

BEFORE THE KANSAS DEPARTMENT OF AGRICULTURE
DIVISION OF WATER RESOURCES

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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.)
_____)

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Case No. 002-DWR-LEMA-2017

Order on Initial Requirements
of the Groundwater Management District No. 4
District-Wide Local Enhanced Management Area (LEMA)

On the 23rd day of August 2017, the above-captioned matter came on for hearing before the undersigned Hearing Officer, who was delegated to hear this matter by the Chief Engineer of the Division of Water Resources, Kansas Department of Agriculture. The hearing, conducted in Frahm Theater at the Cultural Arts Center at Colby Community College, Colby, Kansas was called to order at 9:08 a.m.

Procedural Background

This proceeding was initiated by the Board of Directors of the Northwest Kansas Groundwater Management District No. 4, pursuant to K.S.A. 82a-1041. This statute governs the process for the creation of a Local Enhanced Management Area (LEMA). The Board of Directors requested the approval of a district-wide LEMA in that groundwater management district (GMD4).

The LEMA statute proscribes a multi-stage process for approval. In the first stage, a groundwater management district requests approval of a proposed LEMA from the Kansas Department of Agriculture's Division of Water Resources (DWR), specifically, the Chief Engineer of DWR. K.S.A. 82a-1041(a). The Chief Engineer then reviews the plan based on five criteria listed in the statute. *Id.* If the Chief finds all five elements present in the plan, he or she shall hold an initial public hearing to determine if three specific factual matters are satisfied. K.S.A. 82a-1041(b). If the initial public hearing is favorable to the LEMA plan on all three counts, the matter proceeds to a second public hearing, held by the Chief Engineer to evaluate the merits of the proposed plan, including the corrective controls. K.S.A. 82a-1041(b)(3), (c). In general, the Chief Engineer may approve or reject the plan as proposed, or return it to the GMD for revisions or modifications. K.S.A. 82-1041(d). The current order addresses the initial public hearing, as described in K.S.A. 82a-1041(b).

On June 8, 2017, GMD4 submitted to the Chief Engineer, David W. Barfield (Chief Engineer), a plan for a proposed district-wide LEMA. In a letter dated June 27, 2017, the Chief Engineer informed Ray Luhman, Manager of the GMD, that the proposal met the five requirements of K.S.A. 82a-1401(a). The letter further stated that the Chief Engineer had designated this hearing officer to conduct an initial public hearing, in accordance with K.S.A. 82a-1401(b).

Notice of Hearing

Notice of this hearing was provided to water right holders of record in the area by certified mail, and to associated water use correspondents by first class mail. A copy of the Notice of Hearing was published in the Colby Free Press, the Goodland Star News, and the Kansas Register, at least 30 days prior to the date of the hearing.

Applicable Law

When proceedings to designate a LEMA are initiated, K.S.A. 82a-1041(b) requires an initial public hearing on the question of designating such an area as a local enhanced management area according to the local enhanced management plan. K.S.A. 82a-1041(b) provides,

"The initial public hearing shall resolve the following findings of fact:

- (1) Whether one or more of the circumstances specified in subsection (a) through (d) of K.S.A. 82a-1036, and amendments thereto, exist;
- (2) whether the public interest of K.S.A. 82a-1020, and amendments thereto, requires that one or more corrective control provisions be adopted; and
- (3) whether the geographic boundaries are reasonable." K.S.A. 82a-1041(b).

The "circumstances specified in subsections (a) through (d) K.S.A. 82a-1036" are:

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

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SEP 25 2017

If the proposed LEMA plan meets these three criteria, a second public hearing will be conducted by the Chief Engineer to determine if the plan should be adopted as proposed, rejected or returned to GMD4 for revision or modification. K.S.A. 82a-1041(d).

Comments Submitted at the Hearing

The comments offered at the initial public hearing, whether oral or written, have all been taken into account in the preparation of this order and the findings herein.

Ray Luhman, Manager of the Northwest Kansas Groundwater Management District No. 4 (GMD4), summarized the plan and submitted oral and written testimony in support of a finding that the plan meets the three initial criteria. Mr. Luhman, on behalf of GMD4, also subsequently submitted supplemental written testimony. This testimony is described later in this order.

Brownie Wilson, Geographic Information Systems and Support Services Manager for the Geohydrology Section at the Kansas Geological Survey, read his written testimony at the hearing. Mr. Wilson testified about the studies the KGS performed at the request of GMD4. He stated that, in May 2016, at the GMD's request, the KGS looked at the changes in the saturated thickness of the Ogallala/High Plains Aquifer (HPA) from 2004 to 2015 within the boundaries of GMD4. He defined the saturated thickness in the HPA as the difference in elevation between the underlying bedrock and the water table for a given year.

Mr. Wilson described in detail the Cooperative Water Level Program, in which KGS and DWR measure depth-to-water in approximately 1400 wells across the HPA, in which measurements are taken from the same wells each year. These measurements are field checked, digitally stored, analyzed to detect anomalies, and reviewed further if anomalies are found. Mr. Wilson further explained the procedures used, including downloading measurements and locations, mapping that data, removing unreliable well measurements from the data set and calculating three-year averages (2004, 2009 and 2015). KGS then isolated data relative to wells within GMD4, using computer modeling to estimate water table elevations across the GMD and to overlay the public land survey system (PLSS) sections grid across the elevation estimations. Also, each PLSS section was assigned the mean bedrock elevation from data used in KGS published reports, along with the land surface elevation from United States Geological Survey data. The GMD was then provided a resulting Microsoft Excel spreadsheet and GIS files of the PLSS sections within the GMD. According to Mr. Wilson's report, "the change in the water

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SEP 25 2017

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table between those years and the saturated thickness can be readily computed at the PLSS-section level."

Two further reviews of the data led to further refining of the wells used; a particular well with significant decline unlike others in its area was removed from the dataset, and eleven wells within the GMD that were found to be alluvial were removed from the dataset. KGS conducted an additional application of the modeling and calculation process after each review.

Mr. Wilson's report states as follows:

"The average saturated thickness for GMD4 was 76 feet in 2004 and 70 feet in 2015. The greatest areas of change in the water table occurred in southwest portions of Sherman County where the average rate of decline from 2004 to 2015 was over 20 feet. Much of Sherman County and portions of Thomas and Sheridan County averaged declines of 12 feet. 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 GMD4."

Lane Letourneau, Program Manager for DWR's Water Appropriations Program, presented an oral statement in support of the LEMA. Mr. Letourneau stated that DWR has reviewed the proposed LEMA plan and found that it meets the standards to begin the hearing process. He also stated that DWR views the proposed LEMA as meeting the statutory mandates "requiring the chief engineer to provide due consideration to water management or conservation measures previously implemented by the water-right holder." Mr. Letourneau explained that the plan would not require pumping reductions from water right holders who are already conserving and already meeting the stated pumping goals.

Individual members of the public were given the opportunity to speak at the hearing. Eight individuals offered oral comments at the initial hearing; some of them also submitted written comments at the hearing or at a later date. These comments, oral and written, have all been taken into account in the preparation of this order and the findings herein. The following individuals spoke at the hearing:

Scott Ross, of Stockton, Kansas, testified at the hearing and offered a written statement. In his oral testimony, Mr. Ross, principal of Water Rights Investigative Service, LLC, spoke on behalf of his family's interests in the area, both agricultural and business-related. He stated that he was involved in the Sheridan 6 LEMA process from the early 1990's through the passage of the LEMA statute in 2012. His concern is the

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SEP 25 2017

district-wide scope of this LEMA plan. According to Mr. Ross, "the intent [of the LEMA process] was always to have a smaller, more personalized local group develop processes" such as the Sheridan 6 LEMA, which has been a "great success."

In his written testimony, Mr. Ross stated that he is generally in favor of the LEMA process. He watched with great interest the process of how the Sheridan 6 LEMA came to be, including the passage of the new statute to enable LEMAs to be created. He described with great detail GMD4's development of aquifer sub-units and high priority areas within the GMD, the investigation of various management techniques and concepts, and the intensive efforts to involve the local water users in each stage of the process. Mr. Ross characterized the results of the first 5 years of the Sheridan 6 LEMA's existence as "a resounding success." He then argued against the proposed boundaries of the district-wide LEMA proposal, urging that "more data can and should be collected and more analysis done to target specific areas in need of corrective control measures." To illustrate his position, he cited a number of factors regarding the eastern half of Sheridan County, including the following:

"The area encompasses 360 square miles of surface area east of Highway 23. It is underlain by 2 fresh water aquifers, the alluvial aquifers of the Saline and South Fork Solomon Rivers and their tributaries, as well as the High Plains Ogallala Aquifer.

This area contains 285 permitted wells some are diverting water from both aquifers, some from only one. Among these 285 wells, 103 of them have or should have water Level Measurement Tubes installed for the purpose of measuring water levels.

The water levels in High Plains Ogallala aquifer are measured at least annually by 16 wells as recorded within the Kansas Geological Survey's WIZARD database. At least two of these wells are most likely alluvial wells or at best include both alluvial and High Plains aquifers. Several townships within this area have no recorded water level measurements, and yet they are being included. Several other townships included in this area show increased water levels. . . .

[GMD4] provides for their recharge calculation to use 1/2 inch of precipitation recharge per acre. Based on USGS 87-4230, currently accepted data, eastern Sheridan County would have a recharge value of between .875 and one inch per acre or conservatively 250 acre-feet per 2-mile circle more water to appropriate. The water users in eastern Sheridan County have little reason to be restricted. . .

This area includes water users who utilize alluvial aquifers not necessarily connected to the High Plains Ogallala Aquifer. They would be forced to act to establish their right before they could be removed from this proposed LEMA."

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SEP 25 2017

Mr. Ross explained that the LEMA process was intended to be developed by water users themselves, and to only apply to those users' local area within a GMD rather than to a GMD as a whole. He asserted that the LEMA proposal should be returned to the GMD4 Board of Directors with a recommendation to focus on the already-designated high priority areas (other than Sheridan 6), with inclusion of local input.

Pat Haffner of Hoxie, Kansas, expressed concern about whether the proposed LEMA boundaries are reasonable. He stated that some areas within GMD4 meet the criteria for excess groundwater decline or withdrawals exceeding recharge, but many areas within the GMD do not meet these same criteria. He contends the data does not support including the entire GMD in this LEMA proposal. He suggested "we might be pushing this a little fast," and "if we're going to do it, we ought to have it right, we ought to have the boundaries right and we ought to know what we're really doing here."

Mike McKenna of Jennings, Kansas, spoke on behalf of a property owner in Sheridan County. He expressed doubt that GMD4 has demonstrated the need for a LEMA regarding townships that are marked as blue or green on the KGS map illustrating groundwater level declines. He objected to additional levels of regulation and bureaucracy in that area of Sheridan County.

Lori Wilson, who lives southeast of Colby, Kansas, spoke in favor of approving the proposed LEMA plan. She stated that, while restrictions are never fun, the fact that water levels have declined considerably is a fact where she lives. She stated, "where we live, we can't go any deeper." She stated that the water levels in wells serving her two windmills had dropped 21 feet this year. She urged approval of the LEMA plan to protect water availability for future generations.

Chastity Mader, who owns property north of Quinter, Kansas, in both Sheridan and Gove Counties, agreed "we all need to do our part to conserve water." She expressed concern as to whether the proposed plan would only impose restrictions on agricultural users and not on towns. She described her family's conservation methods, including only watering one circle, irrigating that circle only when needed and only at night to conserve water, not watering their lawn, and only watering the windbreaks in times of extreme heat. She also had questions about how proposed restrictions might affect her property; because these questions were outside the scope of the hearing, she was referred to GMD staff for answers.

Harold Murphy, who lives south of Selden, Kansas, stated that he had concerns about the proposed boundaries in that it was his understanding, "where we've already been in the LEMA, that's been factored in, and we'll still have our LEMA." This

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SEP 25 2017

statement would indicate that he lives within the Sheridan 6 LEMA. He expressed concern about an impact of a corrective control provision in the Sheridan 6 LEMA, which he assumed would apply under the proposed LEMA. He also expressed general concerns about the proposed LEMA's impact on livestock operations.

Bert Stramel, who farms south of Colby, spoke at the hearing and subsequently submitted comments in writing. Mr. Stramel stated that he was intensively involved with the creation of the LEMA rules prior to the Sheridan 6 LEMA, and has intensively followed the process of the proposed GMD4 LEMA. He stated the LEMA process was "meant for locals to submit a smaller area to the chief engineer through the GMD4, or through a GMD", whereas the GMD4 LEMA "has been more of a GMD designed plan that has been forced upon the irrigators -- or against the water users, I should say." He emphasized, however, that "I wholeheartedly believe we need restrictions in the entire District." Mr. Stramel also contends the LEMA would take, or at least deny access to, a private property right. He alleges the color-coded township map was changed over time to gain more votes to support it. He rejects the GMD's characterization that recent GMD board election results reflect support for the LEMA; he claims many other factors influenced the outcome of those elections.

In his written comments, Mr. Stramel opposed the LEMA for a variety of reasons. He wrote, "[t]his plan was submitted by the local GMD and will be forced upon water right holders who never requested such a plan." He alleged the plan would deprive him of the full value of his water right without his consent and that the restrictions would violate current water law by disregarding the principles of prior appropriation. Mr. Stramel stated that at every meeting he attended, the public wanted to vote on the LEMA, but GMD4 staff refused. He alleged that the GMD4 informational meetings did not adequately educate the public on the LEMA proposal. He alleged this LEMA does not require the additional monitoring wells or the collection of any new data. Mr. Stramel described inconsistencies between the exemption from restrictions for certain townships, despite apparent waste of water in those townships. Mr. Stramel urged that this plan be sent back to GMD4 so they can educate and represent their constituents.

Jon Friesen of Colby, Kansas, spoke at the hearing and subsequently submitted comments in writing. Mr. Friesen expressed his concern for the protection of water rights, which he stated he fought to protect during his 12 years as a GMD4 board member. He also cited a level of distrust regarding how the most recent GMD4 board election results were tallied. He stated, "Our GMD Board represents us. It is solely funded from us, the water users and the landowners." Mr. Friesen complained that there was never a public vote or show of hands at a GMD board meeting as to whether the

WATER RESOURCES
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SEP 25 2017

proposed LEMA should be adopted. He also challenged the exclusive use of KGS data, based on a water level measurement that was higher in 2016 than in 2014 and 2015.

In his written comments, Mr. Friesen stated that the LEMA plan was never a grassroots plan for which the process was designed. He stated that, if the use of water rights is to be altered, there should be a public vote. He contended that water users' voices were not heard in this process and that this LEMA plan was "pushed by the State" and that the GMD board followed suit. Mr. Friesen challenges some of the corrective control provisions of the proposed LEMA. He also objected to what he believes were personal opinions given in the DWR testimony. Mr. Friesen requests this plan be returned to the GMD4 board for improvement and that a public vote of the GMD4 voters be held.

Public Comments Submitted in Writing Only

Some individual members of the public submitted written comments addressing the issues at hand. These comments have all been taken into account in the preparation of this order and the findings herein.

Sharon Stramel of Colby, Kansas, wrote in support of proceeding with the LEMA plan. She stated that she has been involved with farming all her life, both irrigation and dry land farming. In the last 2 years she has had to lower the pipe in her pasture well 17 feet and 23 feet. She described the water situation as "critical", and stressed the need for conservation measures to provide water for her and her grandchildren.

Max E. Mann, D.V.M. of the Quinter area, wrote with concerns about the boundaries of the proposed LEMA. Dr. Mann is a landowner, producer and water right holder in GMD4; he is a retired veterinarian who practiced in the Quinter area for 50 years. Dr. Mann states that there is a variation of the depth and saturated thickness of the water table of the Ogallala Aquifer underlying GMD4, and that the high priority areas of greatest depletion have been defined by data from the Kansas Geological Survey, as well as data from water right holders. This data comes from various sources, including well drillers' logs, pumping records and static water-level measurements. Dr. Mann states that the proposed district-wide LEMA boundaries do not reflect the hydrological data. He would support a LEMA in GMD4 if the boundaries were "defined by wells exhibiting the greatest drop in static water level."

Leonard Kashka, Jr., of Goodland, Kansas, wrote about the need for conservation of water and the Governor's encouragement of conservation in 2012. Mr. Kashka contends that the proposed LEMA's water use restrictions do not take into account the

WATER RESOURCES
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SEP 25 2017

conservation efforts already undertaken by some water users, which he considers discriminatory. He argues that, under the proposed allocations, some users who have overpumped their water rights will be less restricted than those who have conserved.

Doyle E. Saddler of Colby, Kansas, M.S. in Physical Geography and B.S. in Geology, wrote to challenge a number of aspects of the proposed LEMA. Mr. Sadler contends a GMD board member, rather than a GMD employee, should have given testimony at the hearing; DWR should stay neutral and abstain from supporting the plan; the KGS comments are misleading because an observation well measurement is only relevant to that well; creating a district-wide LEMA is, in effect, creating a new GMD, which required a public vote, meaning a district-wide LEMA should be subject to a public vote; the proposed corrective controls violate the principle of prior appropriation ("first in time is first in right"); drought provisions are nonexistent; GMD board members who do not have wells in the most restricted areas should refrain from voting on the proposal to avoid a conflict of interest; if water use restrictions are imposed, they should apply equally to all water rights; this LEMA plan will impact investment in ways that cannot be predicted, so a small board should not make this decision. Mr. Saddler stated his concurrence with the comments of Scott Ross.

DISCUSSION AND FINDINGS OF FACT

The purpose of this hearing, in accordance with the LEMA statute, is to resolve three factual issues, as delineated by K.S.A. 82a-1041(b):

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

1) Do one of more of the circumstances specified in subsection (a) through (d) of K.S.A. 82a-1036 exist here?

The LEMA statute borrows these four circumstances from K.S.A. 82a-1036, which relates to the creation of Intensive Groundwater Use Control Areas. The four circumstances are:

- (a) Groundwater levels in the area in question are declining or have declined excessively; or

(b) the rate of withdrawal of groundwater within the area in question equals or exceeds the rate of recharge in such area; or

(c) preventable waste of water is occurring or may occur within the area in question; or

(d) unreasonable deterioration of the quality of water is occurring or may occur within the area in question. K.S.A. 82a-1036.

Ray Luhman, Manager of the Northwest Kansas Groundwater Management District No. 4 (GMD4), submitted oral and written testimony in support of a finding that the LEMA plan meets the first two of these four IGUCA criteria.

Mr. Luhman stated that groundwater levels are declining or have declined excessively within GMD4, the area covered by the proposed LEMA. In support, he cited to KGS section level data, as represented on a color-coded map attached to the GMD4 testimony. (GMD4 Exhibit 1.) He stated that the townships used in the KGS calculations have at least 15 feet of saturated thickness. In the GMD areas marked as red, yellow and purple on the map, "there is at least a 0.5% annual decline in the water table over an eleven-year period." According to the exhibit, the eleven-year period covers 2004 through 2015. Mr. Luhman further stated, "[t]ownships exhibiting less than 0.5% decline rate have no restrictions imposed, only additional monitoring enforcement criteria." These townships are marked on the map as blue and green.

Mr. Luhman also contended the rate of withdrawal equals or exceeds the rate of recharge in the area of the proposed LEMA. In Mr. Luhman's report, GMD4 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 lawfully be pumped under those water rights. The data is given in annual district-wide totals, for each year in the seven-year period covering 2009 through 2015. (GMD4 Exhibit 1.1.)

The GMD cited KGS data indicating the annual rate of recharge for the seven-year period as a range, between 126,910 acre-feet per year to 160,320 acre-feet per year. (GMD4 Exhibit 1.1.)

The GMD cited water use record totals, derived from annual reports submitted by the water right holders within GMD4, for each of the seven years. (GMD4 Exhibit 1.1) These annual amounts, representing total water usage by all water right holders within GMD4, range from 307,051 acre-feet per year to 539,567 acre-feet per year. When the seven totals are averaged, the average annual usage for that seven-year period is 419,850 acre-feet per year.

The GMD exhibit indicates the total amount of water allocated for annual use in GMD4 is 848,476.9 acre-feet. (GMD4 Exhibit 1.1.) This data point represents the maximum amount of water that can be lawfully pumped each year under all the water rights within GMD4. (Actual usage may not lawfully exceed this amount although, as the data shows, actual usage may be less.)

To establish that the rate of withdrawal of groundwater within the GMD equals or exceeds the rate of recharge, GMD4 demonstrated that, for the seven-year period noted, the yearly maximum amount of water that may be lawfully used by all water rights within the GMD (848,476.9 acre-feet) exceeds the yearly rate of recharge (from 126,910 acre-feet to 160,320 acre-feet). GMD4 also demonstrated that the actual water used each year during these seven years (an average of 419,850 acre-feet) exceeds the yearly rate of recharge (from 126,910 acre-feet to 160,320 acre-feet). Moreover, in the year of least water use, 2009, the 307,051 acre-feet of water used far exceeds even the largest point in the range of recharge (160,320 acre-feet).

Brownie Wilson's testimony and report detailed the methodologies used by the KGS to obtain and calculate water level data in the proposed LEMA area, as well as their multiple review protocols. Ray Luhman testified that this data was used to develop the current LEMA proposal.

A significant number of the public comments challenged this LEMA plan based on the fact that the proposed area included townships GMD4 has designated as not currently experiencing excessive groundwater level declines. Indeed, GMD4 explicitly concedes this fact. GMD4 stated that "groundwater levels are declining excessively" in townships where the KGS found to have at least 0.5% annual water table decline. Those areas were marked on the KGS color-coded map as red, yellow and purple. In contrast, GMD4 stated that the areas marked blue and green, areas where KGS found the annual decline to be less than 0.5%, would have no restrictions imposed and would be subject only to monitoring and enforcement. There was no testimony suggesting that water tables have not declined or are not declining excessively anywhere within GMD4. Whether or not to include the green and blue areas is an issue more directly pertaining to whether the proposed boundaries are reasonable; this issue will be addressed below, relative to K.S.A. 82a-1041(b)(3).

Some public comments supported adoption of this LEMA to address severe water level declines, including personal corroboration of significant water level declines in the area. Other comments encouraged conservation measures even if they took issue with the details of this LEMA proposal.

The credible and relevant data provided by the KGS and used to develop this LEMA proposal corroborates GMD4's conclusion that water levels are declining or have declined excessively and that withdrawals equal or exceed the rate of recharge in the area of the proposed GMD4 LEMA.

After careful consideration of all the evidence, the Hearing Officer finds that this LEMA proposal meets the first criteria of K.S.A. 82a-1041(b).

(2) Does the public interest of K.S.A. 82a-1020 require that one or more corrective control provisions be adopted?

The public interest standard referenced here is the statutory declaration of the policy and purpose of the Groundwater Management District Act, 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." K.S.A. 82a-1020.

Thus, in order for a LEMA plan to be considered in the public interest it must seek to further conservation and protection of groundwater resources, establish the right of local water users to "determine their destiny" regarding groundwater management, and meet both goals while in compliance with state law and policy.

According to Mr. Luhman's testimony, GMD4 emphasized the language in K.S.A. 82a-1020 regarding the public interest in allowing local water users to determine their own destiny with respect to the use of groundwater insofar as there are no conflicts with basic laws and policies of the state. GMD4 contended that, as long as a proposed LEMA comes from local GMD Board of Directors, and that the requested corrective control

WATER RESOURCES
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SEP 25 2017

provisions are consistent with state law, then the public interest component of K.S.A. 82a-1041(b)(2) is satisfied.

The GMD also contended there was significant public involvement in the process of developing this LEMA plan. According to Mr. Luhman, GMD4 held two public meetings and multiple board meetings with "many interested people attending" between January 2015 and June 2017. GMD4 also stated that it provided its water users information about a potential district-wide LEMA very early in the discussions, and that GMD4 created a webpage on the topic and updated it regularly. Mr. Luhman's testimony stated, "Beginning in January of 2015, the process was covered by at least 28 board meetings." The GMD also cited the outcome of a February 2017 election of members of the GMD Board of Directors as reflecting public support for the LEMA, although the minutes of that meeting do not reflect any of the positions of the candidates. (Exhibit 2.1.) GMD4 concluded that this LEMA proposal was "locally developed and locally requested."

GMD4 also cited excerpts from its Management Program dated September 19, 2016, addressing the potential for conflict, or at least inconsistency, between what might be in the public interest as expressed at the state level as compared to interpretations of public interest applicable to the specific region in which GMD4 lies. As described above, the law enabling the creation of Groundwater Management Districts simultaneously empowers local involvement in groundwater management while prohibiting local action from conflicting with state laws and policies. K.S.A. 82a-1020. The GMD4 Management Program concludes, "A single expression of public interest exclusively from the state perspective may not serve Kansas as well as a more flexible definition recognizing regional diversity." The Management Program declares GMD4's goals as conveying a clear expression of public interest and working with the Legislature and all appropriate state agencies to insure that they recognize, support and promote the local public interest expressed in the Management Program.

Mr. Luhman further cited the GMD4 Management Program's provision that the problem of groundwater depletion "may necessitate policies encouraging or mandating higher efficiencies of water usage along with efforts that reduce consumptive water use". This provision lists a number of possible actions to address the depletion problem, including the establishment of a LEMA. Thus, Mr. Luhman contends the proposal for this LEMA is "in the public interests as per our management program."

At least one public comment suggested this LEMA process does not meet the public interest criteria because no public vote was held to determine support or resistance.

WATER RESOURCES
RECEIVED

SEP 25 2017

The LEMA statute resolves this complaint. The LEMA law does not require a public vote, so the lack of one does not invalidate the LEMA process here.

Another public comment objected to the GMD characterizing the recent board election as reflecting a general support for this LEMA. As noted above, the minutes of that board meeting do not reflect any of the positions of the candidates. (Exhibit 2.1.) The record does not establish the outcome of the election as reflecting public opinion about the proposed LEMA, whether positive, negative or indifferent. Therefore, this board election is not persuasive as either supporting the LEMA or opposing it.

A few of the public comments objected to the adoption of this LEMA based on allegations that the involvement of the public was insufficient and that GMD4 did not allow for adequate public involvement in the development of this proposal. The complaints included claims that the public was not adequately informed and that the proposal had originated with the GMD rather than local individual water users. The criteria at issue here, as found in the LEMA statute, asks "whether the public interest of K.S.A. 82a-1020, and amendments thereto, requires that one or more corrective control provisions be adopted." In the context of the GMD Act, "public interest" is comprised of two primary considerations: proper management of groundwater and local input in that management. As found above, the need for proper groundwater management in GMD4 is not in serious question. It was fundamental to the creation of the district in 1976 and, as the record shows, it is more pronounced now.

However, there is disagreement as to whether this proposed LEMA meets the second component of "public interest" in K.S.A. 82a-1020: that local water users determine their destiny with respect to the management of groundwater. The LEMA statute itself gives guidance on this issue. According to K.S.A. 82a-1041(a), the first official step for creating a LEMA is when the "groundwater management district" recommends the approval of such a plan to the Chief Engineer of the Division of Water Resources. Under the Groundwater Management District Act, "*All powers granted to a groundwater management district under the provisions of this act shall be exercised by an elected board of directors*". (Emphasis added.) K.S.A. 82a-1027(a). The GMD Act envisions that the Board of Directors, elected by its voters and acting as their representatives, is the mechanism through which the local water users determine their destiny, at least as to powers granted by that Act. In this case, the GMD4 Board of Directors submitted their LEMA proposal to the Chief Engineer, which appears to meet the second component of the statutory "public interest" criteria of K.S.A. 82a-1041(b)(2).

In comparison, the statute allowing for the creation of water conservation areas, K.S.A. 82a-745, specifically states, "Any water right owner or a group of water right

owners in a designated area may enter into a consent agreement and order with the chief engineer to establish a water conservation area. The water right owner or group of water right owners shall submit a management plan to the chief engineer." K.S.A. 82a-745(a). Had the legislature included similar language in the LEMA statute, the analysis here may well have reached a different conclusion.

Although this statutory analysis seems to resolve the "public interest" matter, it is important to address the objections. Regarding the opportunity for public involvement, the record shows that GMD4 held two public meetings and at least 28 public board meetings at which the district-wide LEMA was discussed between January 2015 and June 2017. Ray Luhman testified that many interested people attended. Exhibits attached to GMD4 testimony include copies of sign-in sheets at public meetings held in Colby (97 signatures), Goodland (88 signatures), St. Francis (49 signatures), and Hoxie (60 signatures), Kansas. This evidence supports a finding of sufficient opportunity for public involvement.

A number of the public comments described personal involvement in, or knowledge about, the development of the Sheridan 6 LEMA and the creation of the LEMA concept. [See *In the Matter of the Designation of the Sheridan 6 Local Enhanced Management Area (LEMA)*; Dept. of Agriculture, Case No. 12 WATER 8366 (2012).] These comments explain that the original vision was that LEMAs would be initiated by a group of local water users within a GMD, and those individuals would then work through their GMD board to present a plan to the Chief Engineer of DWR. Although there is no reason in the record to doubt these explanations, that vision was not ultimately expressed in the language of the LEMA statute. [The fundamental rule of statutory interpretation "is to give the statute the effect intended by the legislature. . . . If a statutory provision is clear from its plain language, then that language is to be applied as expressed." *Hawley v. Kansas Dept. of Agriculture*, 281 Kan. 603, 608, 132 P.3d 870 (2006)] As a result, this order must respect the statutory language of K.S.A. 82a-1041(a).

It is also noteworthy that the LEMA law's "public interest" criteria states that the public interest as defined in the GMD Act "requires that *one or more corrective control provisions* be adopted." (Emphasis added) K.S.A. 82a-1041(b)(2). This provision does not ask if the public interest requires the entire proposed LEMA be adopted. Thus, it is sufficient if the public interest (the need for groundwater management and the exercise of local input) requires even one corrective control. This provision is consistent with the two-stage hearing process in which the LEMA's proposed corrective controls can be addressed at a subsequent hearing.

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After careful consideration of all the evidence, the Hearing Officer finds that this LEMA proposal meets the second criteria of K.S.A. 82a-1041(b).

(3) Are the geographic boundaries reasonable?

Finally, GMD4 contended the geographic boundaries of the proposed LEMA are reasonable. In support, Mr. Luhman noted that the proposed LEMA boundaries are the boundaries of the GMD itself. He explained that this GMD was created in 1976, based on a vote of the local water users, pursuant to statute. Now those boundaries are being used to establish further water conservation measures, specifically, this LEMA. According to Mr. Luhman, each township within GMD4 was analyzed for its respective annual decline rate from 2004 to 2015 using KGS section level data. The LEMA plan recognizes these differing rates of decline and proposes water use restrictions accordingly. Those townships 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. GMD4 states that, in light of the 5-year scope of this plan, the Board of Directors "deems such decline rates acceptable for now."

Regarding the townships with at least 0.5% annual water level decline, the GMD discussed how "zoned values", based on net irrigation requirements, were used to differentiate irrigation restrictions in the townships where restrictions would be imposed. The GMD also explained the water use restrictions proposed for stockwatering. To the extent that these discussions address the merits of the LEMA's potential restrictions, they are beyond the parameters for consideration in this stage of the hearing process. These discussions are only appropriate insofar as they are alleged to justify the boundaries.

In supplemental testimony, GMD4 contended the district-wide scope of the LEMA will serve a number of purposes, all of which support a 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. To this end, approximately 82% of water rights within the GMD (basically those in areas of at least 0.5% annual decline) will have a reduced allocation of water under the LEMA. The remainder, the areas of lesser decline, will be subject to increased monitoring and enforcement, but not a reduction in usage. DWR testimony corroborated the notion that this LEMA would not require pumping reductions from water right holders who are already conserving and already meeting the stated pumping goals.

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Second, the GMD asserted the LEMA will promote improved management. Increased monitoring by all irrigation users, as required under the LEMA will educate water users and encourage more judicious use of water. Third, the GMD contended the LEMA will create an incentive for water users located in the townships currently below 0.5% annual decline (marked as blue and green on the KGS map) to judiciously use water to prevent their townships from experiencing more decline and thereby becoming eligible for possible reductions in allocations in the future. Four, the inclusion of all townships within the GMD will allow for adjustments in corrective controls as areas experience greater or lesser decline, rather than a revision of boundaries along with new calculations. The GMD asserts the ability to adjust allocations up or down as the water table changes is a more effective and efficient method of management.

GMD4 responded to the complaint that the district-wide boundaries of this LEMA fail to implement corrective controls on a sub-aquifer basis. The GMD alleged the proposed LEMA identifies, and responds to, smaller aquifer sub-units because varying restrictions will be imposed based on the existing circumstances in different areas.

For all the reasons just described, GMD4 contends the district-wide boundaries of this proposed LEMA are reasonable.

Of the three factual findings that must be met at this stage for the LEMA plan to proceed, this third finding, whether the boundaries are reasonable, generated the most controversy. Even individuals who challenged the boundaries did so while stating support for the LEMA process in general. The main complaint about the boundaries fundamentally asserts that, although additional reductions in use are appropriate in some areas within GMD4, some areas do not currently need such reductions and therefore, applying the LEMA to the entire district is unreasonable. To put it another way, the argument asserts that the boundaries of a LEMA within GMD4 would be reasonable if they only covered the areas of greatest water table decline.

The key term here, "reasonable", is defined as being in accordance with a rational ground or motive. *Merriam-Webster Dictionary*, available at <https://www.merriam-webster.com/dictionary/reasonable>; <https://www.merriam-webster.com/dictionary/reason>. The question, then, is whether the LEMA's inclusion of areas, specifically townships, with lesser water table declines is without a rational basis. If substantial credible evidence in the record demonstrates a rational basis for the inclusion, it must be found to be reasonable.

The context of delineating areas for groundwater management efforts presents particular problems. There is an inherent problem when surface, or political, boundaries

are used to affect the varying and complicated hydrological realities of water sources existing under the ground. In the *Denver Water Law Review*, James H. Davenport shares water law expert Professor Joseph L. Sax's summary of the dilemma:

"In 2001, Professor Sax urged the importance of reconciling 'hydrologic reality (or rationality)' with 'managerial practicability' when considering watershed management: 'One profoundly important question as one ponders watershed management is to what extent we may have to break problems down into artificial units simply to be able to cope with them at all. The watershed, or whatever the hydrologically-rational unit may be, usually bears little if any relationship whatever to governmental units at any level- from the county to the country. Nor is there any hydrological or ecological measure of managerial capacity.'" 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)(citation omitted).

As Professor Sax explains, groundwater management decisions employing political boundaries can never be perfect. Nonetheless, management decisions must be made. Those decisions are valid if based, to the extent possible, on relevant credible scientific data.

In this case, GMD4 has clearly stated that there are differences in annual water level decline throughout the district. GMD4 relied on KGS data regarding groundwater declines. KGS gathered water level data from a network of well measurements and calculated township-level data, using mathematical interpolations and computer modeling. The resulting township-level data is represented in the record by a color-coded map. (GMD4 Testimony, Attachment 1.) GMD4 defined the areas of excessive decline as those with at least 0.5% annual decline, the townships shown in red, yellow and purple. The GMD stated, "88% of the townships within GMD 4 have declining water tables." These areas of excessive decline represent approximately 82% of the water rights within the GMD4 boundaries. These are the areas in which the LEMA would require reduced water use. There was little, if any, objection to the creation of a LEMA in the areas of excessive decline.

The question is whether it is reasonable to include the other townships in the LEMA. The GMD has clearly conceded that the LEMA boundaries will include townships experiencing less than 0.5% decline, the areas marked on the map as blue and green. The GMD emphasized that these areas will not see reductions in use, only increased monitoring and enforcement. As outlined above, GMD4 set forth several justifications for doing so (basically, improved conservation and more effective

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management). In the most general sense, the objections allege that these townships should not be included because they do not have the more serious level of water table decline. In other words, could a LEMA boundary be found to be reasonable even if it includes areas within it that have no currently demonstrated need?

To address this complaint, one must first recognize the inherent imprecision described by Professor Sax above. As simplistic as it is to say that water levels do not respect township boundaries, this concept is unavoidable when determining the reasonableness of these proposed LEMA boundaries.

Against the backdrop of that managerial dilemma, we need to resolve whether it is reasonable to include areas not currently experiencing excessive decline within a LEMA, along with areas definitely experiencing excessive decline. The same dilemma exists as to recharge rates. The LEMA statute seems to anticipate the unpredictable set of circumstances that could arise with groundwater management because it simply requires the boundaries to be reasonable.

In this case, 88% of the 155 townships within the proposed district-wide LEMA are experiencing 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. The townships not in excessive decline are, nonetheless, included within the GMD. It was determined, as long ago as 1976, that these townships (the 12%) were appropriate for inclusion in a groundwater management district. When the district was first created, part of the process required the Chief Engineer to approve the petition to organize a GMD if certain criteria were met. K.S.A. 82a-1024(b). One of those criteria states, "The lands proposed to be included in the district substantially comprise a hydrologic community of interest." K.S.A. 82a-1024(b)(1). The water level declines and recharge rates throughout the district must have varied widely from each other at that time, yet they were found to comprise a hydrologic community of interest. Although the inclusion of the "12%" townships in the GMD is not, by itself, conclusive that inclusion in the LEMA is reasonable, it supports such a finding.

A finding that this district-wide boundary is reasonable does not mean a smaller boundary would necessarily be unreasonable. However, the LEMA statute only allows evaluation of the boundaries as proposed.

Some of the objections to the proposed boundaries contend it was never the intention of the individuals crafting the LEMA process that a LEMA cover an entire

GMD. The same analysis used in the "public interest" section of this order applies here. This order is restricted by the language of the LEMA law. That law does not prohibit a LEMA boundary from coinciding with the boundary of an entire GMD, nor does it require that the boundaries of a LEMA be smaller than the boundaries of the requesting GMD.

It should also be noted that some comments supported the adoption of the proposed district-wide LEMA. These comments cited personal observations of severe decline in groundwater levels, urged preservation of the groundwater for future generations, and requested that all types of water use in the district (ex., irrigation, stockwatering, municipal) share some of burden of reduced pumping.

The record indicates the following: (1) 88% of the townships within the proposed LEMA are experiencing excessive groundwater level declines as evidenced by KGS data, (2) despite the fact that framing groundwater realities within political surface borders is inherently imprecise, the KGS data is relevant and credible and (3) including the "12%" townships, those not currently experiencing excessive decline, within the proposed LEMA boundaries will encourage conservation and promote more effective and efficient groundwater management in the future. These facts establish a rational basis for the proposed LEMA boundaries. After careful consideration of the record as a whole, the Hearing Officer finds this LEMA proposal meets the third criteria of K.S.A. 82a-1041.

A final note may be in order. The public comments received at the hearing and in writing have been seriously considered; indeed, they raised issues of significant concern. However, some of the questions and comments pertained to matters beyond this Hearing Officer's authority to address, such as what the impact of this LEMA may be on the existing Sheridan 6 LEMA (one individual apparently assumed the Sheridan 6 LEMA would remain intact and hoped it would, while another individual assumed the district-wide LEMA would replace it and argued against it; the record does not clarify this situation.) All of the comments received, whether relative to this hearing or the next, are now part of the full record of these proceedings. Undoubtedly, the Chief Engineer will seriously consider and resolve these concerns in the next phase of these proceedings. Even so, the existing comments may be submitted again, along with additional public comments, in the next stage of this process. Pursuant to the LEMA statute, the Chief Engineer shall conduct another public hearing, after which the Chief Engineer may approve or reject the proposed LEMA plan or return it to GMD4 for revisions or modifications, as long as the modifications do not impose reductions in groundwater withdrawals greater than those proposed in the LEMA plan. K.S.A. 82a-1041(c)(3)(4).

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SUMMARY OF FACTUAL FINDINGS

Based on substantial competent evidence, as provided by the testimony and comments offered at, or in relation to, the initial public hearing, the following facts are found to be true:


(1) one or more of the circumstances specified in subsection (a) through (d) of K.S.A. 82a-1036, and amendments thereto, exist, specifically that groundwater levels in the area in question are declining and have declined excessively and the rate of withdrawals within the area in question exceeds the rate of recharge in the area; and

(2) the public interest of K.S.A. 82a-1020, and amendments thereto, requires that one or more corrective control provisions be adopted; and

(3) the geographic boundaries are reasonable, pursuant to K.S.A. 82a-1041(b).

THEREFORE, the Groundwater Management District No. 4 District-Wide Local Enhanced Management Area proposal satisfies the three initial requirements for approval as set forth in K.S.A. 82a-1041(b).

ENTERED THIS 23RD DAY OF SEPTEMBER 2017.


Constance C. Owen, Hearing Officer

CERTIFICATE OF SERVICE

On this 23RD day of September 2017, I hereby certify that the original of the foregoing Order on Initial Requirements of the Groundwater Management District No. 4 District-Wide Local Enhanced Management Area (LEMA) was sent by electronic mail and by U.S. First Class Mail, postage prepaid to:

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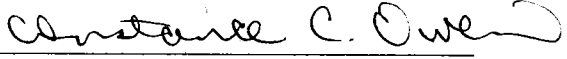
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and true and correct copies of this Order on Initial Requirements of the Groundwater Management District No. 4 District-Wide Local Enhanced Management Area (LEMA) were sent by the same methods to:

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