16, 2015: December Monthly Board Meeting

From the minutes:

“Discussion was had on the data using the proposed NIR idea at the November meeting. This plan seemed to be favored and suggested to be framework for a district wide LEMA.

Further discussion was had on potential flexibility, carrying water over from a five year plan, what about municipalities and stock water users and the legal process of developing the LEMA.

Mitchell Baalman moved the district should start preliminary discussions with DWR/KDA on a GMD 4 district-wide LEMA. The motion was seconded by Scott Maurath and passed unanimously by voice vote (no abstentions or “nay” votes). “

2.3.9. February 10, 2016: First proposal presented at Annual Meeting in Hoxie.

From the minutes:

“Brent Rogers then presented the proposed district wide LEMA. He gave an overview of the framework and answered several questions concerning the flexibility.”

2.3.10. March 9, 2016: March Monthly Board Meeting

From the minutes:

“Ray Luhman presented a chart and graphs showing the historical pumping, by county, indicating the water savings for the proposed program. The chart and graphs also showed water savings for the idea of more water saved if a water right was further restricted to the maximum inches per acre pumped from 2009 through 2013. Lengthy discussion was had on how the plan saved water and if further restrictions needed to be made.

The Board then went through the results from the homework to decide on details. Votes were taken for each of the following:

- Should municipalities be reduced? 9 in favor, 2 against
- Should stock water be reduced? 6 in favor, 5 against
- All were in favor of taking the recreation and industrial water rights on a case-by-case basis.
- What acres should be considered? All agreed the maximum acres reported from 2009-2013 should be considered.
- Flexibility should be included within a 16 mile radius, but water cannot be moved from a township with a lower decline rate to a higher decline rate.
- All were in favor of allowing a carry-over amount.

- Alternative metering rules should mimic SD-6.
- Violations were discussed. DWR is trying to increase their fines for overpumping. It was suggested we go with those, but meter tampering should be a two year suspension.”

2.3.11. March 23, 2016: First proposal public meeting in Hoxie.

2.3.12. March 24, 2016: First proposal public meeting in Colby

2.3.13. March 25, 2016: First proposal public meeting in St. Francis

2.3.14. March 30, 2016: First proposal public meeting in Goodland.

2.3.15. August 4, 2016: August Monthly Board Meeting

From the minutes:

“Board members were given the latest revisions to the district-wide LEMA proposal. The plan proposes areas between 0.5% and 1% average annual declines be put on an 18 inch maximum, areas between 1% and 2% use the 80% chance rainfall NIR for their zone and any area above 2% use the 50% NIR for their zone. Nobody in an area above 0.5% would be allowed to pump in excess of 18” or be reduced by more than 25%. Data would be periodically reviewed and allocated amounts adjusted accordingly. The plan would offer no flexibility and would have a five year allocation. If flexibility is desired, a producer would need to enroll in a WCA.

Mitchell Baalman moved to send the plan to KDA for input. The motion was seconded by Scott Maurath and passed unanimously by voice vote (no abstentions or “nay” votes).”

2.3.16. September 1, 2016: September Monthly Board Meeting

From the minutes:

“After much discussion on the current proposed plan, the board requested a month to discuss with producers in their areas before taking it to public meetings. If the board decides to take it to the public, letters would be sent to all water use correspondents with notification of the meetings.”

2.3.17. October 6, 2016: October Monthly Board Meeting

From the minutes:

“Ray Luhman made a few suggestions on possibly tweaking the current proposed LEMA. Discussion was had that led the board to go with what they had.

Mitchell Baalman moved that GMD 4 take the current plan and map to the public. The motion was seconded by Roger Zwegardt and passed unanimously by voice vote (no abstentions or “nay” votes).

Discussion was then had on when to do the meetings and letters that would be mailed to Water Use Correspondents. It was suggested to wait till after Thanksgiving and GMD 4 staff could choose those dates without approval from the board.”

2.3.18. November 3, 2016: November Monthly Board Meeting

From the minutes:

“Ray Luhman presented the board with the memo that is planned to be mailed to all water use correspondents. Suggested changes to the font were made before printing and mailing.

It was suggested that a presentation be made about how the zones and colors were created so the public knows the strategy for formulation of those areas.

Ray Luhman also mentioned that he was working with DWR in determining the areas of alluvium as they possibly would not be affected by the District-Wide LEMA.

2.3.19. November 4th, 2016: Memorandum with map and details were mailed to water use correspondents.

2.3.20. November 29, 2016: Second proposal public meeting in Colby. Memorandum with map and details were provided to those attending the public meeting.

2.3.21. November 30, 2016: Second proposal public meeting in Goodland. Memorandum with map and details were provided to those attending the public meeting.

2.3.22. December 1, 2016: Second proposal public meeting in St. Francis. Memorandum with map and details were provided to those attending the public meeting.

2.3.23. December 5, 2016: Second proposal public meeting in Hoxie. Memorandum with map and details were provided to those attending the public meeting.

2.3.24. December 7, 2016: December Monthly Board Meeting

From the minutes:

“At each of the meetings questions and comments were taken and given to the board of directors for review. After review of those questions and comments several items were discussed with the use of diary restrictions, potential reductions in five years, carry-over amount, and the need for a goal. The board formulated this goal:

To raise awareness of the amount of water used annually district-wide with a goal not to exceed 1.67 million acre-feet of water from irrigation over five years within townships declining 0.5% or greater.

Lynn Goossen moved to adopt this goal. The motion was seconded by Dave Rietcheck and passed unanimously by voice vote (no abstentions or “nay” votes).

Additional discussion was had on the term of this LEMA. Several ideas were discussion from only a five year LEMA to a permanent LEMA.

Dave Rietcheck moved to propose the LEMA for five years. The motion was seconded by Lynn Goossen and passed with seven votes for and one against by Scott Maurath.

2.3.25. February 1, 2017: LEMA Discussion at Annual Meeting

From the draft minutes (not yet approved):

“As ballots were being tallied Brent Rogers discussed several items of interest printed in the meeting packet. Discussion was also had about the proposed District Wide LEMA with several questions asked and comments made.”

2.3.26. April 6, 2017: April Monthly Board Meeting

From the minutes:

Ray Luhman explained the new map included in the packet. He removed the areas with 15 feet or less of saturated thickness and it triggered some townships to turn a different color.

Shane Mann moved to adopt the new map. The motion was seconded by Mitchell Baalman and passed unanimously by voice vote (no “nay” votes).

Ray Luhman then distributed language for the proposed DW LEMA request that outlined penalties for meter tampering.

Scott Maurath moved to adopt the new map. The motion was seconded by Monty Biggs and passed unanimously by voice vote (no “nay” votes).

Other discussion was had on the data used. Several ideas were presented to increase observation wells. Other changes to the proposal were highlighted and individually discussed.

Scott Maurath moved to approve the proposed DWR LEMA request with discussed changes. The motion was seconded by Shane Mann and passed unanimously by voice vote (no “nay” votes).

Monty Biggs moved to submit the DWR LEMA request to the Chief Engineer. The motion was seconded by Mitchell Baalman and passed with one opposed vote from Justin Sloan.”

2.3.27. June 8, 2017: June Monthly Board Meeting

From the minutes:

“After much conversation with DWR, multiple revisions to the Proposed District-Wide LEMA were made. A copy of that document with the changes highlighted were distributed among the board members. Discussion was had on those changes and how the hearings would be handled.

Mitchell Baalman moved the Proposed District-Wide LEMA be resubmitted with changes. The motion was seconded by Jeff Deeds and passed unanimously by voice vote (no “nay” votes).”

2.3.28. June 9, 2017: Official proposal to DWR.

2.3.29. July 12, 2017: July Monthly Board Meeting

From the minutes:

“A letter from David Barfield was received by GMD 4. The letter accepts the District-Wide LEMA proposal and sets the first hearing for August 23rd, 9 am at the Cultural Arts Center. Notification of the hearing will be mailed out to all landowners later this week. Discussion was had on having the hearing advertised on the website as well as a postcard being mailed a couple of weeks prior to the hearing.”

2.3.30. August 23, 2017: Initial LEMA Hearing

2.3.31. November 14, 2017: Final LEMA Hearing

2.4. Submission of Proposal and Chief Engineer Review Under K.S.A. 82a-1041(a)

As described above, in 2015 the GMD 4 Board of Directors began discussing a LEMA. In March of 2016, the GMD 4 held four public meetings. From March of 2016 to November of 2016, the GMD 4 contemplated the input it received at the March 2016 public meetings. In November of 2016, the GMD 4 held four more public meetings and distributed a memorandum and a map to the

public before, during, and after those public meetings. *See* Kenyon Aff., Ex. 41 and 42. The GMD 4 Board took the input from the public and continued the discussion through April of 2017.

On April 10, 2017, the GMD 4 Board of Directors submitted a LEMA proposal. *See* GMD 4 Minutes from the April 2017 Monthly Board Meeting, April 6, 2017, Kenyon Aff. para. 71. The Chief Engineer returned the proposal with suggestions. On June 8, 2017, the GMD 4 Board of Directors amended the proposal and unanimously voted to re-submit the request. *See* GMD 4 Minutes from the June 2017 Monthly Board Meeting, June 8, 2017, Kenyon Aff. para. 75.

On June 9, 2017, the GMD 4 submitted the Proposed LEMA (Proposal) to the Chief Engineer. The submission of the Proposal initiated the first stage of the multi-stage process to approve a LEMA.

In a letter dated June 27, 2017, the Chief Engineer informed Ray Luhman, Manager of GMD 4 that the Proposal met the requirements of K.S.A. 82a-1041(a). David Barfield, Letter to Ray Luhman, Manager NW Kansas Groundwater Management District #4, RE: GMD 4 District-Wide LEMA Proposal of June 8, 2017, June 27, 2017. The letter also stated the Chief Engineer designated Constance C. Owen as the hearing officer of the initial hearing to determine if the facts outlined in K.S.A. 82a-1041(b)(1)-(3) existed. This completed the first state of approving the LEMA.

2.5. The Initial Hearing and Initial Findings of Fact

On about July 12, 2017, the Kansas Department of Agriculture (KDA) Division of Water Resources (DWR) gave notice of the Initial Hearing as required by K.S.A. 82a-1041(b)(3) to allow the public to be heard. Ms. Owen held the Initial Hearing on August 23, 2017. Ms. Owen took oral testimony at the Initial Hearing and allowed written testimony to be submitted about the issues heard at the Initial Hearing until September 13, 2017. Initial Hr'g Tr. 4:17-25. From that hearing, Ms. Owen found that notice of the Initial Hearing was given as required by K.S.A. 82a-1041(b)(3).

After reviewing the testimony (discussed below), Ms. Owens found that all three requirements of K.S.A. 82a-1041(a) were met and that the Proposal should move to the next stage of the LEMA process. Ms. Owen specifically found that:

1. One or more of the conditions found in K.S.A. 82a-1036(a)-(d) exist;
2. It was in the public interest as described in K.S.A. 82a-1020 to require one or more corrective control measures found in K.S.A. 82a-1041(f)(1)-(5); and
3. The geographic boundaries, including that the boundaries of GMD 4 were reasonable and using townships to delineate between LEMA allocation amounts was reasonable. Initial Order, 9-21.

Testimony taken at the Initial Hearing included a summarization of the plan by Ray Luhman, Manager of the GMD 4; Brownie Wilson of the Kansas Geological Survey (KGS); Lane Letourneau, Program Manager for the Kansas Department of Agriculture (KDA) Division of Water Resources (DWR); Scott Ross of Stockton, Kansas; Pat Haffner of Hoxie, Kansas; Mike McKenna of Jennings, Kansas; Lori Wilson of Colby, Kansas; Chastity Mader who owns property north of Quinter, Kansas; Harold Murphy who lives south of Selden, Kansas; Bert Stramel of Colby, Kansas; and Jon Friesen of Colby, Kansas. Portions of that testimony will be described

below. Order on Initial Requirements of the Groundwater Management District No. 4 District-Wide Local Enhanced Management Area (LEMA) September 23, 2017, 3-9 (Initial Order).

Other written testimony was also submitted pre- and post- the initial hearing. It included written testimony from GMD 4; Sharon Stramel of Colby, Kansas; Max E. Mann, D.V.M., of Quinter, Kansas; Leonard Kashka, Jr. of Goodland, Kansas; and Doyle E. Saddler of Colby, Kansas, M.S. in Physical Geography and B.S. in Geology.

2.5.1. The Initial Hearing Determination that Water Levels are Declining or Have Declined Excessively and that Withdrawals Equal or Exceed the Rate of Recharge in the Area of the LEMA Proposal.

Ms. Owens found that the four circumstances from K.S.A. 82a-1036 to determine if a LEMA is allowed were met. Those four circumstances being:

- (a) Groundwater levels in the area in question are declining or have declined excessively;
- (b) The rate of withdrawal of groundwater within the area in question equals or exceeds the rate of recharge;
- (c) Preventable waste of water is occurring or may occur within the area; and
- (d) Unreasonable deterioration of the quality of water is occurring or may occur.

On this issue, Ray Luhman submitted written and oral testimony on behalf of the GMD 4 that the first two circumstances exist—groundwater levels in the area in question are declining or have declined excessively and the rate of withdrawal of groundwater within the area in question equals or exceeds the rate of recharge. Mr. Luhman testified that the GMD areas marked red, yellow, and purple on the Proposal map exhibited a greater than 0.5% annual decline in the water table over an eleven-year period. Mr. Luhman further stated that townships exhibiting less than a 0.5% decline rate would have no LEMA allocation imposed and only be subject to additional monitoring and enforcement. Those townships being marked in blue and green. Initial Order, 10.

Mr. Luhman also stated that the rate of withdrawal of water equaled or exceeded the rate of recharge of water in the area of the proposed LEMA from 2004 to 2015. To determine that withdrawal exceeded recharge, the GMD 4 compared the estimated rate of annual recharge with two different amounts: (1) the amount of water reported by the water users as actually pumped and (2) the maximum amount of water that could be lawfully pumped under those water rights. Comparing the annual water pumped—ranging between 307,051 acre-feet per year to 539,567 acre-feet per year—with the rate of recharge—ranging between 126,910 acre-feet per year to 160,320 acre-feet per year—showed that the rate of withdrawal exceeds the rate of recharge. Specifically, Ms. Owen found that in the year of the least amount of water used during the 2004 to 2015 time period, 2009, the 307,051 acre-feet used far exceeded the largest point of range of recharge of 160,320 acre feet. Initial Order, 11.

Brownie Wilson of the KGS corroborated GMD 4's two main points on this issue:

- 1) the GMD 4's method of determining annual water use and annual recharge from 2004 to 2015; and
- 2) that the water levels are declining. Initial Order, 11.

KGS determined that water levels are declining by taking measurements of depth-to-water in about 1,400 wells during the same year. After taking those depth-to-water measurements, KGS calculated three-year averages (2004, 2009, and 2015) and isolated the data relative to wells within GMD 4. KGS determined that the average saturated thickness for GMD 4 was 76 feet in 2004 and 70 feet in 2015—a six foot decline. Parts of Sherman County had an average rate of decline of over 20 feet and much of Sherman County and portions of Thomas and Sheridan County averaged declines of 12 feet over the six year period from 2009-2015. KGS concluded that:

“The major driver for these water level declines is groundwater pumping as illustrated by published reports (citation omitted), which show statistically significant correlations exist between annual water-level change and annual groundwater use across GMD 4.”

There was no testimony stating that the water table has not declined, although there was testimony that LEMAs were only intended for areas with excessive decline. And public comments supported the adoption of a LEMA to address severe water declines, including personal corroboration of significant water level declines in the area. Other comments encouraged conservation based on the continued declines even if those commentators did not agree with the details of the LEMA proposal. *See* Initial Order, 11.

Ms. Owen found that the Proposal met the first criteria of K.S.A. 82a-1041(b), that the water levels were declining and that the rate of groundwater withdrawal equals or exceeds the rate of recharge based on the credible and reliable data provided by the KGS and the GMD 4. Initial Order, 12.

2.5.2. The Initial Hearing Determination that the Public Interest Requires One or More Corrective Control Measures be Adopted.

Ms. Owen recognized that the public interest standard is defined by K.S.A. 82a-1020 as follows:

“It is hereby recognized that a need exists for the creation of special districts for the proper management of the groundwater resources of the state; for the conservation of groundwater resources; for the prevention of economic deterioration; for associated endeavors within the state of Kansas through the stabilization of agriculture; and to secure for Kansas the benefit of its fertile soils and favorable location with respect to national and world markets. It is the policy of this act to preserve basic water use doctrine and to establish the right of local water users to determine their destiny with respect to the use of the groundwater insofar as it does not conflict with the basic laws and policies of the state of Kansas. It is, therefore, declared that in the public interest it is necessary and advisable to permit the establishment of groundwater management districts.” Initial Order, 12 *citing* K.S.A. 82a-1020.

As such, the LEMA must seek to further conservation and protection of groundwater resources, establish the right of local water users to determine their destiny regarding groundwater management. Initial Order, 12.

Ms. Owens defined the public interest using two prongs: 1) proper management of groundwater through corrective controls; and 2) having the public be involved in the process. Because the aquifer is declining, and in areas excessively declining, there is need for corrective controls—no one testified at the initial hearing that there was no decline. Therefore, the first prong was met.

Regarding the second prong of the public interest, there was significant public involvement in the process of developing the LEMA Proposal. *See Supra*, Section 1.2. The GMD 4 held multiple public meetings and board meetings with many people attending between January 2015 and June 2017. The GMD 4 also provided water users information about the LEMA early in the discussions, created a webpage on the topic, and regularly updated the webpage. Beginning in January of 2015, the LEMA was covered by at least 28 GMD 4 Board of Directors' meetings. Initial Order, 13. The November 2016 public meetings included 97 signatures at a public meeting in Colby, 88 signatures at the public meeting in Goodland, 49 signatures at a public meeting in St. Francis, and 60 signatures at a public meeting in Hoxie, Kansas during 2016. *See Supra*, Section 1.2. Goodland, Colby, St. Francis, and Hoxie are the county seats within the GMD 4. It was from these public meetings and board meetings that the Proposal was discussed, modified, and sent to the Chief Engineer for consideration.

A number of public comments at the Initial Hearing described personal involvement in or knowledge about the development of the Sheridan 6 LEMA (SD-6 LEMA) and the creation of the LEMA concept. Mr. Stramel testified at the initial hearing that, "I've followed this LEMA process pretty intensively for the last year or so." Initial Hr'g Tr. 40:15-16. Mr. Friesen specifically testified that he was on the Northwest Kansas Groundwater Management District No. 4's Board of Directors for 12 years. Some of those years during the formation, proposal, and creation of the SD-6 LEMA. On about September 11, 2017, Mr. Friesen submitted written comments detailing his concerns with the current proposal. *See* Unsigned Letter from Mr. Friesen dated September 11, 2017 (held by KDA DWR).

Mr. Justin Sloan served on the GMD 4 BOD from February 2012 until April 2017. This LEMA process began in January of 2015 and continued until a formal proposal was submitted on June 9, 2017. The Proposal was discussed at the open, public GMD 4 BOD meetings on a monthly basis during that time period.

Mr. Friesen, or a person purporting to be Mr. Friesen; Mr. Bert Stramel, or a person purporting to be Mr. Stramel; and Mr. Saddler, or a person purporting to be Mr. Saddler, all signed in as present at the Colby public meeting. Proposal, 11-15.

Additionally, Mr. Saddler made written comments and submitted those written comments to add to the record for the Initial Hearing. *See* Letter from Doyle E. Saddler (on file with the Kansas Dept. of Agric., Div. Water Res.).

Based on the LEMA Public Meetings, the Annual GMD 4 meetings, and the GMD 4 Board of Director meetings, there was public involvement in shaping the Proposal. The public was involved

in making comments through the initial hearing process. And the public continues being involved as will be further described in the following section regarding the Final Hearing by continuing to make comments.

In issuing her Initial Order, Ms. Owen reiterated that the Kansas Legislature clearly intended the GMDs to create and recommend LEMAs to the Chief Engineer for consideration. K.S.A. 82a-1041. Ms. Owen emphasized that “*All powers granted to a groundwater management district under the provision of the [Groundwater Management District Act] shall be exercised by an elected board of directors.*” K.S.A. 82a-1027(a); Initial Order 14. Ms. Owen further recognized that the GMD Act envisions that the duly elected Board of Directors acting as representatives of the local water users will determine the destiny of the GMD through the powers granted the GMD in the GMD Act. And because of this representative structure, as well as the benefit to the public described above, the Proposal met the “public interest” criteria of K.S.A. 82a-1041(b)(2). Initial Order, 14.

Ms. Owen needed to find, and found that, it was in the “public interest” to adopt one or more corrective control provisions and that the public interest required that in this matter. She further noted that the purpose of the initial hearing is to find if corrective controls are in the “public interest;” the final hearing determines if the proposed corrective controls are in the “public interest” and meet the proposed goals at hand. For these reasons, Ms. Owen found that it was in the “public interest” to adopt at least one or more corrective control measure. Initial Order, 16.

2.5.3. The Initial Hearing Officer Determined that the proposed LEMA Boundaries are Reasonable.

K.S.A. 82a-1041(b) requires the Initial Hearing Officer find the boundaries proposed by the GMD be reasonable. “Reasonable” being in accordance with a rational ground or motive. Initial Order, 17 *citing Merriam-Webster Dictionary*, available at <https://www.merriam-webster.com/dictionary/reasonable>; <https://www.merriam-webster.com/reason>. Ms. Owen found that the boundaries, specifically the GMD 4 boundaries as to the entire LEMA and the sub-units based on townships are founded on a reasonable and rationale basis. Ms. Owen found the boundaries reasonable by reviewing the evidence within the record presented at the initial hearing.

In finding the boundaries reasonable, Ms. Owen recognized the inherent problem when surface or political boundaries are used to try to regulate the varying and complicated areas with multiple underground hydrological conditions. Initial Order, 17-18. It is this balance between hydrologic reality and managerial practicability that the Proposal strikes. *See James H. Davenport, Less is More: A Limited Approach to Multi-State Management of Interstate Groundwater Basins*, 12 U. Denv. Water L. Rev. 139 (2008). Those management decisions creating or managing that balance must be reasonable given the credible scientific data.

2.5.3.1. The Initial Hearing Officer Determined that using the GMD 4 Boundaries is Reasonable.

Having the GMD 4 boundaries be the LEMA boundaries will serve a number of purposes, all purposes that Ms. Owen relied on in finding that the boundaries are reasonable. First, the LEMA will encourage conservation of water because it will reward users who conserve while reducing

usage in areas of greater decline. About 82% of water rights within the GMD will have a reduced water allocation under the LEMA. Initial Order, 16. Second, the increased monitoring will inform water users and encourage more judicious water use. Third, having the GMD boundaries be the same as the LEMA boundaries creates an incentive for water users located in the townships currently below the .5% annual decline rate to judiciously use water to prevent their townships from experiencing more decline and becoming eligible for possible reductions in allocations. Fourth, including all the townships within the LEMA will allow for adjustments in corrective controls as areas experience greater or lesser declines rather than revisiting the boundaries at a later date. In this way, the Proposal identifies sub-aquifers within the boundaries by categorizing townships into those townships experiencing a 0.0-0.5% decline rate, 0.5-1% decline rate, 1-2% decline rate, and 2% decline rate.

And, 88% of the 155 townships within the proposed LEMA experience sufficient water level declines to meet the statutory benchmark for need. The other 12% of townships are scattered throughout the district, some nearly surrounded by townships designated as in excessive decline, others situated along the district's borders, adjacent to townships designated as in excessive decline. In 1976, all of these townships were determined to be hydrologically connected and included in GMD 4. It is these facts that lead Ms. Owen to conclude that the boundaries are reasonable and to require the Chief Engineer to hold the second public hearing. Initial Order, 19-20.

2.5.3.2. The Initial Hearing Officer Determined that having sub-units with LEMA allocations was reasonable.

In finding that the LEMA sub-unit boundaries are reasonable, Ms. Owen first described how each township within the GMD 4 was analyzed for its respective annual decline rate from 2004 to 2015 using the KGS section level data. In light of the differing rates of declines, the Proposal restricts water use accordingly. Those township demonstrating an annual water level decline of less than 0.5% will not have pumping restrictions imposed because 75% of the saturated thickness will remain in 50 years, but they will be subject to increased compliance and enforcement provisions. These declines are acceptable for now.

Ms. Owen found that the GMD 4 Board of Directors determined there were differences in annual water level decline throughout the district. The GMD 4 relied on the KGS data in determining how much and where the water level was declining. The KGS gathered water level data from a network of well measurements and calculated township-level data, using mathematical interpolations and computer modelling, which the GMD 4 then represented by a color-coded map. The GMD 4, Initial Hr'g Testimony, Attachment 1. Those townships with at least 0.5% annual decline, the townships shown in red, yellow, and purple, contain about 82% of the water rights in the GMD 4 boundaries. There was little objection to the creation of a LEMA in these areas of excessive decline. For these reasons, Ms. Owen found the sub-unit boundaries based on townships were reasonable.

In designating his authority the Chief Engineer need not go back and re-examine Ms. Owen's determination. It was the evidence above that Ms. Owen used to find that the township boundaries were reasonable in differentiating rates of decline and LEMA allocations. And the Chief Engineer, if he chooses to re-examine Ms. Owen's determination could just rely on the evidence presented at the initial hearing. At the Final Hearing, the GMD 4 and the KGS added testimony about the reasonableness of the township boundaries for sub-units and using the entire GMD 4 boundaries.

At the Final Hearing the GMD 4 and the KGS further explained the reasoning behind using township boundaries as opposed to section boundaries. GMD 4 used the township political boundaries because the surface area equivalent to the area of a township level contains the appropriate number of data points within the KGS monitoring system to provide a correlation between the surface area political boundaries and the hydrological conditions below ground. As Ms. Owen recognized when she accepted the township boundaries as being reasonable that there is an inherent problem when surface or political boundaries are used to try to regulate the varying and complicated areas with multiple underground hydrological conditions. Initial Order, 17-18. It is this reasonable balance that the GMD 4 Board of Directors struck when they determined to set the boundaries at the township level.

Mr. Wilson supported that determination in his testimony at the Final Hearing. Final Hearing Transcript, Wilson Testimony, 219, 20 through 220, 3 ("Township scale in terms of making comparisons of what the water levels are doing directly in that township, I am more comfortable with that scale than I would be at the individual section level scale."). And with the current data available, based on his training and experience, Mr. Wilson would base sub-units on a township level. *Id.* at 221:19 thru 222:6.

While some may complain that the GMD 4 Board of Directors should have used the section levels as the boundary lines for the sub-units, there is no testimony that using the township boundaries instead of the section boundaries is unreasonable. As Ms. Owen notes in her decision, when looking at all the evidence, the township boundaries are reasonable. Initial Order, 21. The section boundaries may also be reasonable but the Chief Engineer need not determine whether the GMD 4 Proposal should have used the township boundaries or the section level boundaries—he does not need to determine which of the township boundaries or the section boundaries are the "most reasonable." He must determine whether the boundaries set forth in the Proposal are reasonable. K.S.A. 82a-1041(b)(3). To make that determination, he delegated his authority to Ms. Owen and she determined that the boundaries are reasonable. Initial Order, 21.

After a half day of oral testimony, written testimony taken before the hearing, and written testimony taken after the hearing, Ms. Owen determined the three criteria of K.S.A. 82a-1041(b) were met. And since Ms. Owen determined the three criteria were met, Ms. Owen directed the Chief Engineer to hold a final hearing on the Proposal.

2.6. Procedure Between Hearings

Notice of the Final Hearing was given on about October 2, 2017, more than 30 days (about 43 days) before the Final Hearing. The Final Hearing was held on November 13, 2017. This notice met the 30 day notice requirement found in K.S.A. 82a-1041(b)(3).

A group of Intervenor filed a Notice of Intervention on October 10, 2017 and the Intervenor's counsel also entered his appearance on that day. This Notice of Intervention was filed after the Initial Hearing and more than 30 days before the Final Hearing. Therefore, the requirements of K.S.A. 82a-1041(b)(3) set by the Kansas Legislature were followed in giving notice to the public and the Intervenor before the Final Hearing.

After a series of motions filed by the Intervenor and replies filed by GMD 4 and DWR, the Chief Engineer determined that the Final Hearing would happen on November 13, 2017. The Chief Engineer also determined that the parties (the GMD 4, the DWR, and the Intervenor) could cross-examine agency and intervenor witnesses at the hearing. The Chief Engineer also said he would extend the deadline to file written testimony to December 12, 2017 (the Chief Engineer later extended the deadline to December 22, 2017).

2.7. Testimony from the Final Hearing

The Chief Engineer first heard from Ray Luhman, Manager of GMD 4. Mr. Luhman testified about the goal and how the corrective control measures would reach the goal. He then testified about the process the Proposal went through before being sent to the Chief Engineer, which was discussed above. He next testified about the LEMA allocation as a corrective control and how a water right's LEMA allocation is determined. He also testified about other corrective control provisions that would educate the public about water use. Last, he testified that the LEMA also met the public policy and requirements set by the Kansas Legislature in K.S.A. 82a-1041.

2.7.1. The Goal for the LEMA is to promote improved management of the water and not exceed 1.7 million acre-feet over a five year period.

K.S.A. 82a-1041(d)(1) allows acceptance of a local enhanced management plan if the Chief Engineer finds the plan to be "sufficient to address" groundwater declines, or "sufficient to address" the disparity between groundwater withdrawals and recharge. K.S.A. 82a-1041(d)(1). The Chief Engineer need not find that the proposed LEMA resolves decline and disparity over the long term, only that the Proposal sufficiently addresses the decline within the purviews of K.S.A. 82a-1041. To that end, Mr. Luhman first testified about the goal statement.

The request for a LEMA contained the following goal statement and detail:

To promote improved management of water used district-wide with a goal not to exceed 1.7 million acre-feet (AF) for irrigation over five years within townships displaying an annual decline rate for the period 2004 – 2015 of 0.5% or greater annual decline and promote more efficient use by non-irrigation uses.

This LEMA shall exist only for the five- year period beginning January 1, 2018 and ending December 31, 2022. The proposed LEMA shall include all points of diversion located within the boundaries of GMD 4 excluding vested rights and points of diversion whose source of supply is 100% alluvial.

The total program diversion amount of 1.7 million AF for irrigation use for townships with annual decline rates of 0.5% or greater shall represent five (5) times

the sum of designated legally eligible acres times the amount designated for irrigation water rights;

The Northwest Kansas Groundwater Management District No. 4 shall use the procedures herein to determine the 5-year allocation for each water right, and specify said values in Section 3). All allocation values shall be expressed in terms of total acre-feet for the five-year LEMA period. *See* Attachment 1, Request for a District-Wide LEMA Submitted to the Chief Engineer, Kansas Department of Agriculture, Division of Water Resources (June 8, 2017) (Proposal).

GMD 4 established that goal because many parts of the Ogallala Aquifer within GMD 4 are declining at a rate greater than 0.5% per year. *See* Initial Order, 12; GMD 4 Testimony- District Wide LEMA Proposal, 6 (November 2, 2017); Brownie Wilson, Written Testimony, Proposed GMD 4 District-Wide LEMA Hearing (August 23, 2017).

2.7.2. The corrective control measures for irrigation water rights should meet the goal.

The corrective control measures should reach the goal by reducing water use and increasing awareness and educating water users. The Chief Engineer can adopt the proposed corrective control measures because he is authorized to do so under K.S.A. 82a-1041. In adopting these corrective controls, the goals of reducing water use and increasing awareness and educating water users will be met.

K.S.A. 82a-1041(f) describes the types of corrective controls the Chief Engineer *may* include in LEMA. As described above, those corrective controls include:

1. Closing the LEMA to further appropriation;
2. Determining the permissible total withdrawal of groundwater in the LEMA each day, month, or year, and apportion such permissible total withdrawal among the valid groundwater right holders in such area in accordance with the relative dates of priority of such rights;
3. Reducing the permissible total withdrawal of groundwater by any one or more appropriators thereof, or by wells in the LEMA;
4. Requiring and specify a system of rotation of groundwater use in the LEMA; *or*
5. Any other provisions making such additional requirements are necessary to protect the public interest. *See* K.S.A. 82a-1041(f)(1)-(5).

Mr. Luhman testified that the Proposal contains multiple corrective controls, including reducing the permissible total withdrawal of groundwater by any one or more appropriators or wells in the LEMA under K.S.A. 82a-1041(f)(3) and other provisions that are necessary to monitor water use, enforce LEMA allocations, and education the water users subject to the LEMA under K.S.A. 82a-1041(f)(5). *See* Luhman Testimony, Final Hr'g Tr. 55:16-24. In adopting these corrective controls, the Proposal will meet its dual goals of reducing water use and educating water users.

2.7.2.1. Determining a Water Right's LEMA allocation as allowed by K.S.A. 82a-1041(f)(3).

The first corrective controls allowed under K.S.A. 82a-1041(f)(3) are the LEMA allocations. GMD 4 determined the LEMA allocation for each water right using the procedures described below. The first step in determining a LEMA allocation is to determine the acreage a water user recently irrigated; second, determine the annual decline percent for the township the water rights is located in; third, apply the Net Irrigation Requirements (NIR) as determined by the United State Geological Survey (USGS) as to the zone of a county where the water right is located; and fourth, set the water right's LEMA allocation.

To determine a water right's LEMA allocation, GMD 4 first determined what land acreage water users recently irrigated (irrigated acres or eligible acres). To determine irrigated acres, GMD 4 examined annual water use reports from 2009–2015. GMD 4 used the 2009-2015 range because 2009 was the first year that all wells in GMD 4 were metered and 2015 was the last year that water use data was available when the GMD 4 conducted the first public meetings about the Proposal. The maximum reported irrigated acreage during that period was used to set the irrigated acre amount (or eligible acre amount) for each right. GMD 4 checked any discrepancies or inconsistencies against the United States Department of Agriculture aerial photos, the actual water rights, and the water use reports to finally determine irrigated acres (or eligible acres).

Second, the GMD 4 derived the LEMA township annual decline percentage for each township in the GMD 4 for the period from 2004 to 2015 from the KGS section level data. A section is an area about one square mile containing 640 acres with 36 sections making up one survey-township on a rectangular grid. The KGS compiled data on a section-by-section basis to determine the section-by-section declines. The KGS section level data was averaged for each township in the district. The KGS section level data was used because it assigns a value for bedrock and water level elevations for each specific section. Then, the GMD 4 removed all wells with any alluvial connection from the data set. Additionally, the GMD 4 removed any sections that exhibited less than 15 feet of saturated thickness from the analysis; because, removing those sections minimized the depletion status of areas on the fringe of the GMD 4. Very small declines in areas of little saturated thickness result in unacceptably high percentage figures, which is why they were removed from the analysis. This is the section level data the GMD 4 relied on to determine the township declines and the LEMA allocations.

Third, the GMD examined the Net Irrigation Requirements (NIR) set by the United State Natural Resource Conservation Services (NCRS) for the township where the water right is located. See U.S. Dept. of Agric., Nat. Res. Cons. Serv., Nat'l Eng'r Handbook, Irrigation Guide, KS 210-652-H, Amend. KS 31, KS 652-4.1 thru 4.25 (2014), https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_030990.pdf. The State of Kansas has used the NIR amounts since at least 1994 and referenced the NIR amounts in K.A.R. 5-5-9, K.A.R. 5-5-10, K.A.R. 5-5-11 and other regulations. The GMD 4 Board used the NRCS NIR 50% and 80% values for corn by county. 50% NIR represents the net irrigation requirement for corn that would be sufficient in 5 out of 10 years (which is considered to normal precipitation) based on the precipitation that would be expected in 5 out of those 10 years. 80% NIR represents the net irrigation requirement for corn that would be sufficient in 8 out of 10 years (which is considered to be dry or less precipitation than normal) based on the precipitation that would be expected in 8 out of those 10 years.

These figures were then interpolated to derive a value at the western edge of each zone. Each township was then assigned a color based on the zone in which it was located, red, yellow, purple, blue and green. Townships exhibiting greater than a 2% annual decline rate were assigned the 50% NIR for corn by zone (red). Townships exhibiting from 1% to 2% annual decline rate were assigned the 80% NIR for corn by zone (yellow). Townships exhibiting 0.5% to 1% were assigned an 18 inch allocation district-wide (purple). Those townships that are below the 0.5% decline rate will not have restrictions (blue and green). The tiered system gives due consideration to water users who have already implemented reductions in water use resulting in voluntary conservation measures as evidenced by a slower rate of decline. No township has an allocation less than the 50% NIR (less than normal precipitation) for its respective zone.

Fourth, and finally, the GMD 4 multiplied the irrigated acre (or eligible acre) values by the allocation amount on the map attached to the Proposal based on the decline percentage for the township where the point of diversion was located and the corresponding NIR. That NIR number was then divided by 12 (to convert to acre-feet) and then multiplied times the acres times five to determine the five year LEMA allocation. For example, in township 8-42W in Sherman County, the NIR for corn is 16.1 inches per acre. If a water right user irrigated 124 acres in that township, then the LEMA allocation would be 832 acre-feet over five years. GMD 4 Final Hr'g Written Testimony; Luhman Testimony, Final Hr'g Tr. 67:1 thru 73:3.

2.7.2.2. Other Corrective Control provisions allowed under K.S.A. 82a-1041(f)(3) and (5).

Under K.S.A. 82a-1041(f)(3) and (5), GMD 4 added additional requirements to set a LEMA allocation. For example, The LEMA allocation will also not reduce water users by greater than 25% except for those being reduced to an 18 inches per acre per year ca No LEMA allocations within areas of decline greater than 0.5% will be receive an allocation in excess of 18 inches per acre per year. These amounts apply to those water rights in red, yellow, and purple townships.

The Proposal contains other provisions addressing specific situations. Those provisions include:

Wells pumping to a common system or systems shall be provided a single allocation for the total system acres, subject to the review process in Sections 5 and 6. The total amount pumped by all of the wells involved must remain within the system allocation.

No water right shall receive more than the currently authorized quantity for that right, times five (5).

No water right within a K.A.R. 5-5-11, 5-year allocation status shall receive an allocation that exceeds its current 5-year allocation limit.

No water right shall be allowed to pump more than its authorized annual quantity in any single year.

In all cases the allocation shall be assigned to the point of diversion and shall apply to all water rights and acres involving that point of diversion. Moreover, in all cases the original water right shall be retained.

For water rights enrolled in EQIP and/or AWEP that will be coming out of either program on or before September 30, 2022, the allocation quantity shall be set at the annual allocation for only the remaining years of the 2018-2022 LEMA period.

If a water right is or has been suspended, or limited for any year of this LEMA, due to penalty issued by the Kansas Department of Agriculture, Division of Water Resources (DWR), then the GMD 4 and DWR will reduce the allocated quantity for such water right accordingly for the 2018-2022 LEMA period.

For water rights enrolled in a KAR 5-5-11 change, MYFA, WCA, or other flexible water plan, the most water restrictive plan will apply.

These special circumstances address contingencies related to specific situations that may happen during the LEMA period. For example, water rights going into and out of an Agricultural Water Enhancement Program (AWEP) or Environmental Quality Incentive Program (EQIP); the creation of WCAs or MYFAs; allowing the Chief Engineer to impose penalties for over pumping or meter tampering; and capping a given year LEMA allocation to an amount not greater than the yearly amount currently allowed under the base water right. These provisions are necessary to allow water users the ability to create WCAs or MYFAs; enter the LEMA with water rights coming out of AWEP or EQIP programs; give the Chief Engineer enforcement authority; and yet not allow water users to use more water in any given year than they are currently allowed. *See* Luhman Testimony, Final Hr'g Tr. 26:4-8 (the LEMA would allow WCAs or MYFAs if agreed to by DWR and a water user).

2.7.3. The corrective control measures for non-irrigation water rights, with modifications, should reach the LEMA goal.

Under K.S.A. 82a-1041(d)(4), the Chief Engineer can modify the Proposal if the modifications do not reduce water right LEMA allocations and can then return those modifications to the GMD 4 for approval in his Order of Decision. If the GMD 4 approves the modifications, then the Chief Engineer will issue an Order of Designation with those modifications incorporated. *See* K.S.A. 82a-1041(d). It is under K.S.A. 82a-1041 that the GMD 4, after being requested by the Kansas Livestock Association (KLA), requested a modification to the livestock allocations.

For non-irrigation use type, the GMD 4 Board requests that the following language modify the stock water portion of the proposed LEMA (Modifications) for two reasons. First, the total acre feet allocated to stock water use in GMD 4 is less than 0.5 % of total appropriations. Second, animal feeding and dairies represent a significant market for local crops and the GMD 4 Board reasoned that animal feeding and dairies should not be unduly restricted.

Additionally, the KLA, through Aaron Popelka, attended the GMD 4 Board meeting on September 7, 2017 and requested these changes. After that request, the GMD 4 Board unanimously approved proposing the modifications below. Aaron Popelka on behalf of KLA then testified at the Final

Hearing that KLA would like to see these modifications and other modifications included in the plan. He also testified that KLA “generally agreed with [GMD 4.]” Popelka Testimony, Final Hr’g Tr. 127:6-7. There was no testimony in opposition to adopting the GMD 4’s proposed modifications except as to the specific language.

The GMD 4 Board still encourages livestock and poultry operations to only use 90% of the amount they are allocated. The proposed Modifications read:

Part 2)a) Livestock and poultry use will be encouraged to maintain their use at 90% of the said amount provided by K.A.R. 5-3-22 based on the maximum amount supportable by the number of animals authorized by a current facility permit. At no time will a stock water right be authorized to pump more than its authorized quantity. . . .

Part 2)d) When converting from irrigation to non-irrigation use, the base water right will be converted under the procedures in K.A.R. 5-5-9, 5-5-10, or Groundwater Management District #4 regulations, and the appropriate non-irrigation Local Enhanced Management Area allocation will apply as found in Section 2 for the remainder of the Local Enhanced Management Area period.

Parts 2)b), 2)c), and 2)e) of the Proposal would remain the same. With the acceptance of the above modifications and because of the small fraction of the groundwater used for stock water, dairies, and recreational use, this should not be an impediment to adopting the Proposal. Additionally, stock water and dairies provide a market for crops such that the GMD 4 BOD determined decreasing the stock water and dairy use could negatively impact the agricultural economy in the region and adversely impact implementation of the Proposal.

2.7.4. The Effects of Applying the Above Corrective Controls for five years.

After applying the above rules, about 65% of water rights will have a LEMA allocation that is less than their combined diversions from 2009-2015. For five years, these water rights will be regulated and yet the base water right will not change. Any water conservation that happens will benefit those water users that conserve. And if the GMD 4 Board of Directors examines reinitiating this LEMA, then it must consider including a 10% carryover. Although the LEMA treats different types of uses and different places of use differently, it has a rational basis for doing so. It treated different types of uses differently because different types of uses draw from the aquifer for different reasons. It treats the place of use differently because those areas of greater decline must mean less conservation is happening and areas of lesser decline means there is some ongoing conservation. Last, it preserves Kansas water law as it relates to allowing impairment complaints by senior water rights against junior water rights. If there are impairments that happen in the next five years, then the Chief Engineer can still hear those impairment complaints and the “first in time, first in right” water law doctrine remains intact. In this way, the corrective controls will regulate water use over the next five years while encouraging conservation and maintaining “first in time, first in right.”

First, the Proposal is limited to five years. K.S.A. 82a-1041 does not require a LEMA to be permanent or attain permanent reductions in groundwater use; it merely requires the LEMA

address the problem of decline. This Proposal addresses the decline by limiting agricultural water rights, encouraging monitoring of all agricultural water rights, encouraging conservation by stock water users, encouraging conservation by recreational water users, and encouraging conservation by municipalities.

Second, each water right within the LEMA and in an area of water level decline of greater than 0.5% will receive a LEMA allocation for irrigation as gross 5-year amount. The allocation may be used in any fashion and at any time during the LEMA chosen by the right holder, except that water user cannot exceed the annual authorized quantity unless authorized by a Multi-Year Flex Account (MYFA) or Water Conservation Act (WCA) term permit or plan. The Proposal does not contain an acre-inch per acre per year limitation. Rather, the Proposal provides a gross amount of water a water user can use through the five year LEMA period.

And yet, the base water right will not be altered during the LEMA period. Any order issued under the LEMA will be subject to the additional LEMA terms and conditions for the five years during the LEMA. GMD 4 further requests that any future reiterations of this LEMA that may come into existence or be proposed by the GMD 4 Board take into consideration allowing a maximum 10% carry-over of the LEMA allocated amount. *See Proposal 1)d)-l)*. This gives future GMD 4 and LEMA boards an opportunity to continue rewarding those that conserve. It also incentivizes conservation into the future.

Although the Proposal treats different types of water use differently based on the type of use and based on place of use because of the varying declines, it is reasonable to do so. The Proposal gives irrigation water rights a LEMA allocation whereas recreational water rights, stock watering water rights, municipal water rights, and industrial water rights do not receive a LEMA allocation. Irrigation water rights make up about 97% of the annual water use in the GMD 4 and the other water rights use a fraction of that amount, combined. Therefore, the differing treatment is not sufficiently problematic. Popelka Testimony, Final Hr'g Tr. 126:19 thru 127:1. Under the LEMA, vested water rights would also not be given a LEMA allocation. Luhman Testimony, Final Hr'g Tr. 34:1-3.

The Proposal also treats water rights used in different townships differently based on the annual rate of decline of the place of use. The Kansas Legislature requires that water users that have conserved water be recognized for those conservation efforts. K.S.A. 82a-1041(a)(4). Those water users that have less decline in their township, it reasons, conserved water, and so they are less regulated than those townships with greater decline. Again, this is in line with the public policy as expressed in K.S.A. 82a-1041(a)(4).

Third, the water users that conserve will reap the benefits of that conservation. If water users conserve, then that should lead to a decline in the annual decline rate of their township and their ability to change their township from red to yellow to purple to blue to green. More importantly, because of the GMD 4's hydrology, the conservation a water user makes will increase the water under his ground. Final Hearing Transcript, Wilson Testimony, 217, 3-22.

Fourth, the Proposal contemplates future LEMAs in that directs future GMD 4 Boards of Directors to consider a 10% carryover for those water users that conserve during the next five years. Additionally, Brent Rogers, President of GMD 4 testified that he is going to conserve and

encourage his neighbors to conserve so that his township does not become restricted in future LEMA iterations. Final Hr'g Tr. 238:23 thru 239:10.

And fifth, water users will still be able to bring impairment complaints before the Chief Engineer or District Courts under K.S.A. 82a-706 and Proposal, para. 12. Allowing a senior water right to assert that a junior water right is impairing its use is part of the KWAA and would remain intact under this LEMA. Letourneau Testimony, Final Hr'g Tr. 251:5-16. GMD 4 only requests that in reviewing an impairment complaint, the Chief Engineer do so considering that a LEMA, a five year management program, is in place. Proposal, para. 12.

The testimony presented by the GMD 4 shows that the Proposal is a good start. Lynn Goossen testified about watching the water table declines and that the LEMA is a good start to slowing the decline rate. Goossen Testimony, Final Hr'g Tr. 241:22 thru 242:2. He believes that it is better to solve the problem together by cutting back a little rather than senior water right holders attempting to cut off junior water right holders. *Id.* at 242:3-9. He will have a LEMA allocation and he is willing to work with his neighbors to save water for the next generation. *Id.* at 242:10-13.

The Water Commissioner, Kelly Stewart, testified that the Proposal came from the GMD 4 Board of Directors and was not implemented by DWR staff. But, that DWR staff was ready, willing, and able to assist in managing the LEMA. Mr. Stewart also testified that, based on DWR calculations, the LEMA will reach the goal of only pumping 1.7 million acre feet over a five year period. Stewart Testimony, Final Hr'g Tr. 244:24 thru 247:22.

Last, Mr. Schultz of Brewster, Kansas testified that he has been there when he had to turn off the spigot and could not get water. He testified that water in Brewster was becoming unpotable. He testified that he believed the reductions should be stricter. He said that if the public, or the municipalities, begin running out of water, then they could out vote the farmers and propose greater reductions. He urged for adopting the LEMA because it allows the farmers to control their destiny. Schultz Testimony, Final Hr'g Tr. 277:9 thru 280:23.

In this way the Proposal will regulate water use for the next five years. It will assign LEMA allocations, treat water rights showing similar decline in the aquifer the same, regulate water rights that use the most of the aquifer, encourage conservation, allow the benefits of conservation to flow to those conserving, and retain "first in time, first in right" through impairment complaints. As Mr. Schultz stated, it is time to begin reducing through the GMD 4 Board of Director's Proposal before being forced to conserve by municipalities or the Chief Engineer.

2.7.5. Economic Viability.

Preliminary economic studies done by Dr. Bill Golden on the SD-6 LEMA show that cash flow values inside the SD-6 LEMA very closely resemble those of the immediate surrounding area. Dr. Bill Golden, Monitoring Impacts of Sheridan County 6 Local Enhanced Management Area, Interim Report 2013 – 2015, Nov. 8, 2016 (SD-6 Interim Report). It should be noted that the SD-6 LEMA has a much higher level of restrictions than the ones proposed by this LEMA.

A previous study was done by Golden, Peterson, & O'Brien, Potential Economic Impact of Water Use Changes in Northwest Kansas (2008) (The Golden Report). There, Golden et.al stated that,

the least desirable option to institute cutbacks in diversions was to use a system that completely dries up acres—either by a first in time, first in right system, or other programs that take land out of irrigated production. The study concluded that less water use on more acres had far less of a negative impact than drying up acres on a priority basis. Instituting reductions by using order of priority would have the effect of drying up many acres and, for this reason, the GMD 4 board proposes giving an equal allocation to all non-vested rights based on their location and the decline rate of the Ogallala aquifer.

The Golden Report initially evaluated the potential economic consequences of reduced groundwater use in northwest Kansas. Specifically, the Golden Report evaluated the potential economic impacts of three possible reduction levels: (1) a zero reduction in groundwater pumping; (2) completely eliminating all groundwater pumping; and (3) reducing groundwater pumping by 30%. Regarding the third option, the Golden Report then assessed the respective economic impacts of achieving such a reduction by three scenarios: (a) by limited irrigation; (b) by a buyout of irrigation rights, while allowing dryland farming on dried-up lands; and (c) by a conservation program such as the Conservation Reserve and Enhancement Program (CREP), which requires a 15-year following period, after which dryland farming can resume. The Golden Report employed data that is consistent with the KGS model described above.

In assessing the respective economic impacts of the three possible reduction levels and the three scenarios described above, the Golden Report employed a variety of tools, including input-output impact analysis, and specifically, Impact Analysis for Planning (IMPLAN). IMPLAN is a commonly accepted method of economic analysis that has been used by agricultural economists in Colorado, Kansas, and Nebraska. IMPLAN has been accepted as a reliable and persuasive method of assessing water-use impacts on agriculture by the Supreme Court of the United States. *See Kansas v. Colorado*, No. 105, Orig., Fifth and Final Report of the Special Master, at 20 (Feb. 4, 2008). *See also Kansas v. Colorado*, No. 105 Orig., 543 U.S. 86, 91 (2004) (accepting the use of IMPLAN to award economic damages).

According to the Golden Report, under the first option, over a 60 year period,—no reduction in groundwater pumping—the irrigated acres of the SD-6 area declined from 16,062 in year one to 8,245 in year 60. Future gross profits tracked this unregulated decline in groundwater levels beginning at about \$5,279,829 in Year 1 and dropping to \$3,997,627 in Year 60.

Under the other Golden Report extreme—a 30% reducing in groundwater pumping—the decline in water use and profitability is far less precipitous. The irrigated acres of the SD-6 area were projected to decline from 16,062 in year one to 13,327 acres in year 60. Future gross profits track this less aggressive decline in groundwater levels, starting at \$4,717,461 in year one and dropping to \$4,285,202 in year 60.

The SD-6 LEMA ultimately adopted a 20% reduction. A middle ground between continuing the groundwater mining then occurring and a 30% immediate reduction for all irrigated rights.

In 2016, Golden issued his Interim Report for the SD-6 LEMA. There, Golden found that past efforts (pre-LEMA efforts) to slow decline and ensure the future economic viability of the region have been largely unsuccessful. Golden noted that “LEMAs are proactive, locally designed, and initiated water management strategies for a specific geographic area that are promoted through a

GMD and then reviewed and approved by the Chief Engineer.” *Id.* at 1. He further notes that the LEMA blueprint may be the future of groundwater management; that it overcomes the problems associated with the ‘top-down’ Intensive Groundwater Use Control Areal (IGUCA) process; and it “minimizes the common property externality associated with groundwater extraction.” *Id.* at 2.

Golden, in his SD-6 Interim Report, then compared those producers inside the SD-6 LEMA with those producers outside the SD-6 LEMA to determine the SD-6 LEMA’s economic impact using methods that are consistent with methods used by the Kansas Department of Agriculture. *Id.* at 2-3. On comparing the control and the target group, Golden concluded that producers were able to reduce groundwater use in the SD-6 LEMA area with minimal impacts on cash flow (gross profits less expense equating to net profits). *Id.* at 2-3.

Furthermore, the Proposal does not contain any restrictions below the average water needs for corn; and, most of the wells or groups have allocations at or above the drier 80% chance NIR for corn (see explanation of NIR above). Last, the greatest restriction, 25%, is well within the 0% reduction to 30% reduction ranges contemplated by the Golden Reports (Golden Report and SD-6 Interim Report) to maintain the economic viability of the GMD 4 region.

The Benefits of the LEMA will inure to the water users in GMD 4. Wilson Testimony, Final Hr’g, 216-217.

3. Conclusion

No person or entity testified that water users and the GMD 4 should continue depleting the aquifer at current rates and should not conserve water. No one testified that the water table in the aquifer was not declining—and some testified that it was excessively declining in areas. The consensus was that conservation needed to begin taking place to preserve the long-term economic viability of the GMD 4. No one testified that the GMD 4 was not a hydrologically connected region and that the conservation measures that occur in the GMD 4 will benefit the water users of the GMD 4. No one testified that nothing should be done and that draining the aquifer is appropriate. Therefore, corrective control measures should be implemented.

The corrective control measures as proposed should be adopted by the Chief Engineer. The Kansas Legislature designated the GMDs as the entities to propose LEMAs and the Chief Engineer as the person to review the proposed LEMA to determine if it has reasonable boundaries, sets a goal to conserve water, and sets corrective controls to meet that goal. Here, the GMD 4 proposed reasonable boundaries, set a goal to conserve water, and proposed corrective control measures to meet that goal. In doing so, the Proposal does treat different uses differently as allowed by K.S.A. 82a-1041(f)(3); and yet, it only exists for five years, preserves the base water right, preserves the ability for impairment complaints to be initiated, rewards conservation because of the hydrological connections and the directive to consider a 10% carryover, and is economically viable. For these reasons, the Chief Engineer reviewed the Proposal and initiated the public hearings.

The Kansas Legislature set a process of two, non-adversarial review hearings where the Chief Engineer, or his designee, can accept oral and written testimony and make a decision. K.S.A. 82a-1041(b). Constance C. Owen was the hearing officer for the Initial Hearing and, after hearing the testimony, made the three factual findings necessary to go to the second hearing. The Chief

Engineer has conducted the Final Hearing. After those hearings, the Chief Engineer can accept the proposed LEMA, reject that LEMA, or modify it and send it back to the GMD proposing the LEMA to accept the modifications. K.S.A. 82a-1041(d). The GMD 4 and the KLA request this outcome as to livestock water users. The GMD 4 also requests the Chief Engineer adopt the rest of the Proposal.

As Mr. Ziegelmeier stated after describing the declining water table in his area, “I think it is time we get on the ball and do something.” Ziegelmeier Testimony, Final Hr’g Tr. 154:8-9. The aquifer will continue declining, and excessively declining, without corrective control measures. The Proposal should reach the goals of reducing water use and educating water users, the Chief Engineer should adopt the Proposal. Specifically, The Chief Engineer should adopt Hearing Officer Owen’s Order on Initial Requirements of the Groundwater Management District No. 4 District-Wide Local Enhanced Management (LEMA) and incorporate it into the Chief Engineer’s order. The Chief Engineer should issue an Order of Decision accepting the Proposal with the Modifications and return the Proposal with the Modifications to GMD 4 for approval. On approval by the GMD 4, the Chief Engineer should issue an Order of Designation designating all of the GMD 4 as a LEMA and implementing the modified corrective controls within the Proposal and described above.

Respectfully submitted,

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Certificate of Service

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