

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.

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.

³See 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. Papadopoulos & 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. Papadopoulos & 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 in 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. Papadopoulos & 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).

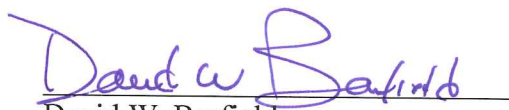
50. GMD4 and DWR shall publish this Order of Designation electronically by posting it on their respective websites, and DWR shall file it with the register of deeds in both Sheridan and Thomas counties. Upon request, GMD4 and DWR shall deliver a copy of this Order to any interested person who is affected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

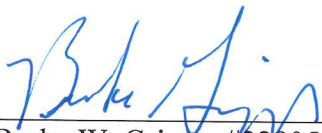
Attachments:

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)

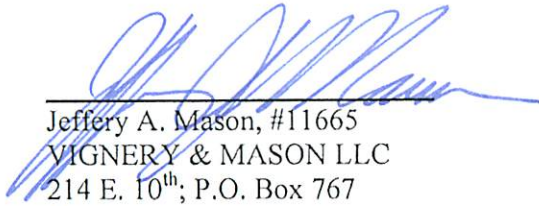
Attachment 3: "Application for Temporary Transfer of Allocation within the SD-6 Local Enhanced Management Area," (sample form, Microsoft Word)

PREPARED BY:



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APPROVED BY:




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Goodland, Kansas 67735
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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
1175 S. Range
Colby, Kansas 67701

Jeffery A. Mason, #11665
214 E. 10th; P.O. Box 767
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Attorney for the Chief Engineer

Attachment One - Allocation Spreadsheet

Water Right Number	Qualifier	Associate d Right Num	UMW _COD E	TWP	RNG	SECT	QUAL _THR EE	QUA L_T WO	QUA L_ON E	LAST_NAME	FIRST_NAME	PRGRM_ACR	MAX 5 YR QTY	MAX ANN UAL 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	LECHTENBERGE R J R		120	550	320	
17812 00	IRR	8	30	9	CW	NE	LECHTENBERGE R J R		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	HOWARD J #1	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
HD
12/31/10
HOXIE
FEEDYA
RD

4000
HD
12/31/10
SCHWA
RZ

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 Name: _____
Owner 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: _____