BEFORE THE DIVISION OF WATER RESOURCES,
KANSAS DEPARTMENT OF AGRICULTURE

In the Matter of the Designation of the Sheridan 6 Local Enhanced Management Area In Sheridan and Thomas Counties, Kansas.	)	**001 – DWR-LEMA – 2017**
Pursuant to K.S.A. 82a-1041.	)	

FINDINGS AND ORDER ESTABLISHING THE INITIAL REQUIREMENTS FOR THE DESIGNATION OF A LOCAL ENHANCED MANAGEMENT AREA

The above captioned matter came before the Chief Engineer of the Division of Water Resources, Kansas Department of Agriculture ("Chief Engineer"), for an initial public hearing regarding the formation of the Sheridan 6 Local Enhanced Management Area ("SD-6 LEMA") on May 31, 2017 at 10:13 a.m. at the Sheridan County Courthouse at Hoxie, Kansas, pursuant to K.S.A. 82a-1041(b). Written testimony was filed in advance of the hearing and accepted until May 26, 2017. For the reasons set forth below, it is so ordered that the Chief Engineer shall conduct a second public hearing regarding the designation of the SD-6 LEMA since the initial requirements for the establishment of a local enhanced management area have been found to exist.

Procedural Background

1. Following the conclusion of the required public hearings held pursuant to K.S.A. 82a-1041, on December 31, 2012, the Chief Engineer issued an Order of Decision (Exhibit A) which approved the proposed Management Plan for the original SD-6 LEMA. On April 17, 2013, the Chief Engineer issued an Order of Designation (Exhibit B), which formally established the original SD-6 LEMA for a term of five years and set to expire on December 31, 2017.

2. Neither the December 31, 2016 Order of Designation nor the original SD-6 LEMA Management Plan included a mechanism to renew the original SD-6 LEMA without formally re-initiating the local enhanced management area process pursuant to K.S.A. 82a-1041.

3. On February 2, 2017, the Northwest Kansas Groundwater Management District No. 4 ("GMD4") submitted a formal request for the re-formulation of the original SD-6 LEMA beginning on January 1, 2018 and ending on December 31, 2022. (Exhibit C).

4. On March 6, 2017, the Chief Engineer reviewed the re-formulation proposal and found pursuant to K.S.A. 82a-1041(a) that it proposed clear geographic boundaries, pertained to an area wholly within a groundwater management district, proposed appropriate goals and corrective control provisions to meet the stated goals, gave due consideration to existing

conservation measures, included a compliance monitoring and enforcement element, and is consistent with state law. (Exhibit D).

5. Pursuant to K.S.A. 82a-1041(b), timely notice of the initial public hearing was mailed to each owner located with the proposed SD-6 LEMA and published in the Colby Free Press on April 26, 2017, the Sheridan Sentinel on April 27, 2017, and in the Kansas Register on April 27, 2017. (Exhibit E).

Applicable Law

1. The formation of a local enhanced management area is governed pursuant to K.S.A. 82a-1041. When the Chief Engineer finds that a local enhanced management plan submitted by a groundwater management district is acceptable for consideration, then the Chief Engineer shall initiate proceedings to designate a local enhanced management area as soon as practicable.

2. Once the proceedings are initiated, the Chief Engineer shall hold an initial public hearing to resolve the following:
    a. Whether one or more of the circumstances specified in K.S.A. 82a-1036(a) through (d), and amendments thereto, exist;
    b. Whether the public interest of K.S.A. 82a-1020, and amendments thereto, requires that one or more corrective control provisions be adopted; and
    c. Whether the geographic boundaries are reasonable.

3. The following circumstances are specified in K.S.A. 82a-1036(a) through (d):
    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 in such area;
    c. Preventable waste of water is occurring or may occur within the area in question;
    d. Unreasonable deterioration of the quality of water is occurring or may occur within the area in question.

4. K.S.A. 82a-1020 recognizes that it is the interest of the public 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. 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."

Public Comments Submitted in Writing Prior to the Hearing

1. A letter from Donald Oelke, a fourth-generation farmer in Sheridan County, who owns two wells inside the SD-6 LEMA boundary. Mr. Oelke commends the existing LEMA because it has helped him adapt his farming practices so that he can conserve water for future generations. He laments that it took so long for a conservation program like the LEMA to be implemented and he fully supports re-formation of the LEMA.

2. The Northwest Kansas Groundwater Management District No. 4 submitted extensive testimony which stated that groundwater levels have generally continued to decline in the SD-6 LEMA region, but that despite the continued decline the corrective controls instituted five years ago have dramatically lessened the rate of decline taking place. Water levels declined on average, 1.5 feet per year from 2008 through 2013, however, from 2013 through 2017, with the SD-6 LEMA in place, the water table decline was reduced to 0.68 feet per year. GMD4 also presented economic evidence that the corrective controls put in place in 2013 did not harm the profitability of the farms operating within the SD-6 LEMA. Testimony was also presented that indicated that the producers living within the SD-6 LEMA have been actively involved in its management and have indicated during the annual review process their support for the existing corrective controls and the need to preserve existing water supplies. In summary, GMD4 presented data that showed the continued decline of water levels within the SD-6 LEMA, that there is broad public support within the SD-6 LEMA to continue with the existing corrective controls in place because those corrective controls have been successful in extending the life of the aquifer by reducing the rate of decline; and that through public participation, there is continued support to maintain the existing boundaries of the SD-6 LEMA.

Public Comments Submitted Orally at the Hearing

1. Ray Luhman, Manager of GMD 4 – Water use records indicate that use is still in excess of recharge in the SD-6 LEMA area. Mr. Luhman relied on data collected by the Kansas Geological Survey, as attached to their pre-filed testimony, to show that use remains in excess of recharge. In order to reach safe yield, pumping would have to be reduced to approximately 15,000 acre feet per year on average. Therefore, while progress is being made, the proposed allocation of 23,520 acre feet per year (and any carryover from the existing LEMA as allowed by the management plan) for each of the next five years of the LEMA will still not reach safe yield. The continued existence of the corrective controls are important because they extend the life of the aquifer and those producers within the LEMA wish to continue these conservation efforts. The boundaries remain unchanged because they have been working well and are based on a substantial amount of work and public input that was done when the 2012 SD-6 LEMA was put in place. The main complaint about the boundary those outside the area are not contributing toward the solution. The total acre feet allocation did increase slightly because there were some acres that were not full participants in the 2012 LEMA because of participation in other conservation programs such as EQUIP and CRP. Mr. Luhman has also relied on the data collected in Bill Golden's study to show that there has not been a negative economic impact from the reduction in water use, but that producers have shown the ability to successfully adapt their farming practices to fit the lesser amounts of water.

2. Harold Murphy, Selden, Kansas – Mr. Murphy is a lifelong farmer that remembers when the irrigation boom of the 1950s occurred and has been involved in irrigated farming since the 1970s. Mr. Murphy is in favor of extending the LEMA because of the technological advances, such as moisture probes, that allow for the conservation of water. Mr. Murphy stated that water rights located outside the SD-6 LEMA area should not be manipulated to increase the allotments or places of use within the SD-6 LEMA. Mr. Murphy also advocated that all water users be treated fairly, specifically that usage be fairly regulated among livestock users, and that the LEMA should consider new and future uses of water and production practices. He stated that irrigated farmers and dry-land farmers and city and agriculture uses are in competition with each other, and we should be aware of the consequences on all users.

Findings of Fact

1. Considering that the hydrological conditions underlying the SD-6 LEMA remain similar to those established in public hearings in 2012 and that the participants of the SD-6 LEMA have requested the re-formulation of their local enhanced management area and plan without substantial changes, the Order Finding Satisfaction of the Initial Requirements of the Sheridan 6 Local Enhanced Management Area (LEMA), dated October 4, 2012, along with the supporting testimony provided by GMD4, dated September 13, 2012 (Exhibit F), are hereby adopted and incorporated into this order.

2. From 2008 through 2013, observation wells averaged 1.5 feet per year declines in the water table. From 2013 through 2017, the observation wells averaged 0.68 feet per year declines. Despite the improvement in the rate of decline, the evidence still conclusively shows that the water table continues to decline. (*Testimony of the Northwest Kansas Groundwater Management District No. 4*, page 3.)

3. The SD-6 LEMA is achieving its goals as data shows that decline reaches zero when the total yearly pumpage through the LEMA is near 15,000 acre feet per year. Further, data shows that there is an 81% correlation between the amount of pumpage and the rate of decline. The proposed yearly allocation of 23,520 acre feet per year does not bring the SD-6 LEMA area into safe yield, but this reduced rate will continue to extend the life of the aquifer. (*Testimony of the Northwest Kansas Groundwater Management District No. 4*, page 3; *Oral Testimony of Ray Luhman*, See Transcript)

4. According to Mr. Golden's report, attached to GMD4's testimony, irrigated crop producers within the SD-6 LEMA reduced total groundwater use by 25.3%, reduced groundwater use per acre by 19.0%, and reduced irrigated crop acreage by 8.5%. While a comprehensive study is still in progress, initial economic reports indicate that using less water and changing crops may keep profitability comparable to those producers who do not cut water use. For example, in 2013, irrigated corn producers inside the SD-6 LEMA reported 1.5% more cash flow than producers outside the LEMA and irrigated sorghum producers generated the largest cash flow of any irrigated crop. In 2014, a drier year, irrigated corn producers inside the LEMA generated 11.5% less cash flow than their peers outside the LEMA, but irrigated sorghum cash flow inside and outside of the

LEMA was similar, while soybean producers did not show a correlation between higher water use and higher returns. (*Monitoring the Impacts of Sheridan County 6 Local Enhanced Management Area, Interim Report for 2013-2015*, Bill Golden, pages 5-7.)

5. The SD-6 LEMA Advisory Committee has met yearly to evaluate the effectiveness of the LEMA and to encourage communication with members of the LEMA. The boundaries and proposed corrective controls were originally established at thirteen local meetings and works sessions held between 2008 and 2012. This public participation has continued through the Advisory Committee, which recommended re-formulation of the SD-6 LEMA. (*Testimony of the Northwest Kansas Groundwater Management District No. 4*, page 4; *SD-6 LEMA Annual Review* 2013, 2014, 2015, and 2016; and *Minutes* from SD-6 Advisory Committee Meeting dated November 17, 2016.)

6. Extensive work was conducted to establish the initial boundaries of the 2012 SD-6 LEMA, including significant public input. Over the last five years, GMD4 has not received complaints from those included in the existing boundary and there has been a high degree of cooperation amongst producers inside the SD-6 LEMA. (*Oral Testimony of Ray Luhman*, See Transcript.)

Conclusions of Law

1. Pursuant to K.S.A. 82a-1041(b)(1), groundwater levels underlying the SD-6 LEMA are declining or have declined excessively and the rate of withdrawal equals or exceeds the rate of recharge in the area.

2. The management plan adopted in 2013 for the period 2013-2017 proposed to extend the life of the Ogallala Aquifer while maintaining much of the benefit of irrigation and other uses in the area, thus fulfilling the public interest purpose of creating special districts for the proper management of the groundwater resources of the state, including the conservation of groundwater resources and prevention of economic deterioration due to declining groundwater resources. Extending the provisions of the SD-6 LEMA for five more years will extend this public benefit.

3. The geographic boundaries submitted to the Chief Engineer in the GMD4 re-formulation request are the same as those established by the Order of Decision dated December 31, 2012. No evidence was presented that warranted the expansion or contraction of the SD-6 LEMA boundaries, and the boundaries as submitted to the Chief Engineer are deemed to be reasonable.

Order

COMES NOW the Chief Engineer, who, based upon substantial competent evidence, as provided by the testimony and comments offered at, or in relation to, the initial public hearing, finds that one or more of the circumstances specified in K.S.A. 82a-1036(a) through (d), and amendments thereto, exist; the public interest as stated in K.S.A. 82a-1020, and amendments

thereto, requires that one more corrective control provisions be adopted; and that the proposed geographic boundaries are reasonable, pursuant to K.S.A. 82a-1041.

THEREFORE, the proposed Sheridan 6 Local Enhanced Management Area satisfies the three initial requirements necessary to continue the proceedings to designate a local enhanced management area pursuant to K.S.A. 82a-1041, and the Chief Engineer shall conduct a second public hearing as required by law.

ENTERED THIS 31ST DAY OF MAY, 2017.

David W. Barfield
Chief Engineer, Division of Water Resources
Kansas Department of Agriculture

Exhibits:

Exhibit A: "Order of Decision Accepting the Sheridan 6 Local Enhanced Management Plan, December 31, 2012."

Exhibit B: "Order of Designation Approving the Sheridan 6 Local Enhanced Management Area with Groundwater Management District No. 4, April 17, 2013."

Exhibit C: "GMD4 Request for Re-formulation Letter" dated February 2, 2017.

Exhibit D: "Chief Engineer Finds the Proposal Acceptable for Consideration" dated March 6, 2017.

Exhibit E: "Proofs of Publication – Colby Free Press, April 26, 2017; Sheridan Sentinel, April 27, 2017, and Kansas Register, April 27, 2017."

Exhibit F: "Order Finding Satisfaction of the Initial Requirements of the Sheridan 6 Local Enhanced Management Area," October 4, 2012 and Testimony, From: Northwest Kansas Groundwater Management District No. 4, September 13, 2012."

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EXHIBIT "A"

THE STATE OF KANSAS

KANSAS DEPARTMENT OF AGRICULTURE
Dale A. Rodman, Secretary of Agriculture

DIVISION OF WATER RESOURCES
David W. Barfield, Chief Engineer

BEFORE THE DIVISION OF WATER RESOURCES,
KANSAS DEPARTMENT OF AGRICULTURE

In The Matter of	)
the Designation of the Sheridan 6	) 12 WATER 8366
Local Enhanced Management Area ("LEMA")	)
	)

ORDER OF DECISION ACCEPTING THE SHERIDAN 6 LOCAL ENHANCED MANAGEMENT PLAN (PURSUANT TO K.S.A. 82a-1041(d)(1))

On the 28th of November, 2012, the above-captioned matter came on for a second and final public hearing before the Chief Engineer. The hearing took place in the Sheridan County Courthouse, 925 9th Street, Hoxie, Kansas, between approximately 10:35 am and approximately 1:00 pm. Written testimony was filed in advance of the hearing, at the hearing, and after the hearing, until the record closed on December 4, 2012. For the reasons set forth below, I order the acceptance of the local enhanced management plan proposed for the Sheridan 6 LEMA pursuant to K.S.A. 82a-1041(d)(1). Consequently, an order of designation shall follow this Order of Decision.

I. PROCEDURAL BACKGROUND.

1. On July 16, 2012, Northwest Kansas Groundwater Management District No. 4 ("GMD4") submitted the Sheridan 6 High Priority Area Enhanced Management Proposal ("Proposal") to the Chief Engineer, Division of Water Resources ("DWR"), for review pursuant to K.S.A. 82a-1041(a). GMD4 Exh. 1, App. 2, pp. 18-24. Upon receipt of the Proposal, DWR conducted such a review. Based on that review, I found that "on its face," the Proposal meets the threshold requirements of K.S.A. 82a-1041(a). *Id.*, pp. 25-26. I initiated proceedings to consider the designation of a Local Enhanced Management Area ("LEMA") accordingly. DWR Exh. A. To that end, I delegated my authority to a designated hearing officer to conduct an initial public hearing on the matter. *Id.* Notice of the first public hearing took place as documented in DWR Exhs. A through F-1.1

2. The initial public hearing in this matter took place on September 13, 2012, before the hearing officer, Ms. Constance C. Owen, in Hoxie, Kansas. Based on the testimony provided at that hearing and the applicable law, Ms. Owen concluded that the Proposal "satisfies the three initial requirements for approval" as set forth in K.S.A. 82a-1041(b)(1)-(3). DWR Exh. T, p. 8. Because Ms. Owen's findings were favorable on these three requirements and because she did not recommend expanding the geographical boundaries set forth in the Proposal, K.S.A. 82a-1041(b) required a subsequent hearing concerning the Proposal, and I set that hearing accordingly. DWR Exh. F-2.2

3. The Notice of the second public hearing denotes the time and the place of the hearing, and states that the hearing will consider "whether to accept, reject, or suggest modifications to the proposed LEMA." DWR Exh. F-2. The Notice of Hearing was provided to water right holders of record

1 Because of a counting error, there are two exhibits labeled as DWR Exh. F: the proof of publication of the notice of hearing for the first hearing in Vol. 31, No. 32 of the *Kansas Register,* dated August 9, 2012, the last exhibit DWR entered into the record for the first hearing; and the notice of hearing for the second hearing, dated October 10, 2012, the first exhibit DWR entered into the record for the second hearing. To correct this error, the earlier Exhibit F has been relabeled DWR Exh. F-1, and the later Exhibit F has been relabeled DWR Exh. F-2. DWR regrets the error.

or their designated water use correspondents of record in the area by certified mail. DWR Exhs. G, H. A copy of the Notice of Hearing was published on October 18, 2012 in the *Kansas Register,* DWR Exh. J, and in the Hoxie *Sentinel,* a newspaper of general circulation in Sheridan and Thomas counties, DWR Exh. I.

II. APPLICABLE LAW AND THE PURPOSE OF THIS ORDER OF DECISION.

1. A LEMA is a creature of statute, K.S.A. 82a-1041 in particular, that engages both the Kansas Water Appropriation Act ("KWAA"), K.S.A. 82a-701 *et seq.,* and the Groundwater Management District Act ("GMDA"), K.S.A. 82a-1020 *et seq.* K.S.A. 82a-1041 sets forth the requirements and limitations for establishing LEMA's. As part of the GMDA, K.S.A. 82a-1041 allows groundwater management districts to address groundwater declines and other conditions of concern through locally-generated management plans that include specific goals and corrective control provisions. These plans must be consistent with state law. This local autonomy over the management plan distinguishes LEMAs from Intensive Groundwater Use Control Areas, or "IGUCAs," as set forth at K.S.A. 82a-1036 through 82a-1038. The LEMA statute, K.S.A. 82a-1041, refers to an IGUCA statute, K.S.A. 82a-1036, for its shorthand articulation of the groundwater conditions that may give rise to the establishment of a LEMA. K.S.A. 82a-1041(a). A LEMA 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. A LEMA comes into being by an Order of Designation of the Chief Engineer, who is statutorily charged with the enforcement and administration of the water laws of Kansas. K.S.A. 82a-1041(e), K.S.A. 82a-706. An order of designation is the final agency action of DWR, and is distinct from this

2 *See* note 1 above.

Order of Decision, which is an intermediate step in the LEMA process. *See* 82a-1041(d) through 82a-1041(h).

2. K.S.A. 82a-1041(b)-(d) sets forth the specific process that applies to this second public hearing, which took place subsequent to the initial public hearing as summarized in Section I above. The Proposal is a "local enhanced management plan" as that latter term is used throughout K.S.A. 82a-1041. The subject matter of this second public hearing is statutorily limited to the Proposal that my office initially reviewed in July and August of 2012. K.S.A. 82a-1041(c). Pursuant to K.S.A. 82a-1041(d), this second public hearing provides the necessary forum in which the public, including GMD4, contributes testimony on the question of "whether to accept, reject, or suggest modifications to the proposed LEMA [i.e., the Proposal]." DWR Exhs. I, J. This second hearing was the final public hearing in this matter, and the record closed on December 4, 2012. *Id.* Consequently, K.S.A. 82a-1041(d) requires the Chief Engineer to issue an order of decision either: (1) accepting the Proposal; (2) rejecting the Proposal; (3) returning the Proposal and providing GMD4 the opportunity to resubmit it within 90 days; or (4) returning the Proposal to GMD4 with proposed modifications that do not impose additional reductions in groundwater withdrawals. Based upon the language of K.S.A. 82a-1041(d)-(e), the order of decision is just that: an order of the Chief Engineer indicating his decision to accept the Proposal, reject it, or return it for modification and resubmission.

3. If the Chief Engineer issues an order of decision accepting the Proposal pursuant to K.S.A. 82a-1041(d)(1), then K.S.A. 82a-1041(e) requires an order of designation that designates the area in question as a LEMA. K.S.A. 82a-1041(f) specifically requires the order of designation to set forth the circumstances and appropriate findings that support that order, and to order the adoption of the specific corrective control provisions that the Proposal recommends. Those requirements do not attach to the order of decision, which is an intermediate order. Therefore, while this Order of Decision does provide a

skeletal summary of the testimony presented in this matter, it provides only those findings that are necessary at this intermediate stage, and does not provide complete findings of fact and conclusions of law that are appropriate to the order of designation. Because this Order of Decision accepts the Proposal, the order of designation will be issued within a reasonable time, and will contain findings, conclusions, and other elements that are necessary and appropriate to final agency action.

III. TESTIMONY.

1. The record of the first public hearing in this matter has been incorporated into the record for this second public hearing. Transcript, p. 6.

2. Mr. Wayne Bossert, the Manager of GMD4, led the oral testimony in support of the Proposal. Assisting him was Mr. Raymond Luhman, the Assistant Manager of GMD4. Most of their oral testimony was essentially a summary and explication of GMD4 Exh. 1, which consists of: GMD4's written testimony in this proceeding; Appendix 1 to that testimony, which is the Proposal; and seven other appendices. GMD4's testimony summarized the Proposal, explained and defended the process by which GMD4 set the geographical boundaries of the Sheridan 6 LEMA, and emphasized the extensive deliberative process which produced the main provisions of the Proposal. At the second hearing, GMD4 also provided GMD4 Exh. 3, an academic study entitled "Potential Economic Impact of Water Use Changes in Northwest Kansas," by Drs. Bill Golden, Jeff Peterson, and Dan O'Brien. Following the second hearing, GMD4 provided supplementary written testimony in support of the Proposal. GMD4 Exhs. 4-5. This supplemental testimony responded to a number of specific questions and concerns that arose from both public hearings, including specific questions and requests from me.

3. Mr. Brownie Wilson of the Kansas Geological Survey provided both written and oral testimony in support of the Proposal. GMD4 Exh. 2. His testimony focused upon the technical methods

by which GMD4 set the geographical boundaries of the Sheridan 6 LEMA, and hydrogeological information concerning the groundwater flow characteristics of the Ogallala-High Plains Aquifer beneath the Sheridan 6 LEMA.

4. GMD4 Exhs. 1 through 5 were accepted into the record.

5. DWR provided written testimony in support of the Proposal. Mr. Andrew Lyon of DWR submitted two reports. The first report, "Northwest Kansas Model Development Process," dated November 15, 2012, DWR Exh. K, summarized the Northwest Kansas Model ("NWK Model"), a computer groundwater model adapted from the Republican River Compact Administration Groundwater Model and calibrated "for the purposes of better predicting groundwater levels in northwest Kansas and to analyze alternative groundwater management scenarios in GMD 4." DWR Exh. K, p. 1. This report contains three attachments. Attachment 1 to DWR Exh. K is a report by S. S. Papadopulos & Associates, "NW Kansas Model Calibration," dated April, 2009, and was submitted as DWR Exh. L. Attachment 2 is a text file, "run_base_2006-2008.txt," which consists of model runs from the NWK Model; it was submitted as DWR Exh. M. Attachment 3, listed as "NWKS_Model_HPA_SD6_%_Reductions_ Attachment.png," is a graphic file entitled "Water level change since 2005 in spatially averaged heads for priority area 6 and for all of GMD4." This third attachment was submitted as DWR Exh. N.

6. Mr. Lyon also submitted a second report in support of the Proposal, "Northwest Kansas Model: Water Level Difference Between Pumping Scenarios," dated November 21, 2012, DWR Exh. O. This second report of Mr. Lyons contains three attachments. Attachment 1 to DWR Exh. O is identical to DWR Exh. L. Attachment 2 to DWR Exh. O, "NWKS_Model_WLD_Scenario1vs3.bmp," is a groundwater map entitled "Water Level Difference (ft), NWKS Model, Status Quo Pumping vs. HPA 30% Pumping Reduction (results at end of 2055)," and was submitted as DWR Exh. P. Attachment 3 to

DWR Exh. O, "NWKS_Model_WLD_Scenario1vs3_SD6.bmp," and was submitted as DWR Exh. Q. Finally, DWR submitted a map entitled "2010-2012 Saturated Thickness (ST) within Sheridan County 6 High Priority Area," as DWR Exh. R.

7. In addition to the exhibits from the first hearing (DWR Exhs. A through F-1), all of the exhibits DWR submitted for the second hearing (DWR Exhs. F-2 through R) were accepted into the record.

8. Mr. Edward Kemp, of Winona, Kansas, which is located in Logan County, submitted written testimony via electronic mail on December 4, 2012. Mr. Kemp's testimony was critical of DWR for allowing groundwater to be consumed at the present rate. Exh. 6. It was accepted into the record.

9. Mr. Scott E. Ross, Water Commissioner for the Stockton Field Office of DWR, spoke in support of the Proposal. He stressed that both DWR and GMD4 have cooperated for over four years to assist the stakeholders in the Sheridan County High Priority Area No. 6 "to achieve a workable means to conserve and extend the practical life of the local groundwater supply." Transcript, p. 76. On behalf of DWR, Mr. Ross pledged his full support to ensure that the Proposal would achieve "its locally generated goals." *Id.* at pp. 76-77.

10. Mr. Scott Maurath, a lifelong irrigator, a GMD4 board member for over ten years, GMD4 board president for four or five years, and a resident of Oakley Kansas, testified in support of the Proposal. He stressed that the Proposal sought to establish a conservation plan for the local groundwater supply that would not do irreparable damage to the local economy. Mr. Maurath also stressed the care with which GMD4 and the KGS had worked on the boundary issue. He stressed two aspects of this issue: first, that in applying different criteria and different threshold values to help determine the

boundaries of the LEMA, both GMD4 and the KGS consistently returned to roughly the same boundaries, with small differences. Transcript, pp. 79-81. Second, Mr. Maurath stressed the need to make the total geographical area of the LEMA big enough to achieve meaningful water use reductions, but small enough so that GMD4 and DWR could monitor and enforce the Proposal's provisions. *Id.* at p. 79.

11. Mr. Mitchell Baalman, a fourth-generation farmer from Sheridan County and also a GMD4 board member, testified in support of the Proposal. He stated that his family had become concerned by the problem of declining groundwater supplies as early as 1984, and that he and GMD4 have been working on the problem of addressing groundwater declines since the early 2000's—a problem that the LEMA process was intended to address more effectively than the IGUCA process, because the LEMA process enables the local GMD to retain control over the particular corrective control provisions of the LEMA. *Id.* at 82-86. Mr. Baalman believed that GMD4 and DWR can cooperate effectively in making sure the Sheridan 6 LEMA works as planned. *Id.* at p. 83. Mr. Baalman also stated that he believed that irrigators within the Sheridan 6 LEMA will "probably make more money" but not spend so much as a result of the reduction in groundwater pumping. *Id.* at pp. 83-84. When I questioned him about whether the reduction in groundwater pumping would actually increase his net profits, Mr. Baalman replied that "we'll probably net more . . . ." *Id.* at pp. 87-88. Mr. Baalman also stated that this reduction, coupled with the flexibility of the five-year allocation and the ability to move water rights among different points of diversion, would still enable him to farm his ground profitably during the proposed LEMA period of five years. *Id.*, pp. 87-90.

12. Mr. Brent Rogers, a farmer from northeast Sheridan County and a GMD4 board member who does not own land within the proposed LEMA, spoke in favor of the Proposal. He stated that Sheridan County farmers form "the top echelon of farmers in the country," *Id.*, at p. 91, and stressed that

their skill, together with the necessary flexibility in water use afforded by the Proposal, would allow them to stay in business despite the reduction in groundwater use. "I think they're going, they're going to be fine." *Id.*

13. Mr. Roch Meier, a farmer whose water rights are contained within the proposed LEMA's boundaries, spoke in favor of the Proposal, and provided some information about corn yields from his irrigated fields. Mr. Meier used 17 inches of water on one field in 2012, and that field yielded 249 bushels of corn per acre; he used 10.5 inches of water on a different field (roughly 95% of the Proposal's annual limitation of 11 inches), which yielded 193 bushels per acre. Based on his experience, the difference in yields between full and reduced irrigation, 56 bushels, resulted from the 6.5 inch difference in the amount of irrigated water. *Id.,* pp. 92-93. Put another way, a 38.2% reduction in water use translated to a 22.5% reduction in corn yield. Mr. Meier believed that the water savings was worth the sacrifice in yields, because it would allow the farm families of Sheridan County to continue to irrigate their ground in future generations. *Id.* at p. 94.

14. Mr. Harold Murphy, a farmer with water rights who lives in Selden, Kansas, provided both oral and written testimony for the first hearing in this matter, and he spoke at this second hearing as well. Mr. Murphy stated two criticisms of the Proposal's allowance to transfer authorized quantities of water among different points of diversion. First, Mr. Murphy believed that this allowance would enable those with more wells to use more water per acre than those with fewer wells, an unequal result with which he disagreed. Second, be believed that this allowance would enable those water rights owners whose wells cannot physically pump 11 inches per year to transfer their remaining capacity to other wells, worsening the depletion problem for future generations and "enabling those users with more wells to use more water unfairly, unequally, than what is now permitted." *Id.,* at pp. 95-96.

15. Mr. Gary Moss, a farmer in Sheridan County with water rights within the proposed LEMA, spoke in favor of the Proposal. He argued that the Proposal should be extended throughout GMD4 entirely, and not just limited to the Sheridan 6 HPA. *Id.* at p. 97. However, Mr. Moss expressed similar concerns to those of Mr. Murphy. Namely, Mr. Moss believed that the Proposal's flexibility provisions, without limitation, would enable people to purchase crippled water rights that cannot pump enough water to irrigate their present place of use, and move that water to the purchasers' place of use, producing a situation where, at least theoretically, more water would be used under the Proposal than without it. Mr. Moss recommended that there should be a distance limitation on moving such water. *Id.* at pp. 98-99.

16. Jeff Younger, who works for Seminole Energy Services, a provider of natural gas service to water rights owners in the area, was the last person to provide oral testimony. He spoke in favor of the Proposal, because he wants to keep selling gas to his customers, and "if we continue to do what we're doing [i.e., pump groundwater at existing rates], I might not be able to do that." *Id.,* at p. 100.

IV. DISCUSSION.

1. Because of the limited nature of this Order of Decision (*see* Section II above), and the need to establish regulatory clarity for water rights holders within the Sheridan 6 LEMA before January 1, 2013 (*see* GMD4 Exh. 1 at p. 16; GMD4 Exh. 5, p. 1), this is neither the place nor the time to engage in an extensive discussion of the various issues presented by the Proposal and the testimony. That extensive discussion will take place in the order of designation. The process by which GMD4 has produced the Proposal, and the purpose with which it has pursued this LEMA, deserve praise. As Mr. Bossert stated, "[i]n the end, the consensus was that consensus was the preferred approach." Transcript, p. 31. However, there are five issues which merit limited discussion here.

2. First, there is the issue of the geographical boundaries of the Sheridan 6 LEMA. Ms. Owen's Order of October 4, 2012 contains a useful summary of this issue, DWR Exh. T, pp. 6-8. That order found the boundaries of the Sheridan 6 LEMA to be reasonable. *Id.* At the second hearing, both GMD4 provided substantial testimony defending these boundaries, which are based upon technical methods of hydrogeologic analysis, reasoned decisions concerning the appropriate hydrological criteria for choosing the boundaries, and extensive deliberations within GMD4 and among the stakeholders within the Sheridan 6 high priority area— taken together, a process that dates back to 1999. *See generally* GMD4 Exh. 1, pp. 2-10. There was no testimony presented at the second hearing that attempted to discredit the boundaries contained in the Proposal. In determining the boundaries, it is clear that GMD4 took pains to base them upon sound and well-developed hydrological data, reasoned and iterative technical criteria, and consensus-based decision-making. Similarly, the size of the proposed LEMA allows a substantial reduction in groundwater pumping, but one that can be monitored and enforced effectively and manageably by DWR, GMD4, KGS, and by the water rights owners themselves.

3. Second, there is the issue of a potential conflict in water law doctrine. The Chief Engineer has the general statutory duty to enforce and administer the water laws of Kansas "in accordance with the rights of priority of appropriation." K.S.A. 82a-706. By contrast, the Proposal reduces all non-domestic water rights of the same use made of water by the same amount, regardless of priority. GMD4 Exh. 1, App. 1, p. 19. However, the Proposal, together with the testimony, appear to render this conflict more apparent than real. The Proposal sets all irrigation water rights at a 55 inch allocation for five years, and several experienced irrigators within the Sheridan 6 LEMA gave oral testimony stating that this would be sufficient water for their needs, obviating the need for priority administration. *See, e.g.,* Transcript at pp. 87-90 (Baalman); *Id.* at p. 91 (Rogers). No one testified that 11 inches would be insufficient for their irrigation needs. Furthermore, the Proposal allows irrigators to move water around within their allocations, and to obtain water rights from others within the LEMA boundaries. GMD4

Exh. 1, App. 1, p. 19. And in the event that a senior water right is impaired as a result of direct well interference by a junior right, the GMD4 testimony makes clear that such a senior right will be entitled to request an impairment investigation by DWR. GMD4 Exh. 1, p. 15.

4. Third, there is the issue of treating different uses made of water differently under the Proposal. The Proposal reduces irrigation water rights more than recreational water rights; and while stockwatering water rights are restricted under the Proposal to require good management, the proportionate reduction for this use is not clear. This also presents a potential conflict in water law doctrine. With certain exceptions that do not apply here, the date of priority of a water right and not the purpose of its use determines the right to use water, K.S.A. 82a-707(b); but that priority only engages "when the [water] supply is not sufficient to satisfy all water rights." *Id.* As the stockwatering uses comprise a small fraction of the total reduction in groundwater use during the Sheridan 6 LEMA Period, and for the reasons set forth in Paragraph 3 above, this third issue is not sufficiently problematic to reject or require modification of the Proposal.

5. Fourth, there is the issue of flexibility. Some irrigators within GMD4 expressed concerns that the Proposal's provisions for moving the authorized quantities of irrigation water rights within an allocation, and for moving water rights' place of use from one part of the proposed LEMA to another, would favor those with multiple water rights at the expense of those with single rights, and would also promote the mining of wells that, because they are currently rate-challenged, might not otherwise be used absent the allocations. *See, e.g.,* Transcript at pp. 95-96 (Mr. Murphy); pp. 98-99 (Mr. Moss). These are astute concerns. However, GMD4 appears to have anticipated them, and its testimony largely assuages them. The movement of water by such transfers is limited by the boundaries of the LEMA, and by the cap on irrigation allocations at the authorized quantities of their constituent rights. *See* GMD4 Exh. 5. For the five-year term set forth in the Proposal, I find these restrictions sufficient to alleviate the

Proposal's stated concerns; but I believe that the longer-term management of the Sheridan 6 LEMA area will require a careful evaluation as to whether the Proposal's flexibility creates problems in specific areas. The forthcoming order of designation will contain a monitoring plan sufficient to consider this concern, and will charge the LEMA review committee to consider the issue of flexibility. As for the possibility that irrigators with more rights will obtain benefits from the Proposal's flexibility provisions that not available to those with fewer or single rights, that economic—or hydraulic—inequality is a problem no chief engineer can resolve.

6. Finally, there is the issue of the limited time period of the Sheridan 6 LEMA as envisioned by the Proposal—five years. While the Proposal has set forth an attainable goal of reducing groundwater pumping by approximately 20%, the short five-year period of the Proposal threatens to undermine the fundamental purpose of the LEMA in the first place—namely, conserving and extending the practical life of the area's groundwater supply for future generations. *See, e.g.,* Transcript at p. 94 (Mr. Meier). Mr. Bossert and the board members of GMD4 who testified at the second hearing clearly stated that they understand the problem to be one that requires a long-term solution. The Proposal provides for a review committee to make recommendations for future management beyond the five-year period of the LEMA. GMD4 Exh. 1, App. 1, at pp. 22-23. However, K.S.A. 82a-1041(d) does not require a local enhanced management plan to establish a permanent reduction in groundwater use; it merely requires the plan to address the problem of declines. Nonetheless, unless this LEMA is renewed for a longer period, then the work and cooperation of GMD4, KGS and DWR will be largely wasted, and remembered as little more than a gesture.

V. FINDINGS OF FACT.

1. The geographical boundaries of the Sheridan 6 LEMA Proposal contain the following sections in Sheridan County and Thomas County:

Sheridan County:

TWP 7S-28W: Sections 19-21 and 28-33;

TWP 7S-29W: Sections 4-9 and 16-36;

TWP 7S-30W: Sections 19-36;

TWP 8S-29W: Sections 1-18;

TWP 8S-30W: Sections 1-18.

Thomas County:

TWP 8S-R31W: Sections 22-27 and 34-36.

2. Groundwater levels in the area described in Paragraph 1 above are declining, in some cases precipitously; these levels have declined excessively; and the rate of withdrawal of groundwater there exceeds the rate of recharge.

3. The boundaries of the proposed LEMA are entirely within the boundaries of GMD4.

4. These boundaries are clear and reasonable.

5. The overarching goal of the Proposal is to collectively restrict diversions of nondomestic groundwater rights to no more than 114,000 acre-feet total, during the period bounded by January 1, 2013, and December 31, 2017.

6. The corrective control provisions of the Proposal are sufficient to meet this overarching goal.

7. Due to the hydrogeologic features of the aquifer in the area described in Paragraph 1, the reduction in groundwater pumping by water rights owners within the proposed LEMA should inure almost entirely to their future benefit.

8. The irrigators within the proposed LEMA can sustain their irrigated farming operations profitably with the Proposal's five-year allocation of 55 inches, which is sufficient to meet their needs.

VI. CONCLUSIONS OF LAW.

1. Notice of the first public hearing in this matter was proper and complied with the requirements of K.S.A. 82a-1041(b).

2. Notice of the second public hearing in this matter was proper and complied with the requirements of K.S.A. 82a-1041(b).

3. The second hearing took place according to the requirements of K.S.A. 82a-1041.

4. K.S.A. 82a-1041(d)(1) allows acceptance of a local enhanced management plan, provided that 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) (with apposite reference to K.S.A. 82a-1036(a)-(b)). It must be stressed that a finding of such sufficiency does not mean that such a plan is sufficient to resolve such declines and disparity over the long term.

5. The Proposal is "sufficient to address" these problems within the modest confines of K.S.A. 82a-1041(d)(1), because it reduces overall groundwater usage by approximately 20% for a period of five years.

6. The Proposal is consistent with the KWAA and with other Kansas law.

7. The Proposal comports with the public interest of the inhabitants of the State of Kansas pursuant to K.S.A. 82a-1020 and the KWAA.

VII. ORDER OF DECISION.

NOW, THEREFORE, for the reasons set forth above, it is the decision and order of the Chief Engineer that the Proposal is sufficient to address the decline in groundwater levels in the area in question.

1. The geographical boundaries of the Sheridan 6 LEMA shall be as follows and shall contain all points of diversion that are located within the following sections in Sheridan County and Thomas County:

Sheridan County:

TWP 7S-28W: Sections 19-21 and 28-33;

TWP 7S-29W: Sections 4-9 and 16-36;

TWP 7S-30W: Sections 19-36;

TWP 8S-29W: Sections 1-18;

TWP 8S-30W: Sections 1-18.

Thomas County:

TWP 8S-R31W: Sections 22-27 and 34-36.

2. This Order shall be in effect immediately, and shall govern all irrigation, stockwatering, and recreational rights within the Sheridan 6 LEMA between January 1, 2013, and December 31, 2017. This five-year term shall be known as the "Sheridan 6 LEMA Period."

3. The total amount of diversions of water within the Sheridan 6 LEMA shall be restricted to no more than 114,000 acre-feet of water, to be diverted during the Sheridan 6 LEMA Period.

4. Each irrigation water right within the Sheridan 6 LEMA shall be limited to a total maximum quantity of 55 inches per irrigated acre for the Sheridan 6 LEMA Period. This five-year quantity of 55 inches shall be known as the "initial irrigation allocation," and shall be quantified according to the procedure set forth in the Proposal, GMD4 Exh. 1, Appendix 5, p. 35. The initial

irrigation allocation may be increased or decreased subject to the terms and limitations set forth below. In the event of such increase or decrease, that allocation shall be known as the "irrigation allocation."

5. Individual points of diversion pumping to a common irrigation system or systems shall be provided a single allocation for the total system irrigated acres. The total amount of water pumped by all of the points of diversion must remain within that system's allocation.

6. Multiple irrigation allocations may be combined into an irrigation allocation account, which may be apportioned to the irrigation water rights' individual points of diversion within that irrigation allocation account, provided the total allocation account is not exceeded.

7. Irrigation allocations may be transferred to a different place of use and/or point of diversion within the Sheridan 6 LEMA, provided that the transferors and transferees of such allocations comply with GMD4 procedures for approving these transfers. All such transfers shall be limited to the Sheridan 6 LEMA Period. No such transfers shall take place until GMD4 develops appropriate procedures and forms that comply with the KWAA, the GMDA, and the terms of this Order and the forthcoming order of designation.

8. Whether through transfer, purchase, lease, or other conveyance, no irrigation allocation within the Sheridan 6 LEMA shall exceed 5 times the annual quantity of water authorized by the irrigation water right or rights that comprise the irrigation allocation.

9. No irrigation allocation shall be allowed to pump more than the annual quantity of water authorized by its constituent irrigation water right or rights in any single year.

10. No irrigation water right within a 5-year allocation status established pursuant to K.A.R. 5-5-11 shall receive an irrigation allocation that exceeds its current allocation limit under that regulation.

11. Each and every irrigation allocation shall be assigned to a specific point or points of diversion, and shall consist of all of the water rights and appurtenant acres related to that point of diversion.

12. Before October 1, 2013, any irrigation allocation may be converted to a Multi-year flex account ("MYFA") pursuant to K.S.A. 82a-736 and its attendant regulations, provided that such allocation is eligible for a MYFA, and provided further that the MYFA quantity or quantities of water do not exceed the irrigation allocation. After October 1, 2013, no conversions to MYFA's shall be allowed.

13. For any irrigation water right enrolled in any state or federal conservation program approved pursuant to K.S.A. 82a-741 and/or K.A.R. 5-7-4, whose conservation term expires on or before September 30, 2017, the initial irrigation allocation for such right shall be limited to 11 acre-inches per acre for the remaining years of the Sheridan 6 LEMA period.

14. Any irrigation water right enrolled into, contracting with, or officially participating in a reduced water use program (such as AWEP, EQIP, or the Northwest Kansas Groundwater Conservation Foundation) during the Sheridan 6 LEMA period shall not be allowed to transfer any part of its initial irrigation allocation.

15. All stockwatering water rights within the Sheridan 6 LEMA shall be granted an allocation for use based on 12 gallons per head per day, according to their licensed lot capacity as of December 31,

2010, for the Sheridan 6 LEMA Period. This quantity of 12 gallons per head per day shall include both drinking water and additional quantities for servicing/flushing, as those terms are used in K.A.R. 5-3-22.

16. All stockwatering water rights within the Sheridan 6 LEMA shall be converted to a five-year allocation, to be known as the "initial stockwatering allocation."

17. The initial stockwatering allocation may be increased or decreased by purchase, sale, transfer, or other conveyance of water rights and water allocations. In the event of any modification in quantity from the initial stockwatering allocation, that subsequent allocation shall be known as the "stockwatering allocation."

18. Recreational water rights shall be limited to 90% of their annual authorized quantity as of December 31, 2010.

19. GMD4 shall develop procedures by which nondomestic water rights within the Sheridan 6 LEMA are converted to their initial allocations, as well as the procedures by which the initial allocations are subsequently modified, and all such procedures shall be subject to the approval of the Chief Engineer.

20. Pursuant to K.S.A. 82a-1041(f), an order of designation shall be issued within a reasonable time of this Order of Decision, setting forth the complete terms for the Sheridan 6 LEMA, including violations, metering, monitoring and enforcement, accounting, corrective control provisions, an advisory committee, review of LEMA orders, impairment complaints, and other terms as necessary.

21. Because this Order of Decision accepts the Proposal pursuant to K.S.A. 82a-1041(d)(1) as set forth herein, K.S.A. 82a-1041(e) requires me to issue an order of designation "within a reasonable time. . . ." The order of designation is subject to the requirements set forth in K.S.A. 82a-1041(e)-(g). As an order of decision issued pursuant to K.S.A. 82a-1041(d)(1), this Order of Decision is a final order, but because the order of designation must now be issued subsequently to this Order of Decision, this Order of Decision is not final agency action as defined by K.S.A. 77-607(b)(2).

22. DWR shall distribute this Order of Decision to all water right holders in the Sheridan 6 LEMA.

23. This Order of Decision shall be published electronically by posting on both the GMD4 and DWR websites.

IT IS SO ORDERED.

Dated at Topeka, Kansas, this 31st day of December, 2012.

David W. Barfield
Chief Engineer
Division of Water Resources,
Kansas Department of Agriculture

PREPARED BY:

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APPROVED BY:

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Attorney for GMD4

CERTIFICATE OF MAILING

I, Burke W. Griggs, hereby certify that I caused a copy of the Order of Decision Accepting the Sheridan 6 Local Management Plan to be placed in the United States mail, first class postage prepaid on December 31, 2012, and to be sent by electronic mail as well, to the following:

Mr. Wayne Bossert, Manager
Northwest Kansas Groundwater Management District No. 4
P.O. Box 905
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Colby, Kansas 67701

Jeffery A. Mason, #11665
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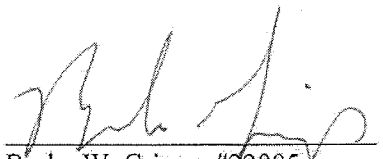

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EXHIBIT "B"

THE STATE OF KANSAS

KANSAS DEPARTMENT OF AGRICULTURE
Dale A. Rodman, Secretary of Agriculture

DIVISION OF WATER RESOURCES
David W. Barfield, Chief Engineer

**BEFORE THE DIVISION OF WATER RESOURCES,
KANSAS DEPARTMENT OF AGRICULTURE**

In The Matter of	)
the Designation of the Sheridan 6	) 12 WATER 8366
Local Enhanced Management Area	)
	)

BEFORE

**DAVID W. BARFIELD, CHIEF ENGINEER
DIVISION OF WATER RESOURCES
KANSAS DEPARTMENT OF AGRICULTURE**

ORDER OF DESIGNATION APPROVING THE SHERIDAN 6 LOCAL ENHANCED MANAGEMENT AREA WITHIN GROUNDWATER MANAGEMENT DISTRICT NO. 4

APRIL 17, 2013

On December 31, 2012, I issued an Order of Decision Accepting the Sheridan 6 Local Enhanced Management Plan proposed for the Sheridan 6 Local Enhanced Management Area pursuant to K.S.A. 82a-1041(d)(1) ("Order of Decision").

Pursuant to K.S.A. 82a-1041(e)-(h), I hereby issue this Order of Designation Approving the Sheridan 6 Local Enhanced Management Area within Groundwater Management District No. 4 ("Order of Designation").

I. BACKGROUND.

1. Over the past four years, the public and the stakeholders of Northwest Kansas Groundwater Management District No. 4 ("GMD4") have worked assiduously to address the problem of declining, localized, and non-renewable groundwater supplies in the Sheridan 6 High Priority Area ("SD-6 HPA"). GMD4 Exh. 1, App. 1, p. 18. Through at least thirteen separate meetings devoted to this problem, GMD4 and its stakeholders considered various means by which its water users could extend the practical life of these groundwater supplies. Ultimately, GMD4 declined to request proceedings to initiate an Intensive Groundwater Use Control Area ("IGUCA") pursuant to K.S.A. 82a-1036 to -1038, on the grounds that such proceedings were potentially unpredictable and could produce an IGUCA with more substantial reductions in groundwater pumping than GMD4 considered desirable.[1] Transcript, pp. 82-86 (Mr. Baalman). In light of these concerns, GMD4 stakeholders specifically requested that GMD4 not initiate IGUCA proceedings on their behalf. Having decided not to request IGUCA proceedings, and lacking legal authority to impose corrective control provisions to reduce groundwater use through a local management program, GMD4 lacked the tool it most sought: a legal means by which a locally-designed plan to reduce groundwater pumping could gain legal effect and enforceability through an order of the Chief Engineer, similar to an IGUCA order, but without the potential uncertainties of an IGUCA proceeding.

[1] In its proposal submitted to the Chief Engineer dated June 15, 2012, GMD4 included minutes and sign-in sheets of most of these meetings. "SD-6 HPA Stakeholders Proposal to be Recommended to the Northwest Kansas Groundwater Management District No. 4 Board of Directors Along With a Request That Said Proposal Be Adopted by the GMD4 Board and Submitted to the Chief Engineer, Kansas Department of Agriculture, Division of Water Resources As A LEMA Proposal," June 15, 2012, Att. 1, pp. 9-34 (meeting notes and attendance sheets for meetings held between November 10, 2008, and May 9, 2012). The same proposal was submitted as Appendix 1 to the written testimony by GMD4 and admitted at the November 28, 2012 public hearing, GMD4 Exhibit 1, App.1, pp. 18-24, but that same proposal did not contain the June 15, 2012 Attachment 1. GMD4's reference to these meeting notes and attendance sheets as attached, GMD4 Exh. 1, App. 1, p. 18, n. 2, is therefore in error. As a result, the copies of the meeting notes and attendance sheets for these meetings are in the agency record, as part of DWR's review of the proposal; but they are not part of the record of the November 28, 2012 hearing.

2. Between late summer 2011 and early 2012, GMD4, at its stakeholders' request, together with the Kansas Department of Agriculture, Division of Water Resources ("DWR"), cooperated closely to develop such a tool. This tool became legislation, Senate Bill 310, and that bill became law, K.S.A. 82a-1041, on April 12, 2012. L. 2012, ch. 62, § 1. K.S.A. 82a-1041 allows for the establishment of a local enhanced management area ("LEMA") according to and limited by the GMD's locally-designed local management proposal. If the Chief Engineer approves of that proposal, then he is obligated to enforce it pursuant to his authority under the Groundwater Management District Act ("GMDA"), K.S.A. 82a-1020 *et seq.*, and the Kansas Water Appropriation Act ("KWAA"), K.S.A. 82a-701 *et seq.* In short, K.S.A. 82a-1041 combines local control over the particular details of a management plan to reduce groundwater use with the powers of the Chief Engineer to approve and enforce that plan.

3. Almost immediately after the enactment of K.S.A. 82a-1041, GMD4 acted to establish a LEMA in the SD-6 HPA ("Sheridan 6 LEMA"). On July 16, 2012, GMD4 formally submitted the SD-6 HPA Enhanced Management Proposal ("Proposal") to the Chief Engineer, DWR, for review pursuant to K.S.A. 82a-1041(a). GMD4 Exh. 1, App. 2, pp. 18-24. Upon receipt of the Proposal, DWR conducted such a review, and on August 3, 2012, I found that "on its face," the Proposal met the threshold requirements of K.S.A. 82a-1041(a). *Id.*, pp. 25-26. On the same date, I initiated proceedings to consider the designation of a LEMA, *id.*, and delegated my authority to a designated independent hearing officer to conduct an initial public hearing on the matter. DWR Exh. A. Notice of the first public hearing occurred as documented in DWR Exhs. A through F-1.[2]

[2] Because of a counting error, there are two exhibits labeled as DWR Exh. F: the proof of publication of the notice of hearing for the first hearing in Vol. 31, No. 32 of the *Kansas Register,* dated August 9, 2012, the last exhibit DWR

4. The initial public hearing in this matter took place on September 13, 2012, before the independent hearing officer, Ms. Constance C. Owen, in Hoxie, Kansas. Based on the testimony provided at that hearing and the applicable law, Ms. Owen concluded that the Proposal "satisfies the three initial requirements for approval" as set forth in K.S.A. 82a-1041(b)(1)-(3). DWR Exh. T, p. 8. Because Ms. Owen's findings were favorable on these three requirements and because she did not recommend expanding the geographical boundaries set forth in the Proposal, K.S.A. 82a-1041(b) required a subsequent hearing concerning the Proposal, and I set that hearing accordingly, to take place on November 28, 2012, in Hoxie, Kansas. DWR Exh. F-2.[3]

5. The Notice of the second public hearing denotes the time and the place of the hearing, and states that the hearing will consider "whether to accept, reject, or suggest modifications to the proposed LEMA." *Id.* The Notice of Hearing was provided to water right holders of record or their designated water use correspondents of record in the area by certified mail. DWR Exhs. G, H. A copy of the Notice of Hearing was published on October 18, 2012 in the *Kansas Register,* DWR Exh. J, and in the Hoxie *Sentinel,* a newspaper of general circulation in Sheridan and Thomas counties, DWR Exh. I.

6. The second public hearing took place as scheduled on November 28, 2012, at the Sheridan County Courthouse in Hoxie, Kansas. *See* Order of Decision, Section III, ¶¶ 2-16. The second public hearing fully incorporated the record established in the first public hearing, held on September 23, 2012. *Id.,* Section III, ¶ 1.

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entered into the record for the first hearing; and the notice of hearing for the second hearing, dated October 10, 2012, the first exhibit DWR entered into the record for the second hearing. To correct this error, the earlier Exhibit F has been relabeled DWR Exh. F-1, and the later Exhibit F has been relabeled DWR Exh. F-2. DWR regrets the error.

[3] *See* note 1 above.

7. Upon review of all of the oral and written testimony submitted for the two public hearings held in this matter, I issued an Order of Decision on December 31, 2012 accepting the local enhanced management plan pursuant to K.S.A. 82a-1041(d)(1). *Id., passim.*

8. Because the Order of Decision accepted the local management plan pursuant to K.S.A. 82a-1041(d), K.S.A. 82a-1041 requires this Order of Designation, to be issued "within a reasonable time," *Id.,* 82a-1041(e), according to the requirements of subsections (f) through (h) of the same statute and other applicable law.

II. APPLICABLE LAW AND THE PURPOSE OF THIS ORDER OF DESIGNATION.

1. A LEMA is a creature of statute, K.S.A. 82a-1041, that engages both the KWAA and the GMDA. K.S.A. 82a-1041 sets forth the requirements and limitations for establishing LEMA's. As part of the GMDA, K.S.A. 82a-1041 allows groundwater management districts to address groundwater declines and other conditions of concern through locally-generated management plans that include specific goals and corrective control provisions. These plans must be consistent with state law. This local autonomy over the management plan distinguishes LEMAs from IGUCAs. The LEMA statute, K.S.A. 82a-1041, refers to an IGUCA statute, K.S.A. 82a-1036, for its shorthand articulation of the groundwater conditions that may give rise to the establishment of a LEMA. K.S.A. 82a-1041(a). A LEMA 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. A LEMA comes into being by an Order of Designation of the

Chief Engineer, who is statutorily charged with the enforcement and administration of the laws of Kansas that relate to the beneficial use of water. K.S.A. 82a-1041(e), K.S.A. 82a-706. An order of designation is the final agency action of DWR, and is distinct from an order of decision, which is an intermediate step in the LEMA process. *See* 82a-1041(d) through 82a-1041(h).

2. K.S.A. 82a-1041(b)-(d) sets forth the specific process that applies to the second public hearing, which took place subsequent to the initial public hearing as summarized in Section I above. The Proposal is a "local enhanced management plan" as that latter term is used throughout K.S.A. 82a-1041. The subject matter of the second public hearing is statutorily limited to the Proposal that my office initially reviewed in July and August of 2012. K.S.A. 82a-1041(c). Pursuant to K.S.A. 82a-1041(d), the second public hearing provides the necessary forum in which the public, including GMD4, contributes testimony on the question of "whether to accept, reject, or suggest modifications to the proposed LEMA [i.e., the Proposal]." DWR Exhs. I, J. The second hearing was the final public hearing in this matter, and the record closed on December 4, 2012. *Id.* Consequently, K.S.A. 82a-1041(d) requires the Chief Engineer to issue an order of decision either: (1) accepting the Proposal; (2) rejecting the Proposal; (3) returning the Proposal and providing GMD4 the opportunity to resubmit it within 90 days; or (4) returning the Proposal to GMD4 with proposed modifications that do not impose additional reductions in groundwater withdrawals. Based upon the language of K.S.A. 82a-1041(d)-(e), the order of decision is just that: an order of the Chief Engineer indicating his decision to accept the Proposal, reject it, or return it for modification and resubmission. The Order of Decision in this matter accepted the Proposal pursuant to K.S.A. 82a-1041(d)(1).

3. If the Chief Engineer issues an order of decision accepting the Proposal pursuant to K.S.A. 82a-1041(d)(1), then K.S.A. 82a-1041(e) requires an order of designation that designates the area in question as a LEMA. K.S.A. 82a-1041(f) specifically requires the order of designation to set forth the circumstances and appropriate findings that support that order, and to order the adoption of the specific corrective control provisions that the Proposal recommends.

4. Because this Order of Designation approves the Sheridan 6 LEMA, it constitutes "final agency action" as that term is defined at K.S.A. 77-607(b)(2).

III. TESTIMONY.

ORAL TESTIMONY

1. Ms. Owen's Order of October 4, 2012, contains a full summary of the oral testimony presented at the first public hearing. DWR Exh. T. What follows is a summary of the oral testimony from the second public hearing.

2. Mr. Scott E. Ross, Water Commissioner for the Stockton Field Office of DWR, spoke in support of the Proposal. He stressed that both DWR and GMD4 have cooperated for over four years to assist the stakeholders in the SD-6 HPA "to achieve a workable means to conserve and extend the practical life of the local groundwater supply." Transcript, p. 76 (Mr. Ross). On behalf of DWR, Mr. Ross pledged his full support to ensure that the Proposal would achieve "its locally generated goals." *Id.* at pp. 76-77.

3. Mr. Scott Maurath, a lifelong irrigator, a GMD4 board member for over ten years, GMD4 board president for four or five years, and a resident of Oakley Kansas, testified in support of the Proposal. He stressed that the Proposal sought to establish a conservation plan for the local groundwater supply that would not do irreparable damage to the local economy. Mr. Maurath also stressed the care with which GMD4 and the KGS had worked to establish the Proposal's boundaries. He stressed two aspects of this boundary issue: first, that in applying different criteria and different threshold values to help determine the boundaries of the LEMA, both GMD4 and the KGS consistently returned to roughly the same boundaries, with small differences. Transcript, pp. 79-81. Second, Mr. Maurath stressed the need to make the total geographical area of the LEMA big enough to achieve meaningful water use reductions, but small enough so that GMD4 and DWR could monitor and enforce the Proposal's provisions effectively. *Id.* at p. 79.

4. Mr. Mitchell Baalman, a fourth-generation farmer from Sheridan County and also a GMD4 board member, testified in support of the Proposal. He stated that his family had become concerned by the problem of declining groundwater supplies as early as 1984, and that he and GMD4 have been working on the problem of addressing groundwater declines since the early 2000's—a problem that the LEMA process was intended to address more effectively than the IGUCA process, because the LEMA process enables the local GMD to retain control over the particular corrective control provisions of the LEMA. *Id.* at 82-86. Mr. Baalman believed that GMD4 and DWR can cooperate effectively in making sure the Sheridan 6 LEMA works as planned. *Id.* at p. 83. Mr. Baalman also stated that he believed that irrigators within the Sheridan 6 LEMA will "probably make more money" but not spend so much as a result of the reduction in

groundwater pumping. *Id.* at pp. 83-84 (Mr. Baalman). When I questioned him about whether the reduction in groundwater pumping would actually increase his net profits, he replied that "we'll probably net more . . . ." *Id.* at pp. 87-88 (Mr. Baalman). Mr. Baalman also stated that this reduction, coupled with the flexibility of the five-year allocation and the ability to move water rights among different points of diversion, would still enable him to farm his ground profitably during the proposed LEMA period of five years. *Id.,* pp. 87-90.

5. Mr. Brent Rogers, a farmer from northeast Sheridan County and a GMD4 board member who does not own land within the proposed LEMA, spoke in favor of the Proposal. He stated that Sheridan County farmers form "the top echelon of farmers in the country," *id.,* at p. 91 (Mr. Rogers), and stressed that their skill, together with the flexibility in water use afforded by the Proposal, would allow them to stay in business despite the reduction in groundwater use. "I think they're going, they're going to be fine." *Id.* (Mr. Rogers).

6. Mr. Roch Meier, a farmer whose water rights are contained within the boundaries of the proposed LEMA, spoke in favor of the Proposal, and provided information about corn yields from his irrigated fields. Mr. Meier used 17 inches of water on one field in 2012, and that field yielded 249 bushels of corn per acre; he used 10.5 inches of water on a different field (roughly 95% of the Proposal's annual limitation of 11 inches), which yielded 193 bushels per acre. Based on his experience, the difference in yields between full and reduced irrigation, 56 bushels, resulted from the 6.5 inch difference in the amount of irrigated water. *Id.,* pp. 92-93. Put another way, a 38.2% reduction in water use translated to a 22.5% reduction in corn yield. Mr. Meier believed that the water savings was worth the sacrifice in yields, because it would allow

the farm families of Sheridan County to continue to irrigate their ground in future generations. *Id.* at p. 94.

7. Mr. Harold Murphy, a farmer with water rights who lives in Selden and farms land within the boundaries of the proposed LEMA, provided both oral and written testimony for the first hearing in this matter, and he spoke at this second hearing as well. Mr. Murphy stated two criticisms of the Proposal's allowance to transfer authorized quantities of water among different points of diversion. First, Mr. Murphy believed that this allowance would enable those with more wells to use more water per acre than those with fewer wells, an unequal result with which he disagreed. Second, he believed that this allowance would enable those water rights owners whose wells cannot physically yield 11 inches per year to transfer their remaining capacity to other wells, worsening the depletion problem for future generations and "enabling those users with more wells to use more water unfairly, unequally, than what is now permitted." *Id.,* at pp. 95-96 (Mr. Murphy).

8. Mr. Gary Moss, a farmer in Sheridan County with water rights within the boundaries of the proposed LEMA, spoke in favor of the Proposal. He argued that the Proposal should be extended throughout GMD4 entirely. *Id.* at p. 97. However, Mr. Moss expressed similar concerns to those of Mr. Murphy. Namely, Mr. Moss believed that the Proposal's flexibility provisions, without limitation, would enable people to purchase crippled water rights that cannot yield enough water to irrigate their present place of use, and move that water to the purchasers' place of use, producing a situation where, at least potentially, more water would be

used under the Proposal than without it. Mr. Moss recommended that there should be a distance limitation on moving such water. *Id.* at pp. 98-99.

9. Jeff Younger, who works for Seminole Energy Services, a provider of natural gas service to water rights owners in the area, was the last person to provide oral testimony. He spoke in favor of the Proposal, because he wants to keep selling gas to his customers, and "if we continue to do what we're doing [i.e., pump groundwater at existing rates], I might not be able to do that." *Id.,* at p. 100 (Mr. Younger).

WRITTEN TESTIMONY

10. The record of the first public hearing in this matter was incorporated into the record for the second public hearing. Transcript, p. 6.

11. Mr. Wayne Bossert, the Manager of GMD4, led the oral and written testimony in support of the Proposal. Assisting him was Mr. Raymond Luhman, the Assistant Manager of GMD4. Most of their oral testimony was essentially a summary and explication of their written testimony. Most of their written testimony is contained in GMD4 Exh. 1, which consists of the following: GMD4's written testimony in this proceeding; Appendix 1 to that testimony, which is the Proposal; and seven other appendices. GMD4's testimony summarized the Proposal, explained and defended the process by which GMD4 set the geographical boundaries of the Sheridan 6 LEMA, and emphasized the extensive deliberative process which produced the main provisions of the Proposal. At the second hearing, GMD4 also provided GMD4 Exh. 3, an academic study entitled "Potential Economic Impact of Water Use Changes in Northwest

Kansas," by Drs. Bill Golden, Jeff Peterson, and Dan O'Brien, agricultural economists at Kansas State University ("Golden Report"). Following the second hearing, GMD4 provided supplementary written testimony in support of the Proposal. GMD4 Exhs. 4-5. This supplemental testimony responded to a number of specific questions and concerns that arose from both public hearings, and are discussed below in Section IV, ¶¶ 14-20.

12. Mr. Brownie Wilson of the Kansas Geological Survey ("KGS") provided both written and oral testimony in support of the Proposal. GMD4 Exh. 2. His testimony focused upon the technical methods by which GMD4 set the geographical boundaries of the SD-6 HPA and the Sheridan 6 LEMA, and hydrogeological information concerning groundwater flow characteristics of the Ogallala-High Plains Aquifer beneath the Sheridan 6 LEMA.

13. GMD4 Exhs. 1 through 5 were accepted into the record.

14. DWR provided written testimony in support of the Proposal. Mr. Andrew Lyon of DWR submitted two reports. The first report, "Northwest Kansas Model Development Process," DWR Exh. K, summarized the Northwest Kansas Model ("NWK Model"), a computer groundwater model adapted from the Republican River Compact Administration Groundwater Model ("RRCA Model") and calibrated "for the purposes of better predicting groundwater levels in northwest Kansas and to analyze alternative groundwater management scenarios in GMD 4." DWR Exh. K, p. 1. This report contains three attachments. Attachment 1 to DWR Exh. K is a report by S. S. Papadopulos & Associates, "NW Kansas Model Calibration," dated April, 2009, and was submitted as DWR Exh. L. Attachment 2 is a text file, "run_base_2006-2008.txt,"

which consists of model runs from the NWK Model; it was submitted as DWR Exh. M. Attachment 3, listed as "NWKS_Model_HPA_SD6_%_Reductions_ Attachment.png," is a graphic file entitled "Water level change since 2005 in spatially averaged heads for priority area 6 and for all of GMD4." This third attachment was submitted as DWR Exh. N.

15. Mr. Lyon also submitted a second report in support of the Proposal, "Northwest Kansas Model: Water Level Difference Between Pumping Scenarios," DWR Exh. O. This second report of Mr. Lyons contains three attachments. Attachment 1 to DWR Exh. O is identical to DWR Exh. L. Attachment 2 to DWR Exh. O, "NWKS_Model_WLD_Scenario1vs3.bmp," is a groundwater map entitled "Water Level Difference (ft), NWKS Model, Status Quo Pumping vs. HPA 30% Pumping Reduction (results at end of 2055)," and was submitted as DWR Exh. P. Attachment 3 to DWR Exh. O, "NWKS_Model_WLD_Scenario1vs3_SD6.bmp," was submitted as DWR Exh. Q. Finally, DWR submitted a map entitled "2010-2012 Saturated Thickness (ST) within Sheridan County 6 High Priority Area," as DWR Exh. R.

16. In addition to the exhibits from the first hearing (DWR Exhs. A through F-1), all of the exhibits DWR submitted for the second hearing (DWR Exhs. F-2 through R) were accepted into the record.

17. Mr. Edward Kemp, of Winona, Kansas, which is located in Logan County, not Sheridan County, submitted written testimony via electronic mail on December 4, 2012. Mr. Kemp's testimony was critical of DWR for allowing groundwater to be consumed at the present rate. Exh. 6. It was accepted into the record.

IV. DISCUSSION.

1. The process by which GMD4 has produced the Proposal, and the purpose with which it has pursued this LEMA, deserve praise. As Mr. Bossert stated, "[i]n the end, the consensus was that consensus was the preferred approach." Transcript, p. 31 (Bossert). Within this approach, six issues merit discussion.

BOUNDARIES AND HYDROLOGIC PROPERTIES OF THE SHERIDAN 6 LEMA.

2. First, there are the connected issues of the geographic boundaries and the hydrologic properties of the Sheridan 6 LEMA. Ms. Owen's Order of October 4, 2012 contains a useful summary of the boundaries issue, DWR Exh. T, pp. 6-8. That order found that the boundaries of the Sheridan 6 LEMA, as well as the process by which they were determined, were reasonable. *Id.* At the second hearing, both GMD4 and KGS provided substantial testimony defending these boundaries, which are based upon technical methods of hydrogeologic analysis, reasoned decisions concerning the appropriate hydrological criteria for choosing the boundaries, and extensive deliberations within GMD4 and among the stakeholders within the SD-6 HPA—taken together, a process that dates back to 1999. *See generally* GMD4 Exh. 1, pp. 2-10. In determining the boundaries, it is clear that GMD4 took pains to base them upon sound and well-developed hydrological data, and reasoned and iterative technical criteria. Similarly, the size of the Sheridan 6 LEMA allows a substantial reduction in groundwater pumping, but one that can be monitored and enforced effectively and manageably by DWR, GMD4, KGS, and by the water rights owners themselves.

3. GMD4 relied substantially on the work of the KGS in determining the boundaries of the Sheridan 6 LEMA. GMD4 Exh. 1, pp. 4-9. Mr. Brownie Wilson of the KGS presented testimony that explained how the KGS assisted GMD4 in determining these boundaries. GMD4 Exh. 2, slides 2-22. The principal tool that GMD4 used is the High Plains Section-Level Database, a compilation of hydrologic, geologic, and groundwater pumping data. As its name implies, this database measures the relationship between groundwater pumping and groundwater supplies at the one square mile, or section level, based on available data, measurement methods, and mathematical interpolations between and among well sites. With this data, both the KGS and GMD4 have evaluated changes in the depth of the water table; measured the saturated thickness of the aquifer within the Sheridan 6 LEMA; assessed changes in that thickness over time; and have shown the correlation between these changes and both the intensity and density of groundwater pumping in the area. The data for groundwater pumping is drawn from the KDA-DWR Water Rights Information System ("WRIS"). *Id.,* slide 14.

4. Mr. Wilson also provided testimony regarding groundwater flow within the Sheridan 6 LEMA. *Id.,* slides 23-25. This testimony relied upon Appendix D of the "High Plains Aquifer Calibration Monitoring Well Program: Fourth Year Progress Report," KGS Open-file Report No. 2011-4 ("Progress Report"), a report co-authored by R. Stoller, J.J. Butler Jr., R.W. Buddemeier, G.C. Bohling, S. Comba, W. Jin, E. Reboulet, D.O. Whittemore, and Mr. Wilson. GMD4 Exh. 1, Appendix B; GMD4 Exh. 2, slide 24. Using the data in the High Plains Section-Level Database for the years 1996 through 2005, the authors of the Progress Report computed groundwater flow in four townships across Thomas County (an area in reasonably close

proximity to the Sheridan 6 LEMA) to range between .53 feet to 1.11 feet per day. *Id.,* slide 25. Based on that flow rate, the long-term groundwater flow in the Sheridan 6 LEMA would travel one mile in approximately fifteen to twenty years, making it "very unlikely that volume of groundwater underneath a township could be replaced in less than 50-60 years. This means that the first and greatest effects of either conservation or depletion will be experienced in the immediate area." *Id.*

5. DWR also provided testimony regarding the Northwest Kansas Model ("Model"), the computer model that assists in the measurement of groundwater levels, groundwater flows, and the impact of groundwater pumping on those levels in the Sheridan 6 LEMA. *See* DWR Exhs. K, L, M, and N. The Model is based upon the RRCA Model, which was produced cooperatively by the United States Geologic Survey and the states of Colorado, Kansas, and Nebraska in the settlement of Kansas' lawsuit against Nebraska over excessive groundwater withdrawals in the Republican River Basin. The RRCA Model has been accepted and formally adopted by the Supreme Court of the United States. *See Kansas v. Nebraska & Colorado,* No. 126 Orig., FINAL REPORT OF THE SPECIAL MASTER WITH CERTIFICATE OF ADOPTION OF RRCA GROUNDWATER MODEL (September 17, 2003), approved by Decree of May 29, 2003, 538 U.S. 720. Unlike the RRCA Model, the Model has been calibrated "for the purposes of better predicting water levels in northwest Kansas and to analyze alternative groundwater management scenarios in GMD4." DWR Exh. L, p. 1. S. S. Papadopulos & Associates, an internationally respected water resources consultancy with extensive experience in groundwater modeling, performed the calibration. *Id.* As recalibrated, the Model can evaluate the effects of reductions in groundwater pumping to a sufficient degree of accuracy. In this case, the correlation coefficient,

which ideally expresses a 1:1 relationship between groundwater levels simulated and computed by the Model on one hand and measured water levels on the other, is .99983. DWR Exh. M, pp. 1-2 (internal citations omitted). The Model can accurately assess impacts from future groundwater use in Northwest Kansas. DWR Exh. L, p. 17.

6. Mr. Lyon of DWR used the Model to evaluate and quantify possible reductions in groundwater pumping in the Sheridan 6 LEMA. *See* DWR Exhs. O through R. DWR Exhibit Q shows the effects of reducing groundwater pumping by 30% in the Sheridan 6 LEMA. As Mr. Lyon testified, because of the hydrologic properties of the aquifer—its transmissivity and hydraulic conductivity in particular-- the results from running the Model "demonstrate that the benefits of pumping reductions accrue to the local area where the reductions are implemented." DWR Exh. O. Mr. Lyons' testimony on this point corroborates Mr. Wilson's. *See* above, at Section IV. ¶ 4.

7. There was no testimony presented at the second hearing that attempted to discredit the technical grounds upon which the boundaries contained in the Proposal were established. Similarly, there was no testimony presented that was contrary to the testimony regarding the Model, its calibration, and its use by DWR.

TEMPORAL PRIORITIES OF WATER RIGHTS.

8. Second, there is the issue of a potential conflict in Kansas water law doctrine. The Chief Engineer has the general statutory duty to enforce and administer the water laws of Kansas "in accordance with the rights of priority of appropriation." K.S.A. 82a-706. By contrast, the

Proposal reduces all non-domestic water rights of the same use made of water by the same amount, regardless of priority. GMD4 Exh. 1, App. 1, p. 19. However, the Proposal, together with the testimony, appear to render this conflict more apparent than real. The Proposal sets all irrigation water rights at a 55 inch allocation for five years, and several experienced irrigators within the Sheridan 6 LEMA gave oral testimony stating that this would be sufficient water for their needs, obviating the need for priority administration. *See, e.g.,* Transcript at pp. 87-90 (Mr. Baalman); *Id.* at p. 91 (Mr. Rogers). No one testified that 11 inches would be insufficient for their irrigation needs. Furthermore, the Proposal allows irrigators to move water around within their allocations, and to obtain water rights from others within the LEMA boundaries. GMD4 Exh. 1, App. 1, p. 19. And in the event that a senior water right is impaired as a result of direct well interference by a junior right, the GMD4 testimony makes clear that such a senior right will be entitled to request an impairment investigation by DWR. GMD4 Exh. 1, p. 15.

DIFFERING TREATMENT OF DIFFERENT USES MADE OF WATER.

9. Third, there is the issue of treating different uses made of water differently. The Proposal reduces irrigation water rights more than recreational water rights. Stockwatering water rights are restricted under the Proposal from the maximum allowable for cattle, 15 gallons per head per day, to 12 gallons per head per day, but the precise reductions of water use under these rights are not clear. These varying reductions also present a potential conflict in Kansas water law doctrine. With certain exceptions that do not apply here, the date of priority of a water right and not the purpose of its use determines the right to use water, K.S.A. 82a-707(b); but that priority only engages "when the [water] supply is not sufficient to satisfy all water rights." *Id.* As the stockwatering and recreation uses comprise a very small fraction of the total groundwater use

during the Sheridan 6 LEMA Period, and for the reasons set forth in Section IV. ¶ 8 above, this third issue is not sufficiently problematic to reject or require modification of the Proposal.

CHANGES IN PLACES OF USE.

10. Fourth, there is the issue of flexibility. Some irrigators within GMD4 expressed concerns that the Proposal's provisions for moving the authorized quantities of irrigation water rights within an allocation, and for moving water rights' place of use from one part of the proposed LEMA to another, would favor those with multiple water rights at the expense of those with single rights. Similarly, irrigators were concerned that such flexibility would accelerate the depletion of groundwater, because wells that physically cannot yield the pump rates necessary for irrigation might not otherwise be used absent the ability to move allocations. *See, e.g.,* Transcript at pp. 95-96 (Mr. Murphy); pp. 98-99 (Mr. Moss). These are astute concerns. To some degree, GMD4 appears to have anticipated these concerns, and its testimony partially assuages them. The movement of water by such transfers is limited by the boundaries of the Sheridan 6 LEMA, and by the cap on irrigation allocations at the authorized quantities of their constituent rights. *See* GMD4 Exh. 5. For the five-year term set forth in the Proposal, I find these restrictions sufficient to alleviate the Proposal's stated concerns; but I believe that the longer-term management of the SD-6 HPA will require a careful evaluation as to whether the Proposal's flexibility creates problems in specific areas. As for the possibility that irrigators with more water rights will obtain benefits from the Proposal's flexibility provisions than irrigators with fewer or single rights, that economic—or hydraulic—inequality is a problem that no chief engineer can resolve.

THE ECONOMIC IMPACTS OF A TEMPORARY REDUCTION IN ANNUAL AUTHORIZED DIVERSIONS OF WATER IN THE SHERIDAN 6 LEMA.

11. Fifth, there is the issue of the economic consequences of ordering a temporary, 5-year reduction in annual authorized diversions of water in the Sheridan 6 LEMA. GMD4 has conducted deliberations to arrive at a level of reduction in groundwater pumping that is sufficient to conserve and extend the practical life of the aquifer, while still providing sufficient irrigation water to irrigate an annual crop, as long as producers manage their water, soil moisture, and crop inputs appropriately. GMD4 Exh. 1, p. 12.

12. As Independent Hearing Officer Owen found, the water levels in the Sheridan 6 LEMA are in serious and excessive decline, due to groundwater pumping and the low rate of recharge of the aquifer. DWR Exh. T. Given this low rate of recharge—1.2 inches per year, GMD4 Exh. 3, Table 2, p. 37—the water supply is the Sheridan 6 LEMA is largely non-renewable.

13. Based on the known hydraulic conductivity, transmissivity, and other relevant properties of the groundwater formations in the Sheridan 6 LEMA, it is the consensus opinion of DWR, GMD4, KGS, and S. S. Papadopulos & Associates that water that is preserved for future use by reductions in current groundwater pumping will migrate at a very low rate both within and beyond the Sheridan 6 LEMA for many decades—well beyond the five-year term of this LEMA. DWR Exh. O; GMD4 Exh. 1, App. B; GMD4 Exh. 2; DWR Exh. L.

14. The Golden Report, GMD4 Exh. 3, 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 fallowing period, after which dryland farming can resume. GMD4 Exh. 3, p. 10. The Golden Report employed data that is consistent with the RRCA Model. *Id.,* p. 37.

15. In assessing the respective economic impacts of the three possible reduction levels and the three scenarios described in Paragraph 14 above, the Golden Report employs 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. GMD4 Exh. 3, p. 13. 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).

16. Tables 16 through 19 of the Golden Report quantify the hydrologic and economic effects of the first option (no reduction in groundwater pumping) and the third option (a 30% reduction in groundwater irrigation pumping in the Sheridan 6 LEMA) over a 60 year period. Under the first, status quo option, the total water use in Year 1 begins at 26,723.6 acre-feet

("AF") per year and declines to 13,143.6 AF/year in Year 60, as the rate of decline in the saturated thickness of the aquifer slows from 1.15 inches/year in Year 1 to 0.28 inches/year in Year 60. GMD4 Exh. 3, Table 16. p. 43. As a result of these roughly 50% reductions over the 60-year period in both total water use and saturated thickness—reductions that are solely the result of the exhaustion of the groundwater supply by status quo pumping levels—the total acreage irrigated by center-pivot irrigation systems declines commensurately, from 16,062 acres in Year 1 to 8,245 acres in Year 60. *Id.* Future gross profits track this unregulated decline in groundwater levels, starting at $5,279,829 in Year 1 and dropping to $3,997,627 in Year 60. *Id.,* Table 17, p. 44.

17. Under the third option of the Golden Report, a 30% reduction in groundwater pumping, the decline in water use and profitability is far less precipitous. Total water use in Year 1 begins at a reduced level of 18,706.5 AF/year, but declines less, to 14,518 AF/year in Year 60, largely because the rate of decline in the saturated thickness of the aquifer declines at a slower rate, from a decline of 0.64 inches/year in Year 1 to a decline of 0.37 inches in Year 60. Under this 30% reduction, total acreage irrigated by center pivot irrigation systems does not decline as quickly, from 16,062 acres in Year 1 to 13,327 acres in Year 60. Under the 30% reduction option, sufficient water is conserved to allow the irrigation of five thousand more acres in Year 60 than under the status quo option. *Id.,* Table 18, p. 45. Future gross profits track this less aggressive decline in groundwater levels, starting at $4,717,461 in Year 1 and dropping to $4,285,202 in Year 60. *Id.,* Table 19, p. 46.

18. Based on these figures and the Golden Report in general, it becomes clear—at least within the limited time span of 5 years, and the lower reduction of 20%, not 30%—that

GMD4 has made an informed decision. GMD4 and the stakeholders within the Sheridan 6 HPA have decided to reduce present groundwater pumping, which will produce a slightly lower gross profit in the present, so that the stakeholders will obtain a proportionately higher gross profit in the future, as a result of the greater groundwater reserves preserved by present reductions in pumping. GMD4 Exh. 1, p. 13, n. 1.

19. Indeed, over the short term of 5 years, the Golden Report shows that the immediate economic impacts of even a 30% reduction in groundwater pumping are not statistically significant in the Sheridan 6 LEMA. *Id.,* Figure 13, p. 69 (showing a zero decline in gross profit for limited irrigation for the first 30 years). However, given that the declines in gross profit do not manifest themselves until approximately year 30 in the Golden Report, this appears to be strong evidence in support of a longer LEMA period than merely 5 years. *Id.*

20. Local irrigators corroborated the Golden Report's conclusion that short-term reductions in groundwater use by 20% will not prevent them from making a profit off of their irrigation. *See, e.g.,* Transcript at pp. 79-81 (Mr. Maurath); *id.* at pp. 87-90 (Mr. Baalman); *id.* at p. 91 (Mr. Rogers); *id.* at p. 94 (Mr. Meier).

21. There was no testimony offered at either hearing that provided criticisms of or contradictions to the Golden Report. Nor did anyone offer oral testimony in dispute of Mr. Maurath's, Mr. Baalman's, Mr. Rogers', and Mr. Meier's statements that they could operate profitably within the reduced limits of water use proposed by the Sheridan 6 LEMA proposal.

THE TEMPORARY TERM OF THE SHERIDAN 6 LEMA.

22. Finally, there is the issue of the limited time period of the Sheridan 6 LEMA as envisioned by the Proposal—five years. While the Proposal has set forth an attainable goal of reducing groundwater pumping by approximately 20%, the short five-year period of the Proposal threatens to undermine the fundamental purpose of the LEMA in the first place—namely, conserving and extending the practical life of the area's groundwater supply for future generations. *See, e.g.,* Transcript at p. 94 (Mr. Meier). Mr. Bossert and the board members of GMD4 who testified at the second hearing clearly stated that they understand the problem to be one that requires a long-term solution. The Proposal provides for an advisory committee to make recommendations for future management beyond the five-year period of the LEMA. GMD4 Exh. 1, App. 1, at pp. 22-23. Notably, K.S.A. 82a-1041(d) does not require a local enhanced management plan to establish a permanent reduction in groundwater use; it merely requires the plan to address the problem of declines. Nonetheless, unless this LEMA is renewed for a longer period, then the work and cooperation of GMD4, KGS and DWR will be largely wasted, and remembered as little more than a gesture.

V. FINDINGS OF FACT.

1. The geographical boundaries of the Sheridan 6 LEMA Proposal contain the following sections in Sheridan County and Thomas County:

Sheridan County:

TWP 7S-28W: Sections 19-21 and 28-33;

TWP 7S-29W: Sections 4-9 and 16-36;

TWP 7S-30W: Sections 19-36;

TWP 8S-29W: Sections 1-18;

TWP 8S-30W: Sections 1-18.

Thomas County:

TWP 8S-R31W: Sections 22-27 and 34-36.

2. Groundwater levels in the area described in Paragraph 1 above are declining, in some cases precipitously; these levels have declined excessively; and the rate of withdrawal of groundwater there exceeds the rate of recharge. GMD4 and the stakeholders within the SD-6 HPA recognize that these declines are a long-term problem that requires a long-term solution.

3. The boundaries of the proposed LEMA are entirely within the boundaries of GMD4.

4. These boundaries are clear and reasonable, and are soundly based upon a technical consensus shared by GMD4, DWR, and KGS concerning the hydrogeology of the area.

5. The overarching goal of the Proposal is to collectively restrict diversions of nondomestic groundwater rights to no more than 114,000 acre-feet total, during the period bounded by January 1, 2013, and December 31, 2017, in a manner that preserves the economic benefits of irrigation further into the future.

6. The corrective control provisions of the Proposal are sufficient to meet this overarching goal.

7. The Model is an accurate predictor and simulator of the effects of groundwater pumping in the SD-6 HPA.

8. Due to the hydrogeologic features of the aquifer in the area whose boundaries are described in Section V, ¶ 1 above, the reduction in groundwater pumping by water rights owners within the Sheridan 6 LEMA should inure almost entirely to their future benefit over both the short and the long term.

9. The irrigators within the Sheridan 6 LEMA can sustain their irrigated farming operations profitably with the Proposal's five-year allocation of 55 inches.

10. Non-irrigation uses within the Sheridan 6 LEMA comprise a very small percentage of the total use of water, and their reductions pursuant to this order are reasonable.

11. The Sheridan 6 LEMA provides a short-term opportunity to determine whether long-term concerns regarding the flexibility of water use in the area should be addressed over the long term, through a long-term management plan. GMD4's plan to track the use of flexible allocations, together with GMD4's monitoring plan, are sufficient to enable GMD4 and its Advisory Committee to examine this issue.

VI. CONCLUSIONS OF LAW.

1. Notice of the first public hearing in this matter was proper and complied with the requirements of K.S.A. 82a-1041(b).

2. Notice of the second public hearing in this matter was proper and complied with the requirements of K.S.A. 82a-1041(b).

3. The second hearing took place according to the requirements of K.S.A. 82a-1041.

4. K.S.A. 82a-1041(d)(1) allows acceptance of a local enhanced management plan, provided that 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) (with apposite reference to K.S.A. 82a-1036(a)-(b)). It must be stressed that a finding of such sufficiency does not mean that such a plan is sufficient to resolve such declines and disparity over the long term.

5. The Proposal is "sufficient to address" these problems within the modest confines of K.S.A. 82a-1041(d)(1), because it reduces overall groundwater usage by approximately 20% for a period of five years. That stated, a legal conclusion is not equivalent to a hydrological one. Because this is the first LEMA to be established, this finding of legal sufficiency is issued with the hopeful expectation that GMD4 and its stakeholders will recognize the Sheridan 6 LEMA as a precursor to a longer-term effort to confront the permanent problem of excessive groundwater declines.

6. The Proposal is consistent with the KWAA, the GMDA, and other Kansas law.

7. The Proposal comports with the public interest of the inhabitants of the State of Kansas pursuant to K.S.A. 82a-1020 and the KWAA.

VII. ORDER.

NOW, THEREFORE, it is the decision and order of the Chief Engineer, Division of Water Resources, Kansas Department of Agriculture, that the Sheridan 6 LEMA is hereby designated and established in the Sheridan County and Thomas County, and shall be in full force and effect as of the date of the Order of Decision, January 1, 2013:

BOUNDARIES.

1. That the geographical boundaries of the Sheridan 6 LEMA shall be as follows and shall include all water rights whose points of diversion are located within the following sections in Sheridan County and Thomas County:

Sheridan County:

TWP 7S-28W: Sections 19-21 and 28-33;

TWP 7S-29W: Sections 4-9 and 16-36;

TWP 7S-30W: Sections 19-36;

TWP 8S-29W: Sections 1-18;

TWP 8S-30W: Sections 1-18.

Thomas County:

TWP 8S-R31W: Sections 22-27 and 34-36.

2. This Order shall be in effect as of the date of the Order of Decision, January 1, 2013, and shall govern all irrigation, stockwatering, and recreational rights within the Sheridan 6 LEMA between January 1, 2013, and December 31, 2017. This five-year term shall be known as the "Sheridan 6 LEMA Period."

3. Attached as Attachment 1 is a spreadsheet that lists the water rights affected by this Order of Designation.

ALLOCATIONS.

4. The total amount of diversions of water within the Sheridan 6 LEMA shall be restricted to no more than 114,000 AF during the Sheridan 6 LEMA Period.

5. Each irrigation water right within the Sheridan 6 LEMA shall be limited to a total maximum quantity of 55 inches per designated eligible acre for the Sheridan 6 LEMA Period. This five-year quantity of 55 inches per designated eligible acre shall be known as the "initial irrigation allocation," and shall be applied only to the designated eligible acres for each irrigation water right in the Sheridan 6 LEMA, which have been quantified by GMD4 as described in the Proposal, GMD4 Exh. 1, Appendix 5, p. 35. Somewhat simplified, that procedure for quantifying designated eligible acres is as follows:

i. Where the irrigation water right's water use report for 2010 reports the same irrigated acreage as do the reports for 2007, 2008, and 2009, then the designated eligible acres for that water right shall be the reported acreage for 2010.

ii. Where the irrigation water right's water use report for 2010 reports irrigated acreage that differs from the reports for 2007, 2008, or 2009, then the designated eligible acres for that water right shall be the highest reported acres for any of these four years (2007 to 2010 inclusive) that can be verified by GMD4 as having been legally irrigated under that right.

GMD4 has completed this procedure for every water right within the Sheridan 6 LEMA, and every owner of an irrigation water right within the Sheridan 6 LEMA has received notification of that right's designated eligible acres.

6. The initial irrigation allocation may be increased or decreased subject to the terms and limitations set forth below. In the event of such increase or decrease, that allocation shall be known as the "irrigation allocation."

7. Individual points of diversion pumping to a common irrigation system or systems shall be provided a single allocation for the total system irrigated acres. The total amount of water pumped by all of the points of diversion must remain within that system's allocation.

8. Multiple irrigation allocations may be combined into an irrigation allocation account, which may be apportioned to the irrigation water rights' individual points of diversion within that irrigation allocation account, provided the total allocation account is not exceeded, subject to further limitations set forth below.

9. GMD4 shall administer the combining of multiple irrigation allocations as set forth in Paragraph 8 above, using an "Application to Combine SD-6 LEMA Amounts" form approved by DWR, a version of which is attached to this Order of Designation as Attachment 2. GMD4 shall supply a verified summary of this information to DWR on or before November 1 of each year of the Sheridan 6 LEMA Period.

10. Irrigation allocations may be transferred to a different place of use and/or point of diversion within the Sheridan 6 LEMA, provided that the transferors and transferees of such allocations comply with GMD4 procedures for approving these transfers, subject to the further limitations below.

11. GMD4 shall administer the transfer of irrigation allocations within the Sheridan 6 LEMA, using the "Application for Temporary Transfer of Allocation within the SD-6 Local Enhanced Management Area" form approved by DWR, and attached to this Order of Designation as Attachment 3. GMD4 shall supply a verified summary of all transfers within the Sheridan 6 LEMA to DWR, as set forth more fully at Section VII, ¶¶ 28-30 below. All such transfers shall be limited to the Sheridan 6 LEMA Period.

12. Whether through transfer, purchase, lease, or other conveyance, no irrigation allocation within the Sheridan 6 LEMA shall exceed 5 times the annual quantity of water authorized by the irrigation water right or rights that comprise the irrigation allocation.

13. No irrigation allocation shall be allowed to divert more than the annual quantity of water authorized by its constituent irrigation water right or rights in any single year.

14. Regardless of any irrigation allocation specified pursuant to this Order, any additional restriction or restrictions established pursuant to K.A.R. 5-5-11 shall continue to apply.

15. Each and every irrigation allocation shall be assigned to a specific point or points of diversion, and shall consist of all of the water rights and appurtenant acres related to that point of diversion.

16. Before October 1, 2013, any irrigation allocation may be converted to a Multi-year flex account ("MYFA") pursuant to K.S.A. 82a-736 and its attendant regulations, provided that such allocation is eligible for a MYFA, and provided further that the MYFA quantity or quantities of water do not exceed the irrigation allocation. After October 1, 2013, no conversions to MYFA's shall be allowed.

17. For any irrigation water right enrolled in any state or federal conservation program approved pursuant to K.S.A. 82a-741 and/or K.A.R. 5-7-4, whose term expires on or

before September 30, 2017, the initial irrigation allocation for such right shall be limited to 11 acre-inches per acre per year for the remaining years of the Sheridan 6 LEMA Period.

18. Any irrigation water right enrolled into, contracting with, or participating in a reduced water use program (such as the Agricultural Water Enhancement Program, or AWEP, the Environmental Quality Incentives Program, or EQIP, or the Northwest Kansas Groundwater Conservation Foundation) during the Sheridan 6 LEMA Period shall not be allowed to transfer any part of its initial irrigation allocation.

19. All stockwatering water rights within the Sheridan 6 LEMA shall be granted an allocation for use based on 12 gallons per head per day, according to their licensed lot capacity as of December 31, 2010, for the Sheridan 6 LEMA Period. This quantity of 12 gallons per head per day shall include both drinking water and additional quantities for servicing/flushing, as those terms are used in K.A.R. 5-3-22.

20. All stockwatering water rights within the Sheridan 6 LEMA shall be converted to a five-year allocation, to be known as the "initial stockwatering allocation."

21. The initial stockwatering allocation may be increased or decreased by purchase, sale, transfer, or other conveyance of water rights and water allocations. The KWAA and its attendant regulations shall govern any such modification. In the event of any modification in quantity from the initial stockwatering allocation, that subsequent allocation shall be known as

the "stockwatering allocation." No stockwatering allocation shall be allowed to divert more than the annual quantity of water authorized by its constituent water right or rights in any single year.

22. During the Sheridan 6 LEMA Period, recreational water rights shall be limited to five times 90% of their annual authorized quantity as of December 31, 2010. No recreational water right shall be allowed to divert more than its annual quantity of water authorized in any single year.

METERING.

23. All water right owners shall be responsible for ensuring that their meters are in compliance with state law. In addition to the requirements set forth in the KWAA, including K.S.A. 82a-706c, K.A.R. 5-1-4 through 5-1-12, and any other relevant statutes and regulations, all water right owners shall perform one of the following two procedures.

i. Inspect, read, and record the flow meter at least every two weeks during any period in which the pump and well are operating. The owner shall maintain this record and provide it to GMD4 upon request. In the event that reported readings are questioned by either GMD4 or DWR and that the records are not provided to GMD4, the water right shall be presumed to have diverted its full annual authorized quantity for the year in which GMD4 has requested the record of the well.

ii. Install and maintain an alternative method of determining the time that the well is operating. This information must be sufficient to determine the operating time in the event of a meter failure. Should the alternative

method fail or be determined inaccurate, the water right shall be presumed to have diverted its full annual authorized quantity for the year or years in which the alternative method was installed. Well and/or water right owners who select this procedure shall submit the details of this alternative method to GMD4 at least 60 days in advance of installation, so that GMD4 can determine whether the method is sufficient. Well owners who select this procedure shall also submit proof of installation to GMD4.

24. Any water right owner or his or her authorized designee who finds a flow meter that is inoperable or inaccurate shall notify GMD4 within 48 hours, and shall provide the following information to GMD4:

i. The water right file number;

ii. The legal description of the location of the point of diversion;

iii. The date the problem was discovered;

iv. The flow meter manufacturer, model, registering units, and serial number;

v. The meter reading on the date the problem was discovered;

vi. A description of the problem;

vii. The alternative method that the owner will use to compute the amount of water diverted while the meter is being repaired or replaced; and

viii. The projected date that the meter will be repaired or replaced.

25. Whenever an inoperable or inaccurate meter is repaired or replaced, the owner or authorized water use correspondent shall notify GMD4 within 7 days and provide the following information:

i. Water right file number;

ii. Date the meter was replaced or repaired;

iii. If the meter was replaced, the make, model, registering units, serial number, and meter reading of the new meter before it records any water use;

iv. If the meter was repaired, the date of repair and confirmation of the meter reading before it records any water use; and

v. A total of the water pumped while the meter was inoperative.

26. These metering provisions and protocol shall be a specific annual review issue pursuant to Section VII, ¶ 45 of this Order, and may be adjusted upon recommendation by the Chief Engineer or the Advisory Committee.

27. Nothing in this Order of Designation shall limit the authority of DWR to require metering or other water measurements in all other respects pursuant to the KWAA and regulations.

ACCOUNTING OF WATER USE.

28. GMD4 shall account for and monitor the use of water within the Sheridan 6 LEMA by keeping complete records of the following on an annual basis:

i. The diversion amounts for each water right, using the annual water use reports filed with DWR;

ii. Any combining of allocations;

iii. Any transfers of allocations;

iv. Any other changes in allocations; and

v. The remaining allocation balance for each water right in the Sheridan 6 LEMA for the Sheridan 6 LEMA Period.

GND4 shall provide DWR and the owner of each water right within the Sheridan 6 LEMA of a summary of the above-described records. GMD4 shall provide the first summary by November 1, 2014 (for 2013 water use) and by November 1 of each successive year (for the previous year's water use), with the final summary to be due by November 1, 2018. GMD4 shall keep copies of each such annual summary in its files.

29. GMD4 shall notify DWR of any combining, transfers, or other changes in allocations within the Sheridan 6 LEMA within 30 days of their approval by GMD4.

30. GMD4 shall develop a system using a commonly accepted electronic spreadsheet program to approve and to track transfers of water within the Sheridan 6 LEMA, and shall make that system and that program accessible to DWR.

VIOLATIONS, ENFORCEMENT, AND CIVIL PENALTIES.

31. Exceeding any total allocation quantity, including any transferred quantities, by an amount less than 4 acre-feet within the allocation period shall result in a $1,000.00 fine for

every day that pumping was taking place in excess of the allocation. This penalty shall also apply to all rights in combined allocation accounts.

32. Exceeding any total allocation quantity, including any transferred quantities, by an amount equal to or more than 4 acre-feet within the allocation period shall result in an automatic two-year suspension of the water right. This penalty shall also apply to all rights in combined allocation accounts.

33. Exceeding the annual authorized quantity of the water right, not including any transferred quantities, shall result in a $1,000.00 fine.

34. These penalties shall not exclude the availability of other civil penalties made available pursuant to K.S.A. 82a-737.

35. If GMD4 learns of any violation of this Order, it shall promptly report any such violation to DWR, request that DWR apply the appropriate civil penalty, and fully assist DWR in any compliance action taken by DWR in response to such violation.

WATER RIGHTS ADMINISTRATION; IMPAIRMENT COMPLAINTS.

36. Nothing in this Order of Designation shall preclude a water right owner from requesting administration of water rights as provided for by the KWAA and its regulations.

37. Nothing in this Order of Designation shall preclude a water right owner from bringing a well-to-well impairment complaint pursuant to K.A.R. 5-4-1.

38. In the event that an impairment investigation produces a determination that the impairment is caused substantially by a regional lowering of the water table, K.A.R. 5-4-1a shall apply; but in such an event, the Chief Engineer may consider the requirements of this Order of Designation in determining the appropriate resolution of such impairment.

WATER LEVEL MONITORING; MONITORING PLAN.

39. The following observation wells, all in Sheridan County, shall be used to monitor changes in depths to water in the SD-6 LEMA, as described by location and well number below:

i. TWP 7S-28W, Section 21, Well No. 07S28W21;

ii. TWP 7S-29W, Section 5, Well No. 07S29W05;

iii. TWP 7S-29W, Section 27, Well No. 07S29W27;

iv. TWP 7S-29W, Section 30, Well No. 07S29W30;

v. TWP 8S-29W, Section 1, Well No. 08S29W01-1;

vi. TWP 8S-29W, Section 1, Well No. 08S29W01-2;

vii. TWP 8S-30W, Section 5, Well No. 08S30W05;

viii. TWP 8S-30W, Section 11, Well No. 08S30W11; and

ix. TWP 8S-30W, Section 13, Well No. 08S30W13.

40. GMD4 shall convert observation Well No. 08S30W13 to an hourly measurement schedule by installing a continuous pressure transducer by January 1, 2013.

41. GMD4 shall drill at least three additional observation wells and equip each of these three wells with pressure transducers that allow the hourly recordation of water levels. These additional wells shall be located in Sheridan County as follows, with parenthetical references to their current landowners:

i. TWP 7S-29W, Section 25, Well No. 07S29W25 (Moss);

ii. TWP 7S-30W, Section 27, Well No. 07S30W27 (Seegmiller);

iii. TWP 8S-31W, Section 26, Well No. 08S31W26 (Steiger); and

These observation wells shall be installed, fully tested, and operational by January 1, 2013. If GMD4 adds observation wells in addition to these three wells and equips them with instruments subsequent to this order, GMD4 shall notify DWR and KGS upon setting the data logger equipment and collecting data for the first time from those wells. Any such additional observation wells that become operational subsequent to the date of this Order shall be subject to the terms of this Order.

42. GMD4 shall be responsible for maintaining all observation wells that GMD4 has constructed and equipped with instruments, as described in Section VII, ¶¶ 40-41 above, during the Sheridan 6 LEMA Period.

43. DWR and GMD4 shall cooperate in obtaining and analyzing the data obtained from the observation wells.

ADVISORY COMMITTEE; REVIEW.

44. GMD4 shall maintain a Sheridan 6 LEMA Advisory Committee ("Advisory Committee") consisting of nine members. One member shall be an employee of DWR, who shall serve as the designee of the Chief Engineer. One member shall be an at-large member from GMD4. The remaining seven members shall be owners of irrigated land within the Sheridan 6 LEMA, residents of the Sheridan 6 LEMA, or tenant farmer operators of irrigated land within the Sheridan 6 LEMA; and one of these seven Sheridan 6 LEMA members must represent non-irrigation water users. The chair of the Advisory Committee shall be a resident within the Sheridan 6 LEMA.

45. The Advisory Committee shall meet at least annually to consider the following:

i. Water use data;

ii. Water table information;

iii. Economic data;

iv. Whether the combining of allocations and the transfers of allocations have altered the geographic distribution of diversions and/or water use within the Sheridan 6 LEMA;

v. Whether the combining of allocations and the transfers of allocations have produced a concentration of diversions and/or water use within the Sheridan 6 LEMA;

vi. Violations, issues relating to violations, and metered data that relates to violations;

vii. New and preferable enhancement management options; and

viii. Other items deemed pertinent by the Advisory Committee.

46. The Advisory Committee shall produce an annual report providing a summary of its considerations, and shall transmit that report to GMD4 and to the Chief Engineer by December 31 of each year of the Sheridan 6 LEMA Period.

47. The Advisory Committee shall conduct a formal review of this Order of Designation. This formal review shall consider the following:

i. Economic impacts of the Sheridan 6 LEMA;

ii. Changes in water levels;

iii. Whether the flexibility afforded by the use of allocations in the Sheridan 6 LEMA substantially increased water use in any part of the LEMA, or raised other concerns;

iv. Whether the Sheridan 6 LEMA should be extended in time;

v. Whether the geographical boundaries of the Sheridan 6 LEMA should be expanded; and

vi. The impact of the Sheridan 6 LEMA upon the public interest.

Following this formal review, the Advisory Committee shall produce a final report containing specific recommendations regarding future LEMA actions. These recommendations shall be supported by reports, data, testimonials, affidavits, or other documents attesting to their foundation. The Advisory Committee shall submit the final report to GMD4 and to the Chief Engineer on or before December 31, 2016.

RETAINED JURISDICTION.

48. The Chief Engineer specifically retains jurisdiction in this matter to make changes to this Order of Designation to protect the public interest and to prevent the impairment of water rights.

FINAL AGENCY ACTION; DISTRIBUTION OF ORDER.

49. This Order of Designation is final agency action as defined by K.S.A. 77-607(b)(2).

50. GMD4 and DWR shall publish this Order of Designation electronically by posting it on their respective websites, and DWR shall file it with the register of deeds in both Sheridan and Thomas counties. Upon request, GMD4 and DWR shall deliver a copy of this Order to any interested person who is affected by its terms.

51. GMD4 shall provide notice of this Order of Designation to the owner of record of each water right with an identified file number whose authorized place of use is within the boundaries of the Sheridan 6 LEMA, as listed in Attachment 1. Such notice shall be in the form of a letter, shall identify the specific water right, and shall describe how the terms of this Order of Designation affect the authorized quantities under that right during the Sheridan 6 LEMA Period. GMD4 shall achieve such notice by causing these letters to be placed in U.S. Mail, first class prepaid, within 30 days of the date of this Order of Designation. Each letter shall be accompanied by a Certificate of Service, signed by legal counsel for GMD4. GMD4 shall retain

copies of each notice in its files. Upon completion of service, GMD4 shall submit an affidavit to DWR, attesting that it has complied with the terms of this paragraph.

IT IS SO ORDERED.

Dated at Topeka, Kansas, this 17th day of April, 2013.

David W. Barfield
Chief Engineer
Division of Water Resources,
Kansas Department of Agriculture

Attachments:

Attachment 1: "List of Water Rights Affected by Sheridan 6 LEMA, April 12, 2013," (Microsoft Excel Spreadsheet)

Attachment 2: "Application to Combine SD-6 LEMA Amounts" (sample form, Microsoft Word)

Attachment 3: "Application for Temporary Transfer of Allocation within the SD-6 Local Enhanced Management Area," (sample form, Microsoft Word)

PREPARED BY:

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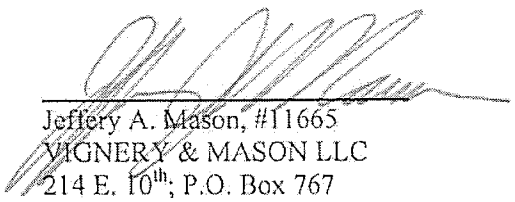

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Attorney for GMD4

CERTIFICATE OF MAILING

I, Burke W. Griggs, hereby certify that I caused a copy of the **Order of Designation of the Sheridan 6 Local Enhanced Management Area** to be placed in the United States mail, first class postage prepaid on April 17, 2013, and to be sent by electronic mail, to the following:

Mr. Wayne Bossert, Manager
Northwest Kansas Groundwater Management District No. 4
P.O. Box 905
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Attorney for the Chief Engineer

Attachment One - Allocation Spreadsheet

Water Right Number	Qualifier	Associated Right Num	UMW_CODE	TWP	RNG	SECT	QUAL_THREE	QUAL_TWO	QUAL_ONE	LAST_NAME	FIRST_NAME	PRGRM_ACR	MAX 5 YR QTY	MAX ANNUAL QTY	LIMITING CLAUSE
4481	00	16567	IRR	8	29	1	SE	SE	NW	MOSS	ARCHIE D	130	600	198	
4889	00		IRR	7	30	25	NE	SW	SW	T L MOSS INC		122	560	329	
5115	00		IRR	7	30	29	NW	SW	NE	HUEFTLE	PATRICIA	121	555	480	
7188	00		IRR	7	30	24	NW	NE	SE	H & H PARTNERSHIP		123	565	395	
7242	00	38654	IRR	7	28	19	NC	N2	NW	OELKE	DONALD	125	575	220	
7262	00		IRR	7	29	18	NW	SW	SE	BECKMAN	MICHAEL J & BILLI J	220	1010	320	MAX 1010 AF 1/1/13 THROUGH 12/31/17 WHEN COMBINED WITH 28205
28205	00		IRR	7	29	18	NE	NE	SW	BECKMAN	MICHAEL J & BILLI J	0	1010	359	MAX 1010 AF 1/1/13 THROUGH 12/31/17 WHEN COMBINED WITH 7262
7606	00		IRR	8	30	13	NW	SW	NE	BAALMAN TRUST #1	HOWARD J	123	565	320	
7699	00	9021	IRR	7	30	25		NC	NE	MOSS	GARY	120	110	310	
7757	00		IRR	7	29	17	SE	NW	SW	BECKMAN	MICHAEL J & BILLI J	120	550	320	
8088	00		IRR	8	29	17	SE	NW	NE	BAKER	KIRK	120	550	320	
8188	00		IRR	7	30	33	CW	NW	NE	MEIER	ROCH	200	920	560	
8249	00		IRR	7	29	30		CN	NE	HILL	MARK A	123	565	320	
8496	00		IRR	7	30	29	NE	NW	SW	HUEFTLE	PATRICIA	250	1150	480	
8725	00		IRR	8	30	2	NE	NW	SE	T L MOSS INC		122	560	310	
8859	00		IRR	7	29	17	SE	NW	SE	MURPHY	HAROLD D & EILEEN M	115	530	320	
8886	00		IRR	7	29	4	NE	SW	SW	EMIGH	GARY L & SHIRLEY A	118	545	200	
9333	00		IRR	7	28	21	NE	NW	NE	WASSERMAN	EDITH	125	575	236	
9484	00		IRR	7	29	16	SW	NE	SW	BECKMAN	MICHAEL J & BILLI J	180	825	451	
9750	00		IRR	7	29	16	NW	NW	SE	HERL	BILL	233	1070	700	
9981	00	17360	IRR	7	29	4	NE	SE	NE	PORSCH	MYRNA M	169	775	309	
10497	00		IRR	7	29	27	CW	NW	SE	FOOTE	SCOTT & MICHELLE	120	550	310	
10558	00		IRR	7	30	35	SE	NW	NW	WESSEL	KARL	165	760	320	
10612	00		IRR	7	29	32		NC	SW	MOSS	GARY	120	550	320	
10907	00		IRR	7	30	24		CW	SW	T L MOSS INC		124	570	329	

10916 00	IRR	8	30	13	NC	N2	NW	T L MOSS INC		124	570	320	
10918 00	IRR	8	30	11		CW	SW	MID-WEST FARM MANAGEMENT INC		120	550	296	
11024 00	IRR	8	29	4	NE	SE	SW	ARNOLD	DAVID	116	535	200	
11225 00	IRR	7	29	22		NC	NW	ALSTROM	LARRY & DIANA	103	475	431	
11226 00	IRR	7	29	21	NW	NW	NE	HUNZIKER	GARY D & VICKI L	135	620	320	
11234 00	IRR	8	31	27	CN	NE	NW	WARK	KEVIN W & SUSAN K	120	550	247	
13558 00	IRR	8	30	11	NE	NW	SE	MID-WEST FARM MANAGEMENT INC		120	550	320	
13559 00	IRR	8	30	3		NC	NE	T L MOSS INC		124	570	320	
13826 00	IRR	7	28	20	NE	NW	SE	MOSS	ARCHIE D	100	460	300	
14071 00	IRR	8	29	3	NE	NW	SW	OCHS	PATRICIA & AUGUST J	120	550	374	
14072 00	IRR	8	29	4				COOPER	DAVID L & SHIRLEY L	110	505	248	
14103 00	IRR	7	29	28	SE	NE	NW	HOXIE FEEDYARD INC		99.4	460	204	
14245 00	IRR	8	29	14	CN	NE	NW	BAKER	KIRK	240	1100	309	MAX 1100 AF 1/1/13 THROUGH 12/31/17 WHEN COMBINED WITH 27211
27211 00	IRR	8	29	14	SW	SW	NE	BAKER	KIRK	0	1100	228	MAX 1100 AF 1/1/13 THROUGH 12/31/17 WHEN COMBINED WITH 14245
14629 00	IRR	8	30	1	NW	SW	NW	HOXIE FEEDYARD INC		110	505	300	
15050 00	IRR	8	29	12		NC	NW	HERL FAMILY REVOCABLE TRUST NO 1		103	475	280	
15082 00	IRR	7	28	32	SW	NW	SE	TORLUEMKE	JEFF	121	555	320	
15208 00	IRR	7	29	22	NE	NE	SW	WESSEL	LEROY	100	460	308	
15235 00	IRR	7	29	19	SW	NE	NE	STEVENSON	RICHARD V & PATRICIA J	115	530	420	
16095 00	IRR	7	29	25	NW	NW	SW	SEALOCK TRUST	PHILLIP L	120	550	320	

16096 00		IRR	7	29	26	SW	SW	SE	OCHS	PATRICIA & AUGUST J	232	1065	690	
16288 00		IRR	8	30	16	CS	NE	SE	MEIER	ROCH	352	1615	459	MAX 1615 AF 1/1/13 THROUGH 12/31/17 WHEN COMBINED WITH 26239 & 32615
26239 00	32615	IRR	8	30	16	NW	SE	SW	MEIER	ROCH	0	1615	318	MAX 1615 AF 1/1/13 THROUGH 12/31/17 WHEN COMBINED WITH 16288
16315 00		IRR	8	31	34	N2	N2	NE	MID-WEST FARM MANAGEMENT INC		120	550	320	
16344 00		IRR	8	29	6		NC	NE	H & H PARTNERSHIP		123	565	324	
16503 00		IRR	7	30	23	SW	NW	SE	H & H PARTNERSHIP		123	565	320	
16602 00		IRR	8	29	7	SW	NE	NW	FELDT TRUST	LEONA B	208	955	288	
16631 00		IRR	8	30	5	SW	SE	NW	REESE	JOEL S & ANNA M	120	550	266	
16725 D1		IRR	7	29	32	NW	SE	SE	ANDREGG	JANICE	120	550	320	
16725 D2		IRR	7	29	33	SE	SW	SW	HOXIE FEEDYARD INC		108	1595	320	MAX 1595 AF 1/1/13 THROUGH 12/31/17 WHEN COMBINED WITH 23340
23340 00		IRR	8	29	5				HOXIE FEEDYARD INC		240	1595	296	MAX 1595 AF 1/1/13 THROUGH 12/31/17 WHEN COMBINED WITH 16725-D2
16730 00		IRR	8	29	12	SW	NE	SW	MOSS	ARCHIE D	80	370	160	
16865 00		IRR	7	29	29	NW	NW	NW	FOOTE	SCOTT & MICHELLE	210	965	358	
16903 00		IRR	8	30	4	NE	SW	SE	NO 8 COMPANY LLC		124	570	320	
16904 00		IRR	8	30	4		NC	W2	BECKMAN ET AL	BRENT W	121	555	265	
16920 00		IRR	7	29	25	S2	N2	NW	TREMBLAY REV INTER VIVOS TRUSTS	KEVIN R & JOYCE	125	575	315	
17204 00		IRR	7	28	32	NW	NW	SW	TORLUEMKE	JEFF	121	555	320	
17346 00		IRR	7	30	26		CN	NE	T L MOSS INC		124	570	320	

17348 00	IRR	7	30	26	NE	NW	SW	MOSS	GARY	120	550	260	
17349 00	IRR	7	30	26	N2	N2	NW	T L MOSS INC		124	570	260	
17350 00	IRR	7	30	33	NW	NW	SW	HORN	RICHARD G & ALVA M	120	550	248	
17650 00	IRR	8	31	36	SW	SW	SE	SCHWARZ	VICTOR L	150	690	300	
17698 00	IRR	8	29	4	SW	NE	NW	COOPER	DAVID L & SHIRLEY L	124	570	324	
17740 00	IRR	8	29	18		NC	NE	KENNEDY	KEITH & PATRICIA L	120	550	320	
17759 00	IRR	8	29	18	CN	NW	SW	MEITL	GERALD F & LOIS	125	575	290	
17795 00	IRR	7	29	27	SW	SW	SW	HOXIE FEEDYARD INC		120	550	274	
17811 00	IRR	8	30	9		CN	SE	LECHTENBERGER	R J	120	550	320	
17812 00	IRR	8	30	9		CW	NE	LECHTENBERGER	R J	120	550	320	
17851 00	IRR	7	29	25	SW	SW	SE	MOSS	RICK D & DON V	128	590	300	
18371 00	IRR	8	31	23		CN	SE	NO 8 COMPANY LLC		123	565	297	
18713 00	IRR	8	30	5	NW	SW	SE	MID-WEST FARM MANAGEMENT INC		240	1100	286	MAX 1100 AF 1/1/13 THROUGH 12/31/17 WHEN COMBINED WITH 20298
20298 00	IRR	8	30	5	N2	SE	SE	MID-WEST FARM MANAGEMENT INC		0	1100	282	MAX 1100 AF 1/1/13 THROUGH 12/31/17 WHEN COMBINED WITH 18713
18803 00	IRR	8	29	9	NE	SE	NW	BAKER	KIRK	120	550	363	
18864 00	IRR	7	30	28	SW	SE	NE	NO 8 COMPANY LLC		246	1130	338	
18865 00	IRR	8	30	4	NW	SE	SW	R & L FARMS INC		120	550	114	
18961 00	IRR	8	30	14	NW	NE	NE	OCHS	PATRICIA & AUGUST J	120	550	270	
19049 00	IRR	7	29	31	SW	SE	SW	MOSS	GARY	115	530	291	
19074 00	IRR	8	29	15	NE	NW	SE	STALLINGS TRUST	CHARLES F & CAROL SUE	121	555	247	
19084 00	IRR	8	30	5	SW	SE	SW	MID-WEST FARM MANAGEMENT INC		120	550	149	MAX 550 AF 1/1/13 THROUGH 12/31/17 WHEN COMBINED WITH 23903

23903 00		IRR	8	30	5	NC	S2	SW	MID-WEST FARM MANAGEMENT INC		0	550	118	MAX 550 AF 1/1/13 THROUGH 12/31/17 WHEN COMBINED WITH 19084
19085 00		IRR	8	30	9	NE	NW	NW	MID-WEST FARM MANAGEMENT INC		120	550	145	MAX 550 AF 1/1/13 THROUGH 12/31/17 WHEN COMBINED WITH 20653
20653 00		IRR	8	30	9		NC	NW	MID-WEST FARM MANAGEMENT INC		0	550	175	MAX 550 AF 1/1/13 THROUGH 12/31/17 WHEN COMBINED WITH 19085
19198 00		IRR	8	30	12	NW	SW	NE	MID-WEST FARM MANAGEMENT INC		120	550	320	
19222 00		IRR	8	30	11	SW	NE	NE	MID-WEST FARM MANAGEMENT INC		120	550	315	
19687 00		IRR	8	29	10		NC	NW	COOPER	TED & KATHLEEN	124	570	320	
19716 00		IRR	7	29	32	CW	SW	NE	FARBER	FORD & SHIRLEY SEALOCK	119	550	202	
19770 00		IRR	8	29	3	NE	NW	SE	BAALMAN	TIM	120	110	320	
19914 00		IRR	8	29	11				SPILLMAN	WILLIAM D	94	435	225	
19915 00		IRR	7	30	30		CN	SW	DCJ FARMS PARTNERSHIP		120	550	316	
20003 00		IRR	8	29	9	NE	NE	NE	BAKER	KIRK	120	550	342	
20012 00		IRR	7	29	17	CW	NW	NW	STEVENSON	RICHARD V & PATRICIA J	140	645	300	
20023 00		IRR	8	29	3	SW	SW	NE	FOOTE	SCOTT & MICHELLE	120	550	318	
20031 00		IRR	7	28	30	SE	SE	SE	TORLUEMKE	JEFF	121	555	286	
20032 00		IRR	7	28	32	NW	NW	NE	TORLUEMKE	JEFF	121	555	312	
20132 00		IRR	7	29	30				H & H PARTNERSHIP		155	715	298	
20151 00	42374	IRR	7	29	18	NE	NE	NW	BECKMAN	MICHAEL J & BILLI J	130	600	301	

20297 00		IRR	8	30	12	NW	SW	NW	MID-WEST FARM MANAGEMENT INC		120	550	320	
20400 00		IRR	7	28	29		NC	SW	OELKE	DONALD & KAYLENE	120	550	289	
20417 00		IRR	7	28	29	SW	SW	NE	NIERMEIER	GARY	130	600	270	
20464 00		IRR	7	30	26		CN	SE	MOSS	GARY	120	550	360	
20480 00		IRR	8	30	16			CN	MEIER	ROCH	240	1100	480	
20612 00		IRR	8	30	4	NE	SW	NE	NO 8 COMPANY LLC		121	555	314	
20737 00		IRR	7	29	24		CW	NE	MOSS	ARCHIE D	162	745	284	
20785 00		IRR	7	28	21	NE	NW	NW	MOSS	RICK D & DON V	128	590	245	
20973 00		IRR	7	29	27	NE	SE	NE	FOOTE	SCOTT & MICHELLE	120	550	298	
21019 00		IRR	8	30	7	NW	NW	SE	DIBLE TRUSTS	LOUIS W & NORMA E	120	550	175	
21019 00		IRR	8	30	7	SW	NE	SW	DIBLE TRUSTS	LOUIS W & NORMA E	119	550	264	
21057 00		IRR	7	30	30		CN	SE	HUEFTLE	PATRICIA	125	575	320	
21189 00	23695	IRR	8	30	15	NW	NW	SE	MEIER	ROCH	435	1995	420	MAX 1995 AF 1/1/13 THROUGH 12/31/17 FROM 21189, 23695, 27915
21189 00	23695	IRR	8	30	15	NE	NW	NE	MEIER	ROCH	0	1995	408	MAX 1995 AF 1/1/13 THROUGH 12/31/17 FROM 21189, 23695, 27915
27915 00		IRR	8	30	15	SW	SE	SW	MEIER	ROCH	0	1995	240	MAX 1995 AF 1/1/13 THROUGH 12/31/17 FROM 21189, 23695, 27915
21191 00		IRR	7	29	21	SW	NW	SE	WESSEL	LEROY	120	550	320	
21207 00		IRR	8	30	2	SW	NW	NE	T L MOSS INC		124	0	317	NO ALLOCATION DUE TO AWEP
21279 00		IRR	8	30	14	NE	NE	NW	OCHS	PATRICIA & AUGUST J	120	550	344	
21316 00		IRR	8	30	2	SE	NE	SW	MID-WEST FARM MANAGEMENT INC		124	570	320	

21627 00		IRR	8	30	6	NW	SW	SW	BANGE	RAYMOND & SYLVESTER	120	550	320	
21628 00		IRR	8	30	6	NW	SE	NW	BANGE	CHRISTOPHE R	115	530	320	
22083 00	39567	IRR	8	30	1				HOXIE FEEDYARD INC		120	550	218	
22226 00		IRR	7	30	33		NC	NW	ONEAL	JOSEPH M	120	550	266	
22294 00		IRR	7	29	8			CS	EMIGH	GARY L & SHIRLEY A	120	550	222	
22409 00		IRR	8	30	8		NC	W2	SCHILTZ JR ESTATE	JOHN F	240	1100	282	
22529 00		IRR	7	29	33	NE	SE	SE	HOXIE FEEDYARD INC		120	550	310	
22669 00		IRR	7	28	33				MOSS ET AL	FRED L	160	735	296	
22868 D2		IRR	7	29	25	NE	NW	NE	MOSS	RICK D & DON V	128	590	312	
22868 D1		IRR	7	28	30	NC	NW	NE	GAEDE	ARLEDA R	140	645	293	
22940 00		IRR	7	29	21	NW	NW	NW	HUNZIKER	GARY D & VICKI L	130	600	298	
22982 00		IRR	7	29	21	NE	NW	SW	WESSEL	LEROY	70	325	150	
23175 00		IRR	8	30	13	NW	NW	SE	BAALMAN TRUST #1	HOWARD J	123	565	314	
23177 00		IRR	8	29	9	NW	NE	SE	BAKER	KIRK	120	550	311	
23719 00		IRR	8	31	27	SW	SW	NE	BALL	RON	120	550	290	
23823 00	27891	IRR	8	30	3	SW	SW	SW	MEIER	ROCH	240	1100	512	MAX 1100 AF 1/1/13 THROUGH 12/31/17 FROM 23823, 27891, 30477
30477 00		IRR	8	30	3				MEIER	ROCH	0	1100	124	MAX 1100 AF 1/1/13 THROUGH 12/31/17 FROM 23823, 27891, 30477
23949 00		IRR	7	30	27	NC	N2	NE	SEEGMILLER	WAYNE & MARGARET	246	1130	518	
24124 00		IRR	7	30	28	SW	NE	NW	HUEFTLE	PATRICIA	121	555	294	
24142 00		IRR	7	29	22	SW	NE	NE	ALSTROM	LARRY & DIANA	120	550	160	
24344 00		IRR	8	29	1	SE	SE	NE	MOSS	ARCHIE D	105	485	240	

24353 00	IRR	7	29	34	NC	S2	PATMON	WILLIAM L & MICHELLE L	267	1225	210	MAX 1225 AF 1/1/13 THROUGH 12/31/17 FOR BOTH PDS COVERED BY 24353
24353 00	IRR	7	29	34	NC	SW	PATMON	WILLIAM L & MICHELLE L	0	1225	246	MAX 1225 AF 1/1/13 THROUGH 12/31/17 FOR BOTH PDS COVERED BY 24353
24354 00	IRR	7	29	34	CN	NE	PATMON	WILLIAM L & MICHELLE L	222	1020	233	MAX 1020 AF 1/1/13 THROUGH 12/31/17 FOR BOTH PDS COVERED BY 24354
24354 00	IRR	7	29	34	NC	NW	PATMON	WILLIAM L & MICHELLE L	0	1020	219	MAX 1020 AF 1/1/13 THROUGH 12/31/17 FOR BOTH PDS COVERED BY 24354
24491 00	IRR	8	29	10 NE	NW	NE	DEINES	KIMBERLY R & GENE	123	565	320	
24654 00	IRR	8	30	12	NC	SW	HOXIE FEEDYARD INC		120	550	272	
24656 00	IRR	8	30	14 NW	NW	SW	HOXIE FEEDYARD INC		120	550	264	
25107 00	IRR	8	30	10 SE	SE	NW	HOXIE FEEDYARD INC		480	2200	528	MAX 2200 AF 1/1/13 THROUGH 12/31/17 FOR BOTH PDS COVERED BY 25107
25107 00	IRR	8	30	10	CE	CW	HOXIE FEEDYARD INC		0	2200	264	MAX 2200 AF 1/1/13 THROUGH 12/31/17 FOR BOTH PDS COVERED BY 25107
25173 00	IRR	7	30	36 SW	SW	SE	MOSS	GARY	135	620	320	
25822 00	IRR	7	30	32 SW	NW	NE	SEEGMILLER	WAYNE & MARGARET	121	555	234	
25905 00	IRR	7	28	20 NW	NE	NE	MOSS DVM	FRED L	120	550	301	

26219 00	IRR	7	29	26	CN	NW	NE	H & H PARTNERSHIP		123	565	306
26429 00	IRR	7	30	32	NW	NE	NW	SEEGMILLER	WAYNE & MARGARET	121	555	534
26467 00	IRR	7	30	36	NW	NW	NE	MOSS	GARY	135	620	266
26541 00	IRR	7	29	35	NW	SW	NE	OCHS	PATRICIA & AUGUST J	120	550	309
27686 00	IRR	7	30	34	NW	NW	NE	BECKMAN	STUART	180	825	290
27856 00	IRR	7	30	24		CN	NW	HILL	MARK A	123	565	287
27926 00	IRR	7	30	22	NC	N2	SE	BAALMAN	MITCHELL R & LOLA	240	1100	522
28008 00	IRR	8	29	3	NW	SW	NW	COOPER	DAVID L & SHIRLEY L	118	545	274
28097 00	IRR	7	30	29	NE	NE	SE	MEIER	ROCH	120	550	260
28101 00	IRR	7	30	27			CW	MEIER	ROCH	240	1100	320
29032 00	IRR	7	28	21	SE	NW	SW	MOSS	RICK D & DON V	65	300	120
29211 00	IRR	8	29	10	SE	NE	SW	BAKER	KIRK	120	550	271
30119 00	IRR	8	29	2		NC	W2	COOPER	KEVIN	180	825	360
30397 00	IRR	8	31	24		NC	SE	LOUIS DIBLE FARMS INCORPORATED		120	550	244
30537 00	IRR	7	29	29	NE	SE	NE	HOXIE FEEDYARD INC		120	550	226
30629 00	IRR	8	30	1				FELDT TRUST	LEONA B	220	1010	218
30630 00	IRR	8	29	7	E2	W2	NE	FELDT TRUST	LEONA B	102	470	208
30752 00	IRR	7	29	8	SW	NE	NW	ROGERS	DENNIS & MARLA	198	910	416
31024 00	IRR	8	31	36	SW	SW	SW	SCHWARZ	VICTOR L	124	570	300
31585 00	IRR	7	29	26	SE	SE	NW	OCHS	PATRICIA & AUGUST J	120	550	212
31634 00	IRR	7	29	31	SW	SW	NE	MOSS	GARY	237	218	496
32038 00	IRR	8	31	35	W2	W2	SE	LINDEMAN	OLIVER	120	550	207
32045 00	IRR	8	30	11	SW	NW	NW	MID-WEST FARM MANAGEMENT INC		120	550	332
33467 00	IRR	8	30	13	NE	SW	SW	BAALMAN TRUST #1	HOWARD J	123	565	182
33798 00	IRR	8	29	6				NO 8 COMPANY LLC		200	920	530
33972 00	IRR	7	29	6		NC	NE	STEVENSON	RICHARD V & PATRICIA J	119	550	256

34510 00		IRR	7	29	6		NC	NW	STEVENSON	RICHARD V & PATRICIA J	115	530	256	
36040 00		IRR	7	29	5	NW	NW	NW	SHAW	DANNY & MIRIAM	120	550	222	
37665 00		IRR	7	28	31	CW	SW	NE	TORLUEMKE	JEFF	230	0	290	NO ALLOCATION DUE TO AWEP
39035 00		IRR	7	30	24		CN	NE	H & H PARTNERSHIP		123	565	240	
39275 00		IRR	7	30	25		NC	NW	T L MOSS INC		124	570	198	
44489 00		IRR	8	29	4	SW	NE	SE	ARNOLD	DORIS	138	635	172	
14103 00		STK	7	29	28	SE	NE	NW	HOXIE FEEDYARD INC					
16605 00		STK	7	29	33	SW	SW	NW	HOXIE FEEDYARD INC					
16605 00		STK	7	29	33	SW	SW	NW	HOXIE FEEDYARD INC					
16865 00		STK	7	29	29	NW	NW	NW	FOOTE	SCOTT & MICHELLE				
21315 00		STK	7	29	33	NE	NW	SE	HOXIE FEEDYARD INC					
21315 00		STK	7	29	33	SE	SW	NE	HOXIE FEEDYARD INC					
42102 00		STK	8	31	36	SE	NE	SE	SCHWARZ	VICTOR L				
42102 00		STK	8	31	36	SE	NE	SE	SCHWARZ	VICTOR L				
42102 00		STK	8	31	36	SE	NE	SE	SCHWARZ	VICTOR L				
45385 00		REC	8	30	18	SW	NW	SW	MUNK	SHARON		33.8	7.5	

53000 HOXIE
HD FEEDYA
12/31/10 RD

4000
HD SCHWA
12/31/10 RZ

ATTACHMENT 2

APPLICATION TO COMBINE SD-6 LEMA AMOUNTS

Water Right File Numbers_____

We, the owners of the above referenced Water Right File Numbers, agree to have the total 5 year LEMA quantities for the above referenced Water Rights combined to a total of _____ Acre-Feet for the period of January 1, 2013 through December 31, 2017.

We agree that pumping a total quantity from all of the above referenced Water Rights in excess of _____ between January 1, 2013 and December 31, 2017 will result in a 2 year suspension of all use for the all of the above referenced Water Rights, and may also result in other substantial penalties, including fines.

This agreement is binding on all successors in interest. The undersigned represent all owners of the above referenced Water Right File Numbers.

_____ _____

Owner Spouse

State of _____)
) SS
County of _____)

I hereby certify that the foregoing agreement was signed in my presence and sworn to before me this ___ day of _____, 2____.

_____
Notary Public

My Commission expires _____.

_____ _____

Owner Spouse

State of _____)
) SS
County of _____)

I hereby certify that the foregoing agreement was signed in my presence and sworn to before me this ___ day of _____, 2____.

_____
Notary Public

My Commission expires _____.

ATTACHMENT 3
KANSAS DEPARTMENT OF AGRICULTURE
DIVISION OF WATER RESOURCES

Application for Temporary Transfer of Allocation within the SD-6 Local Enhanced Management Area

ORIGIN OF TRANSFER

File No(s)._____ Place of Use: Sec.___ Township ___ South, Range ___ West, DWR

P/U ID No. _____, _____ County, Kansas. The annual authorized quantity under this permit

is _____ ac-ft.

Initial amount of current 5 yr. allocation: _____ac-ft

Remaining portion of current 5 yr. allocation: _____ac-ft

Current Meter Reading: _____ _____ (units)

Date of reading _____/___/_____

Requested quantity to be transferred: _____ac-ft

Quantity remaining after transfer completed: _____ac-ft

Originating Owner Name: _____

Address: _____

_____ Telephone:_____

RECIPIENT OF TRANSFER

File No(s)._____ Place of Use: Sec.___ Township ___ South, Range ___ West, DWR

P/U ID No. _____ ,_____ County, Kansas. The annual authorized quantity under this permit

is _____ ac-ft.

Initial amount of current 5 yr. allocation: _____ac-ft

Current Meter Reading: _____ _____ (units)

Date of reading _____/___/_____

Remaining quantity of current 5 yr. allocation prior to receiving transfer: _____ac-ft

Quantity being received by transfer: _____ac-ft

Remaining 5 yr. allocation after transfer approved: _____ac-ft

Recipient Name: _____

Address: _____

_____ Telephone: _____

Date transfer is to begin:_____/_____/_____ Date transfer will end:_____/_____/_____

Preparer's initials:_____

DWR 1-100.9 (Revised 12/08/1997)

CONDITIONS

1. The Chief Engineer specifically retains jurisdiction in the matter of this transfer with authority to make changes in the transfer or to revoke the transfer to protect the public interest or to prevent impairment of another water right or permit.
2. This transfer shall end at the end of the 5 year allocation period in which it was requested, or at an earlier date specified on the bottom of the front page.
3. The place of use for the transferred allocation is the same as the place of use authorized by the recipient's water right or permit.
4. The use made of transferred allocation is the same as the authorized use under the recipient's water right or permit.
5. The use of the transferred allocation is governed by the terms, limitations, and conditions of the recipient's water right or permit.

ORIGINATOR

I declare that I am an owner of the water right listed above.

_____
(Owner's Signature)

Signed and sworn to (or affirmed) before me on:

_____, _____, _____
Month Day Year

by _____
Owner (Please Print)

Signature: _____
Notary Public

(My commission expires:_____)

RECIPIENT

I declare that I am an owner of the water right listed above, or that I represent an owner, and am authorized to make this request on his or her behalf.

_____
(Owner/agent's Signature)

Signed and sworn to (or affirmed) before me on:

_____, _____, _____
Month Day Year

by _____
Owner/agent (Please Print)

Signature: _____
Notary Public

(My commission expires:_____)

FOR OFFICE USE ONLY

Approved on _____, _____, _____
Month Day Year

By: _____
Title: _____

EXHIBIT "C"

NORTHWEST KANSAS
GROUNDWATER MANAGEMENT
DISTRICT NO. 4

1290 West 4th Street
P.O. Box 905
Colby, Kansas 67701-0905

February 2, 2017

David Barfield
Chief Engineer
Kansas Department of Agriculture
Division of Water Resources
1320 Research Park Drive
Manhattan KS 66502

Dear Mr. Barfield:

Please find enclosed a formal request for the re-formulation of the SD-6 LEMA for the period 2018 – 2022.

Please start the process as soon as possible. Please let us know if we can be of any assistance in this process.

Thank you.

Sincerely

Ray P. Luhman
Manager

encl

GMD 4 Board Request Submitted To the Chief Engineer, Kansas Department of Agriculture, Division of Water Resources as a LEMA Proposal

Sheridan 6 LEMA 2018-2022 Administration

February 2, 2017

This request represents a re-constitution of the current SD-6 LEMA (2013 – 2017). Other than allowing a maximum of 5 acre-inches per acre carry-over it is essentially the same request as was previously filed. The change in the goal amount represents water rights that had reduced or no allocation during the 2013 – 2017 LEMA due to EQIP, AWEP, etc.

In order to reduce decline rates and extend the life of the aquifer SD 6 HPA proposes the following five year plan be submitted via the LEMA process contained in KSA 82a-1041. This proposal has been recommended by the SD-6 Advisory Committee. A public meeting on this proposal was held on December 12, 2016. A copy of the meeting notes are attached.

Goal Expression

All water diversions within the SD-6 area are to be collectively restricted per this proposal between the period January 1, 2018 through December 31, 2022 to no more than 117,600 AF total with the following exception. Those individual or combined IRR wells that have a balance remaining in their respective accounts on December 31, 2017 may carry-over an amount not to exceed 5 inches per program acre for IRR use into the new LEMA.

This LEMA shall exist only for the five year period beginning January 1, 2018 and ending December 31, 2022. The SD-6 HPA shall include all points of diversion that are located in the following sections:

- TWP 7S-28W: Sections 19-21 and 28-33
- TWP 7S-29W: Sections 4-9 and 16-36
- TWP 7S-30W: Sections 19-36
- TWP 8S-29W: Sections 1-18
- TWP 8S-30W: Sections 1-18
- TWP 8S-31W: Sections 22-27 and 34-36

These sections represent a LEMA boundary that is both clearly identifiable and entirely within the boundaries of the Northwest Kansas Groundwater Management District No. 4.

The new total program diversion amount of 117,600 AF, plus carryover, shall represent five (5) times the sum of:

a) Designated legally eligible acres (per section 1) x 11/12 for irrigation water rights plus carryover;

b) Maximum permitted head of livestock on December 31, 2010 x 12 GPH/D for stockwater rights; and

c) Ninety percent (90%) of the December 31, 2010 authorized recreational water quantity for recreation rights.

The Northwest Kansas Groundwater Management District No. 4 shall use the following procedures 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 AF for the 5-year LEMA period. Any notes or remarks necessary to explain the individual allocations shall also be included.

1) Allocations – Irrigation

a)All irrigation water rights shall be limited to no more than 55 acre inches per irrigated acre for the period of 2007 – 2010 or any acreage adjustments due to appeal, covered by the water right over the 5-year period beginning January 1, 2018 and ending December 31, 2022 except that a carry-over amount shall be added.

b) Carry-Over Amount. The carry-over amount will be determined as of December 31, 2017 for IRR use only. The carry-over amount cannot exceed 5 inches per program acre and is the lesser of: 1) 5 inches per program acre or; 2) a water users unused acre inches per program acre.

c) Wells pumping to a common system or systems shall be provided a single allocation for the total system acres. The total amount pumped by all of the wells involved must remain within the system allocation.

d) For additional producer flexibility, water rights may at the discretion of the owners be combined into a single allocation account with flexibility of pumping the multiple wells within the account as directed by the owner, provided the total account allocation is not exceeded.

e) Temporary transfers of allocations between water rights may be made anywhere within the boundaries of SD-6. Said transfers shall be in effect for the balance of the current allocation time period. An Application for Transfer form shall be developed and must be signed by all owners involved in the transfer. No transfer shall result in an allocation that exceeds the authorized amount for the water right receiving the transfer.

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

g) 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.

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

i) 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.

j) On or before October 1, 2018 any irrigation water right owner will have the option of converting a 5-year allocation amount to a Multi-year Flex Account (MYFA) provided the MYFA quantity does not exceed the established 5-year allocation quantity. No other conversions to MYFAs will be authorized.

k) 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 11 acre-inches per acre for only the remaining years of the 2018-2022 LEMA period.

l) Any water right enrolling into, contracting with, or officially participating in a reduced water use program (AWEP, EQIP, Northwest Kansas Groundwater Conservation Foundation, WCA, etc.) during the period January 1, 2018 through December 31, 2022 shall not be allowed to trade or market any allocation balance.

2) Allocations – Non-irrigation

a) Livestock uses will be limited to 12 gallons per head per day based on the maximum head supportable by the feedlot permit in effect on December 31, 2010. Each water right shall have the option of having this limited quantity as an annual limit or converted to a 5-year water right at 5 times the assigned allocation. The original water right will be retained.

b) Recreation water rights will be limited to 90% of the December 31, 2010 annual authorized water right quantity. Each water right shall have the option of having this limited quantity as an annual limit or converted to a 5-year water right at 5 times the assigned allocation. The original water right will be retained.

3) Individual Allocation Amounts

The 5-year allocations for every water right per Sections 1) a) and 2) above shall be converted to a 5-year acrefeet total, with Attachment 2 containing the assigned eligible allocations for each water right within the SD-6 HPA. Each water right is to be restricted to its total acrefeet allocation within any LEMA order issued through this process.

4) Violations

The LEMA order shall serve as initial notice to all water right owners within HPA SD-6 on its effective date. Violations of the authorized quantities shall be addressed as follows:

(1) Exceeding any total allocation quantity (which shall include any transferred quantities) of less than 4 AF within any allocation period shall result in a $1,000.00 fine for every day

the allocation was exceeded. This penalty shall apply to all rights in combined allocation accounts described in sections 1) b) (1) and 1) b) (2).

(2) Exceeding any total allocation quantity (which shall include any transferred quantities) of 4 AF or more within any allocation period shall result in an automatic two year suspension of the water right. This penalty shall apply to all rights in combined allocation accounts described in sections 1) b) (1) and 1) b) (2).

(3) Exceeding the annual authorized quantity of the water right (not to include any transferred quantities) shall result in a $1,000.00 fine.

5) Metering

a) All water right owners shall be responsible for ensuring their meters are in compliance with state and local law(s). In addition to being in compliance and reporting annually the quantity of water diverted from each point of diversion, all water right owners shall implement at least one of the following additional well/meter monitoring procedures:

(1) Inspect, read and record the flow meter at least every two weeks the well is operating. The records of this inspection procedure shall be maintained by the well owner and provided to the district upon request. Should the flow meter reported readings be in question and the bi-weekly records not be available and provided upon request of the district, the well shall be assumed to have pumped its full annual authorized quantity for the year in question. Following each year's irrigation season, the person or persons responsible for this data may at their discretion transfer the recorded data to the district for inclusion in the appropriate water right file for future maintenance.

(2) Install and maintain an alternative method of determining the time that the well is operating. This information must be sufficient to be used to determine operating time in the event of a meter failure. Should the alternative method fail or be determined inaccurate the well shall be assumed to have pumped its full annual authorized quantity for the year in question. Well owners/operators are encouraged to give the details of the alternative method in advance to GMD 4 in order to insure that the data is sufficient.

b) Any water right owner or authorized designee who finds a flow meter that is inoperable or inaccurate shall within 48 hours contact the district office concerning the matter and provide the following information:

(1) water right file number;
(2) legal description of the well;
(3) date the problem was discovered;
(4) flow meter model, make, registering units and serial number;
(5) the meter reading on the date discovered;

(6) description of the problem;
(7) what alternative method is going to be used to track the quantity of water diverted while the inoperable or inaccurate meter is being repaired/replaced; and
(8) the projected date that the meter will be repaired or replaced.

c) Whenever an inoperable or inaccurate meter is repaired or replaced, the owner or authorized designee shall submit form DWR 1-560 Water Flowmeter Repair/Replacement Report to the district within seven days.

d) This metering protocol shall be a specific annual review issue and if discovered to be ineffective, specific adjustments shall be recommended to the chief engineer by the advisory committee.

6) Accounting

a) GMD 4 shall keep records of the annual diversion amounts for each Water Right within the LEMA area, and the total 5 year quantity balances. Annual status reports shall be mailed to each water right owner and provided to DWR.

b) DWR shall provide GMD 4 with as timely as possible copies of annual water use reports received in the office of the chief engineer. GMD 4 and DWR shall cooperate on reconciliation and correction of any WUR found to be in error.

c) A form similar to the Wet Walnut IGUCA temporary transfer of allocations shall be developed by the chief engineer with input from GMD 4 for the SD-6 LEMA and shall be used to approve and track transfers of water within the SD-6 HPA per Section 1) d) above.

7) Advisory Committee

a) A SD-6 LEMA Advisory Committee shall be appointed and maintained by the GMD 4 Board consisting of an odd number of members between five (5) and nine (9) members as follows: one (1) GMD 4 representative; one (1) representative of the Division of Water Resources, Kansas Department of Agriculture as designated by the chief engineer; and the balance being SD-6 HPA residents/owners/operators – one (1) of which must represent non-irrigation users. One of the SD-6 HPA members shall chair the committee whose direction shall be set to further organize and meet annually to consider:

(1) water use data;
(2) water table information;
(3) economic data as is available;
(4) violations issues – specifically metered data;
(5) any new and preferable enhanced management authorities become available;
(6) other items deemed pertinent to the advisory committee.

b) The advisory committee shall produce a report after every meeting which shall provide a status for considerations (1) through (6) and any recommended modifications to the current LEMA Order relative to these six items. Said report shall be forwarded to the GMD 4 board and the chief engineer.

8) LEMA Order Reviews

a) In addition to the annual LEMA Order reviews per section 7), the SD-6 LEMA Advisory Committee shall also conduct a more formal LEMA Order review 1.5 years before the ending date of the LEMA Order. Review items will focus on economic impacts to the LEMA area and the local public interest. Water level data may be reviewed.

b) The committee shall also produce a report following this review to the chief engineer and the GMD 4 board which contains specific recommendations regarding future LEMA actions. All recommendations shall be supported by reports, data, testimonials, affidavits or other information of record.

9) Impairment Complaints

While this program is being undertaken it is the desire of the SD-6 stakeholders that any impairment complaint filed in the HPA while this management plan is in effect, which is based upon either water supply issues or a regional decline impairment cause, be received by the chief engineer and either: deferred for investigation until the management program is no longer valid; or, be investigated by the chief engineer in consideration to the on-going management activities.

10) Water Level Monitoring

Prior to the 2013 SD-6 LEMA proposal there were seven recognized observation wells within the SD-6 HPA that have been measured annually by either Division of Water Resources (DWR) or Kansas Geological Survey (KGS) personnel. These wells are located:

SD	7	29W	5	07S29W05
SD	7	29W	27	07S29W27
SD	7	29W	30	07S29W30
SD	8	29W	1	08S29W01
SD	8	30W	5	08S30W05
SD	8	30W	11	08S30W11
SD	8	30W	13	08S30W13

For each of these wells there is a long history of annual water level measurements. The stakeholders of HPA SD-6 expressed a desire to increase the number of monitoring wells in support of this proposal.

From January 1, 2013 – December 31, 2017 Northwest Kansas Groundwater Management District No. 4 has converted one of these wells (08S30W13) to an hourly water level measurement schedule by the installation of a continuous pressure transducer, and has drilled three new observation wells and equipped them with pressure transducers also recording water levels hourly. These new locations are: 07S29W25; 07S30W27; and 08S31W26. Additionally, Northwest Kansas Groundwater Management No. 4 has equipped another well located in 07S29W16.

Subsequently, the Kansas Geological Survey has taken over the data collection and analysis of these wells, and have installed their own equipment.

11) Coordination

The SD-6 stakeholders and the GMD 4 board expect reasonable coordination between the chief engineer's office and the GMD 4 board on at least the following four efforts:

a) Development of the LEMA Order resulting from the LEMA process;

b) Setting and accounting for the umbrella accounts authorized by Section 1) c);

c) Authorizing and accounting of water right transfers and bookkeeping authorized by Section 1) d); and

d) Accounting for annual pumpage amounts by LEMA water right owners/operators.

12) General

The core concern of this LEMA is to remain within the allocation quantity after five years of pumping. Any future decisions within this LEMA period which intend to incorporate new or overlooked issues shall be made in deference to this total allocation limit.

In the case of multiple allocation programs (WCAs, KAR 5-5-11 changes, other LEMAs, MYFAs, etc) the requirements of the most restrictive program will apply.

All combination applications or temporary transfers must be re-done for the LEMA period 2018 – 2022.

Attachment 1

SD 6 Advisory Public Meeting Notes
December 12, 2016 1:30 pm, Hoxie Elks Lodge

Questions

What kind of time schedule?
What about going to 12" instead of 11"?
If there is a severe drought would the state allow an extra inch?
Can we borrow from a future LEMA?
Would wells outside of SD 6 be in the district wide LEMA?
Do you think the District-Wide LEMA would add more teeth in five years?
How much carry-over are we talking?
Can you do umbrellas when you want it or preseason only?
What is the penalty for going over?
Can I have the ability to develop more acres?

Comments

We should go on with what we are doing.
I think we should go with the District-Wide LEMA instead.
We've got the worst problem and need to do more.
We're barely doing enough.
Concern for alluvial wells irrigating pasture.
Advisory committee should be elected, not appointed.
Most of the people that don't like it aren't here.
We need to plan if there is going to be a carry-over.
Make a list of water that is for sale.
Limited irrigation insurance concern
Needs to incorporate a drought contingency clause
The place of use is stuck when the LEMA was formed.

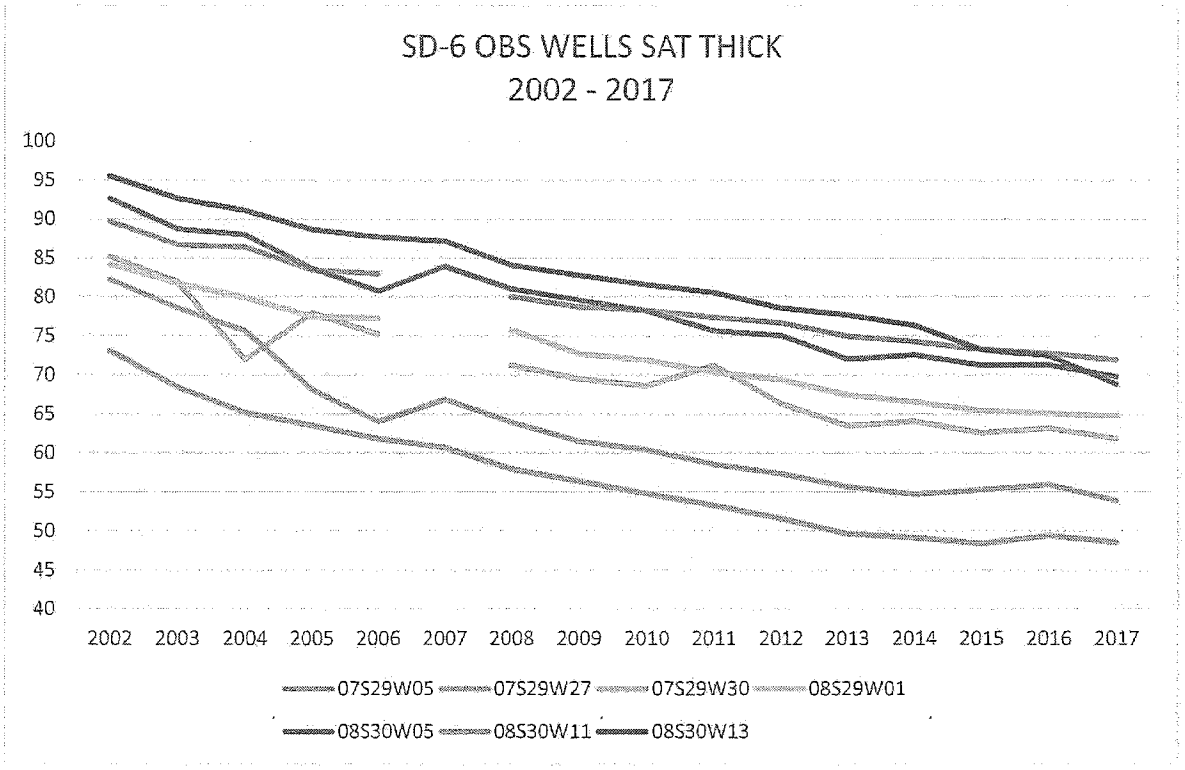
Phone Call Comments from Absent Advisory Committee Members

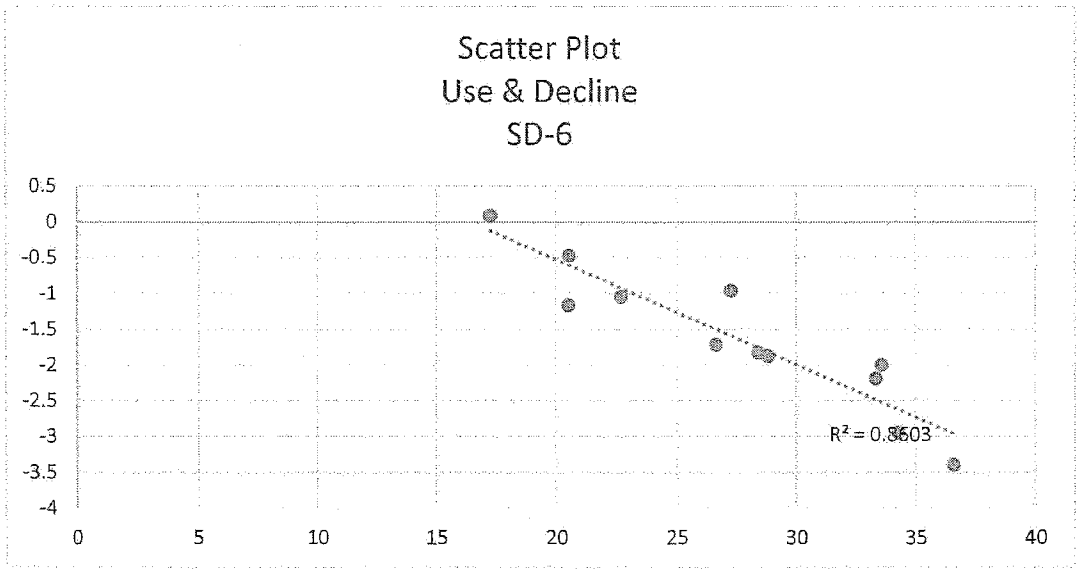
We should continue with a carryover and possibly go to 12".
We should continue with a carryover.
We should continue.
We should continue with a carryover.

Advisory Committee Post Meeting

11" carry-over may be too much
Should have a 5" carry-over so 12" could be applied if needed.
With a 5" carry-over, 60" would be the maximum you could ever begin a LEMA with.
The final report should be completed with a recommendation to the GMD 4 board that they take action to re-form the SD-6 LEMA for 5 years (2018-2022). A maximum of a 5 inch carry-over from the current LEMA into the new one should be worked into the new LEMA request.

Attachment 2





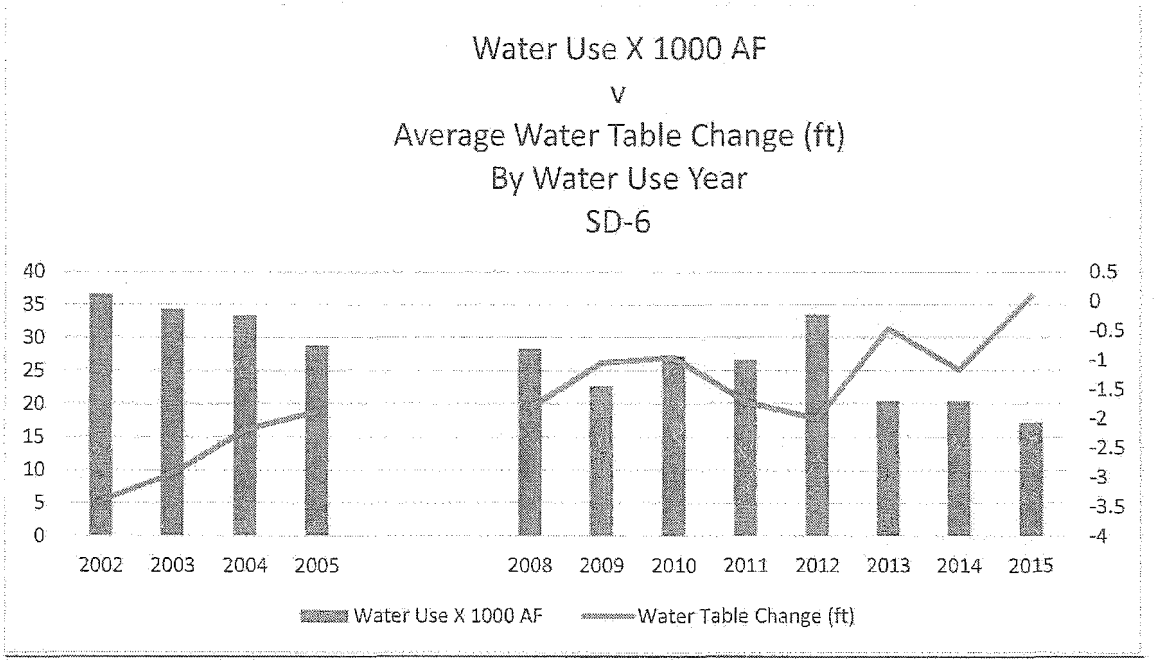

Water Use X 1000 AF
v
Average Water Table Change (ft)
By Water Use Year
SD-6
40
35
30
25
20
15
10
5
0
0.5
0
-0.5
-1
-1.5
-2
-2.5
-3
-3.5
-4
2002
2003
2004
2005
2008
2009
2010
2011
2012
2013
2014
2015
Water Use X 1000 AF
Water Table Change (ft)

EXHIBIT "D"

1320 Research Park Drive
Manhattan, Kansas 66502
(785) 564-6700

Kansas
Department of Agriculture
agriculture.ks.gov

900 SW Jackson, Room 456
Topeka, Kansas 66612
(785) 296-3556

Jackie McClaskey, Secretary

Governor Sam Brownback

March 6, 2017

RAY LUHMAN, MANAGER
NORTHWEST KANSAS
GROUNDWATER MANAGEMENT DIST #4
PO BOX 905
1290 W 4th Street
COLBY KS 67701

RE: Sheridan 6 LEMA Proposal for 2018-2022

Dear Ray,

Pursuant to K.S.A. 82a-1041, I and my staff have reviewed GMD 4's proposal for an extension to Sheridan 6 LEMA for years 2018 to 2022, received on February 6, 2017.

Pursuant to K.S.A. 82a-1041 (a), this initial review was limited to the following, as to whether the plan:

(1) proposes clear geographic boundaries;
(2) pertains to an area wholly within the groundwater management district;
(3) proposes goals and corrective control provisions as provided in subsection (f) adequate to meet the stated goals;
(4) gives due consideration to water users who already have implemented reductions in water use resulting in voluntary conservation measures;
(5) includes a compliance monitoring and enforcement element; and
(6) is consistent with state law.

Based on our review, I find that, the proposal meets these requirements and thus is acceptable for consideration. On this basis, I am initiating proceedings to consider the designation of the proposed local enhanced management area.

Statute requires two hearings on the proposed LEMA. The initial hearing is to 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.

If the initial hearing is favorable on all three issues noted above, a second hearing is required to determine whether the area should be designated and the GMD's proposed local enhanced management plan for the area be adopted.

As the area proposed for the LEMA extension is unchanged and there are only minor changes in the goals and proposed corrective controls, I believe it extremely unlikely that the result of the first hearing will reverse the findings of the 2012 hearing on these questions. However, I am unable to waive the statutory requirement to hold this initial hearing.

We believe that the best path forward is to conduct the two required hearings on the same day, one right after the other.

Accordingly, we have made arrangements to hold the hearings at the Sheridan County Courthouse in Hoxie on May 31, 2017, at 10:00 a.m. Per statute requirements we will provide notice of the hearings to each water right holder within the area as well as notification of the hearings in an area newspaper in the coming weeks.

Finally, in 2012, I held a pre-hearing conference and afterward issued the attached Hearing Management Order to outline hearing procedures, etc. If you wish to have a pre-hearing conference, that can be arranged. Otherwise, I will just issue a similar order, updated as needed.

Let me know if you have any questions on these matters.

Sincerely,

David W. Barfield, P.E.
Chief Engineer
Kansas Department of Agriculture
Division of Water Resources

pc:
Susan Metzger, Assistant Secretary, KDA
Chris Beightel, Program Manager, KDA-DWR
Lane Letourneau, Program Manager, KDA-DWR
Kelly Stewart, Stockton Water Commissioner
Kenneth Titus, Chief Counsel, KDA

EXHIBIT "E"

AFFIDAVIT OF PUBLICATION
State of Kansas, Thomas County, ss:

Sharon Friedlander, being first duly sworn, deposes and says:

that he/she is the Publisher of

THE COLBY FREE PRESS

a daily newspaper printed in the state of Kansas, and published in and of general circulation in Thomas County, Kansas, with a general paid circulation on a yearly basis in Thomas County, Kansas, and that said newspaper is not a trade, religious or fraternal publication.

Said newspaper is published at least 50 times a year; has been so published continuously and uninterruptedly in said county and state for a period of more than five years prior to the first publication of said notice; and has been admitted at the post office of Colby, Kansas, in said county as second class matter.

That the attached notice is a true copy thereof and was published in the regular and entire issue of said newspaper for 1 consecutive week(s)/days(s), the first publication thereof being made as aforesaid on the 26TH day of APRIL, 20 17, with subsequent publications being made on the following dates:

....., 20 ...., 20 .....
....., 20 ...., 20 .....
....., 20 ...., 20 .....

Subscribed and sworn to before me this 17TH day of MAY, 20 17

NOTARY PUBLIC - State of Kansas
EVAN P. BARNUM
My Appt. Exp. 8-1-19

Notary Public

My commission expires AUGUST 1, 20 19

Publication Fee $ 78.87

Additional copies $.....

Public Notice

NOTICE OF HEARING

In the Matter of the Designation of The Sheridan 6 Local Enhanced Management Area (LEMA) In Sheridan and Thomas Counties in Kansas

Pursuant to K.S.A. 82a-1041, the Northwest Kansas Groundwater Management District No. 4 (GMD #4) has recommended the approval of a local enhanced management plan in a designated area in Sheridan and Thomas counties and within the boundaries of GMD #4 (Sheridan 6 LEMA). The LEMA plan was submitted to the chief engineer for review and found to be acceptable for consideration.

Therefore, the chief engineer has scheduled an initial public hearing to determine if the plan satisfies the three initial requirements for approval as set forth in K.S.A. 82a-1041 for May 31, 2017 beginning at 10:00 a.m. in the Sheridan County Courthouse, 925 9th Street in Hoxie, Kansas. The chief engineer shall serve as hearing officer and consider the evidence provided in the record of the previous Sheridan 6 LEMA proceedings as well as any new evidence presented. The hearing may continue as long as necessary for a full disclosure of relevant facts.

Anyone may submit written or oral statements to be included in the record of the initial hearing. Oral statements will be accepted only at the public hearing. Written statements may be submitted at the public hearing or be sent to the Sheridan 6 LEMA; c/o Ronda Hutton; 1320 Research Park Drive, Manhattan, Kansas 66502, faxed to (785) 564-6777, or e-mailed to ronda.hutton@ks.gov. Written comments will be accepted if delivered on or before Friday, May 26, 2017. Following the presentation of all evidence, the chief engineer shall adjourn the initial hearing to consider the three requirements set forth in K.S.A. 82a-1041.

If the chief engineer is satisfied that the three initial requirements are met, the chief engineer shall convene a second hearing beginning at 1:00 p.m., or later if required, on the same day and in the same location to consider whether to accept, reject, or suggest modifications to the proposed LEMA. If there is not enough time to convene the second hearing, such hearing shall be postponed until public notice may be given as required by K.S.A. 82a-1041. The hearing may continue as long as necessary for a full disclosure of relevant facts.

The chief engineer shall serve as hearing officer to determine if the area should be designated and the GMD's proposed LEMA plan for the area be adopted. Anyone may submit written or oral statements to be included in the hearing record. Oral statements will be accepted only at the public hearing. Written statements may be submitted in the same manner as described above and will be accepted if delivered on or before Wednesday, June 7, 2017.

A copy of the proposed plan and related documents are available online at:
http://agriculture.ks.gov/lema.
Interested members of the public are encouraged to attend both public hearings.

(Published in the Colby Free Press on Wednesday, April 26, 2017)

The Sheridan Sentinel
PROOF OF PUBLICATION

STATE OF KANSAS, SHERIDAN COUNTY, SS:

RACHEL FARBER, being first duly sworn, says she is the Authorized Agent of THE SHERIDAN SENTINEL, which is a weekly newspaper, printed and of general circulation in said County of Sheridan, State of Kansas; and that the attachment hereto contains a true and correct copy of what was published in said legal newspaper in consecutive issues on the following dates:

First publication being on the 27th day of April, 2017

Publication Fee $ 108.00

Rachel Farber
(Signature)

SUBSCRIBED AND SWORN TO before me this 10th day of May, 2017

NOTARY PUBLIC - State of Kansas
VIKTORIJA BRIGGS
My Appt. Expires August 22, 2020

(Signature)

ks.gov, at or before the time of hearing. A copy of the proposed quarantine may be accessed on the department's website at https://agriculture.ks.gov/document-services/public-comment. Comments may also be made through our website under the proposed quarantine. For persons intending to present oral testimony at the hearing, prior notice to the department would be helpful in arranging the agenda. In order to give all parties an opportunity to present their views, it may be necessary to request each participant to limit oral presentation to five minutes.

Any individual with a disability may request accommodation in order to participate in the public hearing, and may request a copy of the quarantine in an accessible format. Requests for accommodation should be made at least five working days in advance of the hearing by contacting Ronda Hutton at 785-564-6715 or fax 785-564-6777. Handicapped parking is located in the west parking lot and the entrance to the building is accessible to individuals with disabilities.

Jackie McClaskey
Secretary

Doc. No. 045362

State of Kansas

Department of Agriculture
Division of Water Resources

Notice of Hearing

Pursuant to K.S.A. 82a-1041, the Northwest Kansas Groundwater Management District No. 4 (GMD #4) has recommended the approval of a local enhanced management plan in a designated area in Sheridan and Thomas counties and within the boundaries of GMD #4 (Sheridan 6 LEMA). The LEMA plan was submitted to the chief engineer for review and found to be acceptable for consideration.

Therefore, the chief engineer has scheduled an initial public hearing to determine if the plan satisfies the three initial requirements for approval as set forth in K.S.A. 82a-1041 for May 31, 2017 beginning at 10:00 a.m. in the Sheridan County Courthouse, 925 9th St., Hoxie, Kansas. The chief engineer shall serve as hearing officer and consider the evidence provided in the record of the previous Sheridan 6 LEMA proceedings as well as any new evidence presented. The hearing may continue as long as necessary for a full disclosure of relevant facts.

Anyone may submit written or oral statements to be included in the record of the initial hearing. Oral statements will be accepted only at the public hearing. Written statements may be submitted at the public hearing or be sent to the Sheridan 6 LEMA; c/o Ronda Hutton; 1320 Research Park Drive, Manhattan, KS 66502, faxed to 785-564-6777, or emailed to ronda.hutton@ks.gov. Written comments will be accepted if delivered on or before Friday, May 26, 2017. Following the presentation of all evidence, the chief engineer shall adjourn the initial hearing to consider the three requirements set forth in K.S.A. 82a-1041.

If the chief engineer is satisfied that the three initial requirements are met, the chief engineer shall convene a second hearing beginning at 1:00 p.m., or later if required, on the same day and in the same location to consider whether to accept, reject, or suggest modifications to the proposed LEMA. If there is not enough time to convene the second hearing, such hearing shall be postponed until public notice may be given as required by K.S.A. 82a-1041. The hearing may continue as long as necessary for a full disclosure of relevant facts.

The chief engineer shall serve as hearing officer to determine if the area should be designated and the GMD's proposed LEMA plan for the area be adopted. Anyone may submit written or oral statements to be included in the hearing record. Oral statements will be accepted only at the public hearing. Written statements may be submitted in the same manner as described above and will be accepted if delivered on or before Wednesday, June 7, 2017.

A copy of the proposed plan and related documents are available online at: http://agriculture.ks.gov/lema. Interested members of the public are encouraged to attend both public hearings.

David W. Barfield
Chief Engineer
Division of Water Resources

Doc. No. 045368

State of Kansas

Kansas Development Finance Authority

Notice of Hearing

A public hearing will be conducted at 9:00 a.m. Thursday, May 11, 2017, in the offices of the Kansas Development Finance Authority (KDFA), 534 S. Kansas Ave., Suite 800, Topeka, on the proposal for the KDFA to issue its Agricultural Development Revenue Bond for the project numbered below in the respective maximum principal amount. The bond will be issued to assist the borrower named below (who will be the owner and operator of the project) to finance the cost in the amount of the bond, which is then typically purchased by a lender bank who then, through the KDFA, loans the bond proceeds to the borrower for the purposes of acquiring the project. The project shall be located as shown:

Project No. 000974—Maximum Principal Amount: $150,000. Owner/Operator: Jordon and Hanna Nagely; Description: Acquisition of 158.8 acres of agricultural land and related improvements and equipment to be used by the owner/operator for farming purposes (the project). The project is being financed by the lender for Jordon and Hanna Nagely (the beginning farmer) and is located at the Northwest Quarter of Section 30, Township 14, Range 2, Dickinson County, Kansas, approximately 7 miles south and 2 miles west of Abilene, Kansas.

The bond, when issued, will be a limited obligation of the KDFA and will not constitute a general obligation or indebtedness of the state of Kansas or any political subdivision thereof, including the KDFA, nor will it be an indebtedness for which the faith and credit and taxing powers of the state of Kansas are pledged. The bond will be payable solely from amounts received from the respective borrower, the obligation of which will be sufficient to pay the principal of, interest, and redemption premium, if any, on the bond when it becomes due.

BEFORE THE DIVISION OF WATER RESOURCES,
KANSAS DEPARTMENT OF AGRICULTURE

In The Matter of	)
the Designation of the Sheridan 6	)12 WATER 8366
Local Enhanced Management Area (LEMA)	)
	)

Order Finding Satisfaction of the Initial Requirements
of the Sheridan 6 Local Enhanced Management Area (LEMA)

On the 13th day of September 2012, 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 the courthouse of the District Court of Sheridan County, Kansas, at Hoxie, Kansas, was called to order at 10:35 a.m.

Procedural Background

The Kansas Legislature passed a bill during the 2012 session governing the designation of any Local Enhanced Management Area (LEMA) in Kansas. (S.B. 310; L. 2012, Ch.6, Sec. 1; upon publication to be designated K.S.A. 82a-1041). Pursuant to Section 1(a) of this bill, whenever a groundwater management district recommends the approval of a LEMA plan within its district, the Chief Engineer of the Division of Water Resources, Kansas Department of Agriculture (DWR) shall review the plan. The Chief Engineer's review is limited to five specific criteria, as set forth in the bill. If the Chief Engineer finds the proposed plan meets these five criteria, he or she shall initiate, as soon as practicable, proceedings to designate a LEMA according to the proposed plan.

On July 16, 2012, the Northwest Kansas Groundwater Management District No. 4 (GMD) submitted to the Chief Engineer, David W. Barfield, a plan for a proposed LEMA. In a letter dated August 3, 2012, Mr. Barfield informed Wayne Bossert, Manager of the GMD, that the proposal meets the requirements of Section 1(a) of Senate Bill 310. The letter further stated that Mr. Barfield was, therefore, initiating proceedings to determine whether a LEMA should be designated as proposed, and, to that end, he had designated a hearing officer to conduct an initial public hearing, in accordance with Senate Bill 310.

Notice of Hearing

According to the record, 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, on August 9, 2012, in the Hoxie Sentinel, a newspaper of general circulation in the area in question, and in the Kansas Register, at least 30 days prior to the date of the hearing.

Applicable Law

Where proceedings to designate a LEMA are initiated, the LEMA bill 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. "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." S.B. 310, Section 1(b).

Public Comments Submitted at the Hearing

At the hearing, oral comments were offered as to whether the proposed LEMA plan meets the three statutory criteria whether the plan should be adopted. These comments have all been taken into account in the preparation of this order and the findings herein.

Wayne Bossert, Manager of the Northwest Kansas Groundwater Management District No. 4 (GMD), summarized the plan and submitted oral and written testimony in support of a finding that the three initial criteria are met.

Harold Murphy spoke, and later provided written comments. He expressed support for efforts to slow depletion of groundwater, but he cited concerns about whether the proposed plan's underlying data was uniform and whether the plan's corrective controls were fair (i.e., imposing additional limits on water use in some areas and not others).

Scott Foote, a livestock producer and purchaser of products grown in the proposed LEMA area and elsewhere, spoke in favor of the proposed LEMA. He stated he has 18 wells in the Sheridan 6 area. He would like to see the entire GMD included in such a proposal, but believes this plan is a good start. Mr. Foote stated that the plan would bring economic benefit over the long term, although it would cause economic harm in the short term.

Roch Meier spoke in favor of the plan. He farms in the GMD and wants water to be available for his grandchildren. He stated the question is not *if* the area will run out of water, but *when*.

Brian Baalman spoke in favor of the plan. He is in favor of locally-driven solutions, not "top-down" solutions.

Stuart Beckman spoke in favor of the LEMA plan. He stated that he grew up in the middle of the Sheridan 6 area. He described the water supply as being plentiful in the 1960's and 1970's, but, after years of widespread use of center pivot systems, his wells are down to thirty-to-forty feet of water and he has to re-nozzle his wells at least once each year. He stated that the decline in water supply needs to slow down.

Lane Letourneau, Program Manager for the DWR Water Appropriations Program, spoke in "full support" of the GMD's proposed LEMA plan. He offered DWR's technical support to help the local water users successfully implement their plan.

Public Comments Submitted in Writing Only

Some 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.

Carol Kliewer of Grainfield, Kansas, stated her support for the plan, but voiced concerns about how much water might potentially be needed by oil and gas operations in the area.

Donald Oelke and Kaylene Oelke wrote in support of the plan. They are fourth generation farmers in Sheridan County. They characterized the LEMA plan as "a very workable plan that was designed by those most affected."

Pat Herl of Hoxie, Kansas, a farmer in the GMD area of Sheridan 6, wrote in support of the LEMA plan. He has observed "significant decline in the amount of gallons per minute in all of our wells." He finds the LEMA plan to be a good start, with boundaries that will need to be expanded as the plan progresses.

Grant Gaede wrote in support of the proposed plan, noting that he was "fully in favor" of the plan and in being able to deal with the issues on a local basis.

David Cooper wrote in support of the plan. He noted that he has seen his wells in the area decline from being able to pump 900 to 1200 gallons per minute (in the 1970's) to a rate of only 200 gallons per minute at the present time. He hopes the plan will be extended in the future to encompass the entire GMD area.

DISCUSSION AND FINDINGS OF FACT

The purpose of this hearing, in accordance with the LEMA statute, is to resolve three factual issues:

(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." S.B. 310, Section 1(b).

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

The statute referenced here, K.S.A. 82a-1036, sets forth circumstances necessary for the designation of an Intensive Groundwater Use Control Area (IGUCA). The LEMA statute has incorporated four of those circumstances, as follows:

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

The GMD contends both of the first two circumstances exist here. More specifically, the GMD states that the groundwater withdrawals exceed natural recharge in this area, causing the groundwater levels to decline excessively. In support, the GMD offers data derived from annual water level measurements collected by the Kansas Geological Survey. These measurements are then used in the Kansas Annual Cooperative Water Level Measurement Program. The GMD identified the eight observation wells, among those KGS uses to gather these measurements, that are located within the Sheridan 6 LEMA area and that have sufficient annual water level measurements. The GMD's written testimony contains specific information identifying these eight wells and graphing the changes in water level measurements taken at these wells from 1965 through 2012. As expressed by the graph, the water level for each of these eight wells showed a decline during that period, some as much as 60 to 70 feet. The GMD states, "Only when withdrawals exceed recharge do these kind of negative changes in groundwater levels, and consequently aquifer storage, occur over a long period of time."

One of the public comments questioned the selection of observation wells used to analyze the water level declines, because areas with clusters of wells would suffer a greater decline than areas where wells are spaced farther apart. According to the description provided by the GMD, the specific wells were chosen because they have been used by the Kansas Geological Survey for annual water level data collection, and these wells showed sufficient annual water level measurements. According to Graph 1 in the GMD's written comments, the water level measurements from most of these wells date back as far as the mid-1960's. The decision to use the data from these wells appears to have been based on the data's high level of credibility over time, a reason that adequately justifies the chosen methodology.

The GMD testimony also includes data from the updated computer model used by the Republican River Compact Administration (RRCA). This model was created in cooperation with DWR, the Kansas Water Office and the federal Bureau of Reclamation. This model was designed to predict future trends in water levels in the High Priority Areas within the GMD, based on continued water use consistent with current use. For the Sheridan 6, High Priority Area, the model indicates a clear decline since the year 1948, with one of the most severe declines in water levels between 2005 and 2070.

Most of the public comments, oral and written, personally corroborated the fact that water levels in the area had declined excessively or that withdrawals exceed the rate of recharge.

The two studies cited by the GMD, comprised of credible and relevant data, corroborate the GMD's conclusion that water levels in the area of the proposed Sheridan 6 LEMA are declining and have declined excessively, and that the excessive decline is due to withdrawals in the area exceeding the rate of recharge.

(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."

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, in harmony with state law and policy, and it must preserve the right of local water users to "determine their destiny" regarding the management of said groundwater resources. The GMD written testimony details the extensive public process employed to communicate with the public over a period of several years. A key presentation to the public was a model showing how different levels of reduced use in the Sheridan 6 High Priority Area would impact the local water level declines. The fundamental premise underlying this set of facts is that larger reductions in use will more effectively slow water level declines, and that no reduction at all will result in extreme declines in water levels.

As noted in the GMD testimony, the GMD held eleven public meetings and two subcommittee work sessions in Hoxie, Kansas, between November 10, 2008 and May 9, 2012, involving the stakeholders in this area. The attachments, including minutes of GMD meetings and "question and answer" information sheets disseminated by the GMD, evidence numerous opportunities for public awareness and participation in this process. The GMD kept the public informed as the process evolved and meaningfully responded to public comments and concerns. The record from the GMD demonstrates a local realization of excessive water level declines, a local desire to address these declines, and a locally-generated proposal for corrective control provisions.

Most of the public comments, oral and written, acknowledged a need to slow water level declines and applauded the fact that this process was generated by local stakeholders and would be controlled locally, as well.

The proposed Sheridan 6 LEMA plan arises from the need for corrective control provisions to conserve and protect the groundwater resources in the area and is a locally-generated proposal by which those in the affected GMD area seek to "determine their destiny." Therefore, the proposed Sheridan 6 LEMA plan satisfies the public interest component described in K.S.A. 82a-1020.

(3) Are the geographic boundaries reasonable?

In the written testimony, the GMD explains the need for a LEMA boundary, prior to addressing the reasonableness of the chosen boundary. As detailed in the testimony, the Kansas Legislature charged the Kansas Water Authority (KWA) in early 1999 with the task of studying and making recommendations on a number of issues, including the study of aquifer resources, recharge rates and the long term prospects related to any dryland farming, to maintain sustainable yield and minimum streamflow levels. The

KWA responded with reports in 2001, one of which recommended the aquifer be classified into subunits, based on hydrogeologic characteristics, and that the subunits be studied to identify which subunits most needed additional management in order to sustain the life of the aquifer.

In October of that same year, 2001, two advisory committees appointed by the Kansas Water Authority and the Kansas Water Office issued a joint report which included recommendations for further research into the subunits of the Ogallala Aquifer and how to extend the life of the aquifer, based on subunit priorities, goals and programs. The report suggested roles for the DWR and the GMDs in executing these recommendations.

The Northwest Kansas GMD No. 4 began to take action within two months of this report. The ultimate outcome was the 2006 addition to the GMD's Revised Management Program of a section requiring the identification of high-priority subunits and the slowing of groundwater level declines in those areas, a section which has remained in the management program since then. Thus the GMD has taken proactive steps in compliance with state policy directing groundwater management strategies based on aquifer subunits.

The GMD testimony then describes why the boundaries are reasonable, that is, why the process of delineating the boundaries was reasonable. The testimony explains how the GMD's most fundamental data source is the data compiled in the Kansas Cooperative Annual Water Level Measurement Program, mentioned above, based on KGS water level measurement data. The KGS, at the GMD's request, developed section-specific data points, allowing for analysis based on numerous different attributes. The testimony then explains the process by which section-specific hydrologic, geologic and geographic information was compiled, including KGS's triangulation method for determining a water level value for each section.

The GMD chose to analyze the data relative to the six-year period of 1996 through 2002, because that period contained the most recent example of two wet years, two years of average precipitation, and two dry years. In addition to this, the GMD applied parameters of percent decline and reported water use density. Finally, to identify high priority areas, the GMD took into account areas of "strong and defined" local support for enhanced management. The comments spell out the final criteria for designation as a High Priority Area, allowing for three alternative options for designation.

The GMD explanation articulates a rational, data-based process by which the boundary for this proposed LEMA was derived. Credible scientific location-specific information was collected and analyzed, in accordance with state policy to manage groundwater supplies on a subunit basis.

The public comments largely supported the designated boundary for this LEMA, many characterizing it as a good first step in addressing water level declines throughout the GMD. One commenter seems to argue that water users in the proposed LEMA area

will be disadvantaged by additional limitations in water use, in comparison to those not within the LEMA. However, this argument would seem to apply no matter what the LEMA boundaries may ultimately be, and, therefore, is, in essence, an argument against the corrective controls proposed by the LEMA plan. As such, the argument is beyond the scope of this decision.

SUMMARY OF FACTUAL FINDINGS per S.B. 310(b)

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 S.B. 310, Section 1(b).

THEREFORE, the Sheridan 6 Local Enhanced Management Area proposal satisfies the three initial requirements for approval as set forth in S.B. 310, Sec. 1(b).

ENTERED THIS 4th DAY OF OCTOBER 2012.

Constance C. Owen

Constance C. Owen, Hearing Officer

CERTIFICATE OF SERVICE

On this 4th day of October 2012, I hereby certify that a true and correct copy of the foregoing Order Finding Satisfaction of the Initial Requirements of the Sheridan 6 Local Enhanced Management Area (LEMA) was sent, postage prepaid, U.S. First Class Mail, to:

David W. Barfield, Chief Engineer
Kansas Dept. of Agriculture
109 S.W. 9th Street
Topeka, KS 66612

Wayne Bossert
Manager
Northwest Kansas Groundwater Management District No. 4
P.O. Box 905
1175 S. Range
Colby, KS 67701

Constance C. Owen

Constance C. Owen, Hearing Officer

Testimony

From: Northwest Kansas Groundwater Management District No. 4 [1]

To: Hearing Officer Constance Owen

September 13, 2012; Sheridan County Courthouse, Hoxie, KS

RE: SD-6 LEMA Proposal

My name is Wayne Bossert and I will be presenting the testimony on behalf of the board of directors of the Northwest Kansas Groundwater Management District No. 4 (GMD4).

Per Chapter 62 of the 2012 Session Laws of Kansas (SB 310 which upon publication will become K.S.A. 82a-1041) there are three findings of fact that must be considered in this initial public hearing. They are:

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.

Our testimony today will focus on each of these three findings of fact in the hopes that your report to the chief engineer will favorably report all three findings.

1) Whether one or more of the circumstances specified in subsection (a) through (d) of K.S.A. 82a-1036, and amendments thereto, exist:

K.S.A. 82a-1036 deals specifically with the initiation of proceedings for the designation of an intensive groundwater use control area (IGUCA) and the LEMA process references subsection (a) through (d) of this statute. Subsections (a) through (d) read:

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

[1] This testimony has been approved by the Northwest Kansas Groundwater Management District No. 4 board of directors through action taken at the September 6, 2012 regularly scheduled monthly board meeting.

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

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

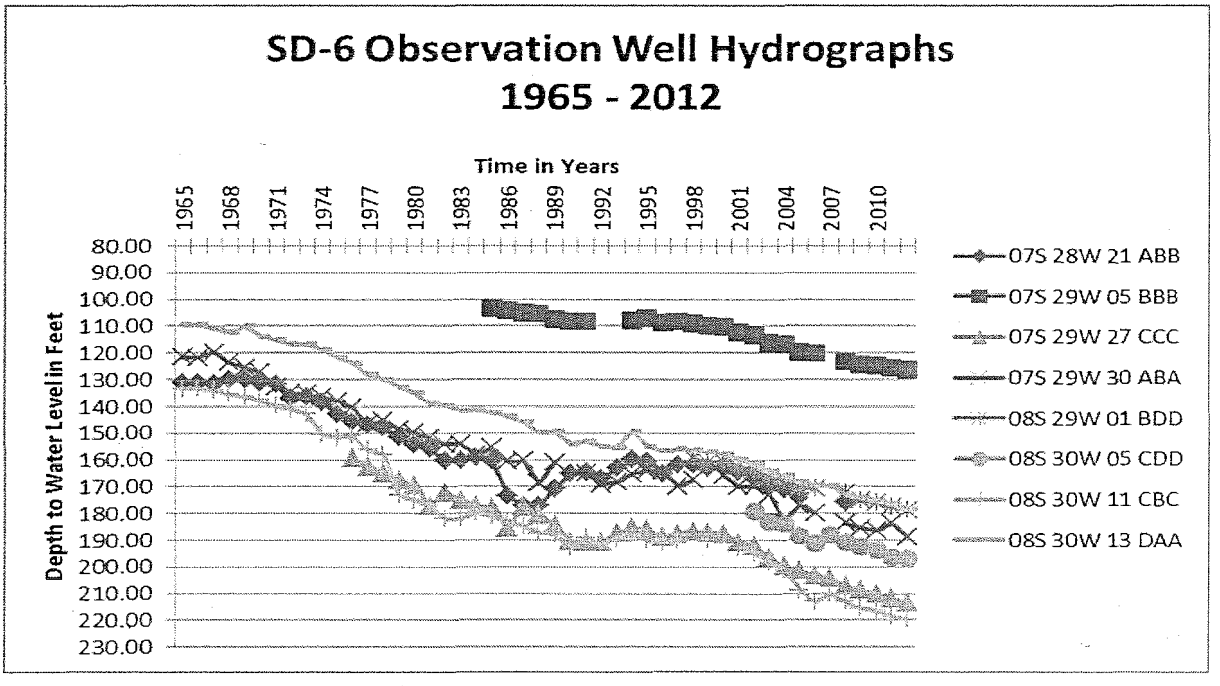
(d) unreasonable deterioration of the quality of water is occurring or may occur within the area in question;

In support of the GMD4 contention that groundwater withdrawals exceed natural recharge in this LEMA, and as a result the groundwater levels are declining excessively, the district offers data from the Kansas Annual Cooperative Water Level Measurement Program – attached as Appendix 1. The source of the data is from the Kansas Geological Survey via an annual download following their publication of the annual measurements on the WIZARD web site (Water Information Storage and Retrieval Database). WIZARD can be accessed via the Internet at: http://magellan.kgs.ku.edu/WaterLevels/index.html.

Of the full data set provided within GMD 4, there are eight observation wells located within the SD-6 LEMA area that have sufficient annual water level measurements. These have been highlighted in the attached data set. They are:

07S 28W 21ABB	07S 29W 05BBB
07S 29W 27CCC	07S 29W 30ABA
08S 29W 01BDD	08S 30W 05CDD
08S 30W 11CBC	08S 30W 13DAA

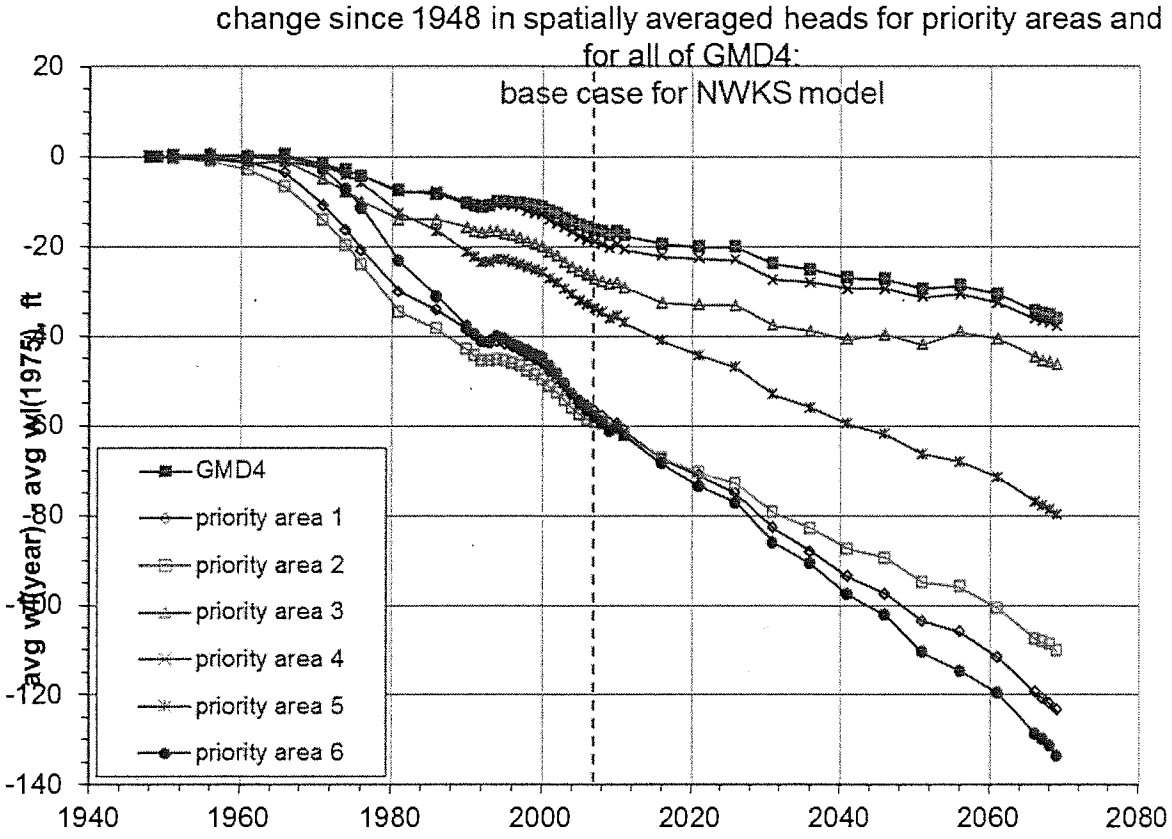
The annual water level measurement data for these eight observation wells has been plotted on Graph 1 below for the years 1965 through 2012.



Graph 1: SD-6 Observation Well Hydrographs – 1965 - 2012

Each of these wells has declined during this time frame with several of them showing a 60-70 feet drop. Only when withdrawals exceed recharge do these kind of negative changes in groundwater levels, and consequently aquifer storage, occur over such a long period of time.

Moreover, in cooperation with the division of water resources, Kansas Department of Agriculture, the Kansas Water Office and the Bureau of Reclamation, the Republican River Compact Administration's (RRCA) Modflow computer model was updated and newly calibrated for NW Kansas GMD 4 by S.S. Papadopulos & Associates.[2] This new version of the RRCA model, called the Northwest Kansas Model, was designed to look at future trends of the six GMD 4 HPAs. Each HPA decline since 1948 was run and calibrated to the known data record, then run a final time through the year 2070 under the current state and local operations – called the "status quo scenario". Graph 2 shows historic decline rates for each GMD 4 HPA. It should be noted that the SD-6 (labeled as "priority area 6") model run is among the most severe in GMD 4 especially when projected forward from the 2005 model run.



Graph 2: Modeled runs of GMD 4 six HPAs - 1948 – 2070 – status quo scenario

Between the annual cooperative monitoring well network data base and the hydrologic modeling done for this area, GMD 4 has concluded that the water levels are declining in the SD-6 LEMA due to cumulative withdrawals exceeding annual recharge.

[2] See Northwest Kansas Model Report attached as Appendix 7

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

K.S.A. 82a-1020 is the Legislative declaration relative to establishing groundwater management districts in Kansas. It declares that in the **public interest** it is necessary and advisable to permit the establishment of groundwater management districts in the state which allow local water users to determine their own destiny with respect to the use of groundwater insofar as their actions and deeds do not conflict with the basic laws and policies of the state. (emphasis added).

The enhanced management process in Kansas was always envisioned to be a bottom up, locally involved and completely open process that would be consistent with state law. It certainly was designed as such in the GMD 4 process. While Task 4 of the GMD 4 process only requires one public meeting, as this process began to unfold, the district made it clear at each of the initial stakeholder meetings that the Task 4 process would accommodate as much discussion as was needed, and would take as much time as the stakeholders desired[3].

Eleven public meetings and two subcommittee work sessions were held in Hoxie, Kansas between November 10, 2008 and May 9, 2012 involving the stakeholders of the designated SD-6 High priority Area (HPA). The district maintained a mailing list and issued personal invitations to every land owner and water right owner known to us for a majority of the meetings called. The GMD 4 mailing list also included farm operators that were known to GMD 4. The list includes 107 discreet contacts and is attached as Appendix 8.

A web page (http://www.gmd4.org/EnhancedMgt/protocol.htm) was created to keep the process available to the public and was updated regularly by GMD 4 staff. The process was also covered in no fewer than 36 articles published in 29 editions of the district newsletter "The Water Table" between March, 2002 and August, 2012[4]. The mailing list for the "Water Table" currently contains 4,486 recipients. It is, along with the website, the main informational vehicle for the district and no one has ever been refused a free subscription. It should be noted also that every newsletter since January/February, 2005 is available on the GMD 4 website.

Appendix 4 includes the meeting discussion notes and meeting attendance sheets for all the meetings from November, 2008 through May, 2012 for which they are available. While a complete record of meeting discussions does not exist, enough of a record does exist to demonstrate a significant public involvement process.

The Northwest Kansas Model also provides evidence that the public interest would be served by adoption and implementation of the LEMA proposal being heard. Graph 3 shows the model results from reducing pumpage by various percentages between 0% and 50%. This model run predicts a definite slowing of the decline rate with various reductions in use.

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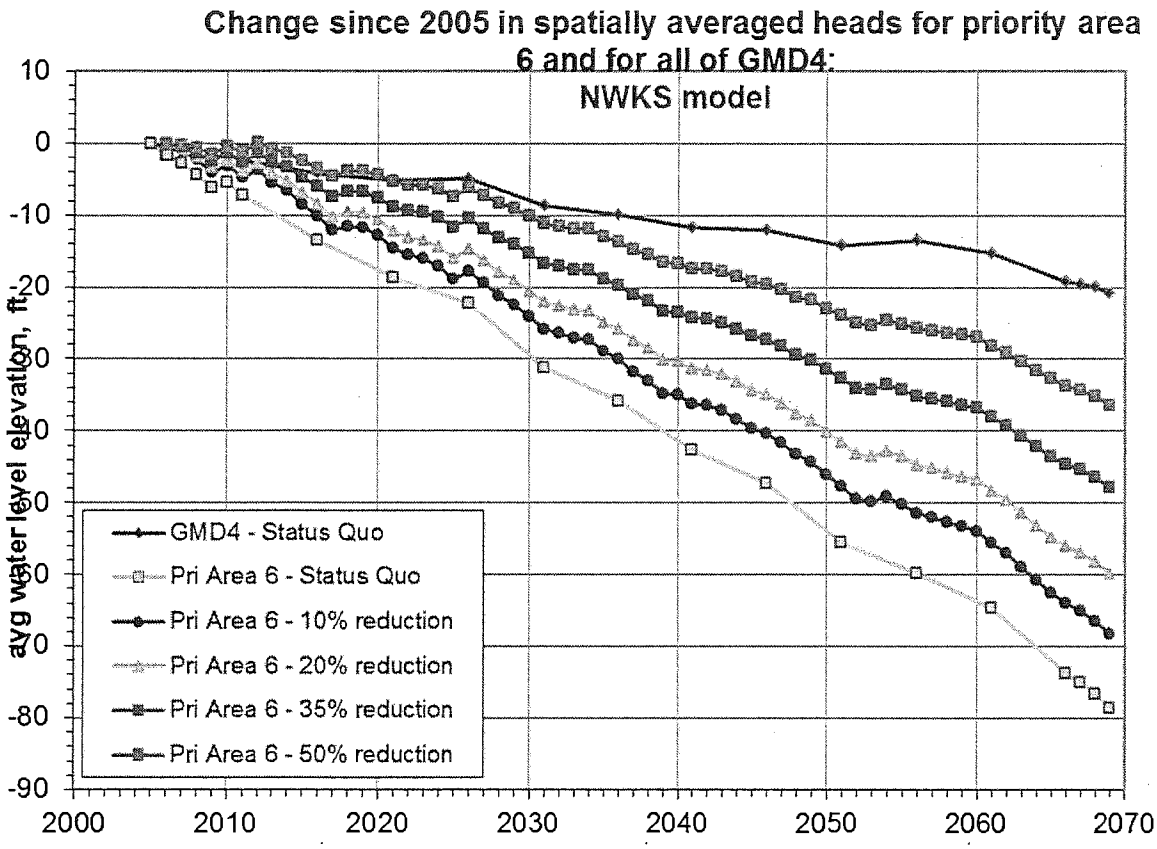
[3] See Appendix 4, November 10, 2008 Meeting notes – first question.

[4] See Appendix 5 for full listing of cited newsletters



Graph 3: SD-6 Model runs of water use reduction alternatives – 2005 - 2070

In reviewing this process, it is the contention of GMD 4 that:

1) Every invested person was made aware of the process and invited to the meetings;

2) Ample time was provided to publicly discuss every issue brought up;

3) GMD staff did not unreasonably direct the meetings or discussion issues. Staff more accurately facilitated the discussions, answered questions and provided technical information. As such, every element of the subject LEMA proposal has been locally adopted by the affected stakeholders;

4) The stakeholders were adequately kept informed and aware in an open, public process;

5) The local public interest as envisioned in KSA 82a-1020 has been satisfied and will be served by adoption of the LEMA proposal submitted by the Northwest Kansas Groundwater Management District No. 4 on July 16, 2012 on behalf of the stakeholders of high priority area SD-6.

3) whether the geographic boundaries are reasonable:

First to be considered is the need, or justification for boundaries in any form.

The enhanced management effort began in earnest in early 1999 when the Kansas Legislature passed New Section 15., House Substitute for SB 287 which directed the Kansas Water Authority (KWA) to study and make recommendations on five issues – including: the study of "..aquifer resources, recharge rates,...and the long-term prospects related to any necessary transition to dryland farming in areas of the state to maintain sustainable yield and minimum streamflow levels." This bill became K.S.A. 74-2623 (3)).

On January 8, 2001 the KWA submitted to the Governor and the Legislature (per K.S.A. 74-2623 (b)) two reports – an Executive Summary and a set of Summary Papers regarding the directives of House Substitute for SB 287. Summary Paper No. 3 (Aquifer Resources) contains the following recommendations:

> *"The hydrogeologic characteristics of the aquifer provide a natural basis for classifying the aquifer into **management subunits** based on their potential use. In order to preserve the greatest possible social and economic benefits of the ground water resource and to minimize the negative effects of competition for a diminishing resource, the **natural aquifer subunits** must be evaluated in the light of the trends and changes in the resource over the past three to four decades of intensive ground water development. This combined approach provides bases for **identifying and prioritizing aquifer subunits** where specific management activities are most needed in order to preserve a sustainable reserve of water to support the basic social structure of the region." (emphasis added)*

It has been clear from the beginning that the state's water management planning approach was going to be implemented via more localized aquifer subunits.

On April 12, 2001 the KWA/KWO appointed two special committees - the Management Advisory Committee (MAC) and the Technical Advisory Committee (TAC) – to develop a grass-roots approach to enhanced management in the western Kansas groundwater areas. The MAC and TAC met approximately seven (7) times throughout 2001 and finally produced a single report on October 16, 2001[5] that made a series of recommendations. The recommendations which influenced the GMD 4 enhanced management process the most were (see page 8 of MAC Report):

- ***Delineate the Ogallala Aquifer into aquifer subunits*** *to allow management decisions in areas of similar aquifer characteristics.*
- ***The Groundwater Management Districts and Division of Water Resources should identify each aquifer subunit in decline or suspected decline*** *and establish water-use goals to extend and conserve the life of the Ogallala Aquifer.*
- ***Identify aquifer subunit priorities*** *to extend the life of the aquifer and sustain the vitality of western Kansas.*

[5] Final MAC Report attached at Appendix 2.

- *Support and expand programs and activities to extend and conserve the life of the Ogallala Aquifer. (emphasis added)*

GMD 4 began implementing the MAC report provisions almost immediately, with the first mention occurring on December 13, 2001[6] when the board decided to develop their own enhanced management process rather than develop a joint process with the other participants.

The GMD 4 board eventually developed a seven task approach which they approved for inclusion into the Northwest Kansas Groundwater Management District No. 4 Revised Management Program. This new section was placed into the management program in 2006, and was carried over into the latest Revised Management Program (effective July 13, 2012) as follows:

g. Enhanced Management Program

1) Overview: In general accordance with the Kansas State Water Plan, the district will identify **aquifer sub-units** of similar hydrology, prioritize these sub-units, and develop an enhanced management program for the high-priority sub-units identified. **The goal will be to slow the groundwater table decline rate in all high-priority aquifer sub-units identified and to extend the economic life of the local groundwater resources.** (emphasis added)

More specifically, the program is outlined as follows:

Task 1) - Cluster aquifer sub-units

Use existing KGS section-level data sets and other data available to cluster or otherwise be used in the determination of aquifer sub-units. This data will be clustered or otherwise considered based upon appropriate hydrologic parameter(s) in order to show reasonable regions of groundwater management need. This task will generate aquifer sub-units of similar groundwater dynamics within the district which can be prioritized for subsequent enhanced management efforts. The entire data set for NW Kansas will be used so as to minimize the boundary effects as much as possible.

The parameter primarily to be used for the designation of aquifer sub-units shall be percent decline of 1996 aquifer saturated thickness between 1996 and 2002 using 3-year averaged values for all data sets. Other hydrologic parameters may also be considered.

Task 2) - Prioritize aquifer sub-units:

The board will set appropriate high, medium, and low threshold triggers based on the Task 1 parameter(s) chosen. The sub-units exceeding the top trigger will be designated as high priority aquifer sub-units for subsequent enhanced management efforts. Additionally, upon request of landowners and/or water users, any high priority area may be expanded to adjacent areas and considered a high priority area provided: the entire area is sufficiently sized to justify the expansion; the landowners and water users within have systematically met and prepared a specific enhanced management plan that meets or exceeds the basic goals and criteria of this protocol; and the board feels it is in the public interest to build upon the local momentum generated by the expansion group.

Task 3) – Verify data for each high priority aquifer sub-unit:

The board will consider KGS/GMD special study findings and other reports and information to more clearly assess if the existing data adequately supports any or all of the high and medium priority aquifer sub-units rendered by task 1. If the data is considered sufficient, the board will continue to task 4. If not, before task 4 is started the board will work with KGS, DWR, KWO, USGS and others who are knowledgeable in data reliability and application to enhance, re-design, find funding for, or

[6] See Appendix 3 - GMD 4 Meeting Minutes, December 13, 2001 – pg 3, New Business Item 5. a.

whatever else is necessary to obtain or enhance the data considered necessary to scientifically support not only the identification of the sub-units, but also any likely management options for the immediate future.

Task 4) - Establish preliminary water use goals and enhanced management actions for the high priority aquifer sub-units:

The board will conduct at least one public meeting within each high priority aquifer sub-unit in order to: a) inform the land owners and water users of the district's process and findings; b) to discuss the area's future outlook based on the district findings; c) to request input from the attendees about preferred future actions - specifically including preferences for a groundwater budget for the next 20 years; and d) what management policies/actions/strategies should be considered by the board to achieve the preferred groundwater budget.

Following the public meetings, the board will decide what groundwater use goals (groundwater budgets) are appropriate for each high priority aquifer sub-unit and what management approaches should be implemented. These decisions will be incorporated into the management program before being undertaken. If new regulatory authorities are considered necessary or prudent, either by the public or the board, they will be further explored at this step in the process.

(NOTE: In both the public meeting venue and the final board decision process, the following methods for reducing water use will be discussed: 1) targeting funding for water use efficiency improvements, water right set asides, or water right buyouts; 2) mandatory metering; 3) stricter regulation of water rights to include both negative and positive incentives concerning: a) overpumpage; b) tailwater control and reuse; and c) unreasonable pumpage; and 4) IGUCAs or other special management areas. Any other ideas brought up by the district members within either venue will also be considered.)

Task 5) – Assess the management program per board decisions resulting from task 4.

At this point, there may or may not be additional changes required in the management program to implement the enhanced management decisions of task 4. If management program changes are required, there will be no further implementation until the management program is appropriately revised through the prescribed process.

Task 6) - Develop assistance plans to transition to dryland farming.

This issue may or may not be addressed within tasks 4 and 5. If it is, no further specifics need to be included here. If not addressed in tasks 4 and 5, the board will work with the district members and others (state agencies and private groups) to develop a list of economically acceptable transition plans/ideas. All plans/ideas identified through this effort will next be presented to the district members at a public meeting or public meetings if the board decides to pursue such plan(s).

Task 7) - Review, evaluate and reiterate.

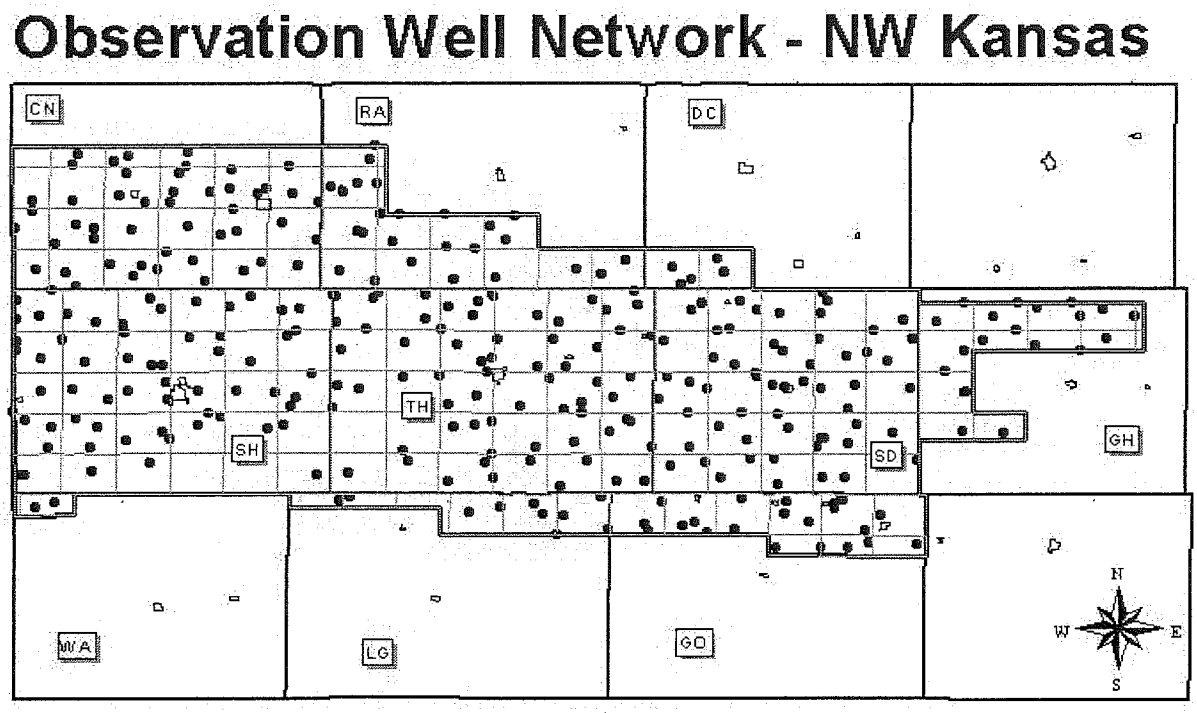
On a regular, identified schedule the board will again cluster or otherwise consider each medium and low priority aquifer sub-unit and using the same threshold parameters as originally used and will re-prioritize each. The high priority aquifer sub-units identified through this task will start the process at that time at task 3.

It is clear that the state's direction from the outset has been one of local sub-basin management and that the GMD 4 approach has been focused on identifying aquifer sub-basins for enhanced management in complete consistency with the state and local direction.

Next to be considered in the reasonableness of the boundaries is: Were the boundaries established in a legally supportable manner?

The root of all data used in establishing the GMD 4 High Priority Areas is the Kansas Observation Well Program – the compilation of annual water well measurements jointly collected and housed at the Kansas Geological Survey.

The following map shows the current data network layout within the Northwest Kansas Groundwater Management District No. 4. This monitoring well network of annual, semi-annual, quarterly and in some cases hourly water level measurements is maintained by the Kansas Geological Survey in Lawrence, Kansas, and is largely available on their website.



It was decided early that section-level data (as opposed to the more limited point data) would represent the best blend of data volume and data accuracy and should be used. This process began by creating a unique, geospatial data point for the center of each PLSS (Public Land Survey System) section within the district containing a latitude and a longitude coordinate. This was accomplished by the Kansas Geological Survey. To this data point, any number of data attributes can be added - thus creating a data base format. The section-level data exists on the Kansas Geological Survey website at:

http://hercules.kgs.ku.edu/geohydro/section_data/hp_step1.cfm

and can be generated and downloaded by anyone with a computer and a web connection. There are approximately 80 section-level data attribute sets available currently. A listing of the common section-level attributes needed for the enhanced management process are:

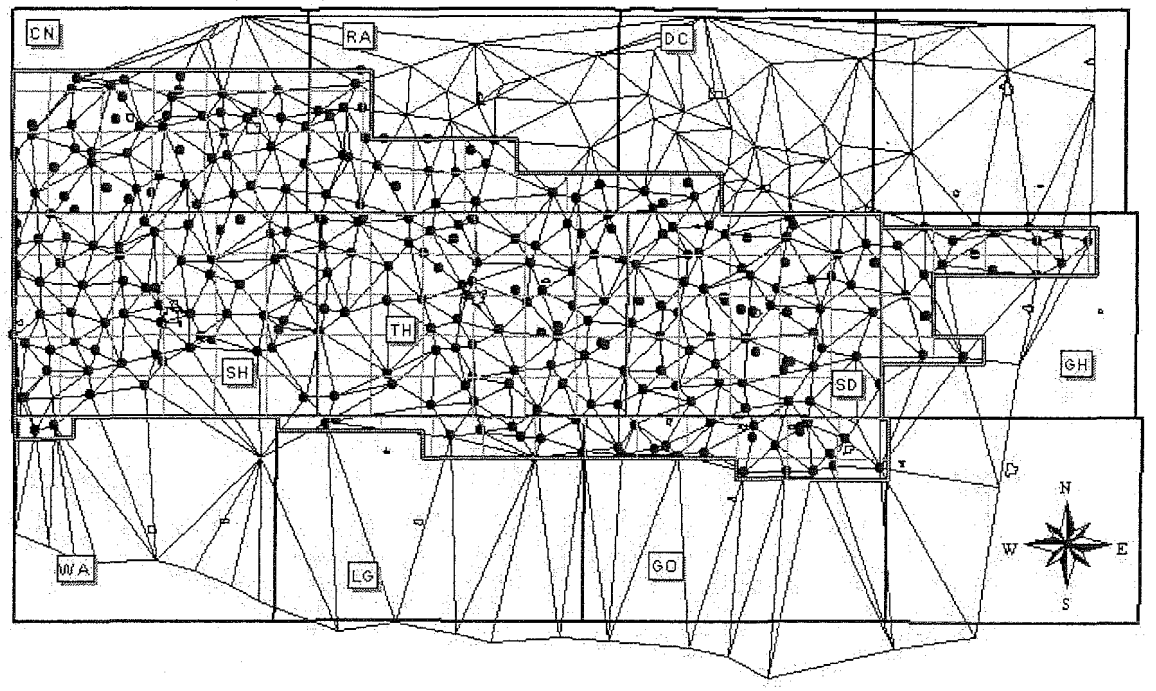
- land surface elevation;
- bedrock elevation;
- pre-development water table elevation;

- 1996 water table elevation;
- 2002 water table elevation;
- feet of water level decline from 1996 through 2002;
- percent change of water level decline from 1996 through 2002.

The section-level data set was envisioned and designed to be dynamic. New data is added from time to time which eventually improves the overall usability of the data set, but can affect the results of previously run applications if re-run - an unfortunate consequence of this dynamic design. As such, the process described herein, will not be able to be exactly replicated as new data has been incorporated into the data set since GMD 4 made its initial runs in 2003.

To create each section-level data value for water level elevations, the known observation points are computer handled through a TIN (Triangulated Irregular Network) process which is then used to assign the most likely water level elevation value to the center of each section based on the 3 known data points defined by the triangulation overlay. Every section center located within a TIN triangle is assigned a value based on the 3 closest, known values of that triangle. Moreover, the section assignments are weighted based on the relative distance that section center is from each of the 3 known points.

TIN Coverage for Observation Wells



This process interpolates a water elevation data value for each section center and provides many more data points and values than by using exclusively the known point data. For example, the approximate 275 known data points for annual water level measurements become 4,800 data values when the TIN process completes its assignments. Because the assigned section-level data

points are interpolated values (weighted estimates from known points) the accuracy of the section values is diminished, but the number of data points is greatly increased.

The section-level data set used by GMD 4 is a dBase data set named "gmd4_clip5_f.dbf". For the purposes of this hearing it has been converted to an Excel spreadsheet and has been attached as Appendix 6.

It should be noted that not every parameter used in this process has been TINned. The 2-mile reported water use density values are generated in a different way. For these section-level data values, a grid is placed over the district and the 1990-2000 average reported water use for every well within 2 miles is summed and then divided by the 2-mile grid area, yielding a 1990-2000 average water use quantity per section. The section-level grid is then placed back over the district and section values are determined from the grid-centered values.

Another important data decision the board made, in consultation with the Kansas Geological Survey, was to use average annual water level values over a running 3-year period. This process provides additional annual data points where a single year's measurement may be missing, plus it tends to smooth out the data in cases where early or late measurements show an unusual rise or decline in the following year's value. For example, the section level attribute for the 2000 water level elevation is the average of the 1999, 2000 and 2001 water level elevations.

Both the TINing process and the averaging decision provide more data points, but with less accuracy per data point. It is the feeling of the board that the additional data points improves the process more than the loss of accuracy detracts from it, and that the accuracy provided is in fact sufficient to make the regional decisions of initially choosing priority areas.

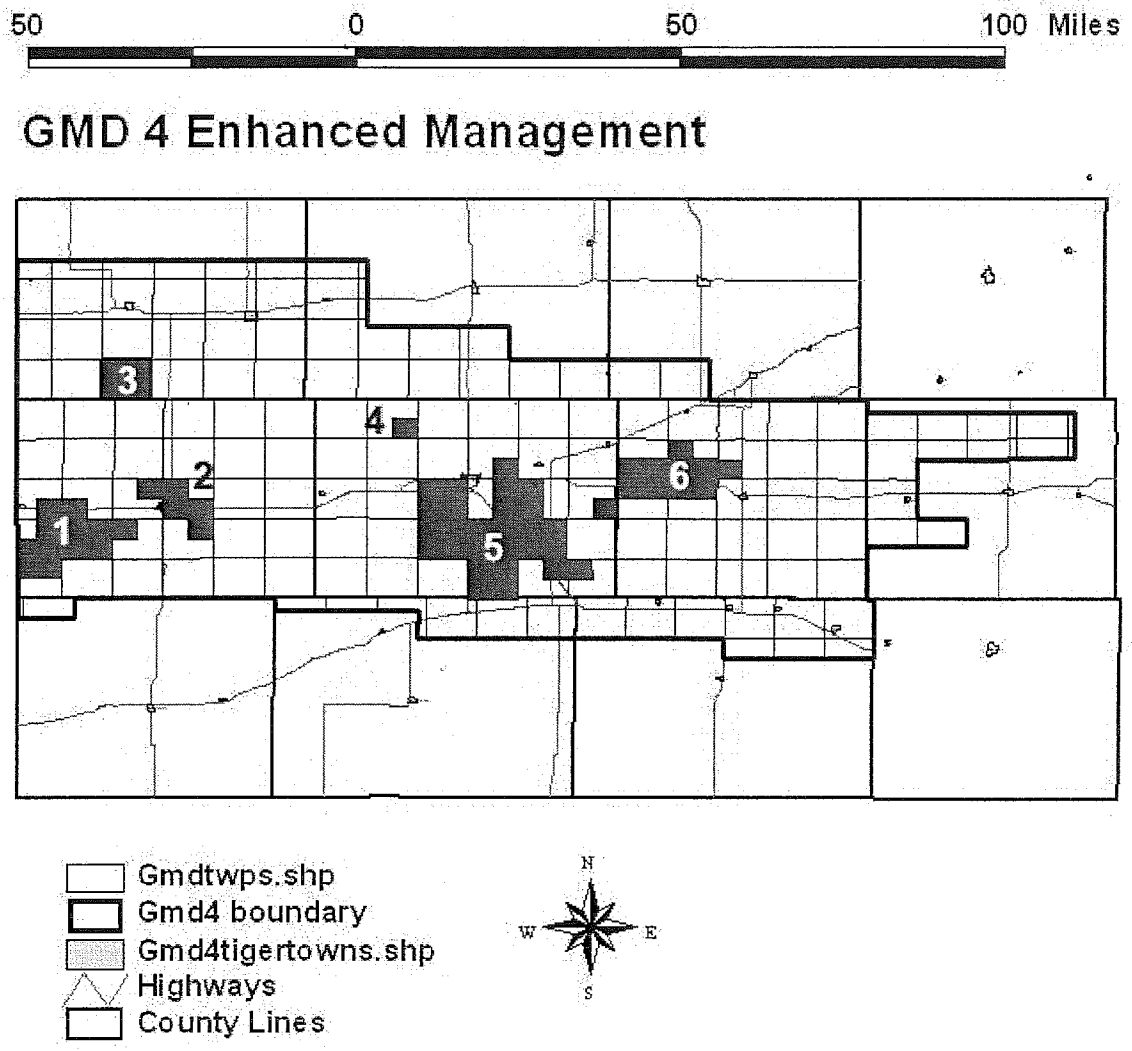
The board wanted a recent time period of at least 6 years which was as representative as possible of average climate - most specifically rainfall. Setting priority areas based on decline data in exceptionally wet or dry years would unnecessarily skew the results. 1996 through 2002 was chosen because it was at that time the most recent 6-year period spanning two wet years, two average years and two dry years.

Now that the time frame had been decided, the board worked on the specific trigger parameters in setting the high, medium and low priority areas. Many trigger parameters were considered, but in the end the board decided upon using a combination of percent decline and reported water use density - expressed in acrefeet per section. They also wanted to allow any geographic area with strong and defined local support to be considered as a high priority area as well – as long as the locals made the request to be added, the entire area was sufficiently sized to be manageable; the landowners and water users within the specified area had systematically met and prepared a specific enhanced management plan that met or exceeded the basic goals and criteria of the GMD 4 protocol; and the board felt it would be in the public interest to build upon the local momentum generated by the local group.

The last decisions leading up to the final designation of the GMD 4 HPAs took place during four separate board meetings as follows: 1) July 13, 2006 when using the 1996 – 2002 time frames for declines and reported water use density was decided and setting the HPA triggers at 9% or more decline and 275 AF or more of reported water use density; 2) August 10, 2006 when the

sections of less than 15 feet of saturated thickness and less than 25 AF of reported water use were eliminated; 3) December 14, 2006 when the alternative of allowing a locally requested HPA and the decision to make the HPAs any ¼ Township containing two or more HPA sections was made; and 4) March 8, 2007 when the final designation process was completed and the six HPAs were set. These four separate, but related board actions are included in Appendix 9.

The end result was that any ¼ Township containing two or more sections having had 9% decline or more between the years 1996 through 2002 OR having a 1996-2002, 2-mile reported annual water use density of 275 acrefeet or more, OR which was locally requested to be included, was to be a high priority area so long as the sections contained therein had at least 15 feet of saturated thickness and more than 25 acrefeet of reported water use density.



Map 1: Final boundaries of the GMD 4 High Priority Areas – March 8, 2007

The medium priority areas were all sections that had from 6% to 8.99% decline between 1996 and 2002 OR had a 2-mile reported water use density between 150 and 274 acrefeet per section.

The board chose to get the high priority areas underway first and will finish with the medium and low priority areas later.

The 9% trigger for the high priority areas was settled on based on several factors. First, the MAC process required us to address the aquifer declines by the establishment of aquifer sub-units. The report also suggested that voluntary, or incentive-based approaches, be implemented first. As such, the board intended from the start to establish the GMD 4 HPA's such that current and future programs could be sufficiently targeted for reasonable effect. Of the range of triggers considered by the board, the 9% trigger best met these criteria.

Important considerations of this HPA designation process:

1) The selected triggers (measured water level declines and 2-mile water use density) were applied to every section in GMD 4. The designation of specific HPA boundaries was based on returned values relative to these triggers. The entire area of GMD 4 was treated equally.

2) The data upon which all board decisions were based is the best data available and is credible.

3) The process used to designate the HPAs is reasonable and justified, therefore the resulting HPA area boundaries are reasonable.

Appendix 1

OBSMSTR.xls

OBSMSTR.XLS

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Appendix 2

MAC Report

2001 final mac_tac committee rpts.tif

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Appendix 3

GMD 4 December 13, 2001 Meeting minutes

2001-12 minutes_agenda.tif

Appendix 4

SD-6 LEMA Public Meeting Information

November 10, 2008 Meeting (initial):

Sheridan HPA SD-6
November 10, 2008 Meeting
Participant Comments (C) / Questions (Q) and District Responses (R)

Q: What is the district's timeframe?

R: District has no set timeframe. Whatever pace is comfortable for the participants. However, an inordinately slow time frame may allow the process to be questioned.

Q: What have other HPA's done?

R: They have all begun discussions with few decisions being made. View the GMD4 webpage where each meetings' discussion topics will be posted.

C: To affect the water level decline rate, any adjustments will need to come from pumped water, not appropriated water.

R: This is likely an accurate statement.

Q: Are we getting close to having to do something?

R: This is what the participants need to be deciding for your area and recommending to the GMD board.

Q: Does information on individual water rights (quantity, reported use, etc.) exist?

R: Yes. Next meeting staff will make it a point to provide a listing of data sources that anyone can view on the internet.

Q: Can we get an idea of what results might be achieved from different pumpage reduction rates?

R: When the hydrologic model is complete we should be able to. But the model needs to run a scenario that the group is interested in seeing the results of.

C: Run the model in several increments between pumping 30,000 AF annually and 15,000 AF annually – with each increment being implemented in 5 years, 10 years and 15 years.

R: Will try to get this done. How are the results to be provided? Mailed out? Another meeting?

C: Request another meeting in 2-3 months if the model runs have been made.

R: Will try to provide this information in order to facilitate further discussions.

C: Run the model assuming possible cropping alternatives alone.

R: This should be a stakeholder decision with recommendations to the GMD board.

C: Amazed that only 9 wells are annually measured in the HPA area. There should be more.

R: Comment will be submitted to the board for consideration.

C: Meters have helped known pumpage data.

R: Agreed.

C: Certain management options will not be equitable across the range of water rights involved.

R: Agreed. Your process may want to consider this situation as it deliberates possible approaches.

Q: Can the hydro/economic results be presented?

R: Yes.

Q: Could the GMD present some options to help the discussions?

R: If requested to, Yes.

Q: Can the GMD outline or specify what legal options are available?

R: Staff will try to outline legal options available at the next meeting.

C: Enhanced recharge could/should be part of the solution

R: If a supply of recharge water can be found that will not affect other water rights, yes.

Q: What happens if the State independently addresses the problem?

R: No way to predict when or how the State might address the problem in the absence of local efforts.

Q: What would have to happen to eliminate an area from high priority status?

R: The trigger or triggers that identified the area initially would have to be mitigated.

C: The 5-10 year timeframes suggested earlier should be shortened to 2-5 years – the longer timeframes may be too late for workable solutions.

R: This is a stakeholders issue that can and should be expressed to the GMD board.

(NOTE: The above items were merely captured as comments/questions/discussion points. No final decisions or recommendations were made by the meeting participants regarding any of them. If any participant feels these notes are in error or need more clarification, GMD staff should be contacted about those concerns.)

November 11, 2008 Meeting Attendance List [7]

[7] GMD4 staff Wayne Bossert and Ray Luhman were also in attendance but did not sign in. There may have been others who attended but declined to sign on or arrived late and did not have a chance to sign in.

SD-6 HPA MEETING
11/10/2008

NAME	ADDRESS/EMAIL
Margaret Seegmiller	Rt 1 Box 181 Queen City Mo.
Pat Herl	RR2 Box 94 Hoxie, Ks
DAVID MEANS	BWR - STOCKTON
Scott Voss	DWR - Stockton
SCOTT ROSS	DWR - Stockton
Kelly Stewart	DWR - " -
Bill Heil	Rt 2 Box 95 Hoxie Ks
Dennis Rogers	HC 1 Box 91 Selden, Ks
Jean Andregg Pyle	PO Box 56 Hoxie
Roch Meier	HC1 Box 57 Menlo
Charles Stallings	HOXIE Box 197
Polly Stallings	Hoxie Box 197
DAVID ARNOLD	HOXIE BOX 828
Mark Hill	Hoxie Box 243
Craig Cooper	Hoxie Box 781
Harold Murphy	Selden
ED HEIM	HOXIE
[illegible]	Hoxie
Richard Bremner	Grove
Kevin Cooper	HOXIE
Kevin Tremblay	Hoxie
Mitchell Baalman	
Howard Baalman	Hoxie
Scott Foote	Hoxie
[illegible] B. [illegible]	Colby
[illegible]	Selden

February 4, 2009 Meeting (2):

Sheridan HPA SD-6
February 4, 2009 Meeting
Participant Comments (C) / Questions (Q) and District Responses (R)

Q: Does time and temperature reduce pumpage amounts (referring to electric wells being shut off during high temperature times)?

R: Hard to say. The water use report data before the mandate and after might reveal an answer.

Q: Is there a way to find out how many wells there are in this HPA on the interruptible service?

R: Not sure how much data and information is available from the power companies.

C: Soil moisture does not seem to be adversely impacted by the interruptible service.

R: Noted.

C: Must be careful using a percentage reduction – the user that has already cut back gets hurt the worst.

R: This may well be the case. It would need to be recognized in any recommendations that might be made from this meeting group.

Q: Are alternative supplies viable? Would setting aside acres work? Could the state and/or federal government be engaged to promote and assist in out of area water transfers or recharge?

R: Alternative supplies are likely not viable. The Dakota and deeper aquifers have water quality problems and nobody has offered yet to transfer their excessive supplies to another location. Recharge may be part of the solution, but any recharge would have to come from local water supplies (area rainfall).

Q: Should the observation well network be increased?

R: Several felt that the well network should be increased, but appreciated the costs associated with collecting new data – especially from dedicated monitoring wells.

Q: What is the effect of surrounding wells? Do they cancel gains made within the area?

R: The hydrologic modeling done thus far is indicating that the reduced pumpage of one area benefits that area for a number of years into the future before surrounding pumpage begins to affect the area. This situation results due to the slow movement of groundwater, which can delay outside pumping influences for several decades.

Q: Are there other sources of water level data? What about well owners who have such measurements? Isn't some of this data available on the water use reports?

R: It could be beneficial to have this data for consideration. How would be the best way to get it? GMD 4 can glean the water use reports and make this data available next meeting.

C: Want to meet again on June 17, at 1:30 P.M. here in the Hoxie Elks Lodge, and discuss some model run results. Look at 20%, 40% and 60% reductions in total HPA pumpage – each percentage looked at by the same three methods as run during the calibration runs - % reduction across the board; % reduction via a CREP program; and % reduction via strict water rights administration by priority.

R: Noted.

(NOTE: The above items were merely captured as comments/questions/discussion points. No final decisions or recommendations were made by the meeting participants regarding any of them. If any participant feels these notes are in error or need more clarification, GMD staff should be contacted about those concerns.)

February 4, 2009 Meeting Attendance List:

2/4/09 HPA-6 (SD COUNTY)

NAME

Mitchell Baalman
Bill Nondorf
Mark [illegible]
Dean Rogers
[illegible] Koerner
Lenny Palmer
Jerry [illegible]
Roch Meier
Don Ochs
August J Ochs
Bert Ochs
Victor J. Schwarz
Howard Baalman
Fred L. Moss
Gary Moss
Larry Cussler
KEVIN COOPER
Brad Rogers
Ed [illegible]
Lee Crum
Bill Spilman
Daniel Schultz
Harold Murphy
Bill [illegible]
Pat [illegible]
Ron [illegible]
Stuart Beckman

Ray Teel
Scott Foote
Larry Alstrom
Kevin Tremblay

June 17, 2009 Meeting (3)

Sheridan HPA SD-6
June 17, 2009 Meeting
Participant Comments (C) / Questions (Q) and District Responses (R)

C: I am still thinking "allocations" as the solution. Something needs to be done to reduce water use.

C: Whatever is done, it must be enforceable. Voluntary solutions will not work or be fair.

Q: Are there as of yet undiscussed options?

R: One program that has not been discussed is the currently available multi-year flex accounts (MFA) – using this voluntary procedure to bring about reduced water use. The advantages are: can be done outside an IGUCA; can be tailored to any goal statement chosen; allows maximum flexibility of use for water remaining under the converted right; and is a 5-year process subject to review (and probably adjustment) every 5 years. Disadvantages are: currently a voluntary program – we'd need to find a way to make it mandatory; the MFA permits issued are based on actual historical water use, so they will be less equal than an allocation approach (tending to advantage those who pumped higher amounts of water); and currently requires the chief engineer to evaluate each water right and set up a MFA account individually.

C: Clarification – an allocation approach will require an IGUCA and an MFA approach will not?

R: This is mostly correct. While an allocation approach will require an IGUCA, the MFA approach would not require an IGUCA. However, to make it mandatory will require a local regulation - which is being explored at this time, but is currently unknown. Moreover, if an IGUCA is requested, the IGUCA could require either approach so long as a strong enough case is built, and the chief engineer so decides.

C: For any HPA reduction in water use it seems the HPA area will be subsidizing non-HPA neighbors. Don't think we're pumping any more per well than users outside the HPA, we just have a higher density of wells pumping. As such, we need to reduce the wells.

R: This is the exercise at hand. Reducing pumpage can come in a number of ways – reducing wells completely, reducing pumpage from all wells, scheduling pumpage, etc. The neighbors facing each other on either side of a HPA boundary is always going to be an issue.

C: We need to ease into the problem. I'd support an initial 10% reduction for 5 years and then step back and take a look before continuing on.

R: This is a possibility.

Q: How was the area designated? Was it based on the 9 observation wells?

R: The observation wells were used to generate an interpolated water level value for the center of every section. The 1997 section-center values were subtracted from the 2006 values and any section that declined 9% or more was identified. The reported water use was also aggregated for every section and any section that had more than 275 AF of annually reported water use was identified. Next, any ¼ Township that had two or more identified sections, was designated as a HPA ¼ Township. Finally, the ¼ Townships were combined to form the 6 HPA areas.

Q: Should a survey be sent to all water users asking for input on alternatives?

R: GMD 4 would support such an effort if desired. (This idea was discussed and consensus was that it would likely do little good)

C: Organization is critical. The SD-6 HPA needs some form of organization. How do we provide a goal and a desired approach to the board without a recognizable organization?

R: The group is free to organize any way they feel best or are comfortable with – formally or informally.

Q: Can the MFA data that was discussed be placed on the website?

R: Yes, it will be posted as soon as we can – likely tomorrow.

C: The entire group present today should become the steering committee to begin advancing alternatives for consideration by everyone involved. Brent Rogers and Mitch Baalman should head the effort to capture several possible approaches to reducing water use. The resulting list should then be sent to all water users for consideration/discussion and soon thereafter another HPA meeting should be set. (This comment was agreed to by all present and will be promoted.)

(NOTE: The above items were merely captured as comments/questions/discussion points. With the exception of the last comment, no final decisions or recommendations were made by the meeting participants. If any participant feels these notes are in error or need more clarification, GMD staff should be contacted about those concerns.)

June 17, 2009 Meeting Attendance List:

HPA SD-6 MEETIN ATTENDANCE

JUNE 17, 2009
HOXIE ELKS

Wayne Bassett
Ray Luhman
Brad Rogers
Gary Boldman
Scott Voss
David Mean
Roch Meier
Bill Hall
Demi Rogers
Don Ouke
Beth Oul
Stuart Beckman
M Hill
Tim Moss
JEFF TORLUEMKE
Howard Bachman
Fred Moss
Ed Gude

January 25, 2010 Meeting (4)

Sheridan HPA SD-6
January 25, 2010
Participant Comments (C), Questions (Q) and District Responses (R)

The meeting began with an intro by Mitchell Baalman who synthesized the last meeting discussion and reiterated the overall goals of the meeting – to continue discussing possible goals to reducing water use to achieve the state water plan goals (slowing the decline rate and extending the economic life of the aquifer), and approaches to achieving the selected goal(s). Another discussion point for this meeting was the potential use of a 2010 AWEP program in moving the process forward. Mitchell asked GMD 4 staff to cover the developing 2010 AWEP effort.

Wayne Bossert and Ray Luhman covered the developing 2010 AWEP application – essentially an application that would provide HPA landowners with an option (voluntarily) to permanently convert irrigated acres for a NRCS practice payment. The use of this program could be at least a partial solution to achieving any reduction goal eventually set by the group. GMD 4 needed to know if this HPA wanted to be included in the 2010 application or not.

Q: Clarifying that it would be a voluntary program for the producers. (Yes)

Q: What might the practice payment rates be?

R: GMD 4 would like the group's input, but early values (based on all the WTAP applications) are suggesting a 3-tiered rate proposal based on the amount of irrigation water applied – the highest rate would be about $2,300-2,400 per acre; the mid rate at $1,700-$1,800 per acre; and the lowest rate at $1,200-$1,400 per acre. The 3 tiers of water use suggested are: 1.1 AF/Ac and more (high); .8 – 1.09 AF/Ac (medium); and .79 and less AF/Ac (low) – 1/3 payable each year over a 3-year period.

C: The local operators may be unduly affected if too many absentee landlords participate.

C: I still prefer the previous suggestion of a mandated approach for all water rights (either MFA or per acre allocation) – especially if it can be done outside an IGUCA.

C: It's time that something got started – even if it's a small step forward. Otherwise the issue will get discussed to death and nothing will be done.

Q: What are the advantages/disadvantages of using AWEP to jump start the forward progress?

R: Advantages: all water use retired via AWEP will reduce the water use reductions that must be achieved to meet any chosen goal by other means; it's a voluntary program with a practice payment. Disadvantages: Reducing full water rights is not the best economic way to achieve any chosen reduction goal (it's not the worst either).

C: Perhaps a 20% reduction across the board would be tolerable – especially w/ advanced crop hybrids and other technology on the horizon.

C: I'm not so sure a voluntary payment is needed to get everyone to participate.

Q: What are the differences between a 5-year allocation and converting a water right to a 5-year multiyear flex account (MFA)?

R: A 5-year allocation (example: 45 inches over 5 years – or 9 inches per year) is limited to the 45 inches, but in no single year can the right exceed its annual appropriation before the change. The MFA is essentially some percentage (not to exceed 90%) of the average annual usage (between 1992 and 2002) times 5. Being based on actually usage with a percentage conservation reduction, the total 5-year water right can be used with no limit other than the total quantity. The MFA is more flexible for the producers, but is going to be a little more difficult to require.

Other discussion Points: Chief engineer recently met with the GMD 4 board and expressed the following (relative to enhanced management):

a. he is supportive of exploring local GMD regulation(s) that could mandate MFAs for all water rights if the district wants to draft such regulation(s);

b. no one can guess when or who will decide to address the decline problem if this process doesn't work;

c. he wants to find locally workable solutions to the overdraft conditions in the Ogallala that involve the GMDs and their affected members, and also maximize the economic returns from any pumpage reductions;

Directions:

1. The group should meet again following the GMD 4 annual meeting (3:30 P.M.-ish, February 17, 2010) to decide if SD-6 HPA should or should not be included in the AWEP application. Staff should notify everyone of this direction by invitation which should include a statement to the effect that the meeting will be held to make certain decisions regarding the AWEP program and the possible choice of a HPA goal that would reduce all water use in the HPA by 60%.

January 25, 2010 Meeting Attendance List:

Jan 25, 2010 SD-6 HPA MTG

Wayne Bossert
Ray Luhman
Brad Rogers
Shane Beckman
Mike Beckman
Lona Vellt
Don Ouder
Larry Alstrom
Kevin Cooper
Fred Moss
Bill Spillman
Howard Baalson
Harold Murphy
Roch Meier
Kevin Tremblay
Stuart Beckman

February 17, 2010 Meeting (5)

Sheridan HPA SD-6
February 17, 2010
Participant Comments, Questions (Q) and District Responses R

The meeting began with an intro by Mitchell Baalman who indicated that there were two meeting items to discuss: 1) Participation in the developing AWEP proposal; and 2) continued discussion on the selection of a goal statement for the HPA.

Q: In regard to the AWEP proposal, why are we expecting a payment to stop irrigating when we have gained from it? Shouldn't we be solving these problems by ourselves?

Q: Are we trying to form some entity so that we can qualify for AWEP?

R: No. The entity (SD-6 HPA) was formed several years ago and AWEP has come along since that time.

Q: What if the federal funding does not get completed?

R: The GMD is working with DWR to conditionally forfeit water rights pending the final federal payment. DWR has already indicated agreement with the concept.

Q: Will the irrigated acres approved for conversion be ranked? By whom? How?

R: NRCS will be ranking producer applications, but we don't know on what specific basis. NRCS has indicated a willingness to accept recommendations from the GMD regarding ranking, but these would be recommendations only.

C: I believe we should agree to be included in the AWEP proposal. The opportunity could help the area achieve any goal that may be set.

Q: What is an IGUCA? How does it differ from other possible approaches of reaching a goal?

R: An IGUCA (Intensive Groundwater Use Control Area) is a formal approach to solving a water supply or water quality problem. It also allows the problem to be solved with other than priority administration actions. Once requested, the process is largely in the hands of the chief engineer – including the choice of any corrective control measures. There are other ways to solve a water supply problem without formally establishing an IGUCA. One such approach is a local GMD regulation implementing an allocation schedule - annual or multi-year.

Q: How can a potential goal statement be framed?

R: There are many ways to express or frame a goal statement. Examples are: 1) every water right reduces its current use by "X" percent; 2) Total HPA pumpage be reduced by "X" percent; 3) the average decline rate be reduced by "X" percent; 4) the average HPA decline rate be reduced to 150% of

the overall GMD average decline rate; 5) each water right be converted to its average acre-inches per acre use based on the past 10 years of reported use and reduced "X" percent if it exceeds a nominal 11 acre-inches per acre; 6) ...

C: I think we should contact every water right owner and tenant with a ballot question to solicit their preference for one of three possible water right reduction levels restricting all water rights to: a) 13 acre-inches per acre; b) 11 acre-inches per acre; or c) 10 acre-inches per acre.

C: Things need to be simpler – there are too many alternatives being considered all at the same time.

Directions:

1. GMD4 staff prepare a data set of a 25% reduction in total water use from current usage applied to all water rights in the HPA giving deference to those water rights that have already reduced their water use to below the HPA average of 14 inches per acre. This application is to be a trial run to look at both the quantity and method of reductions for further discussion. When completed, schedule another meeting to present it and discuss it further.

February 17, 2010 Meeting Attendance List:

SD-6 MEETING HOXIE ELKS FEB 17, 2010

Howard Bader
Raymond [illegible]
[illegible]
David [illegible]
Dave Schemberger
Tim Moss
Don Ochs
Mark Hill
Rick Moss
Ron Neff
Bill Nondorf
Stuart Beckman
Carl [illegible]
Larry Crosley
Brett Ochs
Jerry Rogers
Bill Miller
Pat Hel
Ron Ball
David Arnold
Larry Wattron
Loren Follis
Vern Hoffman
Roch Meier
Donna B. Veldt
Larry Hill
Don Moss
Harold Murphy
Kevin Cooper

Jerry [illegible]
Kevin Tremblay
Roger Mauck
Shane Beckman
Daniel Schultz
Mike Beckman
Jim Beckman
Mitchell Baalman
Scott Foote
Wayne Bossert
Ray Luhman
Brent Rogers

June 23, 2010 Meeting (6):

Sheridan HPA SD-6
June 23, 2010
Participant Comments (C), Questions (Q) and District Responses (R)

The meeting began with an intro by Mitchell Baalman who indicated that this entire effort is still a work in progress and that few decisions have been made. Mitch referred to the agenda which was included in the meeting notice and had 4 items. Mitch finally indicated that the meeting notice was dictated by he and Brent Rogers and was NOT the product of GMD 4 staff.

C: (RE the concepts listed in the meeting notice) Rights that increased their acres later in the data period being used should not have the added acres apply to their average acres.

C: (RE the concepts listed in the meeting notice) Current regulations still allows increases in pumpage.

C: The selection process for the HPAs is still being questioned by some.

C: Everyone district-wide should be reduced equally or nothing should be done. Did not feel that reducing use inside the HPA while others just outside did nothing is fair.

Q: How did the reductions come to be applied only to irrigation rights?

R: Original thinking was that the majority of non-irrigation rights were stockwatering rights where a significant amount of the local economy was being generated and where most of the irrigated corn was ending up.

Q: Is this process a takings?

R: No one knows yet, but the idea is to leave the water rights alone and through an order, restrict these rights based on the enhanced management program adopted – meaning a 3 or 5-year restriction.

From here the discussion turned to considering the 9 concept elements to re-assess if these were still the desire of the group or not.

1) A mandated reduction of water usage in the HPA resulting in less total usage:

Show of hands vote to continue developing this effort was in the affirmative – noting that not everyone raised their hand in the affirmative, but no one raised their hand in the negative.

2) That all non-irrigation rights be exempted (for economic concerns):

Following information that this concept is likely illegal, the consensus was to eliminate it from further discussion and development.

3) A significant penalty be imposed for water use violations:

Consensus was to retain the concept and develop specific procedure in the development of the HPA regulation if and when that time comes.

4) Subsequent impairment complaints be considered by DWR in the context of the enhanced management efforts ongoing;

Consensus was to retain this concept

5) The regulation implementing these conditions be automatically sunsetted after the specific program period – to be locally amended or eliminated per stakeholder decision;

Consensus to retain this concept

6) Individual water right priority be a non-factor;

Much discussion but on a show of hands vote, 20 voted to retain this concept and 7 voted in the negative.

7) Water rights that have reduced their recent water use be reduced a lesser amount;

Consensus was to retain this concept.

8) That an IGUCA approach (Intensive Groundwater Use Control Area) not be taken;

Consensus was to continue developing a bottoms-up approach outside the IGUCA process until this is no longer an option.

9) That water rights already in a set-aside conservation program, or have not used water at all in the specific target years, not be penalized:

Consensus was to retain this concept.

C: GMD 4 staff offered to meet with any group who wanted to catch up by going back to the beginning to cover again the introductory presentations.

C: GMD 4 staff stated that they have offered very little in the way of suggested goals and/or approaches. The role of GMD 4 in this process is to find a way to implement whatever the group decided should be their future goal(s) and approaches.

C: There needs to be a more **formal approach** to this process. Suggested a voting procedure – 1 water right, 1 vote.

C: Agreed that a voting process is needed for decisions, but felt there needed to be some input mechanism for those who cannot attend or are absentee – suggested a ballot be provided on all the issues.

C: Felt that there has been enough opportunity for anyone to get involved if they wanted to. Absentee landlords have been getting meeting notifications and have had ample opportunity to get with operators if they were interested or concerned.

This issue broke into many side discussions and comments – all of which were not able to be captured. There were clear differences of opinion on the issues of: 1) voting in meetings such as this one; 2) getting input from the remainder of the stakeholders who have not been participating; and whether the additional input should be formal (by voting ballot) or informal (by questionnaire or survey). There were also comments concerning who should be receiving the ballots/surveys.

GMD 4 staff suggested a more formal informal process might include a process where the final recommendations to the board be made in the form of a petition requiring a set number of signatures. It

could also be argued that the required public hearings for the management program, any regulations done for this effort, and the added public hearing for the final recommendations, constitutes enough of a formal process. GMD 4 staff also indicated that the group could organize however they wanted to and get as formal as they wanted to. It is not certain that any consensus was reached on this concept.

C: GMD 4 staff spoke about the future steps involved and presented them in the hopes they would better clarify the process and pitfalls ahead and give everyone a wider perspective of the process – and showing how several of the most important concepts are being incorporated.

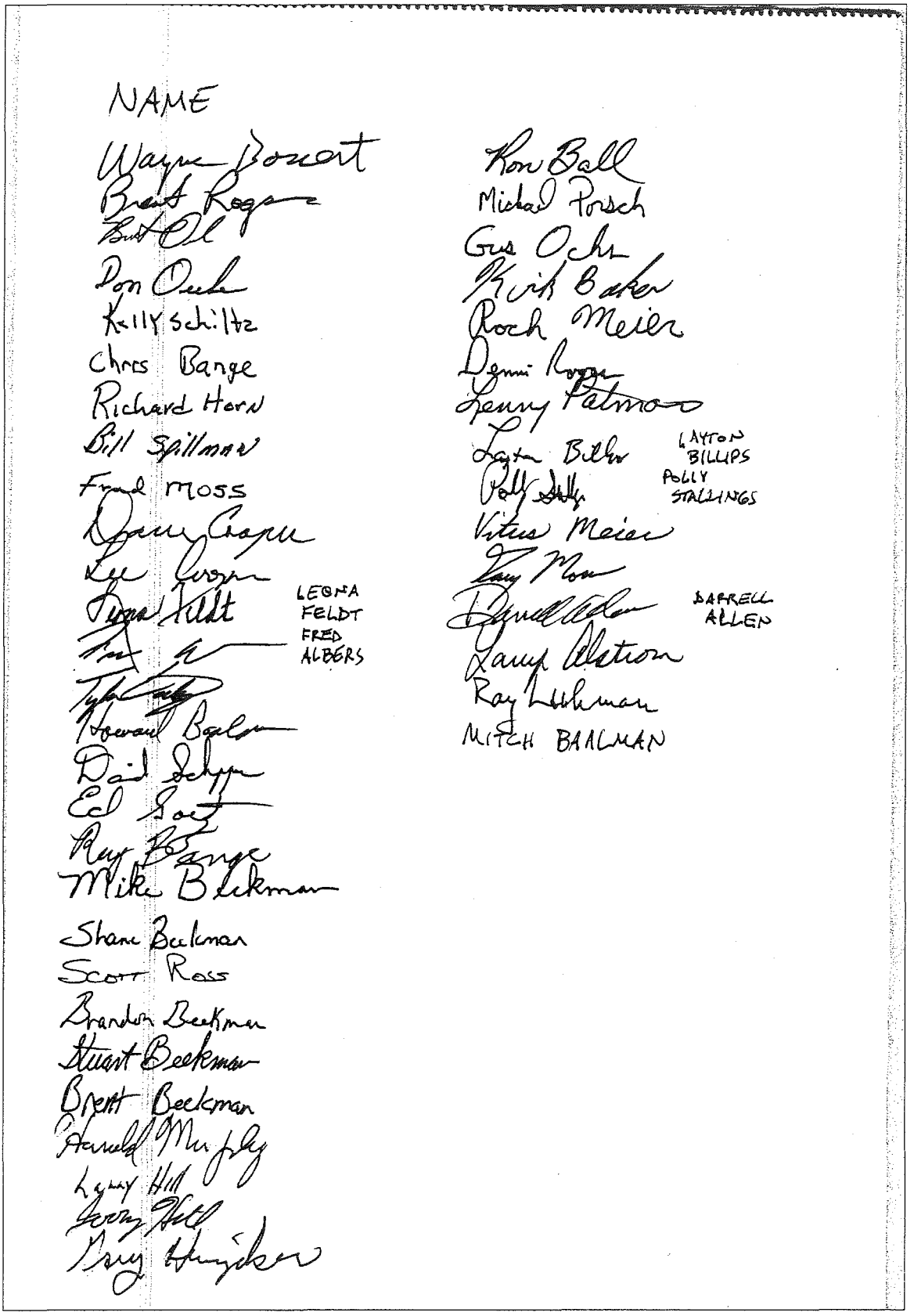
C: The idea of a fund-driven program was suggested again. Basically any exceedance of the designated multi-year allocation would command a payment into a special fund that would then be used to retire water use to eventually achieve the goal.

Directions to DWR or GMD 4:

1. None

June 23, 2010 Meeting Attendance List: [8]

[8] Attendance sheet failed to get dated. GMD4 staff printed a few of the names whose signatures were not legible.



December 16, 2010 Meeting (7 - Joint Stakeholders and DWR meeting):

No notes or attendance list available. The basic agenda of this meeting was to propose a modified IGUCA approach that was designed to be more attentive to local desires.

January 5, 2011 Meeting (8 - Initial working subcommittee meeting):

No notes available.

January 5, 2011 Meeting Attendance List:

Wayne Bossert; Ray Luhman; Mitch Baalman; Brent Rogers; Stu Beckman; Jerry Hill; Lenny Patmon; Roch Meier; Brett Oelke; Bill Herl; and Dennis Rogers. [9]

January 11, 2011 Meeting (9 - second working subcommittee meeting):

No notes available.

January 11, 2011 Meeting Attendance List:

Wayne Bossert; Ray Luhman; Mitch Baalman; Brent Rogers; Stu Beckman; Jerry Hill; Lenny Patmon; Roch Meier; and Brett Oelke.

January 19, 2011 Meeting (10):

No official notes were recorded from this meeting but on the GMD 4 copy of the Draft 3 discussion document, manager Wayne Bossert recorded four items: 1) "more local control of committee choice"; 2) "Vote for Flexibility: all for; 1 opposed"; 3) "move forward as proposed: all for; 1 opposed'; and 4) "strong consensus".

Item 1) was in response to discussions regarding the chief engineer appointing the members of the SD-6 review committee. The consensus was to provide more local direction of who these committee members would be. This direction shows up in the latest draft proposal.

Item 2) was a "show of hands" (informal vote) on the issue of providing or not providing flexibility in moving around the allocation inches within the HPA.

Item 3) was a "show of hands" (informal vote) of where the group stood on moving forward or not.

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[9] List captured from summary of SD-6 meeting activity contained in **Northwest Kansas Groundwater Management District No. 4 Enhanced Management Process Report** (filename: GMD4 Enhanced Management Process.doc). This list represents the complete Working Committee as organized by the stakeholders.

Item 4) was manager Wayne Bossert's comment regarding the fact that one hand raised in opposition to the flexibility and the continuation of the proposal was a strong consensus for both issues.

January 19, 2011 Meeting Attendance List:

SD-6 MTG Hoxie Elks Jan 19, 2011

Wayne Bossert
Ray Luhman
Mitchell Baalman
Brent Rogers
Rick B[illegible]
Stuart Beckman
Shane Beckman
Mike Beckman
LES SEALOCK
Dave Casper
Jarrod Spilman
Bill Spilman
Gene Deines
Roger Mauch
Kevin Cooper
Pat Hirl
Grant Goede
[illegible]
[illegible]
Ray Bange
Howard Baalman
Kevin R Tremblay
[illegible] Moss
Jerry Hill
Larry Hill
Mark Hill
Fred Albers
Lenny Patmon

[illegible]
Steve & Amy Seegmiller
Bill Hirl
Rock [illegible]
Bill Miller
Kelly Schiltz
Harold Murphy
Gary [illegible]

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May 25, 2011 Meeting: (11):

No meeting notes available.

May 25, 2011 Meeting Attendance List:

NAME SD-6 MTG 5/25/2011

Wayne Bossert
Roy Luhman?
Ruth Miller?
[illegible]
Mark [illegible]
Harold Murphy?
Dave [illegible]
[illegible]
[illegible]
Bill Hall?
[illegible]
Lee [illegible]
Steve Seemiller?
Chris Benge?
Gus [illegible]
Gary Niermeier?
[illegible]
Paul Benge?
Steve Seemiller?
Gary Mott?
[illegible] Moss
Don Moss
Mike Beckman
Shane Beckman
Stu Beckman
[illegible] Baker
[illegible]
Bart Beckman?
Ron Ball
Scott Foote
BRENT ROGERS
LEONA FELDT

March 28, 2012 Meeting: (12):

No notes or attendance list available.

May 9, 2012 Meeting: (13):

Sheridan HPA SD-6
May 9, 2012 Meeting Notes

The meeting was started in the Hoxie Elks Lodge at 8:00 AM, May 9, 2012. Wayne Bossert began by covering the agenda and what needed to happen IF the process was to go forward. Also to be covered, following discussion of all provided comments, was the latest draft of the proposal as it was drafted following the May 25, 2011 meeting - plus three items included by GMD 4 staff for consideration. The May 25, 2011 draft had been included in the mailing notice and copies were made available.

The first issue was the process to assign, contest and settle on the eligible acres - the heart of the allocation proposal. Ray Luhman began by covering the previous process based on the reported acres in 2007-2009 inclusive. While this was done in 2011, the 2010 reported acres irrigated were not available. He then suggested that for the final proposal the 2010 reported acres (now available) could be included if desired. Ray also suggested some small changes to the procedure that had been approved earlier and on which the 2010 eligible acre dry-run process was done. The suggested process would be:

If 2010 reported irrigated acres are equal to the 2007-2009 (inclusive) acres, the 2010 reported acres will be designated;

If 2010 reported irrigated acres do not equal 2007-2009 acres, the highest reported acres that can be reconciled with the GMD 4 acquired aerial photography and the water right file information will be used;

If the 2010 irrigated acres do not equal 2007-2009 acres and the highest reported acres cannot be reconciled with aerial photography and the water right information, the highest acres that can be supported by the photography and water right information will be used and a note to this effect will be attached.

In every case, the designated eligible acres will be provided to each water right owner with an opportunity to question or contest the acres with staff, and if staff's decision is not acceptable, with the board of directors.

The consensus of the group was that the suggested changes were acceptable and should be included in the proposal.

The public comments offered were next discussed in the order provided:

1) From Kevin Wark: *The stockwatering rights should have to take a real water use reduction like the irrigation water rights.*

In discussion the reason for the current handling of these water rights was covered again and the issue was opened up for further discussion. A question was asked about the 11-inch per acre allocation proposed for irrigation - where did this number come from and is it still discussable? Staff explained where it came from and that it was still discussable. In the end, the group consensus was: 1) the economic impacts remained important enough to retain the proposal for stockwatering as it is; and 2) the 11-inch per acre allocation was correct and should remain in the proposal.

2) From Mike Beckman: *The priority system should be applied in any approved allocation scheme - even if it results in just an inch or two additional water for the senior water rights.*

Staff explained again why the share-the-pain philosophy was opted for rather than a priority based approach. Staff offered for discussion a process whereby the priority system could be done, but advised that the total pumpage level for the 5-year period would remain the same, so any additional allocations to senior rights would be at the expense of junior rights. The basis of the priority approach would have the stakeholders determining the median allocation level, and the minimum and maximum levels. The median allocation would be assigned to the median water right file with the most senior right being assigned the maximum allocation level and the most junior right getting the minimum level. Each water right along the scale would get an equal step allocation. All allocations would be converted to total acrefeet for the LEMA period. The further the minimum and maximum allocation choices were from the median value, the more water would be cut from the juniors and dedicated to the seniors.

Following questions and discussion, the consensus was to leave the approach alone, and the allocation level at 11-inches per eligible acre.

3) From Harold Murphy: Had three items initially, but based on private discussions before this meeting, the first two issues were withdrawn. His remaining comment was: *The consequences of the state permitting of water usage by the oil drilling industry and the possible selling of water by water right holders could greatly affect the end result of whether the depletion objective is met. In his opinion, these oil and gas exempt water rights should be handled in the proposal.*

In discussion, the issues were: 1) how many exempt water rights might be expected?; and 2) what hydrologic impacts to the HPA might they have? While it is theoretically true that the non-domestic exempt water rights would negatively affect whatever total pumpage value is ultimately set, it was the consensus of the group that the oil and gas exempt water use would not likely be significant in the initial 2013-2017 LEMA period, and if it did become so, this issue could be dealt with in the annual reviews and the more formal ending review. There was no support for addressing domestic water rights in this proposal in any fashion different than what is currently in place.

4) From Archie Moss: *The boundaries are not correct - should be the entire GMD; SD-6 should go forward ONLY if TH-5 and SH-1 develop proposals within the next 2-3 years. If they don't, the SD-6 proposal should cease; There needs to be a formal voting process developed - suggested that each water right get one vote; and the water right priority system should be followed more.*

As with the other comments, the original mind-set for each of these decisions was covered. There was considerable discussion on the voting issue. When completed, the consensus was to leave the proposal unchanged.

The three new items were discussed next. They were:

1) Exempt water rights - should they be ignored or included? This issue had already been settled in the above discussion, so there was no direction at this time to include it into the proposal.

2) Multi-year Flex Account (MYFA) conversion process - should such a conversion be ignored or included? GMD 4 staff commented on the benefits of including such a procedure and stated that it had no downside. Staff suggested that every water right be given the opportunity to enroll into a MYFA on or before October 1, 2013 provided the MYFA period starts in 2013 and runs concurrently with the LEMA period. This would allow any MYFA right to exceed its annual quantity in any year as long as the 5-year MYFA quantity (which may be equal to or less than the LEMA allocation) is not exceeded. The consensus was to include this authority into the proposal as proposed by GMD 4 staff.

3) AWEP synchronization - should water rights going into or coming out of AWEP during the LEMA term be handled or ignored? GMD 4 staff also proposed that the AWEP program be considered in order to better control the desired pumpage limits. The concern was that a water right could use or market its entire allocation in the first few years of its 5-year period, then enroll into AWEP. Staff suggested that any enrollment into AWEP during the LEMA period would require the allocation balance upon enrollment to become zero. The consensus of the group was to include such an element into the proposal.

Staff also suggested that any water right coming out of AWEP during the LEMA period should receive only an allocation for each eligible acre based only on the remaining years of the current LEMA period. The consensus was to include this requirement into the proposal as well.

The floor was then opened up for any further discussion or comment. It was the consensus of the group that the proposal as modified during the meeting be written up and presented to the GMD 4 board for adoption and subsequent submission to the chief engineer on their behalves. While few of the consensus decisions recorded during this meeting were unanimous, this record is deemed to reflect the majority consensus of the participants.

May 9, 2012 Meeting Attendance List:

Sign-in sheet – SD-6 MTG
May 9, 2012 Hoxie

WAYNE BOSSERT
RAY LUHMAN
Wayne Seegmiller
Margaret Seegmiller
Bud Rogers
David [illegible]
Regan Rogers
Jay Moss
Mark Hill
[illegible]
Kirk Baker
Howard Boardman
Tim Moss
Earl Moss
Don Moss
Roch Meier
Kelly Schiltz
Jerry [illegible]
Harold Murphy
Stuart Beckman
Burt Beckman
Les Sulock
Rick Moss
[illegible]
Lal Aude
Daryl Allen
Larry Hill

Appendix 5

November 10, 2008 Meeting (initial):

Sheridan HPA SD-6
November 10, 2008 Meeting
Participant Comments (C) / Questions (Q) and District Responses (R)

Q: What is the district's timeframe?

R: District has no set timeframe. Whatever pace is comfortable for the participants. However, an inordinately slow time frame may allow the process to be questioned.

Q: What have other HPA's done?

R: They have all begun discussions with few decisions being made. View the GMD4 webpage where each meetings' discussion topics will be posted.

C: To affect the water level decline rate, any adjustments will need to come from pumped water, not appropriated water.

R: This is likely an accurate statement.

Q: Are we getting close to having to do something?

R: This is what the participants need to be deciding for your area and recommending to the GMD board.

Q: Does information on individual water rights (quantity, reported use, etc.) exist?

R: Yes. Next meeting staff will make it a point to provide a listing of data sources that anyone can view on the internet.

Q: Can we get an idea of what results might be achieved from different pumpage reduction rates?

R: When the hydrologic model is complete we should be able to. But the model needs to run a scenario that the group is interested in seeing the results of.

C: Run the model in several increments between pumping 30,000 AF annually and 15,000 AF annually – with each increment being implemented in 5 years, 10 years and 15 years.

R: Will try to get this done. How are the results to be provided? Mailed out? Another meeting?

C: Request another meeting in 2-3 months if the model runs have been made.

R: Will try to provide this information in order to facilitate further discussions.

C: Run the model assuming possible cropping alternatives alone.

R: This should be a stakeholder decision with recommendations to the GMD board.

C: Amazed that only 9 wells are annually measured in the HPA area. There should be more.

R: Comment will be submitted to the board for consideration.

C: Meters have helped known pumpage data.

R: Agreed.

C: Certain management options will not be equitable across the range of water rights involved.

R: Agreed. Your process may want to consider this situation as it deliberates possible approaches.

Q: Can the hydro/economic results be presented?

R: Yes.

Q: Could the GMD present some options to help the discussions?

R: If requested to, Yes.

Q: Can the GMD outline or specify what legal options are available?

R: Staff will try to outline legal options available at the next meeting.

C: Enhanced recharge could/should be part of the solution

R: If a supply of recharge water can be found that will not affect other water rights, yes.

Q: What happens if the State independently addresses the problem?

R: No way to predict when or how the State might address the problem in the absence of local efforts.

Q: What would have to happen to eliminate an area from high priority status?

R: The trigger or triggers that identified the area initially would have to be mitigated.

C: The 5-10 year timeframes suggested earlier should be shortened to 2-5 years – the longer timeframes may be too late for workable solutions.

R: This is a stakeholders issue that can and should be expressed to the GMD board.

(NOTE: The above items were merely captured as comments/questions/discussion points. No final decisions or recommendations were made by the meeting participants regarding any of them. If any participant feels these notes are in error or need more clarification, GMD staff should be contacted about those concerns.)

November 11, 2008 Meeting Attendance List [10]

[10] GMD4 staff Wayne Bossert and Ray Luhman were also in attendance but did not sign in. There may have been others who attended but declined to sign on or arrived late and did not have a chance to sign in.

SD-6 HPA MEETING
11/10/2008

NAME	ADDRESS/EMAIL
Margaret Seegmiller	Rt 1 Box 181 Queen City Mo.
Pat Ford	RR2 Box 94 Hoxie, Ks
DAVID MEANS	DWR - STOCKTON
Scott Voss	DWR - Stockton
Scott Ross	DWR - Stockton
Kelly Stewart	DWR - "
Bill Hall	RT2 Box 95 Hoxie Ks
Dennis Rogers	HC1 Box 91 Selden, Ks
Jan Andregg Pyle	PO Box 56 Hoxie
Rock O'Brien	HC1 Box 53 Menlo
Charles Stallings	Hoxie Box 197
Polly Judy	Hoxie Box 197
DAVID ARNOLD	HOXIE BOX 828
Mark Hill	Hoxie Box 243
Craig Cooper	Hoxie Box 781
Harold Murphy	Selden
Ed Heim	Hoxie
[illegible]	Hoxie
Richard Farmer	Levee
Kevin Cooper	Hoxie
Kevin Tremblay	Hoxie
Mitchell Baalman	
Howard Baalman	Hoxie
Scott Foote	Hoxie
Donna B. Tillett	Selden
[illegible]	Selden

February 4, 2009 Meeting (2):

Sheridan HPA SD-6
February 4, 2009 Meeting
Participant Comments (C) / Questions (Q) and District Responses (R)

Q: Does time and temperature reduce pumpage amounts (referring to electric wells being shut off during high temperature times)?

R: Hard to say. The water use report data before the mandate and after might reveal an answer.

Q: Is there a way to find out how many wells there are in this HPA on the interruptible service?

R: Not sure how much data and information is available from the power companies.

C: Soil moisture does not seem to be adversely impacted by the interruptible service.

R: Noted.

C: Must be careful using a percentage reduction – the user that has already cut back gets hurt the worst.

R: This may well be the case. It would need to be recognized in any recommendations that might be made from this meeting group.

Q: Are alternative supplies viable? Would setting aside acres work? Could the state and/or federal government be engaged to promote and assist in out of area water transfers or recharge?

R: Alternative supplies are likely not viable. The Dakota and deeper aquifers have water quality problems and nobody has offered yet to transfer their excessive supplies to another location. Recharge may be part of the solution, but any recharge would have to come from local water supplies (area rainfall).

Q: Should the observation well network be increased?

R: Several felt that the well network should be increased, but appreciated the costs associated with collecting new data – especially from dedicated monitoring wells.

Q: What is the effect of surrounding wells? Do they cancel gains made within the area?

R: The hydrologic modeling done thus far is indicating that the reduced pumpage of one area benefits that area for a number of years into the future before surrounding pumpage begins to affect the area. This situation results due to the slow movement of groundwater, which can delay outside pumping influences for several decades.

Q: Are there other sources of water level data? What about well owners who have such measurements? Isn't some of this data available on the water use reports?

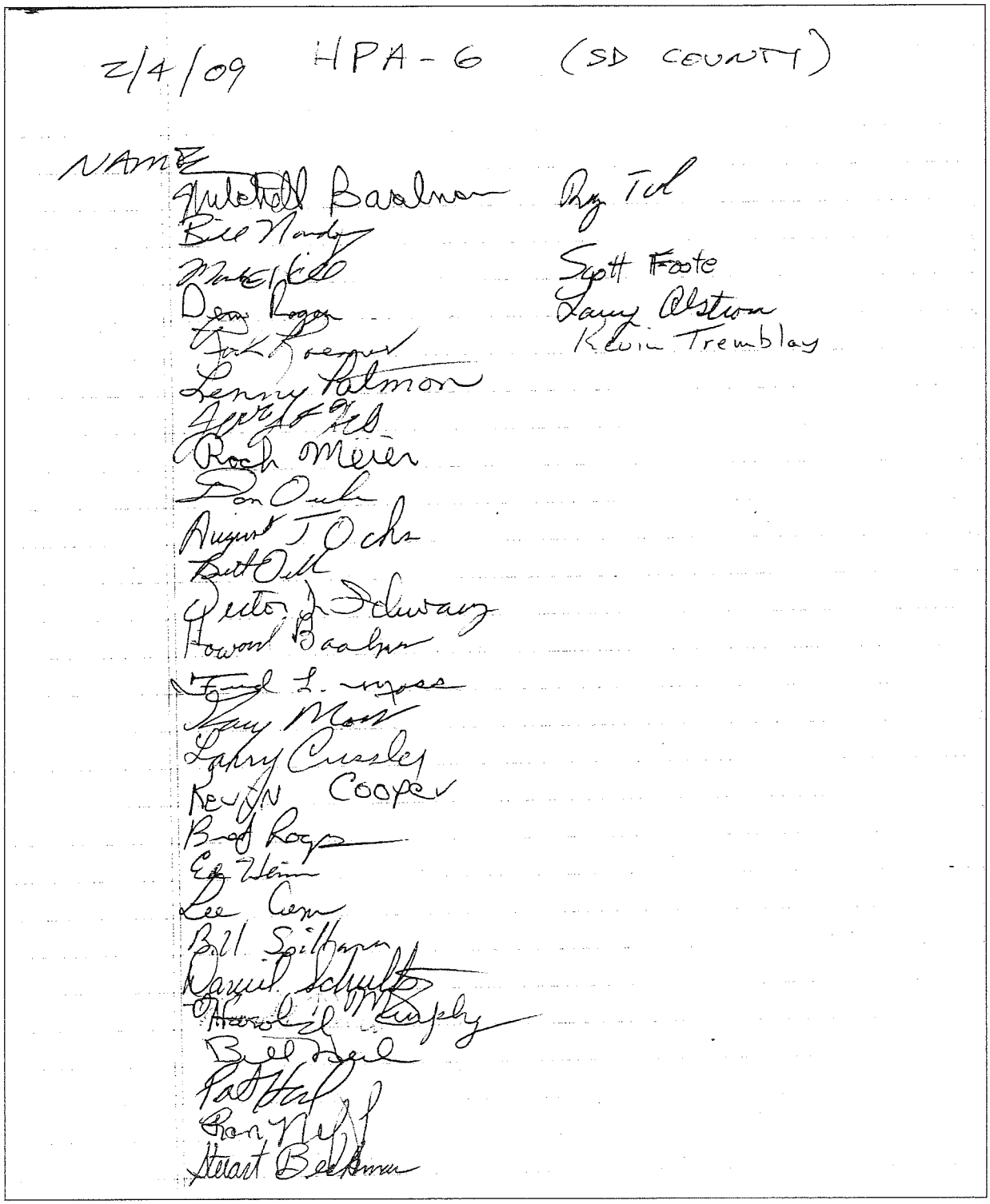
R: It could be beneficial to have this data for consideration. How would be the best way to get it? GMD 4 can glean the water use reports and make this data available next meeting.

C: Want to meet again on June 17, at 1:30 P.M. here in the Hoxie Elks Lodge, and discuss some model run results. Look at 20%, 40% and 60% reductions in total HPA pumpage – each percentage looked at by the same three methods as run during the calibration runs - % reduction across the board; % reduction via a CREP program; and % reduction via strict water rights administration by priority.

R: Noted.

(NOTE: The above items were merely captured as comments/questions/discussion points. No final decisions or recommendations were made by the meeting participants regarding any of them. If any participant feels these notes are in error or need more clarification, GMD staff should be contacted about those concerns.)

February 4, 2009 Meeting Attendance List:



June 17, 2009 Meeting (3)

Sheridan HPA SD-6
June 17, 2009 Meeting
Participant Comments (C) / Questions (Q) and District Responses (R)

C: I am still thinking "allocations" as the solution. Something needs to be done to reduce water use.

C: Whatever is done, it must be enforceable. Voluntary solutions will not work or be fair.

Q: Are there as of yet undiscussed options?

R: One program that has not been discussed is the currently available multi-year flex accounts (MFA) – using this voluntary procedure to bring about reduced water use. The advantages are: can be done outside an IGUCA; can be tailored to any goal statement chosen; allows maximum flexibility of use for water remaining under the converted right; and is a 5-year process subject to review (and probably adjustment) every 5 years. Disadvantages are: currently a voluntary program – we'd need to find a way to make it mandatory; the MFA permits issued are based on actual historical water use, so they will be less equal than an allocation approach (tending to advantage those who pumped higher amounts of water); and currently requires the chief engineer to evaluate each water right and set up a MFA account individually.

C: Clarification – an allocation approach will require an IGUCA and an MFA approach will not?

R: This is mostly correct. While an allocation approach will require an IGUCA, the MFA approach would not require an IGUCA. However, to make it mandatory will require a local regulation - which is being explored at this time, but is currently unknown. Moreover, if an IGUCA is requested, the IGUCA could require either approach so long as a strong enough case is built, and the chief engineer so decides.

C: For any HPA reduction in water use it seems the HPA area will be subsidizing non-HPA neighbors. Don't think we're pumping any more per well than users outside the HPA, we just have a higher density of wells pumping. As such, we need to reduce the wells.

R: This is the exercise at hand. Reducing pumpage can come in a number of ways – reducing wells completely, reducing pumpage from all wells, scheduling pumpage, etc. The neighbors facing each other on either side of a HPA boundary is always going to be an issue.

C: We need to ease into the problem. I'd support an initial 10% reduction for 5 years and then step back and take a look before continuing on.

R: This is a possibility.

Q: How was the area designated? Was it based on the 9 observation wells?

R: The observation wells were used to generate an interpolated water level value for the center of every section. The 1997 section-center values were subtracted from the 2006 values and any section that declined 9% or more was identified. The reported water use was also aggregated for every section and any section that had more than 275 AF of annually reported water use was identified. Next, any ¼ Township that had two or more identified sections, was designated as a HPA ¼ Township. Finally, the ¼ Townships were combined to form the 6 HPA areas.

Q: Should a survey be sent to all water users asking for input on alternatives?

R: GMD 4 would support such an effort if desired. (This idea was discussed and consensus was that it would likely do little good)

C: Organization is critical. The SD-6 HPA needs some form of organization. How do we provide a goal and a desired approach to the board without a recognizable organization?

R: The group is free to organize any way they feel best or are comfortable with – formally or informally.

Q: Can the MFA data that was discussed be placed on the website?

R: Yes, it will be posted as soon as we can – likely tomorrow.

C: The entire group present today should become the steering committee to begin advancing alternatives for consideration by everyone involved. Brent Rogers and Mitch Baalman should head the effort to capture several possible approaches to reducing water use. The resulting list should then be sent to all water users for consideration/discussion and soon thereafter another HPA meeting should be set. (This comment was agreed to by all present and will be promoted.)

(NOTE: The above items were merely captured as comments/questions/discussion points. With the exception of the last comment, no final decisions or recommendations were made by the meeting participants. If any participant feels these notes are in error or need more clarification, GMD staff should be contacted about those concerns.)

June 17, 2009 Meeting Attendance List:

HPA SD-6 MEETIN ATTENDANCE

JUNE 17, 2009
HOXIE ELKS

Wayne Bossert
Ray Luhman
Brad Rogers
Gary Baalman
Scott Voss
Dail Mean
Roch Meier
Bill Hill
Demi Rogers
Don Oeh
Butt Oeh
Stuart Beckman
M Hill
Tim Moss
JEFF TORLUEMKE
Howard Baalman
Fred Moss
Fal Gaede

January 25, 2010 Meeting (4)

Sheridan HPA SD-6
January 25, 2010
Participant Comments (C), Questions (Q) and District Responses (R)

The meeting began with an intro by Mitchell Baalman who synthesized the last meeting discussion and reiterated the overall goals of the meeting – to continue discussing possible goals to reducing water use to achieve the state water plan goals (slowing the decline rate and extending the economic life of the aquifer), and approaches to achieving the selected goal(s). Another discussion point for this meeting was the potential use of a 2010 AWEP program in moving the process forward. Mitchell asked GMD 4 staff to cover the developing 2010 AWEP effort.

Wayne Bossert and Ray Luhman covered the developing 2010 AWEP application – essentially an application that would provide HPA landowners with an option (voluntarily) to permanently convert irrigated acres for a NRCS practice payment. The use of this program could be at least a partial solution to achieving any reduction goal eventually set by the group. GMD 4 needed to know if this HPA wanted to be included in the 2010 application or not.

Q: Clarifying that it would be a voluntary program for the producers. (Yes)

Q: What might the practice payment rates be?

R: GMD 4 would like the group's input, but early values (based on all the WTAP applications) are suggesting a 3-tiered rate proposal based on the amount of irrigation water applied – the highest rate would be about $2,300-2,400 per acre; the mid rate at $1,700-$1,800 per acre; and the lowest rate at $1,200-$1,400 per acre. The 3 tiers of water use suggested are: 1.1 AF/Ac and more (high); .8 – 1.09 AF/Ac (medium); and .79 and less AF/Ac (low) – 1/3 payable each year over a 3-year period.

C: The local operators may be unduly affected if too many absentee landlords participate.

C: I still prefer the previous suggestion of a mandated approach for all water rights (either MFA or per acre allocation) – especially if it can be done outside an IGUCA.

C: It's time that something got started – even if it's a small step forward. Otherwise the issue will get discussed to death and nothing will be done.

Q: What are the advantages/disadvantages of using AWEP to jump start the forward progress?

R: Advantages: all water use retired via AWEP will reduce the water use reductions that must be achieved to meet any chosen goal by other means; it's a voluntary program with a practice payment. Disadvantages: Reducing full water rights is not the best economic way to achieve any chosen reduction goal (it's not the worst either).

C: Perhaps a 20% reduction across the board would be tolerable – especially w/ advanced crop hybrids and other technology on the horizon.

C: I'm not so sure a voluntary payment is needed to get everyone to participate.

Q: What are the differences between a 5-year allocation and converting a water right to a 5-year multiyear flex account (MFA)?

R: A 5-year allocation (example: 45 inches over 5 years – or 9 inches per year) is limited to the 45 inches, but in no single year can the right exceed its annual appropriation before the change. The MFA is essentially some percentage (not to exceed 90%) of the average annual usage (between 1992 and 2002) times 5. Being based on actually usage with a percentage conservation reduction, the total 5-year water right can be used with no limit other than the total quantity. The MFA is more flexible for the producers, but is going to be a little more difficult to require.

Other discussion Points: Chief engineer recently met with the GMD 4 board and expressed the following (relative to enhanced management):

a. he is supportive of exploring local GMD regulation(s) that could mandate MFAs for all water rights if the district wants to draft such regulation(s);

b. no one can guess when or who will decide to address the decline problem if this process doesn't work;

c. he wants to find locally workable solutions to the overdraft conditions in the Ogallala that involve the GMDs and their affected members, and also maximize the economic returns from any pumpage reductions;

Directions:

1. The group should meet again following the GMD 4 annual meeting (3:30 P.M.-ish, February 17, 2010) to decide if SD-6 HPA should or should not be included in the AWEP application. Staff should notify everyone of this direction by invitation which should include a statement to the effect that the meeting will be held to make certain decisions regarding the AWEP program and the possible choice of a HPA goal that would reduce all water use in the HPA by 60%.

January 25, 2010 Meeting Attendance List:

Jan 25, 2010 SD-6 HPA MTG

Wayne Bossert
Ray Luhman
Brad Rogers
Shane Beckman
Mike Beckman
Dona Veldt
Don Ouke
Larry Alstrom
Kevin Cooper
Fred Moss
Bill Spellman
Howard Boaloa
Harold Murphy
Roch Meier
Kevin Tremblay
Stuart Beckman

February 17, 2010 Meeting (5)

Sheridan HPA SD-6
February 17, 2010
Participant Comments, Questions (Q) and District Responses R

The meeting began with an intro by Mitchell Baalman who indicated that there were two meeting items to discuss: 1) Participation in the developing AWEP proposal; and 2) continued discussion on the selection of a goal statement for the HPA.

Q: In regard to the AWEP proposal, why are we expecting a payment to stop irrigating when we have gained from it? Shouldn't we be solving these problems by ourselves?

Q: Are we trying to form some entity so that we can qualify for AWEP?

R: No. The entity (SD-6 HPA) was formed several years ago and AWEP has come along since that time.

Q: What if the federal funding does not get completed?

R: The GMD is working with DWR to conditionally forfeit water rights pending the final federal payment. DWR has already indicated agreement with the concept.

Q: Will the irrigated acres approved for conversion be ranked? By whom? How?

R: NRCS will be ranking producer applications, but we don't know on what specific basis. NRCS has indicated a willingness to accept recommendations from the GMD regarding ranking, but these would be recommendations only.

C: I believe we should agree to be included in the AWEP proposal. The opportunity could help the area achieve any goal that may be set.

Q: What is an IGUCA? How does it differ from other possible approaches of reaching a goal?

R: An IGUCA (Intensive Groundwater Use Control Area) is a formal approach to solving a water supply or water quality problem. It also allows the problem to be solved with other than priority administration actions. Once requested, the process is largely in the hands of the chief engineer – including the choice of any corrective control measures. There are other ways to solve a water supply problem without formally establishing an IGUCA. One such approach is a local GMD regulation implementing an allocation schedule - annual or multi-year.

Q: How can a potential goal statement be framed?

R: There are many ways to express or frame a goal statement. Examples are: 1) every water right reduces its current use by "X" percent; 2) Total HPA pumpage be reduced by "X" percent; 3) the average decline rate be reduced by "X" percent; 4) the average HPA decline rate be reduced to 150% of

the overall GMD average decline rate; 5) each water right be converted to its average acre-inches per acre use based on the past 10 years of reported use and reduced "X" percent if it exceeds a nominal 11 acre-inches per acre; 6) ...

C: I think we should contact every water right owner and tenant with a ballot question to solicit their preference for one of three possible water right reduction levels restricting all water rights to: a) 13 acre-inches per acre; b) 11 acre-inches per acre; or c) 10 acre-inches per acre.

C: Things need to be simpler – there are too many alternatives being considered all at the same time.

Directions:

1. GMD4 staff prepare a data set of a 25% reduction in total water use from current usage applied to all water rights in the HPA giving deference to those water rights that have already reduced their water use to below the HPA average of 14 inches per acre. This application is to be a trial run to look at both the quantity and method of reductions for further discussion. When completed, schedule another meeting to present it and discuss it further.

February 17, 2010 Meeting Attendance List:

SD-6 MEETING HOXIE ELKS FEB 17, 2010

Howard Baalman
Raymond Baalman
[illegible]
David [illegible]
Dave Schemberger
Tim Moss
Don Ochs
Mark Hill
Rick Moss
Ron Neff
Bill Nondorf
Stuart Beckman
Carl [illegible]
Larry Cressler
Brett Ochs
Denny Rogers
Bill Miller
Pat Heil
Ron Ball
David Andell
Larry Alstrom
Karen Follis
Vern Hazlett
Roch Meier
Norma B. Veldt
Larry Hill
Don Moss
Harold Murphy
Kevin Cooper
Jerry Hill
Kevin Tremblay
Roger Mauck
Shane Beckman
Daniel Schultz
Mike Beckman
Tim Beckman
Whitney Baalman
Scott Foote
Wayne Bossert
Ray Luhman
Brent Rogers

June 23, 2010 Meeting (6):

Sheridan HPA SD-6
June 23, 2010
Participant Comments (C), Questions (Q) and District Responses (R)

The meeting began with an intro by Mitchell Baalman who indicated that this entire effort is still a work in progress and that few decisions have been made. Mitch referred to the agenda which was included in the meeting notice and had 4 items. Mitch finally indicated that the meeting notice was dictated by he and Brent Rogers and was NOT the product of GMD 4 staff.

C: (RE the concepts listed in the meeting notice) Rights that increased their acres later in the data period being used should not have the added acres apply to their average acres.

C: (RE the concepts listed in the meeting notice) Current regulations still allows increases in pumpage.

C: The selection process for the HPAs is still being questioned by some.

C: Everyone district-wide should be reduced equally or nothing should be done. Did not feel that reducing use inside the HPA while others just outside did nothing is fair.

Q: How did the reductions come to be applied only to irrigation rights?

R: Original thinking was that the majority of non-irrigation rights were stockwatering rights where a significant amount of the local economy was being generated and where most of the irrigated corn was ending up.

Q: Is this process a takings?

R: No one knows yet, but the idea is to leave the water rights alone and through an order, restrict these rights based on the enhanced management program adopted – meaning a 3 or 5-year restriction.

From here the discussion turned to considering the 9 concept elements to re-assess if these were still the desire of the group or not.

1) A mandated reduction of water usage in the HPA resulting in less total usage:

Show of hands vote to continue developing this effort was in the affirmative – noting that not everyone raised their hand in the affirmative, but no one raised their hand in the negative.

2) That all non-irrigation rights be exempted (for economic concerns):

Following information that this concept is likely illegal, the consensus was to eliminate it from further discussion and development.

3) A significant penalty be imposed for water use violations:

Consensus was to retain the concept and develop specific procedure in the development of the HPA regulation if and when that time comes.

4) Subsequent impairment complaints be considered by DWR in the context of the enhanced management efforts ongoing;

Consensus was to retain this concept

5) The regulation implementing these conditions be automatically sunsetted after the specific program period – to be locally amended or eliminated per stakeholder decision;

Consensus to retain this concept

6) Individual water right priority be a non-factor;

Much discussion but on a show of hands vote, 20 voted to retain this concept and 7 voted in the negative.

7) Water rights that have reduced their recent water use be reduced a lesser amount;

Consensus was to retain this concept.

8) That an IGUCA approach (Intensive Groundwater Use Control Area) not be taken;

Consensus was to continue developing a bottoms-up approach outside the IGUCA process until this is no longer an option.

9) That water rights already in a set-aside conservation program, or have not used water at all in the specific target years, not be penalized:

Consensus was to retain this concept.

C: GMD 4 staff offered to meet with any group who wanted to catch up by going back to the beginning to cover again the introductory presentations.

C: GMD 4 staff stated that they have offered very little in the way of suggested goals and/or approaches. The role of GMD 4 in this process is to find a way to implement whatever the group decided should be their future goal(s) and approaches.

C: There needs to be a more **formal approach** to this process. Suggested a voting procedure – 1 water right, 1 vote.

C: Agreed that a voting process is needed for decisions, but felt there needed to be some input mechanism for those who cannot attend or are absentee – suggested a ballot be provided on all the issues.

C: Felt that there has been enough opportunity for anyone to get involved if they wanted to. Absentee landlords have been getting meeting notifications and have had ample opportunity to get with operators if they were interested or concerned.

This issue broke into many side discussions and comments – all of which were not able to be captured. There were clear differences of opinion on the issues of: 1) voting in meetings such as this one; 2) getting input from the remainder of the stakeholders who have not been participating; and whether the additional input should be formal (by voting ballot) or informal (by questionnaire or survey). There were also comments concerning who should be receiving the ballots/surveys.

GMD 4 staff suggested a more formal informal process might include a process where the final recommendations to the board be made in the form of a petition requiring a set number of signatures. It

could also be argued that the required public hearings for the management program, any regulations done for this effort, and the added public hearing for the final recommendations, constitutes enough of a formal process. GMD 4 staff also indicated that the group could organize however they wanted to and get as formal as they wanted to. It is not certain that any consensus was reached on this concept.

C: GMD 4 staff spoke about the future steps involved and presented them in the hopes they would better clarify the process and pitfalls ahead and give everyone a wider perspective of the process – and showing how several of the most important concepts are being incorporated.

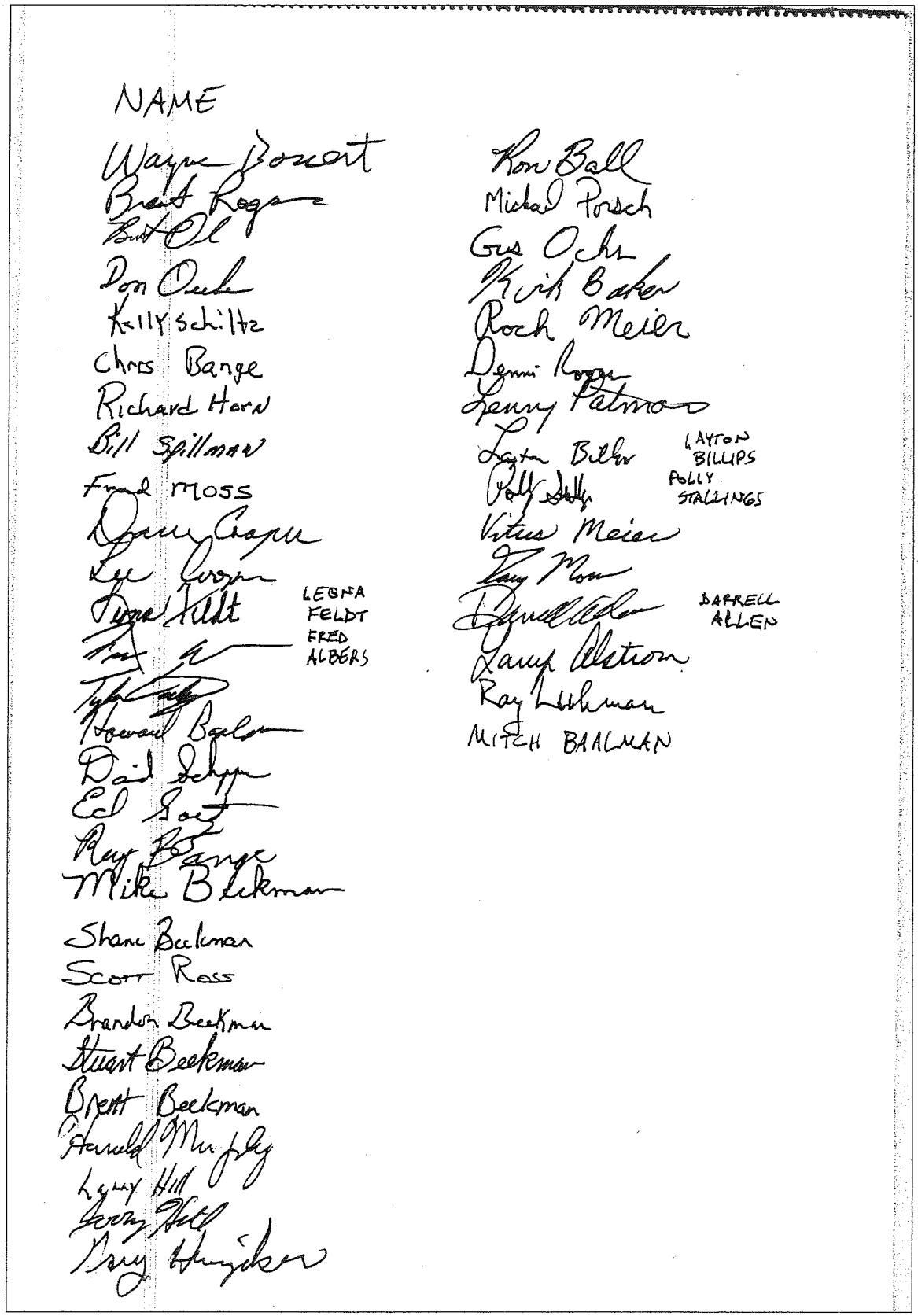
C: The idea of a fund-driven program was suggested again. Basically any exceedance of the designated multi-year allocation would command a payment into a special fund that would then be used to retire water use to eventually achieve the goal.

Directions to DWR or GMD 4:

1. None

June 23, 2010 Meeting Attendance List: [11]

[11] Attendance sheet failed to get dated. GMD4 staff printed a few of the names whose signatures were not legible.



December 16, 2010 Meeting (7 - Joint Stakeholders and DWR meeting):

No notes or attendance list available. The basic agenda of this meeting was to propose a modified IGUCA approach that was designed to be more attentive to local desires.

January 5, 2011 Meeting (8 - Initial working subcommittee meeting):

No notes available.

January 5, 2011 Meeting Attendance List:

Wayne Bossert; Ray Luhman; Mitch Baalman; Brent Rogers; Stu Beckman; Jerry Hill; Lenny Patmon; Roch Meier; Brett Oelke; Bill Herl; and Dennis Rogers. [12]

January 11, 2011 Meeting (9 - second working subcommittee meeting):

No notes available.

January 11, 2011 Meeting Attendance List:

Wayne Bossert; Ray Luhman; Mitch Baalman; Brent Rogers; Stu Beckman; Jerry Hill; Lenny Patmon; Roch Meier; and Brett Oelke.

January 19, 2011 Meeting (10):

No official notes were recorded from this meeting but on the GMD 4 copy of the Draft 3 discussion document, manager Wayne Bossert recorded four items: 1) "more local control of committee choice"; 2) "Vote for Flexibility: all for; 1 opposed"; 3) "move forward as proposed: all for; 1 opposed'; and 4) "strong consensus".

Item 1) was in response to discussions regarding the chief engineer appointing the members of the SD-6 review committee. The consensus was to provide more local direction of who these committee members would be. This direction shows up in the latest draft proposal.

Item 2) was a "show of hands" (informal vote) on the issue of providing or not providing flexibility in moving around the allocation inches within the HPA.

Item 3) was a "show of hands" (informal vote) of where the group stood on moving forward or not.

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[12] List captured from summary of SD-6 meeting activity contained in **Northwest Kansas Groundwater Management District No. 4 Enhanced Management Process Report** (filename: GMD4 Enhanced Management Process.doc). This list represents the complete Working Committee as organized by the stakeholders.

Item 4) was manager Wayne Bossert's comment regarding the fact that one hand raised in opposition to the flexibility and the continuation of the proposal was a strong consensus for both issues.

January 19, 2011 Meeting Attendance List:

SD-6 MTG Hoxie Elks Jan 19, 2011

Wayne Bossert
Ray Luhman
Mitchell Baalman
Brent Rogers
Rick B[illegible]
Stuart Beckman
Shane Beckman
Mike Beckman
LES SEALOCK
Dave Casper
Jarrod Spilman
Bill Spilman
Gene Deines
Roger Mauck
Kevin Cooper
Pat Hill
Grant Goede
Don [illegible]
Dave Shyp
Ray Bange
Howard Baalman
Kevin R. Tremblay
Tony Moss
Jerry Hill
Larry Hill
Mark Hill
Fred Albers
Lenny Petmon

Brad Mitts
Steve & Amy Seegmiller
Bill Hall
Rock Mew
Bill Miller
Kelly Schiltze
Harold Murphy
Gary Hughes

36

May 25, 2011 Meeting: (11):

No meeting notes available.

May 25, 2011 Meeting Attendance List:

NAME SD-6 MTG 5/25/2011

Wayne Bossert	Scott Foote
[illegible]	BRENT ROGERS
[illegible]	LEONA FELDT
[illegible]	
[illegible]	
Harold Murphy	
Dave [illegible]	
[illegible]	
[illegible]	
Bill Hall	
[illegible]	
Lee [illegible]	
Steve Sagmiller	
Chris Berger	
Gus Ochs	
Gary [illegible]	
[illegible]	
Paul Bange	
Steve Sagmiller	
Gary Mort	
[illegible] Moss	
Don Moss	
Mike Beckman	
Shane Beckman	
Stu Beckman	
[illegible] Baker	
[illegible]	
Bart Beckman	Ron Ball

March 28, 2012 Meeting: (12):

No notes or attendance list available.

May 9, 2012 Meeting: (13):

Sheridan HPA SD-6
May 9, 2012 Meeting Notes

The meeting was started in the Hoxie Elks Lodge at 8:00 AM, May 9, 2012. Wayne Bossert began by covering the agenda and what needed to happen IF the process was to go forward. Also to be covered, following discussion of all provided comments, was the latest draft of the proposal as it was drafted following the May 25, 2011 meeting - plus three items included by GMD 4 staff for consideration. The May 25, 2011 draft had been included in the mailing notice and copies were made available.

The first issue was the process to assign, contest and settle on the eligible acres - the heart of the allocation proposal. Ray Luhman began by covering the previous process based on the reported acres in 2007-2009 inclusive. While this was done in 2011, the 2010 reported acres irrigated were not available. He then suggested that for the final proposal the 2010 reported acres (now available) could be included if desired. Ray also suggested some small changes to the procedure that had been approved earlier and on which the 2010 eligible acre dry-run process was done. The suggested process would be:

If 2010 reported irrigated acres are equal to the 2007-2009 (inclusive) acres, the 2010 reported acres will be designated;

If 2010 reported irrigated acres do not equal 2007-2009 acres, the highest reported acres that can be reconciled with the GMD 4 acquired aerial photography and the water right file information will be used;

If the 2010 irrigated acres do not equal 2007-2009 acres and the highest reported acres cannot be reconciled with aerial photography and the water right information, the highest acres that can be supported by the photography and water right information will be used and a note to this effect will be attached.

In every case, the designated eligible acres will be provided to each water right owner with an opportunity to question or contest the acres with staff, and if staff's decision is not acceptable, with the board of directors.

The consensus of the group was that the suggested changes were acceptable and should be included in the proposal.

The public comments offered were next discussed in the order provided:

1) From Kevin Wark: *The stockwatering rights should have to take a real water use reduction like the irrigation water rights.*

In discussion the reason for the current handling of these water rights was covered again and the issue was opened up for further discussion. A question was asked about the 11-inch per acre allocation proposed for irrigation - where did this number come from and is it still discussable? Staff explained where it came from and that it was still discussable. In the end, the group consensus was: 1) the economic impacts remained important enough to retain the proposal for stockwatering as it is; and 2) the 11-inch per acre allocation was correct and should remain in the proposal.

2) From Mike Beckman: *The priority system should be applied in any approved allocation scheme - even if it results in just an inch or two additional water for the senior water rights.*

Staff explained again why the share-the-pain philosophy was opted for rather than a priority based approach. Staff offered for discussion a process whereby the priority system could be done, but advised that the total pumpage level for the 5-year period would remain the same, so any additional allocations to senior rights would be at the expense of junior rights. The basis of the priority approach would have the stakeholders determining the median allocation level, and the minimum and maximum levels. The median allocation would be assigned to the median water right file with the most senior right being assigned the maximum allocation level and the most junior right getting the minimum level. Each water right along the scale would get an equal step allocation. All allocations would be converted to total acrefeet for the LEMA period. The further the minimum and maximum allocation choices were from the median value, the more water would be cut from the juniors and dedicated to the seniors.

Following questions and discussion, the consensus was to leave the approach alone, and the allocation level at 11-inches per eligible acre.

3) From Harold Murphy: Had three items initially, but based on private discussions before this meeting, the first two issues were withdrawn. His remaining comment was: *The consequences of the state permitting of water usage by the oil drilling industry and the possible selling of water by water right holders could greatly affect the end result of whether the depletion objective is met. In his opinion, these oil and gas exempt water rights should be handled in the proposal.*

In discussion, the issues were: 1) how many exempt water rights might be expected?; and 2) what hydrologic impacts to the HPA might they have? While it is theoretically true that the non-domestic exempt water rights would negatively affect whatever total pumpage value is ultimately set, it was the consensus of the group that the oil and gas exempt water use would not likely be significant in the initial 2013-2017 LEMA period, and if it did become so, this issue could be dealt with in the annual reviews and the more formal ending review. There was no support for addressing domestic water rights in this proposal in any fashion different than what is currently in place.

4) From Archie Moss: *The boundaries are not correct - should be the entire GMD; SD-6 should go forward ONLY if TH-5 and SH-1 develop proposals within the next 2-3 years. If they don't, the SD-6 proposal should cease; There needs to be a formal voting process developed - suggested that each water right get one vote; and the water right priority system should be followed more.*

As with the other comments, the original mind-set for each of these decisions was covered. There was considerable discussion on the voting issue. When completed, the consensus was to leave the proposal unchanged.

The three new items were discussed next. They were:

1) Exempt water rights - should they be ignored or included? This issue had already been settled in the above discussion, so there was no direction at this time to include it into the proposal.

2) Multi-year Flex Account (MYFA) conversion process - should such a conversion be ignored or included? GMD 4 staff commented on the benefits of including such a procedure and stated that it had no downside. Staff suggested that every water right be given the opportunity to enroll into a MYFA on or before October 1, 2013 provided the MYFA period starts in 2013 and runs concurrently with the LEMA period. This would allow any MYFA right to exceed its annual quantity in any year as long as the 5-year MYFA quantity (which may be equal to or less than the LEMA allocation) is not exceeded. The consensus was to include this authority into the proposal as proposed by GMD 4 staff.

3) AWEP synchronization - should water rights going into or coming out of AWEP during the LEMA term be handled or ignored? GMD 4 staff also proposed that the AWEP program be considered in order to better control the desired pumpage limits. The concern was that a water right could use or market its entire allocation in the first few years of its 5-year period, then enroll into AWEP. Staff suggested that any enrollment into AWEP during the LEMA period would require the allocation balance upon enrollment to become zero. The consensus of the group was to include such an element into the proposal.

Staff also suggested that any water right coming out of AWEP during the LEMA period should receive only an allocation for each eligible acre based only on the remaining years of the current LEMA period. The consensus was to include this requirement into the proposal as well.

The floor was then opened up for any further discussion or comment. It was the consensus of the group that the proposal as modified during the meeting be written up and presented to the GMD 4 board for adoption and subsequent submission to the chief engineer on their behalves. While few of the consensus decisions recorded during this meeting were unanimous, this record is deemed to reflect the majority consensus of the participants.

May 9, 2012 Meeting Attendance List:

Sign-in sheet – SD-6 MTG
May 9, 2012 Hoxie

WAYNE BOSSERT
RAY LUHMAN
Wayne Seegmiller
Margaret Seegmiller
Brad Rogers
David [illegible]
[illegible] Rogers
Jay Moss
Mark [illegible]
[illegible]
Kirk Baker
Howard Boardman
Tim Moss
Earl Moss
Don Moss
Roch Meier
Kelly Schiltz
Jerry [illegible]
Harold Murphy
Stuart Beckman
Burt Beckman
Les Sulock
Rick Moss
[illegible]
Lal [illegible]
Daryl Allen
Larry Hill

Appendix 5

Listing of Newsletter References to SD-6 HPA Process – March, 2002 – August, 2012

March/April, 2002 – Vol. 25, No. 2
November/December, 2002 – Vol. 25, No. 6
January/February, 2003 – Vol. 26, No. 1
March/April, 2003 – Vol. 26, No. 2
November/December, 2003 – Vol. 26, No. 6
July/August, 2004 – Vol. 27, No. 4
November/December, 2004 – Vol. 27, No. 6
May/June, 2005 – Vol. 28, No. 3
May/June, 2006 – Vol. 29, No. 3
January/February, 2007 – Vol. 30, No. 1
May/June, 2007 – Vol. 30, No. 3
July/August, 2007 – Vol. 30, No. 4
March/April, 2008 – Vol. 31, No. 2
July/August, 2008 – Vol. 31, No. 4
September/October, 2008 – Vol. 31, No.5
November/December, 2008 – Vol. 31, No. 6
January/February, 2009 – Vol. 32, No. 1
March/April, 2009 – Vol. 32, No. 2
July/August, 2009 – Vol. 32, No. 4
January/February, 2010 – Vol. 33, No. 1
November/December, 2010 – Vol. 33, No. 6
March/April, 2011 – Vol. 34, No. 2
May/June, 2011 – Vol. 34, No. 3
July/August, 2011 – Vol. 34, No. 4
November/December, 2011 – Vol. 34, No. 6
January/February, 2012 – Vol. 35, No. 1
March/April, 2012 – Vol. 35, No. 2
May/June, 2012 – Vol. 35, No. 3
July/August, 2012 – Vol. 35, No. 4

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Appendix 6

Section Level Data Set Used to Establish High Priority Sections

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Appendix 7

Northwest Kansas Model Report

Microsoft Word
97-2003 Document

Appendix 8

SD-6 HPA Mailing List

Microsoft Excel 2003
Worksheet

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Appendix 9

July 13, 2006, August 10, 2006 and March 3, 2007 GMD 4 actions regarding designation of HPAs

July 13, 2006 Action:

a. Enhanced Management Discussions: Staff brought the board up to speed from the last meeting (see July Board Packet information). After the board reviewed the various maps prepared by staff, Dave Rietcheck moved that last month's motion {...to adopt the process of using 1997-2002 percent decline greater or equal to 9% OR sections equal to or greater than a 1997-2002 2-mile reported water use density equal to or greater than 1000 acrefeet...) be replaced by the following motion: That 1996-2002 data sets for both parameters (percent decline and reported water use density) be used, and that area adjusted reported water use values be used, and that both the high and medium priority area triggers be specified as follows: High priority areas shall Include all GMD 4 sections showing 9% or greater decline between 1996 and 2002 OR more than 275 AF/square mile reported 2-mile water use density; and medium priority areas shall Include all GMD 4 sections showing between 6% and 8.99% decline between 1996 and 2002 OR between 150 and 274 AF/square mile reported 2-mile water use density. Low priority areas shall be all remaining GMD 4 area. Bill Nondorf seconded the motion which passed unanimously.

August 10, 2006 Action:

b. Refinement of High & Medium Priority Area Triggers: Following much discussion, Dave Rietcheck moved to adopt the staff proposal for high and medium priority areas as was proposed in the August 10, 2006 board packet - using the same triggers approved during the July 13, 2006 meeting and eliminating all sections with less than I5 feet of saturated thickness or less than 25 acrefeet of water use density. Lon Frahm seconded the motion. In further discussion, Dave Mann was concerned that the motion addressed the issue of combining high priority areas. It was clarified that the motion only addressed the issue of which sections were identified as high priority areas. The issue of combining smaller high priority areas was not part of the motion and would need to be addressed later. Upon the call for the question, the vote for the motion was unanimous.

December 14, 2006 Action:

a. **Refinement of High and Medium Priority Areas:** Staff explained the 3 maps last requested by the board (included In the board packet) and covered again the protocol process in general terms. Discussion was had regarding the map renditions of our High Priority areas and how well they captured or missed these areas. The board generally agreed that the mapping concept was valid. Following much discussion, Dave Mann moved to adopt map 2 as the district's High Priority Areas plus the Thomas County 4-township area. Lon Frahm seconded the motion which passed unanimously. By way of reference, Map 2 includes in a high priority area any quarter township that contains two or more triggered sections. Triggered sections are any section whose section level data shows 9% or more decline between the years 1996 and 2002, or, a reported 2-mile water use density value of 275 acrefeet or more, with all sections showing less than 15 feet of 1996 saturated thickness and less than 25 acrefeet of 2-mile reported water use density eliminated.

March 8, 2007 Action:

a. **Re-consideration of GMD 4 High Priority Areas:** Staff presented the background material contained in the board packet and answered questions. Dave Rietcheck moved that the identified 1/4 Township 4-36 in Rawlins County and the identified 1/4 Township 9-29 in Sheridan County be eliminated as high priority areas based upon Task 3 conclusions that the high priority sections triggering these two areas just barely exceed the lower end triggers set by process and as such they do not meet the spirit of the process. Furthermore, the Task 3 process should be considered the justification for this motion without requiring the establishment of new triggers and re-running the entire process again. Lon Frahm seconded the motion. In discussion, DWR questioned the elimination of the Rawlins County 1/4 Township 4-36 since it appears to be the same area which includes GMD 4's only active impairment complaint study. Staff confirmed that the impairment area is NOT contained in the subject 1/4 Township. With no further discussion, the motion passed unanimously.

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Appendix 10

Excel Spreadsheet on water rights included in the SD-6 HPA

SD-6 PD FILE.xls