

Kansas Department of Agriculture  
Division of Water Resources  
**PERMIT OF NEW APPLICATION WORKSHEET**

1. File Number: <p style="text-align: center;"><b>49,743</b></p>	2. Status Change Date: <p style="text-align: center;">3/29/2017</p>	3. Field Office: <p style="text-align: center;"><b>01</b></p>	4. GMD: <p style="text-align: center;"><b>0</b></p>
---------------------------------------------------------------------	------------------------------------------------------------------------	------------------------------------------------------------------	--------------------------------------------------------

5. Status:     Approved             Denied by DWR/GMD             Dismiss by Request/Failure to Return

6. Enclosures:     Check Valve     N of C Form     Water Tube     Driller Copy     Meter

<p>7a. Applicant(s) New to system <input type="checkbox"/></p> <p style="text-align: right;">Person ID <b>34423</b> Add Seq# _____</p> <p><b>NEMAHA RWD 04</b> <b>PO BOX 160</b> <b>WETMORE KS 66550</b></p>	<p>7c. Landowner(s) New to system <input type="checkbox"/></p> <p style="text-align: right;">Person ID _____ Add Seq# _____</p>
<p>7b. Landowner(s) New to system <input type="checkbox"/></p> <p style="text-align: right;">Person ID _____ Add Seq# _____</p> <p><b>7a.</b></p>	<p>7d. Misc. New to system <input type="checkbox"/></p> <p style="text-align: right;">Person ID _____ Add Seq# _____</p> <p><b>DOUGLAS S HELMKE PG</b> <b>KANSAS RURAL WATER ASSN</b> <b>6847 SE 29<sup>TH</sup> ST</b> <b>TECUMSEH KS 66542-9571</b></p>

<p>8. WUR Correspondent New to system <input type="checkbox"/></p> <p style="text-align: right;">Person ID _____ Add Seq# _____</p> <p>Overlap File (s) WUC Agree <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><b>7a.</b></p>	<p>9. Use of Water:    Changing?    <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No</p> <p style="padding-left: 40px;"><input checked="" type="checkbox"/> Groundwater    <input type="checkbox"/> Surface Water</p> <p><input type="checkbox"/> IRR            <input type="checkbox"/> REC            <input type="checkbox"/> DEW            <input checked="" type="checkbox"/> MUN</p> <p><input type="checkbox"/> STK            <input type="checkbox"/> SED            <input type="checkbox"/> DOM            <input type="checkbox"/> CON</p> <p><input type="checkbox"/> HYD DRG    <input type="checkbox"/> WTR PWR    <input type="checkbox"/> ART RECHRG</p> <p><input type="checkbox"/> IND SIC: _____    <input type="checkbox"/> OTHER: _____</p>
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10. Completion Date: 12/31/2018            11. Perfection Date: 12/31/2037            12. Exp Date: \_\_\_\_\_

13. Conservation Plan Required?  Yes  No Date Required: \_\_\_\_\_ Date Approved: \_\_\_\_\_ Date to Comply: \_\_\_\_\_

14. Water Level Measuring Device?  Yes  No Date to Comply: \_\_\_\_\_ Date WLMD Installed: \_\_\_\_\_

Date Prepared: **3/8/2017**    By: **DWS**  
Date Entered: **3/29/2017**    By: **LLM**

File No. <b>49,743</b>	15. Formation Code: <b>100</b>	Drainage Basin: <b>DELAWARE RIVER</b>	County: <b>NM</b>	Special Use:	Stream:																																							
16. Points of Diversion T MOD DEL ENT PDIV Qualifier S T R ID 'N 'W			17. Rate and Quantity Authorized Additional Rate gpm Quantity mgy Rate gpm Quantity mgy Overlap PD Files																																									
<b>MOD 85805 SE SE NW 35 4 14E 3 2980 3244</b>			<b>300 65.17 300 0 NONE</b>																																									
18. Storage: Rate _____ NF    Quantity _____ ac/ft    Additional Rate _____ NF    Additional Quantity _____ ac/ft																																												
19. Limitation: <b>91.673</b> mg/yr at _____ gpm ( _____ cfs) when combined with file number(s) <b>40,883; 40,884; AND 49,742</b>																																												
Limitation: _____ af/yr at _____ gpm ( _____ cfs) when combined with file number(s) _____																																												
20. Meter Required? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No    To be installed by <b>12/31/2018</b> Date Acceptable Meter Installed _____																																												
21. Place of Use T MOD DEL ENT PUSE S T R ID		<table border="1" style="width:100%; border-collapse: collapse; text-align: center;"> <tr> <th colspan="4">NE¼</th> <th colspan="4">NW¼</th> <th colspan="4">SW¼</th> <th colspan="4">SE¼</th> <th>Total</th> <th>Owner</th> <th>Chg? NO</th> <th>Overlap Files</th> </tr> <tr> <th>NE ¼</th> <th>NW ¼</th> <th>SW ¼</th> <th>SE ¼</th> <th>NE ¼</th> <th>NW ¼</th> <th>SW ¼</th> <th>SE ¼</th> <th>NE ¼</th> <th>NW ¼</th> <th>SW ¼</th> <th>SE ¼</th> <th>NE ¼</th> <th>NW ¼</th> <th>SW ¼</th> <th>SE ¼</th> <th></th> <th></th> <th></th> </tr> </table>				NE¼				NW¼				SW¼				SE¼				Total	Owner	Chg? NO	Overlap Files	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼			
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NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼	NE ¼	NW ¼	SW ¼	SE ¼																													
<b>√ 5716 35 4 13E 3</b>		<b>WITHIN BOUNDARIES OF RWD #4, NEMAHA CO. &amp; CITY OF GOFF, KANSAS AND THEIR IMMEDIATE VICINITIES</b>				<b>7a.</b>		<b>No</b>		<b>see below</b>																																		
Comments: <b>PU OVERLAP WITH 40,883; 40,884; 49,742; AND 49,743</b>																																												

**KANSAS DEPARTMENT OF AGRICULTURE**  
**Division of Water Resources**  
**M E M O R A N D U M**

**TO:** Files

**DATE:** March 8, 2017

**FROM:** Doug Schemm

**RE:** Applications, File Nos. 49,742 and 49,743

Nemaha County Rural Water District No. 4 (RWD #4) has filed the referenced applications to appropriate groundwater for municipal use. Each application is requesting 65.17 million gallons (200 acre-feet) of groundwater, from a single one well, and a rate of diversion of 300 gallons per minute. Both wells are located in the Northwest Quarter of Section 35, Township 4 South, Range 14 East, Nemaha County. The wells are located on property owned by Lori A Milligan, and a RWD #4 representative has signed the application forms stating they have access to the points of diversion. The applicant was assisted by Douglas S. Helmke with the Kansas Rural Water Association.

There are no other files overlapping either of the points of diversion, however RWD #4 currently has two senior water rights, Appropriation of Water, File Nos. 40,883 and 40,884, which overlap in place of use. Both File No. 40,883 and 40,884 are authorized 27.8 million gallons, for an authorized total quantity of water of 55.6 million gallons when combined.

The applicant has supplied supporting data to document population growth and completed a Municipal Supplemental Information Sheet that project a water demand of 91.673 million gallons by 2036. Population growth is expected to continue at 3% per year and reach 1,392 by the year 2036. In addition, the applicant is selling large quantities of water to industrial, bulk, and stock customers. The applicant provided a calculated value of 112 gpcd on their supplemental sheet. The Kansas Municipal Water Use report indicates an average of 128 gpcd. Therefore, an estimated quantity of water (20 year projection) can be determined as follows:

1,392 population x 128 gpcd x 365 days/year	=	65.034 million gallons
Water sold to industry, stock, and bulk customers	=	<u>26.639 million gallons</u>
Total	=	91.673 million gallons

As noted above, the applicant's current water rights have a total authorized quantity of 55.6 million gallons. Mr. Helmke on behalf of the applicant noted the justified quantity of 91.673 million gallons in his January 18, 2017 cover letter, and stated that the pending applications should be limited to this justified quantity. Therefore, the senior Application, File No. 49,742 will provide for 36.073 million gallons of additional water (91.673 mgy justified – 55.6 mgy authorized), while Application, File No. 49,743 will not provide any additional quantity of water when limited to senior files. However, the new proposed wells will provide the applicant with greater flexibility in their water supply sources, and assist in addressing potential water quality issues.

Based on the geographical location of the wells, and test hole lithology, it appears that the source of supply is groundwater from glacial drift deposits. This is also consistent with the source of water for other area wells. The test holes show similar lithology, with clay and silt extending from ground surface to depths of over 100 feet, underlain by fine sands, with shale bedrock encountered at 158 feet below ground surface. No static water levels were provided on the test hole logs.

The test hole logs indicate saturated thicknesses of approximately 20 feet and 30 feet, respectively. A review of Nemaha County bulletin and the Cenozoic deposits map, show these wells are located within an extensive buried glacial valley that generally trends northwest to southeast through this region. With surface elevation of approximately 1,100 feet for the test holes and bedrock at 158 feet depth, this would equate to a bedrock elevation of 942 feet, which is in agreement with the bedrock map in the bulletin. This supportive information, along with a review of area wells and geologic maps, allows for an accurate determine of the extent of the local aquifer, which is a critical component of safe yield assessment in glacial aquifers.

Memorandum

File Nos. 49,742 and 49,743

Page 2

Per the requirements in K.A.R. 5-3-11, safe yield is determined by the extent of the unconfined aquifer (glacial deposits), within a two-mile circle radius of the point of diversion, which establishes the area of consideration. To maintain consistency with previous applications in this area of the state, sourcing glacial deposits, the area of consideration was determined by including all areas in the two-mile circle where sand and gravel deposits exceeded 10 feet in thickness. It appears that the glacial deposits extend across the entire two-mile circle for both files. For File No. 49,742 this evaluation provided an area of consideration of 8,042 acres, a potential recharge of 4.9 inches, and 100% of recharge available for appropriation, resulting in a safe yield of 3,283.8 acre-feet. Existing water rights have appropriated 352 acre-feet, providing a difference of 2,931.8 acre-feet available for appropriation, and the application requesting 200 acre-feet complies with safe yield.

For File No. 49,743, located approximately 1,400 feet Southeast of File No. 49,742, the same safe yield evaluation was conducted and provided the same safe yield of 3,283.8 acre-feet. Existing water rights have appropriated 552 acre-feet (including the senior pending application), providing a difference of 2,731.8 acre-feet available for appropriation, and the application requesting 200 acre-feet (0 additional quantity) complies with safe yield.

The applicant listed the same two domestic wells within one-half mile of the proposed wells for both applications and nearby well owner letters were mailed out on February 21, 2017. No responses of any kind were received. The WRIS database shows the nearest domestic well to be over 1,200 feet away, while the nearest permitted well is over 5,000 feet away for both files. The proposed points of diversion meet minimum well spacing requirements to all other wells, and to each other for the source of supply.

In accordance with K.S.A. 82a-706c, the Chief Engineer retains full authority to require any water user to install meters, gages, or other measuring devices, which devices he or she or his or her agents may read at any time. Water flowmeter requirements are further described in K.A.R. 5-1-4 through K.A.R. 5-1-12. If any chemical or foreign substance is injected into the water pumped under these permits, check valves will also need to be installed.

Katie Tietsort, Water Commissioner of the Topeka Field Office, recommended approval of the referenced applications in a March 7, 2017 e-mail. Based on the above discussion, the area is open to new appropriations, the applications meet safe yield and well spacing criteria, approval will provide the applicant with additional water and flexibility in water sources, and approval of the applications will not impair senior water rights nor prejudicially or unreasonably affect the public interest, it is recommended that the referenced applications be approved.

Douglas W. Schemm  
Environmental Scientist  
Topeka Field Office

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



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

Jackie McClaskey, Secretary

Governor Sam Brownback

March 30, 2017

NEMAHA RWD 04  
% STEVEN HERMESCH  
PO BOX 160  
WETMORE KS 66550

**FILE COPY**

RE: Appropriation of Water, File Nos. 49,742 and 49,743

Dear Mr. Hermesch:

There are enclosed permits to appropriate water authorizing you to proceed with construction of the proposed diversion works (except those dams and stream obstructions regulated by K.S.A. 82a-301 through 305a), to divert such unappropriated water as may be available from the sources and at the locations specified in these permits, and to use it for the purpose and at the location described in these permits.

Your attention is directed to the enclosures and to the terms, conditions, and limitations specified in these permits. Water meters are required and you must install them prior to water being put to beneficial use in order for you to maintain accurate records of water use. The meters should be used to provide the information required on the annual water use reports.

Failure to notify the Chief Engineer of the Division of Water Resources of the completion of the diversion works within the time allowed, or within any authorized extension of time thereof, will result in the dismissal of these permits. Enclosed are forms which may be used to notify the Chief Engineer that the proposed diversion works have been completed for each file.

All requests for extensions of time to complete diversion works, or to perfect appropriations, must be submitted to the Chief Engineer before the expiration of time originally set forth in these permits to complete diversion works or to perfect an appropriation. If for any reason, you require an extension of time, you must request it before the expiration of time set forth in these permits. Failure to comply with this regulation will result in the dismissal of your permits or your water rights. Any request for an extension of time shall be accompanied by the required statutory fee, which is currently \$100.00 per file number. There is also enclosed an information sheet setting forth the procedure to obtain Certificates of Appropriation which will establish the extent of your water rights. If you have any questions, please contact our office. If you wish to discuss a specific file, please have the file number ready so that we may help you more efficiently.

Sincerely,

Brent A. Turney, P.G.

Change Application Unit Supervisor  
Water Appropriation Program

BAT:dws  
Enclosures

pc: Topeka Field Office  
Douglas S. Helmke, P.G. - KRWA

THE STATE



OF KANSAS

KANSAS DEPARTMENT OF AGRICULTURE  
Jackie McClaskey, Secretary of Agriculture

DIVISION OF WATER RESOURCES  
David W. Barfield, Chief Engineer

**APPROVAL OF APPLICATION  
and  
PERMIT TO PROCEED**

(This Is Not a Certificate of Appropriation)

This is to certify that I have examined Application, **File No. 49,743** of the applicant

**NEMAHA RWD 04  
PO BOX 160  
WETMORE KS 66550**

for a permit to appropriate water for beneficial use, together with the maps, plans and other submitted data, and that the application is hereby approved and the applicant is hereby authorized, subject to vested rights and prior appropriations, to proceed with the construction of the proposed diversion works (except those dams and stream obstructions regulated by K.S.A. 82a-301 through 305a, as amended), and to proceed with all steps necessary for the application of the water to the approved and proposed beneficial use and otherwise perfect the proposed appropriation subject to the following terms, conditions and limitations:

1. That the priority date assigned to such application is **December 15, 2016**.
2. That the water sought to be appropriated shall be used for municipal use within the boundaries of Rural Water District No. 4, Nemaha County, Kansas and the City of Goff, Kansas and their immediate vicinities.
3. That the authorized source from which the appropriation shall be made is groundwater, to be withdrawn by means of one (1) well located in the Southeast Quarter of the Southeast Quarter of the Northwest Quarter (SE $\frac{1}{4}$  SE $\frac{1}{4}$  NW $\frac{1}{4}$ ) of Section 35, more particularly described as being near a point 2,980 feet North and 3,244 feet West of the Southeast corner of said section, in Township 4 South, Range 14 East, Nemaha County, Kansas, located substantially as shown on the topographic map accompanying the application.
4. That the appropriation sought shall be limited to a maximum diversion rate not in excess of **300 gallons per minute (0.67 c.f.s.)** and to a quantity not to exceed **65.17 million gallons (200 acre-feet)** of water for any calendar year.
5. That installation of works for diversion of water shall be completed on or before **December 31, 2018** or within any authorized extension thereof. The applicant shall notify the Chief Engineer and pay the statutorily required field inspection fee of \$400.00 when construction of the works has been completed. Failure to timely submit the notice and the fee will result in revocation of the permit. Any request for an extension of time shall be submitted prior to the expiration of the deadline and shall be accompanied by the required statutory fee of \$100.00.

6. That the proposed appropriation shall be perfected by the actual application of water to the proposed beneficial use on or before **December 31, 2037** or any authorized extension thereof. Any request for an extension of time shall be submitted prior to the expiration of the deadline and shall be accompanied by the required statutory fee of \$100.00.

7. That the applicant shall not be deemed to have acquired a water appropriation for a quantity in excess of the amount approved herein nor in excess of the amount found by the Chief Engineer to have been actually used for the approved purpose during one calendar year subsequent to approval of the application and within the time specified for perfection or any authorized extension thereof.

8. That the use of water herein authorized shall not be made so as to impair any use under existing water rights nor prejudicially and unreasonably affect the public interest.

9. That the right of the appropriator shall relate to a specific quantity of water and such right must allow for a reasonable raising or lowering of the static water level and for the reasonable increase or decrease of the streamflow at the appropriator's point of diversion.

10. That this permit does not constitute authority under K.S.A. 82a-301 through 305a to construct any dam or other obstruction; nor does it grant any right-of-way, or authorize entry upon or injury to, public or private property.

11. That all diversion works constructed under the authority of this permit into which any type of chemical or other foreign substance will be injected into the water pumped from the diversion works shall be equipped with an in-line, automatic quick-closing, check valve capable of preventing pollution of the source of the water supply. The type of valve installed shall meet specifications adopted by the Chief Engineer and shall be maintained in an operating condition satisfactory to the Chief Engineer.

12. That all wells with a diversion rate of 100 gallons per minute or more drilled under the authority of this permit shall have a tube or other device installed in a manner acceptable to, and in accordance with specifications adopted by, the Chief Engineer. This tube or device shall be suitable for making water level measurements and shall be maintained in a condition satisfactory to the Chief Engineer.

13. That an acceptable water flow meter shall be installed and maintained on the diversion works authorized by this permit in accordance with Kansas Administrative Regulations 5-1-4 through 5-1-12 adopted by the Chief Engineer. This water flow meter shall be used to provide an accurate quantity of water diverted as required for the annual water use report (including the meter reading at the beginning and end of the report year).

14. That the applicant shall maintain accurate and complete records from which the quantity of water diverted during each calendar year may be readily determined and the applicant shall file an annual water use report with the Chief Engineer by March 1 following the end of each calendar year. Failure to file the annual water use report by the due date shall cause the applicant to be subject to a civil penalty.

15. That no water user shall engage in nor allow the waste of any water diverted under the authority of this permit.

16. That failure without cause to comply with provisions of the permit and its terms, conditions and limitations will result in the forfeiture of the priority date, revocation of the permit and dismissal of the application.

17. That the right to appropriate water under authority of this permit is subject to any minimum desirable streamflow requirements identified and established pursuant to K.S.A. 82a-703c for the source of supply to which this water right applies.

18. That the permit holder shall submit a progress report to the office of the Chief Engineer by March 1, following the tenth full calendar year after the permit was issued. The progress report must be submitted on a form prescribed by the Chief Engineer, and shall compare annual water use projected in the original application with the actual annual water use for the prior 10 years. The progress report must document compliance with the approved conservation plan, contain sufficient details to determine the extent of perfection of the water right during the previous ten years, and demonstrate how the water right, in association with other water rights, meets the municipal use need.

19. That the quantity of water approved under this permit is further limited to the quantity which combined with Appropriation of Water, File Nos. 40,883; 40,884; and 49,742, will provide a total not to exceed 91.673 million gallons of water per calendar year for municipal use as described herein.

This Order shall become a final agency action, as defined by K.S.A. 77-607(b), without further notice to the parties, if a request for hearing or a petition for administrative review is not filed as set forth below.

**Request for Hearing.** According to K.A.R. 5-14-3(c), any party who desires a hearing must submit a request within 15 days after the date shown on the Certificate of Service attached to this Order. Filing a request for a hearing will give you the opportunity to submit additional facts for consideration, contest any findings made by the Chief Engineer, or present any other information you believe should be considered in this matter. A timely-filed request for hearing will stay the deadline for requesting administrative review of this Order pending the outcome of the hearing.

**Petition for Review.** The applicant, if aggrieved by this Order, may petition for administrative review, pursuant to K.S.A. 82a-711(c) and K.S.A. 82a-1901(a). The petition must be filed within 30 days after the date shown on the Certificate of Service attached to this Order and must set forth the basis for the review, unless stayed by the timely filing of a request for hearing.

Any request for hearing or petition for administrative review shall be in writing and shall be submitted to the attention of: Chief Legal Counsel, Kansas Department of Agriculture, 1320 Research Park Drive, Manhattan, Kansas 66502, Fax: (785) 564-6777.

Ordered this 24<sup>th</sup> day of March, 2017, in Topeka, Shawnee County, Kansas.

*Lane P. Letourneau*

Lane P. Letourneau, P.G.  
 Program Manager  
 Water Appropriation Program  
 Division of Water Resources  
 Kansas Department of Agriculture

State of Kansas )  
 ) SS  
 County of Riley )

The foregoing instrument was acknowledged before me this 24<sup>th</sup> day of March, 2017, by Lane P. Letourneau, P.G., Program Manager, Division of Water Resources, Kansas Department of Agriculture.

*Danielle Wilson*

Notary Public





### CERTIFICATE OF SERVICE

On this <sup>30<sup>th</sup></sup> day of *March*, 2017, I hereby certify that the foregoing Approval of Application and Permit to Proceed, File No. 49,743, dated *March 24, 2017* was mailed postage prepaid, first class, US mail to the following:

NEMAHA RWD 04  
PO BOX 160  
WETMORE KS 66550

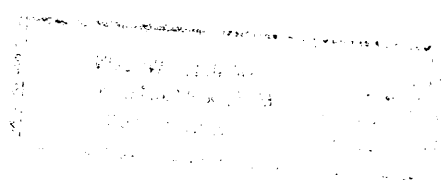
With photocopies to:

DOUGLAS S HELMKE PG  
KANSAS RURAL WATER ASSN  
6847 SE 29<sup>TH</sup> ST  
TECUMSEH KS 66542-9571

Topeka Field Office



Division of Water Resources



APPLICATION COMPLETE

3/8/2017  
Reviewed, DWS

THE STATE OF KANSAS



KANSAS DEPARTMENT OF AGRICULTURE  
Jackie McClaskey, Secretary of Agriculture

DIVISION OF WATER RESOURCES  
David W. Barfield, Chief Engineer

WATER RESOURCES RECEIVED

JAN 19 2017

KS DEPT OF AGRICULTURE

File Number 49,743  
This item to be completed by the Division of Water Resources.

WATER RESOURCES RECEIVED

DEC 15 2016

12:33

KS DEPT OF AGRICULTURE

APPLICATION FOR PERMIT TO APPROPRIATE WATER FOR BENEFICIAL USE

Filing Fee Must Accompany the Application  
(Please refer to Fee Schedule attached to this application form.)

To the Chief Engineer of the Division of Water Resources, Kansas Department of Agriculture,  
1320 Research Park Drive, Manhattan, KS 66502:

1. Name of Applicant (Please Print): NEMAHA RWD 04  
Address: PO BOX 160  
City: WETMORE State: KS Zip Code 66550  
Telephone Number: (785) 866-2600 nemaharwd4@gmail.com

2. The source of water is:  surface water in \_\_\_\_\_ (stream)  
OR  groundwater in DELAWARE RIVER BASIN (drainage basin)

Certain streams in Kansas have minimum target flows established by law or may be subject to administration when water is released from storage for use by water assurance district members. If your application is subject to these regulations on the date we receive your application, you will be sent the appropriate form to complete and return to the Division of Water Resources.

3. The maximum quantity of water desired is 200 acre-feet OR 65.17 MILLION gallons per calendar year, to be diverted at a maximum rate of 300 gallons per minute OR \_\_\_\_\_ cubic feet per second.

Once your application has been assigned a priority, the requested maximum rate of diversion and maximum requested quantity of water under that priority number can **NOT** be increased. Please be certain your requested maximum rate of diversion and maximum quantity of water are appropriate and reasonable for your proposed project and are in agreement with the Division of Water Resources' requirements.

4. The water is intended to be appropriated for (Check use intended):  
(a)  Artificial Recharge (b)  Irrigation (c)  Recreational (d)  Water Power  
(e)  Industrial (f)  Municipal (g)  Stockwatering (h)  Sediment Control  
(i)  Domestic (j)  Dewatering (k)  Hydraulic Dredging (l)  Fire Protection  
(m)  Thermal Exchange (n)  Contamination Remediation

YOU **MUST** COMPLETE AND ATTACH ADDITIONAL DIVISION OF WATER RESOURCES FORM(S) PROVIDING INFORMATION TO SUBSTANTIATE YOUR REQUEST FOR THE AMOUNT OF WATER FOR THE INTENDED USE REFERENCED ABOVE.

For Office Use Only:  
F.O.  GMD  Meets K.A.R. 5-3-1 (YES/NO) Use MDV Source G/S County NM By AW Date 12/16/16  
Code REG Fee \$ 300 TR # \_\_\_\_\_ Receipt Date 12/16/16 Check # 5748

5. The location of the proposed wells, pump sites or other works for diversion of water is:

**Note:** For the application to be accepted, the point of diversion location must be described to at least a 10 acre tract, unless you specifically request a 60 day period of time in which to locate the site within a specifically described, minimal legal quarter section of land.

- (A) One in the SE quarter of the SE quarter of the NW quarter of Section 35, more particularly described as being near a point 2,980 feet North and 3,244 feet West of the Southeast corner of said section, in Township 4 South, Range 14 EAST, NEMAHA County, Kansas.
- (B) One in the \_\_\_\_\_ quarter of the \_\_\_\_\_ quarter of the \_\_\_\_\_ quarter of Section \_\_\_\_\_, more particularly described as being near a point \_\_\_\_\_ feet North and \_\_\_\_\_ feet West of the Southeast corner of said section, in Township \_\_\_\_\_ South, Range \_\_\_\_\_ East/West (circle one), \_\_\_\_\_ County, Kansas.
- (C) One in the \_\_\_\_\_ quarter of the \_\_\_\_\_ quarter of the \_\_\_\_\_ quarter of Section \_\_\_\_\_, more particularly described as being near a point \_\_\_\_\_ feet North and \_\_\_\_\_ feet West of the Southeast corner of said section, in Township \_\_\_\_\_ South, Range \_\_\_\_\_ East/West (circle one), \_\_\_\_\_ County, Kansas.
- (D) One in the \_\_\_\_\_ quarter of the \_\_\_\_\_ quarter of the \_\_\_\_\_ quarter of Section \_\_\_\_\_, more particularly described as being near a point \_\_\_\_\_ feet North and \_\_\_\_\_ feet West of the Southeast corner of said section, in Township \_\_\_\_\_ South, Range \_\_\_\_\_ East/West (circle one), \_\_\_\_\_ County, Kansas.

If the source of supply is groundwater, a separate application shall be filed for each proposed well or battery of wells, except that a single application may include up to four wells within a circle with a quarter (1/4) mile radius in the same local source of supply which do not exceed a maximum diversion rate of 20 gallons per minute per well.

A battery of wells is defined as two or more wells connected to a common pump by a manifold; or not more than four wells in the same local source of supply within a 300 foot radius circle which are being operated by pumps not to exceed a total maximum diversion rate of 800 gallons per minute and which supply water to a common distribution system.

6. The owner of the point of diversion, if other than the applicant is (please print):

Lori A Milligan 436 Sixth St Wetmore, KS 66550 785 608 3698  
 (name, address and telephone number)

You must provide evidence of legal access to, or control of, the point of diversion from the landowner or the landowner's authorized representative. Provide a copy of a recorded deed, lease, easement or other document with this application. In lieu thereof, you may sign the following sworn statement:

I have legal access to, or control of, the point of diversion described in this application from the landowner or the landowner's authorized representative. I declare under penalty of perjury that the foregoing is true and correct.

Executed on December 13, 2016.

Steven Kenech  
 Applicant's Signature

7. The proposed project for diversion of water will consist of ONE WELL OR BATTERY  
 (number of wells, pumps or dams, etc.)  
 and (was)(will be) completed (by) SUMMER 2017  
 (Month/Day/Year - each was or will be completed)

8. The first actual application of water for the proposed beneficial use was or is estimated to be SUMMER 2017.  
 (Mo/Day/Year)

9. Will pesticide, fertilizer, or other foreign substance be injected into the water pumped from the diversion works?

Yes  No If "yes", a check valve shall be required.

All chemigation safety requirements must be met including a chemigation permit and reporting requirements.

10. If you are planning to impound water, please contact the Division of Water Resources for assistance, prior to submitting the application. Please attach a reservoir area capacity table and inform us of the total acres of surface drainage area above the reservoir.

Have you also made an application for a permit for construction of this dam and reservoir with the Division of Water Resources?  Yes  No

- If yes, show the Water Structures permit number here \_\_\_\_\_
- If no, explain here why a Water Structures permit is not required \_\_\_\_\_

GROUNDWATER WELL

11. The application must be supplemented by a U.S.G.S. topographic map, aerial photograph or a detailed plat showing the following information. On the topographic map, aerial photograph, or plat, identify the center of the section, the section lines or the section corners and show the appropriate section, township and range numbers. Also, please show the following information:

- (a) The location of the proposed point(s) of diversion (wells, stream-bank installations, dams, or other diversion works) should be plotted as described in Paragraph No. 5 of the application, showing the North-South distance and the East-West distance from a section line or southeast corner of section.
- (b) If the application is for groundwater, please show the location of any existing water wells of any kind within 1/2 mile of the proposed well or wells. Identify each existing well as to its use and furnish the name and mailing address of the property owner or owners. If there are no wells within 1/2 mile, please advise us.
- (c) If the application is for surface water, the names and addresses of the landowner(s) 1/2 mile downstream and 1/2 mile upstream from your property lines must be shown.
- (d) The location of the proposed place of use should be shown by crosshatching on the topographic map, aerial photograph or plat.
- (e) Show the location of the pipelines, canals, reservoirs or other facilities for conveying water from the point of diversion to the place of use.

A 7.5 minute U.S.G.S. topographic map may be obtained by providing the section, township and range numbers to: Kansas Geological Survey, 1930 Constant, Campus West, University of Kansas, Lawrence, Kansas 66047.

12. List any application, appropriation of water, water right, or vested right file number that covers the same diversion points or any of the same place of use described in this application. Also list any other recent modifications made to existing permits or water rights in conjunction with the filing of this application.

Appropriation of Water, File Nos. 40,883 AND 40,884 OVERLAP IN PLACE OF USE

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13. Furnish the following well information if the proposed appropriation is for the use of groundwater. If the well has not been completed, give information obtained from test holes, if available.

Information below is from:     Test holes     Well as completed     Drillers log attached

Well location as shown in paragraph No.	(A)	(B)	(C)	(D)
Date Drilled	_____	_____	_____	_____
Total depth of well	_____	_____	_____	_____
Depth to water bearing formation	_____	_____	_____	_____
Depth to static water level	_____	_____	_____	_____
Depth to bottom of pump intake pipe	_____	_____	_____	_____

14. The relationship of the applicant to the proposed place where the water will be used is that of OWNER  
(owner, tenant, agent or otherwise)

15. The owner(s) of the property where the water is used, if other than the applicant, is (please print):

\_\_\_\_\_ - NA - \_\_\_\_\_  
(name, address and telephone number)

\_\_\_\_\_ - NA - \_\_\_\_\_  
(name, address and telephone number)

16. The undersigned states that the information set forth above is true to the best of his/her knowledge and that this application is submitted in good faith.

Dated at Wetmore \_\_\_\_\_, Kansas, this 13 day of December, 2016.  
(month) (year)

Carol Steinlage  
(Applicant Signature)

48-108 2326  
APPLICANT(S) SOCIAL SECURITY IDENTIFICATION NUMBER(S)

By Steven Hermes  
(Agent or Officer Signature)

515-56-0041  
and/or APPLICANT(S) TAXPAYER I.D. NO.(S)

Steven Hermes  
(Agent or Officer - Please Print)

\_\_\_\_\_  
(Date)

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

Re: Application File No. 49743

Minimum Desirable Streamflow

Dear Sir:

I understand that a Minimum Desirable Streamflow requirement has been established by the legislature for the source of supply to which the above referenced application applies.

I understand that diversion of water pursuant to this application will be subject to regulation any time Minimum Desirable Streamflow requirements are not being met.

I also understand that if this application is approved, there could be times, as determined by the Division of Water Resources, when I would not be allowed to divert water. I realize that this could affect the economics of my decision to appropriate water.

I am aware of the above factors, and with the knowledge thereof, request that the Division of Water Resources proceed with processing and approval, if possible, of the above referenced application.

*Steven Hermes*  
Signature of Applicant

State of Kansas )  
County of Nemaha ) ss

Steven Hermes  
(Print Applicant's Name)

I hereby certify that the foregoing instrument was signed in my presence and sworn to before me this 13 day of December, 2016.

*Carol J. Steinlage*  
Notary Public

My Commission Expires: 3-24-2019

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**MINIMUM DESIRABLE STREAMFLOW FORM TO BE USED WHEN  
APPLICABLE WHEN FILING AN APPLICATION FOR PERMIT  
TO APPROPRIATE WATER FOR BENEFICIAL USE**

The Kansas Legislature has established minimum desirable streamflows for the streams listed below. If your proposed diversion of water is going to be from one of these watercourses or adjacent alluvial aquifers, please complete the back side of this page and submit it along with your application for permit to appropriate water.

Arkansas River  
Big Blue River  
Chapman Creek  
Chikaskia River  
Cottonwood River  
Delaware River  
Little Arkansas River  
Little Blue River  
Marais des Cygnes River  
Medicine Lodge River  
Mill Creek (Wabaunsee Co. area)  
Neosho River

Ninnescah River  
North Fork Ninnescah River  
Rattlesnake Creek  
Republican River  
Saline River  
Smoky Hill River  
Solomon River  
South Fork Ninnescah  
Spring River  
Walnut River  
Whitewater River

#49,743

**Schemm, Doug**

---

**From:** Tietsort, Katie  
**Sent:** Tuesday, March 7, 2017 10:32 AM  
**To:** Schemm, Doug  
**Subject:** RE: nEMAHA RWD 4

Doug,

Thank you for carefully reviewing the source, extent of the buried glacial channel, and nearby wells related to these applications. Based upon your review, impairment should not occur and these applications should be approved. TFO has no objections.

Thanks, Katie

Katie Tietsort

Kansas Department of Agriculture  
6531 SE Forbes Ave Ste B  
Topeka, KS 66619  
[katie.tietsort@ks.gov](mailto:katie.tietsort@ks.gov)  
Phone 785-296-5733

---

**From:** Schemm, Doug  
**Sent:** Monday, March 6, 2017 12:29 PM  
**To:** Tietsort, Katie <Katie.Tietsort@ks.gov>  
**Subject:** nEMAHA RWD 4



Applicant's Name RURAL WATER DISTRICT  
 (Please Print) No. 4,  
NEMAHA COUNTY

MUNICIPAL (PUBLIC WATER SUPPLY) APPLICATION  
 SUPPLEMENTAL INFORMATION SHEET

Application File Number  
49,742 & 49,743  
 (assigned by DWR)

SECTION 1: PRESENT WATER USE SUMMARY (IF NO PREVIOUS MUNICIPAL WATER USE HAS BEEN UTILIZED, PROCEED TO SECTION 3)  
 NOTE: WORKSHEET FOR WATER PUMPED, PURCHASED, AND SOLD BY YOUR WATER DISTRIBUTION SYSTEM.

2015

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
Raw Water Diverted Under Your Rights	Water Purchased From All Sources	Water Sold to Other Public Water Suppliers	Water Sold to Your Industrial, Stock, and Bulk Customers	Water Sold to Your Residential and Commercial Customers	Other Metered Water	Remaining Water Used (See Below Explanation)
34,188,000	0	2,414,000	0	25,796,000	527,000	5,451,000
TOTAL WATER = Columns 1 + 2		ACCOUNTED FOR WATER = Columns 3 + 4 + 5 + 6			UNACCOUNTED FOR WATER	

UNACCOUNTED FOR WATER = TOTAL WATER - ACCOUNTED FOR WATER

- Column 1: The amount of raw water diverted from all of your points of diversion.
- Column 2: The amount of water purchased wholesale from all other public water supply systems or the Kansas Water Office.
- Column 3: The amount of water sold wholesale to all other public water supply systems.
- Column 4: The amount of water sold retail to all industrial, pasture, stockwater, feedlot, and bulk water service connections. Include the amount of water sold to all farmsteads using at least 200,000 gallons of water per year.
- Column 5: The amount of water sold retail to your residential and commercial customers and to industries and farmsteads using less than 200,000 gallons of water per year.
- Column 6: The amount of water used that is metered at individual service connections and supplied free, such as for public service, treatment processes, and connections receiving free water.
- Column 7: The amount of remaining water used. The gallons reported in this column are found by adding the numbers in Columns 1 and 2 and subtracting the numbers in Columns 3, 4, 5, and 6.

UNACCOUNTED FOR WATER

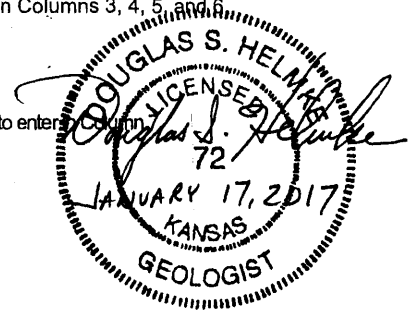
Use the following to calculate your distribution system's Unaccounted For Water:

Start with the amount in Column 1 and add the amount in Column 2, then subtract the amounts in Columns 3, 4, 5, and 6 leaving an amount of water representing your unaccounted for water to enter Column 7.

Use the following to calculate the percent Unaccounted For Water versus the Total Water of your system:

$$\text{Percent Unaccounted For Water} = \frac{\text{Unaccounted For Water}}{\text{Total Water (Columns 1,2)}} \times 100$$

If this number exceeds 20%, please explain the large amount of unaccounted for water and describe any steps being taken to reduce it.



SECTION 2: PAST WATER USE

COMPLETE THE FOLLOWING TABLE FROM YOUR PAST WATER USE RECORDS.

	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
	Raw Water Diverted Under Your Rights	Water Purchased From All Sources	Water Sold to Other Public Water Suppliers	Water Sold to Your Industrial, Stock, and Bulk Customers	Water Sold to Your Residential and Commercial Customers	Other Metered Water	Remaining Water Used (See Above Explanation)
20 years ago 1996	18,118,000	0	5,148,000	0	5,432,000	0	7,538,000
15 years ago 2001	19,731,000	0	4,688,000	0	14,004,000	0	1,039,000
10 years ago 2006	28,052,000	0	3,772,000	0	18,983,000	0	5,297,000
5 years ago 2011	30,534,000	0	3,094,000	0	23,320,000	0	4,120,000
	TOTAL WATER = Columns 1 + 2		ACCOUNTED FOR WATER = Columns 3 + 4 + 5 + 6			UNACCOUNTED FOR WATER	

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**SECTION 3: PROJECTED FUTURE WATER NEEDS**

PLEASE COMPLETE THE FOLLOWING TABLE SHOWING YOUR FUTURE WATER REQUIREMENTS FOR THE NEXT 20 YEARS:

	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
	Raw Water Diverted Under Your Rights	Water Purchased From All Sources	Water Sold to Other Public Water Suppliers	Water Sold to Your Industrial, Stock, and Bulk Customers	Water Sold to Your Residential and Commercial Customers	Other Metered Water	Remaining Water Used (See Explanation on other side)
Year 5	59,097,000	0	3,000,000	9,792,000	42,095,000	0	4,210,000
Year 10	68,790,000	0	3,000,000	12,240,000	48,682,000	0	4,868,000
Year 15	79,564,000	0	3,000,000	14,688,000	56,251,000	0	5,625,000
Year 20	91,673,000	0	3,000,000	17,136,000	65,034,000	0	6,503,000
	TOTAL WATER = Columns 1 + 2		ACCOUNTED FOR WATER = Columns 3 + 4 + 5 + 6			UNACCOUNTED FOR WATER	

**SECTION 4: POPULATION AND SERVICE CONNECTIONS**

ESTIMATE THE NUMBER OF PERSONS DIRECTLY SERVED BY YOUR WATER DISTRIBUTION SYSTEM

PAST POPULATION - PROVIDE INFORMATION BELOW:  
(CENSUS BUREAU INFORMATION)

LAST 20 YEARS	POPULATION
20 years ago 1996	450
15 years ago 2001	500
10 years ago 2006	560
5 years ago 2011	595
Last Year 2015	780

PROJECTED FUTURE POPULATION

ESTIMATE FUTURE POPULATION AND SUBSTANTIATE NUMBERS ON SEPARATE ATTACHMENTS

NEXT 20 YEARS	POPULATION
Year 5 2021	901
Year 10 2026	1042
Year 15 2031	1204
Year 20 2036	1392

Provide number of current active service connections:

235 Residential      0 Industrial      1 Other (specify) CITY OF GOFF (126 PERSONS)  
0 Commercial      217 Pasture/ Stockwater/ 332 Total      (65 GPCD)  
~~Feedlot~~

**SECTION 5: PRESENT GALLONS PER PERSON PER DAY**

CALCULATE YOUR GALLONS PER PERSON PER DAY

Water in Columns 5, 6, and 7 + Population + 365 Days/Year = Gallons per Person per Day

$$\frac{31,744,000}{\text{Amount of water in Columns 5, 6, and 7 of Section 1}} \div \frac{780}{\text{Population from Last Year of Section 4}} \div 365 \text{ Days/Year} = \underline{112} \text{ GALLONS PER PERSON PER DAY.}$$

**SECTION 6: AREA TO BE SERVED**

Describe the area to be served or provide the legal description of the location where the water is to be used including any other city of water supply system (i.e. Rural Water District):  
WITHIN THE BOUNDARIES OF RURAL WATER DISTRICT No. 4, NEMAHA COUNTY, AND WITHIN THE CITY OF GOFF AND IMMEDIATE VICINITY.

You may attach additional information you believe will assist in informing the Division of the need for your request.

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# Kansas Annual Water Use Reporting System

[Water Use List](#) | [Print Report](#) | [View Report](#) | [Instructions](#) | [Terms and Definitions](#) | [Change Address](#) | [Log out](#)

## Part A: Points of Diversion Summary

**Total water used: 11,599,225 Gallons (36 AF)**

**1255'N 3958'W**

**CIN: 1**

**Begin Meter Reading:** 7610.63  
**End Meter Reading:** 8037.79  
**Quantity:** 427 Acre Inches (Metered)  
**Acres Irrigated:** 34  
**Crop Code:** athletic field (11)  
**Type System:** Sprinkler other than center pivot  
**Type Energy:** Electricity  
**Chemigation:** N

**This is Correct**

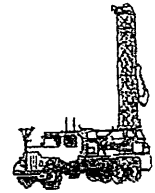
**Reset all points of diversion**

**Edit This Section**

Contact us: 785-564-6638 [wateruse@kda.ks.gov](mailto:wateruse@kda.ks.gov)

Roger Strader  
Office: (402) 673-3465

**STRADER'S  
BLUE VALLEY DRILLING, LLC**  
14734 US Hwy 77  
Pickrell, NE 68422  
**WELL COMPLETION**



Well Contractor's License  
#39022

Name Nemaha County Rural Water District #4 Date December 1, 2016

Address PO Box 160

City/State/Zip Wetmore, KS 66550 Phone 785-866-2600

#3-16  
Location of Water Well Section Township Range  E  W  
County: Nemaha, KS 1/4 1/4 N  
Well is        ft. from  north  south section line.        ft. from  east  west section line. Ground Elevation        ft.  
Distance and Direction from nearest town (or) street address (or) Block, Lot and Addition:       

Well use Test well #3-16  New  Replacement Distance to Old Well        ft.  
Old Well Last Used        Old Well Abandoned  Yes  No (Date       )

GPS:       

		DEPTH IN FEET		FORMATION
		FROM	TO	
Depth of completed well	<u>154</u> ft.	<u>0</u>	<u>3</u>	<u>Top soil</u>
Method drilled	<u>Straight rotary</u>	<u>3</u>	<u>17</u>	<u>Clay - brown</u>
Bore hole diameter	<u>11</u> in.	<u>17</u>	<u>18</u>	<u>Sand - fine brown</u>
Static water level	<u>      </u> ft.	<u>18</u>	<u>27</u>	<u>Clay - gray</u>
Yield	Pumping Water Level	<u>27</u>	<u>33</u>	<u>Sand - fine gray</u>
		<u>33</u>	<u>43</u>	<u>Clay - gray</u>
<u>      </u> gpm at <u>      </u> ft. lift		<u>43</u>	<u>45</u>	<u>Clay - gray streaks fine gray sand</u>
<u>      </u> gpm at <u>      </u> ft. lift		<u>45</u>	<u>52</u>	<u>Silt - gray</u>
<u>      </u> gpm at <u>      </u> ft. lift		<u>52</u>	<u>90</u>	<u>Clay - gray</u>
Hrs. Development <u>      </u>		<u>90</u>	<u>119</u>	<u>Silt - gray</u>
Method <u>      </u>		<u>119</u>	<u>126</u>	<u>Sand - fine gray</u>
Blank Casing: Material <u>PVC</u>		<u>126</u>	<u>131</u>	<u>Silt - gray</u>
Grade <u>200#</u> ID <u>5.03</u>		<u>131</u>	<u>153</u>	<u>Sand - fine gray</u>
OD <u>5.56</u> Thickness <u>.265</u>		<u>153</u>	<u>156</u>	<u>Clay - gray</u>
<u>0</u> to <u>134</u> & <u>      </u> to <u>      </u>		<u>156</u>	<u>158</u>	<u>Sand - native limestone</u>
Screen: Material <u>PVC</u>		<u>158</u>		<u>Shale - gray</u>
Grade <u>200#</u> ID <u>5.03</u>				
OD <u>5.56</u> Thickness <u>.265</u>				
<u>134</u> to <u>154</u> & <u>      </u> to <u>      </u>				
Slot Size <u>.032</u> Type <u>Saw slot</u>				
Trade Name <u>      </u>				
Joints: <input type="checkbox"/> Welded <input type="checkbox"/> Glued <input checked="" type="checkbox"/> Threaded				
Casing Guides <u>per Ned</u>				
Bottom Cap: <u>5" PVC</u>				
Gravel Pack and Grout Intervals				
<u>      </u> to <u>      </u> with <u>per Ned</u>				
<u>      </u> to <u>      </u> with <u>      </u>				
<u>      </u> to <u>      </u> with <u>      </u>				
<u>      </u> to <u>      </u> with <u>      </u>				
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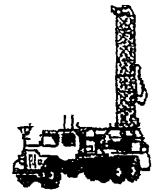
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Disinfection:  Yes  No Was a chemical / bacteriological analysis obtained?  Yes  No (Date       )  
Pump: Installed  Yes  No Recommended pump setting        ft. Recommended pumping rate        GPM  
Pump Installer       

Remarks

Roger Strader  
Office: (402) 673-3465

**STRADER'S  
BLUE VALLEY DRILLING, LLC**  
14734 US Hwy 77  
Pickrell, NE 68422  
WELL COMPLETION



Well Contractor's License  
#39022

Name Nemaha County RWD #4 Date December 22, 2016  
Address PO Box 160  
City/State/Zip Wetmore, KS 66550 Phone 785-866-2600

Location of Water Well  
County: Nemaha, KS Section 1/4 Township 1/4 Range N  E  W  
Well is          ft. from  north  south section line.          ft. from  east  west section line. Ground Elevation          ft.  
Distance and Direction from nearest town (or) street address (or) Block, Lot and Addition:         

Well use 5" test well 6-16  New  Replacement Distance to Old Well          ft.  
Old Well Last Used          Old Well Abandoned  Yes  No (Date         )  
GPS:         

		DEPTH IN FEET		FORMATION
		FROM	TO	
Depth of completed well	<u>159</u> ft.	<u>0</u>	<u>8</u>	<u>Clay - brown</u>
Method drilled	<u>Straight rotary</u>	<u>8</u>	<u>14</u>	<u>Silt - brown</u>
Bore hole diameter	<u>11</u> in.	<u>14</u>	<u>24</u>	<u>Clay - brown &amp; yellow</u>
Static water level	<u>        </u> ft.	<u>24</u>	<u>28</u>	<u>Clay - gray &amp; brown</u>
Yield	Pumping Water Level	<u>28</u>	<u>59</u>	<u>Clay - gray</u>
		<u>59</u>	<u>61</u>	<u>Sand - fine gray</u>
<u>        </u> gpm at <u>        </u> ft. lift		<u>61</u>	<u>90</u>	<u>Clay - gray</u>
<u>        </u> gpm at <u>        </u> ft. lift		<u>90</u>	<u>91</u>	<u>Clay - green</u>
<u>        </u> gpm at <u>        </u> ft. lift		<u>91</u>	<u>92</u>	<u>Clay - gray</u>
Hrs. Development <u>2</u>		<u>92</u>	<u>134</u>	<u>Silt - gray</u>
Method <u>Bailer</u>		<u>134</u>	<u>138</u>	<u>Silt - sandy gray</u>
Blank Casing: Material <u>PVC</u>		<u>138</u>	<u>152</u>	<u>Sand - fine gray</u>
Grade <u>200#</u> ID <u>5.02</u>		<u>152</u>	<u>157.5</u>	<u>Sand - fine to medium gray</u>
OD <u>        </u> Thickness <u>        </u>		<u>157.5</u>	<u>159</u>	<u>Shale - gray</u>
<u>0</u> to <u>139</u> & <u>        </u> to <u>        </u>				
Screen: Material <u>PVC</u>				
Grade <u>200#</u> ID <u>5.02</u>				
OD <u>        </u> Thickness <u>        </u>				
<u>139</u> to <u>159</u> & <u>        </u> to <u>        </u>				
Slot Size <u>.032</u> Type <u>Saw slot</u>				
Trade Name <u>        </u>				
Joints: <input type="checkbox"/> Welded <input type="checkbox"/> Glued <input checked="" type="checkbox"/> Threaded				
Casing Guides <u>Per Ned</u>				
Bottom Cap: <u>5" PVC</u>				
Gravel Pack and Grout Intervals				
<u>        </u> to <u>        </u> with <u>Per Ned</u>				
<u>        </u> to <u>        </u> with <u>        </u>				
<u>        </u> to <u>        </u> with <u>        </u>				
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<u>        </u> to <u>        </u> with <u>        </u>				

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Disinfection:  Yes  No Was a chemical / bacteriological analysis obtained?  Yes  No (Date         )  
Pump: Installed  Yes  No Recommended pump setting          ft. Recommended pumping rate          GPM  
Pump Installer         

Remarks

# 49,743  
 Meets safe yield

**Analysis Results**

The selected PD is in an area to new appropriations.  
 The safe yield, based on the variables listed below is 3,283.82 AF.  
 Total prior appropriation in the circle is 752.00 AF. **- 200 = 552 AF**  
 Total quantity of water available for appropriation is 2,531.82 AF.  
**2,731.8 AF**

**Safe Yield Variables**

The area used for the analysis is set at 8,042 acres.  
 Potential annual recharge of the area is estimated to be 4.9 inches.  
 The percent of recharge available for appropriation is 100%.

Authorized Quantity values are as of 20-FEB-2017 and are based on Appropriated and Vested ground water right and possible stream nodes for GMD #2. Domestic, Term and Temporary water rights have been excluded.

There are 4 water right(s) and 6 point(s) of diversion within the circle.

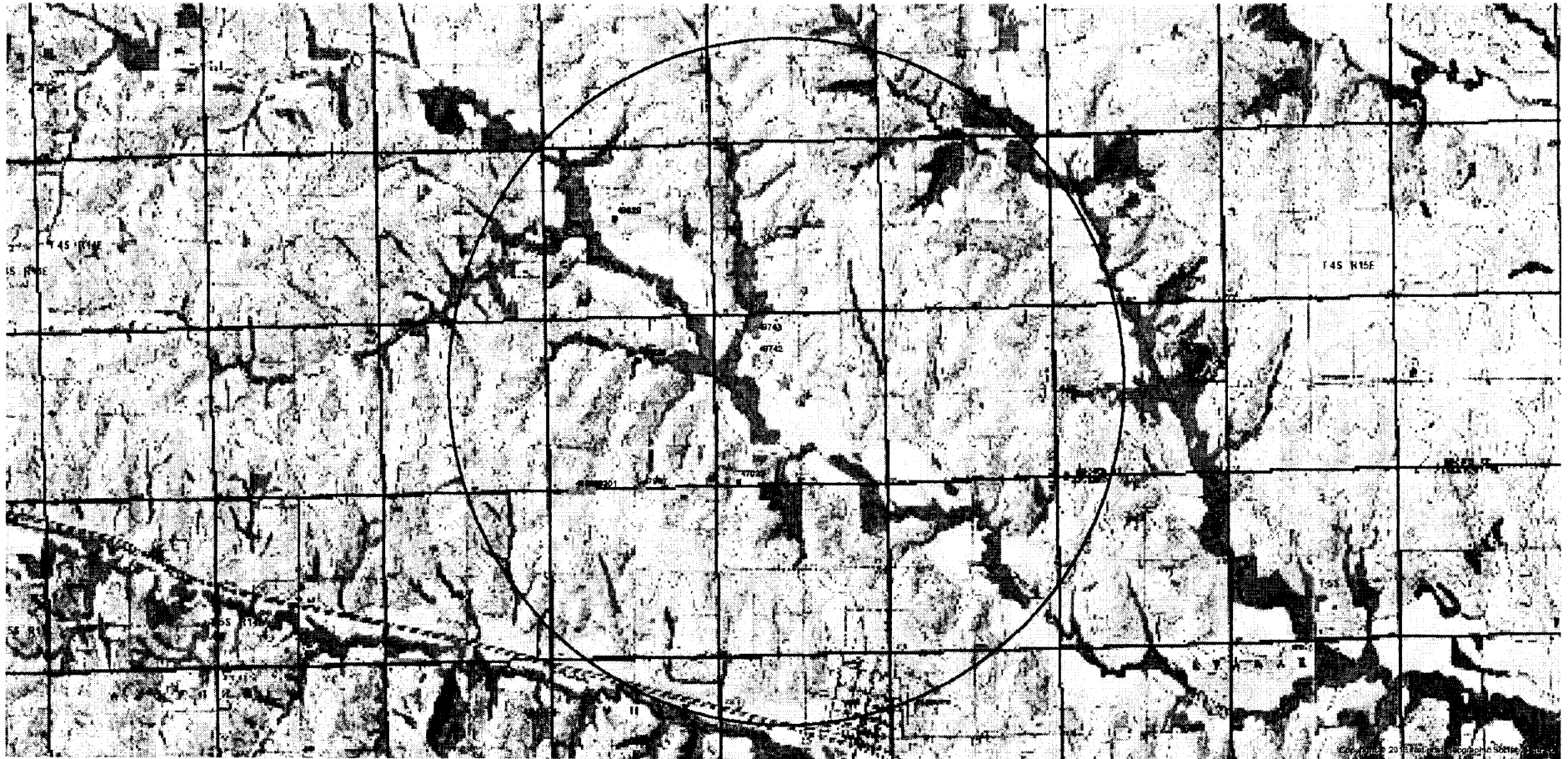
File Number	Use	ST	SR	Q4	Q3	Q2	Q1	FeetN	FeetW	Sec	Twp	Rng	ID	Qind	Auth_Quant	Add_Quant	Tacres	Nacres
A 47997	00	IRR	KE	G	NW	NW	NE	5200	2250	03	05	14E	1	WR	352.00	352.00	320.00	320.00
A 48201	00	IRR	KE	G	NW	NE	NW	5175	3815	03	05	14E	2	WR	352.00	0.00	320.00	0.00
Same		IRR	KE	G	NE	NW	NW	5175	4405	03	05	14E	3	WR				
Same		IRR	KE	G	NE	NW	NW	5175	4110	03	05	14E	4	WR				
A 49742	00	MUN	AY	G			NW	3960	3960	35	04	14E	2	WR	200.00	200.00		
A 49743	00	MUN	AY	G			NW	4620	3960	35	04	14E	3	WR	200.00	200.00		

# 49,743

Safe Yield Report Sheet  
Proposed Water Right Application  
Point of Diversion in NWSESENW 35-04S-14E  
FILE NO. 49,743 (2,980' N & 3,244' W)

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#49,743

Water Rights and Points of Diversion Within 2.00 miles of point defined as:

2980 ft N and 3244 ft W of the SE Corner of Section 35, T 4S, R 14E

Located at: 95.818987 West Longitude and 39.661089 North Latitude

GROUNDWATER ONLY

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=====
File Number   Use ST SR Dist (ft) Q4 Q3 Q2 Q1 FeetN FeetW Sec Twp Rng ID Batt Auth_Quan Add_Quan Unit
A__          63 00 MUN NK G      10551 -- SW SW NE 3015 2100 11 5 14E 3          10.99 10.99 AF
A__         23542 00 MUN NK G      10551 -- SW SW NE 3015 2100 11 5 14E 3 B 2      35.29 24.31 AF
A__         33271 00 MUN NK G      10551 -- SW SW NE 3015 2100 11 5 14E 3 B 2      48.03 12.74 AF
A__         47997 00 IRR KE G       5346 -- NW NW NE 5200 2250 3 5 14E 1          352.00 352.00 AF
A__         48201 00 IRR KE G       6971 -- NE NW NW 5175 4110 3 5 14E 4 G 2      352.00 .00 AF
Same
Same          6707 -- NW NE NW 5175 3815 3 5 14E 2 B 2
Same          7237 -- NE NW NW 5175 4405 3 5 14E 3 B 2
A__         49742 00 MUN AY G       1214 -- -- -- NW 3960 3960 35 4 14E 2          200.00 200.00 AF
A__         49743 00 MUN AY G       1789 -- -- -- NW 4620 3960 35 4 14E 3          200.00 200.00 AF
=====

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=====
Total Net Quantities Authorized:   Direct           Storage
Total Requested Amount (AF) =      400.00           .00
Total Permitted Amount (AF) =      352.00           .00
Total Inspected Amount (AF) =         .00           .00
Total Pro_Cert Amount (AF) =         .00           .00
Total Certified Amount (AF) =        48.03           .00
Total Vested Amount (AF) =          .00           .00
TOTAL AMOUNT (AF) =                800.03           .00
=====

```

An \* after the source of supply indicates a pending application for change for the file number.  
 An \* after the ID indicates a 15 AF exemption was granted for the file number.  
 A "G" in the Batt column indicates the GEO CTR of a battery. A "B" indicates a well in the battery.  
 The number in the Batt column is the number of wells in the battery.

Water Rights and Points of Diversion Within 2.00 miles of point defined as:

95.818987 West Longitude and 39.661089 North Latitude

GROUNDWATER ONLY

WATER USE CORRESPONDENTS:

```

=====
File Number   Use ST SR
A__          63 00 MUN NK G
> CITY OF WETMORE
>
> PO BOX 248
> WETMORE KS 66550
-----
A__         23542 00 MUN NK G
> CITY OF WETMORE
>
> PO BOX 248
> WETMORE KS 66550
-----
A__         33271 00 MUN NK G
> CITY OF WETMORE
>
> PO BOX 248
> WETMORE KS 66550
=====

```



>-----  
A\_\_ 47997 00 IRR KE G  
> KENNETH C & NANCY S BABCOCK  
>  
> 1858 220TH ST  
> HIAWATHA KS 66434

>-----  
A\_\_ 48201 00 IRR KE G  
> KENNETH C & NANCY S BABCOCK  
>  
> 1858 220TH ST  
> HIAWATHA KS 66434

>-----  
A\_\_ 49742 00 MUN AY G  
> NEMAHA RWD 04  
>  
> PO BOX 160  
> WETMORE KS 66550

>-----  
A\_\_ 49743 00 MUN AY G  
> NEMAHA RWD 04  
>  
> PO BOX 160  
> WETMORE KS 66550

>-----  
=====

# Terrane Resources Co.

P.O. Box 173 Stafford, KS 67578 620-234-5200

---

KANSAS GROUND WATER: STRAIGHT UP FROM THE ROCKS!

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09 December, 2016

Mr. David Barfield, PE  
Chief Engineer of the Division of Water Resources  
Kansas Department of Agriculture  
1320 Research Park Drive  
Manhattan KS 66502

Re: New applications for Nemaha  
RWD #4

Dear Sir,

This letter is written to provide applications to be considered for new water rights for the Nemaha Co. RWD #4. The District is currently experiencing significant declines in their existing well field which appears to be the result of the drought.

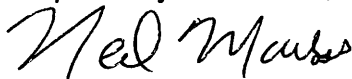
We are currently in the exploratory drilling phase to find additional sources of supply.

At this time we request 60 days to finalize the drilling program, obtain and evaluate water quality data and select the final locations for the points of diversion.

We will provide drilling logs for the test holes/test wells the District has installed and for those to be installed. Along with any other information we can provide to help identify to assist with the aquifer delineation.

Mr. Barfield, should you or any of your staff have any questions do not hesitate to contact me directly at 620-546-3616(cell) or by e-mail at [terresco@yahoo.com](mailto:terresco@yahoo.com).

Respectfully Submitted,



Edward "Ned" T. Marks, PG  
TERRANE RESOURCES CO.  
KS Lic. 431

WATER RESOURCES  
RECEIVED

DEC 15 2016

KS DEPT OF AGRICULTURE

SCANNED

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

Topeka Field Office  
6531 SE Forbes Ave., Suite B  
Topeka, Kansas 66619

Jackie McClaskey, Secretary  
David W. Barfield, Chief Engineer  
Katherine A. Tietsort, Water Commissioner

Phone: (785) 296-5733  
Fax: (785) 862-2460  
www.agriculture.ks.gov  
Sam Brownback, Governor

February 21, 2017

ALLAN SHUMAKER  
753 W ROAD  
WETMORE KS 66550-8415

Re: Pending Applications, File Nos. 49,742 and 49,743

Dear Sir or Madam:

This is to advise you that Nemaha Rural Water District No. 4 has filed the applications referred to above for permits to appropriate groundwater for municipal use. Application, File No. 49,742 is requesting to appropriate 65.17 million gallons (200 acre-feet) of groundwater per calendar year to be diverted at a maximum rate of 300 gallons per minute from one (1) well located in the Southeast Quarter of the Northwest Quarter of the Northwest Quarter of Section 35; and Application, File No. 49,743 is also requesting to appropriate 65.17 million gallons (200 acre-feet) of groundwater per calendar year to be diverted at a maximum rate of 300 gallons per minute from one (1) well located in the Southeast Quarter of the Southeast Quarter of the Northwest Quarter of Section 35, both in Township 4 South, Range 14 East, in Nemaha County, Kansas.

A map is enclosed indicating the locations of the proposed wells. Records in this office indicate that you may have a well or wells in this vicinity and you are being notified of receipt of these applications in order that you may be fully informed of the proposed locations of the applicant's points of diversion and proposed use of water. Consideration will be given to comments or other information which you desire to submit to this office within **15 days** from the date of this letter. You may also contact me at (785) 296-3495 with any questions or comments.

Sincerely,



Doug Schemm  
Environmental Scientist  
Topeka Field Office

Enclosure

pc: Nemaha County RWD No. 4  
Douglas Helmke, P.G. KRWA

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

Topeka Field Office  
6531 SE Forbes Ave., Suite B  
Topeka, Kansas 66619

Jackie McClaskey, Secretary  
David W. Barfield, Chief Engineer  
Katherine A. Tietsort, Water Commissioner

Phone: (785) 296-5733  
Fax: (785) 862-2460  
[www.agriculture.ks.gov](http://www.agriculture.ks.gov)

Sam Brownback, Governor

February 21, 2017

LORI MILLIGAN FARLEY  
PO BOX 134  
WETMORE KS 66550-0134

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Sincerely,



Doug Schemm  
Environmental Scientist  
Topeka Field Office

Enclosure

pc: Nemaha County RWD No. 4  
Douglas Helmke, P.G. KRWA

1320 Research Park Drive  
Manhattan, Kansas 66502  
Jackie McClaskey, Secretary



Phone: (785) 564-6700  
Fax: (785) 564-6777  
Email: ksag@kda.ks.gov  
www.agriculture.ks.gov  
Sam Brownback, Governor

December 19, 2016

NEMAHA RWD 4  
PO BOX 1605  
WETMORE KS 66550

**FILE COPY**

RE: Application  
File No. 49743

Dear Sir or Madam:

Your application for permit to appropriate water in 35-4S-14E in Nemaha County, was received and has been assigned the file number noted above.

As a matter of record, the Division of Water Resources has on hand a large number of applications awaiting processing. Therefore to be fair to all concerned, and so that we can process those applications on hand in the order they were received, we intend to concentrate on the backlog of applications until the issue is resolved. Once review of your application has begun, we will contact you, if additional information is required.

In accordance with the provisions of the Kansas Water Appropriation Act, a portion of which is included below, the use of water as proposed prior to approval of the application is unlawful. Once approved, compliance with the terms, conditions and limitations of the permit is necessary. Conservation of the water resources of Kansas is required.

**Section 82a-728 of the Kansas Water Appropriation Act, provides (a) except for the appropriation of water for the purpose of domestic use, . . . it shall be unlawful for any person to appropriate or threaten to appropriate water from any source without first applying for and obtaining a permit to appropriate water in accordance with the provisions of the Water Appropriation Act or for any person to violate any condition of a vested right, appropriation right or an approved application for a permit to appropriate water for beneficial use.**

**(b) (1) The violation of any provision of this section by any person is a class C misdemeanor . . .**

**A class C misdemeanor is punishable by a fine not to exceed \$500 and/or a term of confinement not to exceed one month in the county jail. Each day that the violation occurs constitutes a separate offense.**

If you have any questions, please contact me at (785) 564-6645. If you wish to discuss a specific file, please have the file number ready so that we may help you more efficiently.

Sincerely,

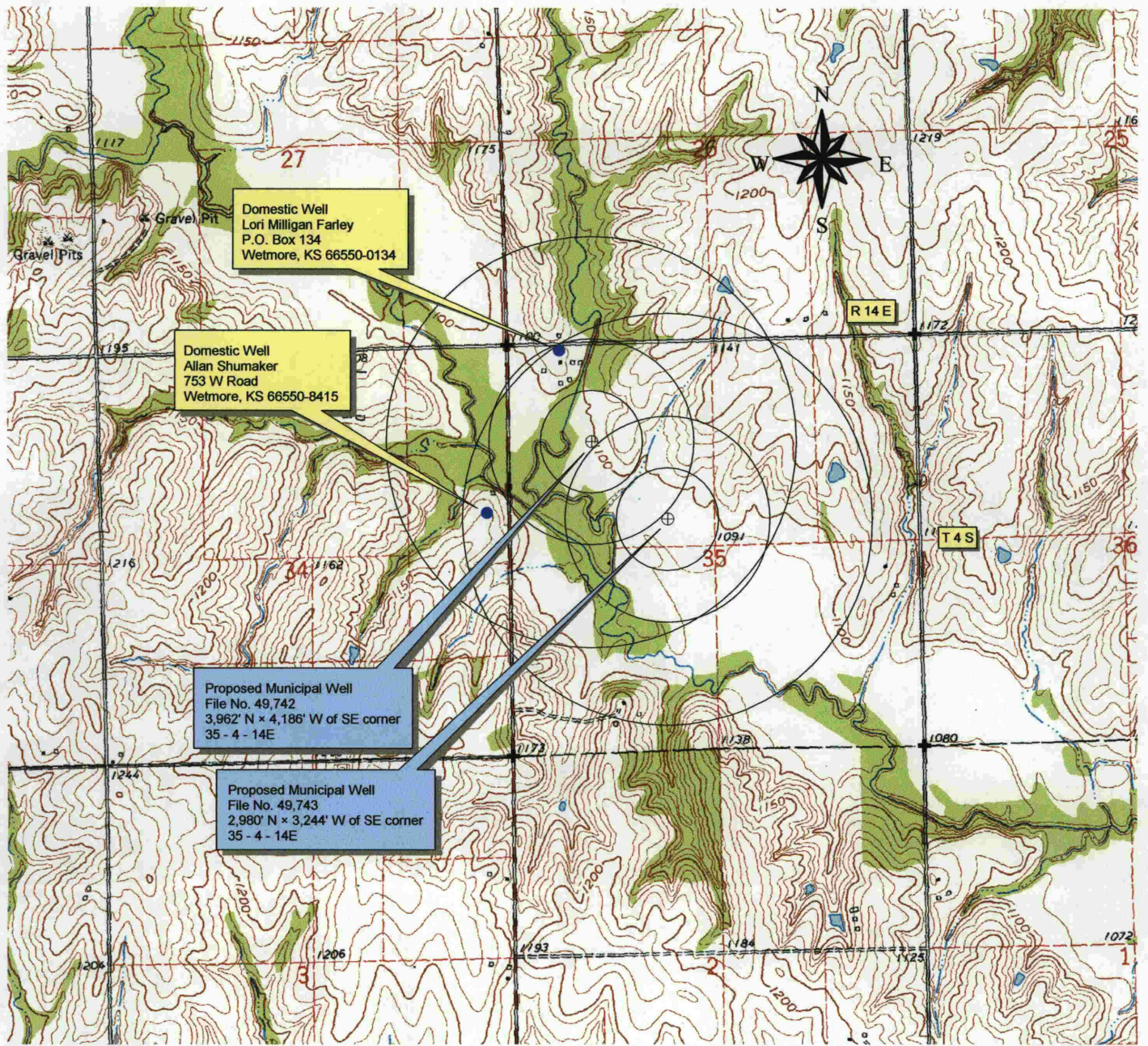
A handwritten signature in cursive script that reads "Brent A. Turney".

Brent A Turney, P.G.  
Change Application Unit Supervisor  
Water Appropriation Program

BAT: dlw  
pc: TOPEKA Field Office  
GMD

SCANNED

# Rural Water District No. 4, Nemaha County Applications for Permit to Appropriate Water File Nos. 49,742 & 49,743



## Legend

- ⊕ Municipal Well
- Domestic Well
- + Section Corner

All wells of every kind within 1/2 mile of the proposed wells have been plotted.

*Catal Sterilage*  
(Signature)

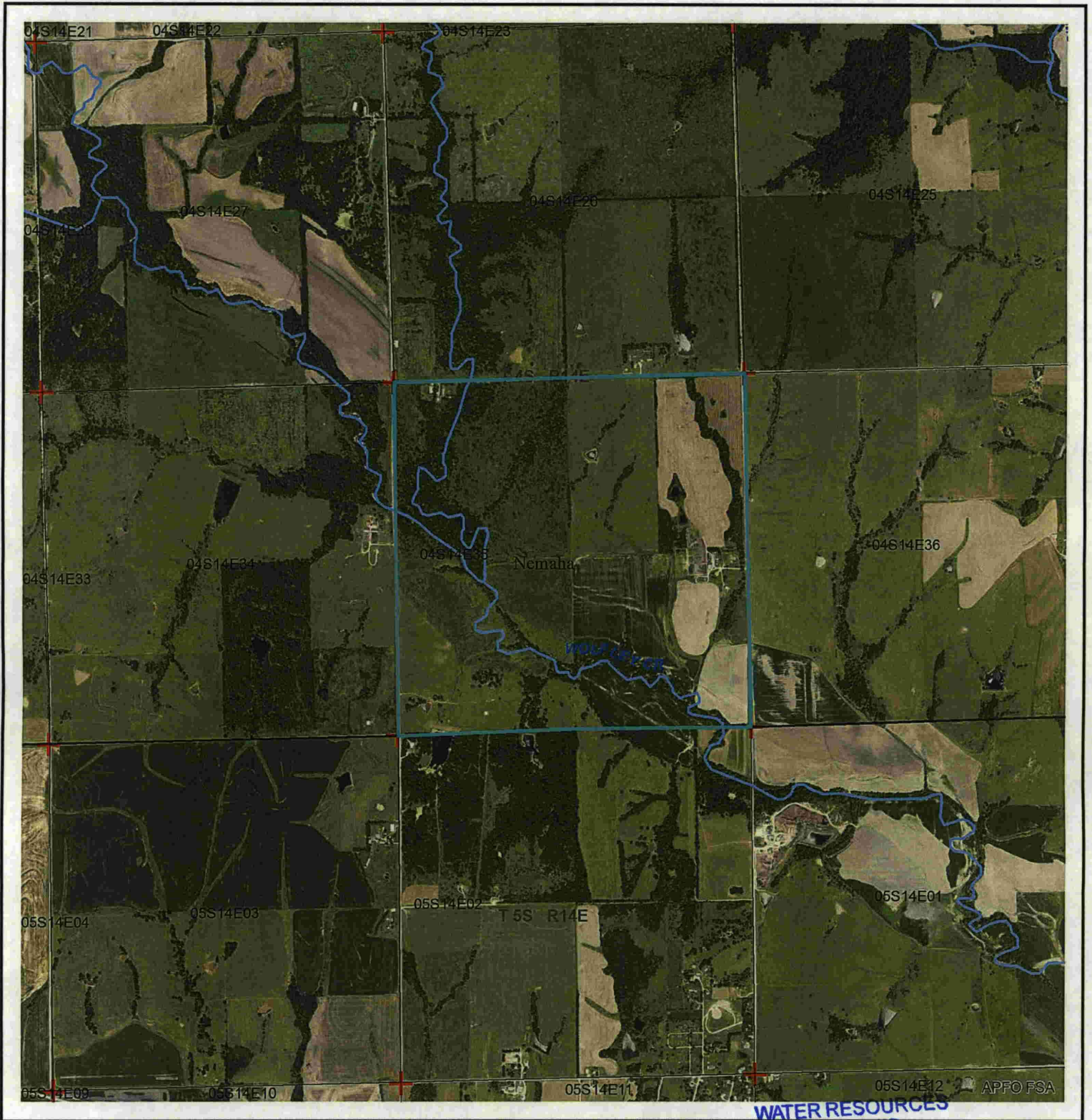
WATER RESOURCES RECEIVED

JAN 30 2017

KS DEPT OF AGRICULTURE



SCANNED



WATER RESOURCES RECEIVED

JAN 19 2017

KS DEPT OF AGRICULTURE

Place of Use

0 0.25 0.5 0.75 1 Miles

All wells of any kind within 1/2 mile of the requested point of diversion have been plotted.

Signature: \_\_\_\_\_

AJW/DWR

Date: 12/27/2016



Nemaha County RWD No. 04

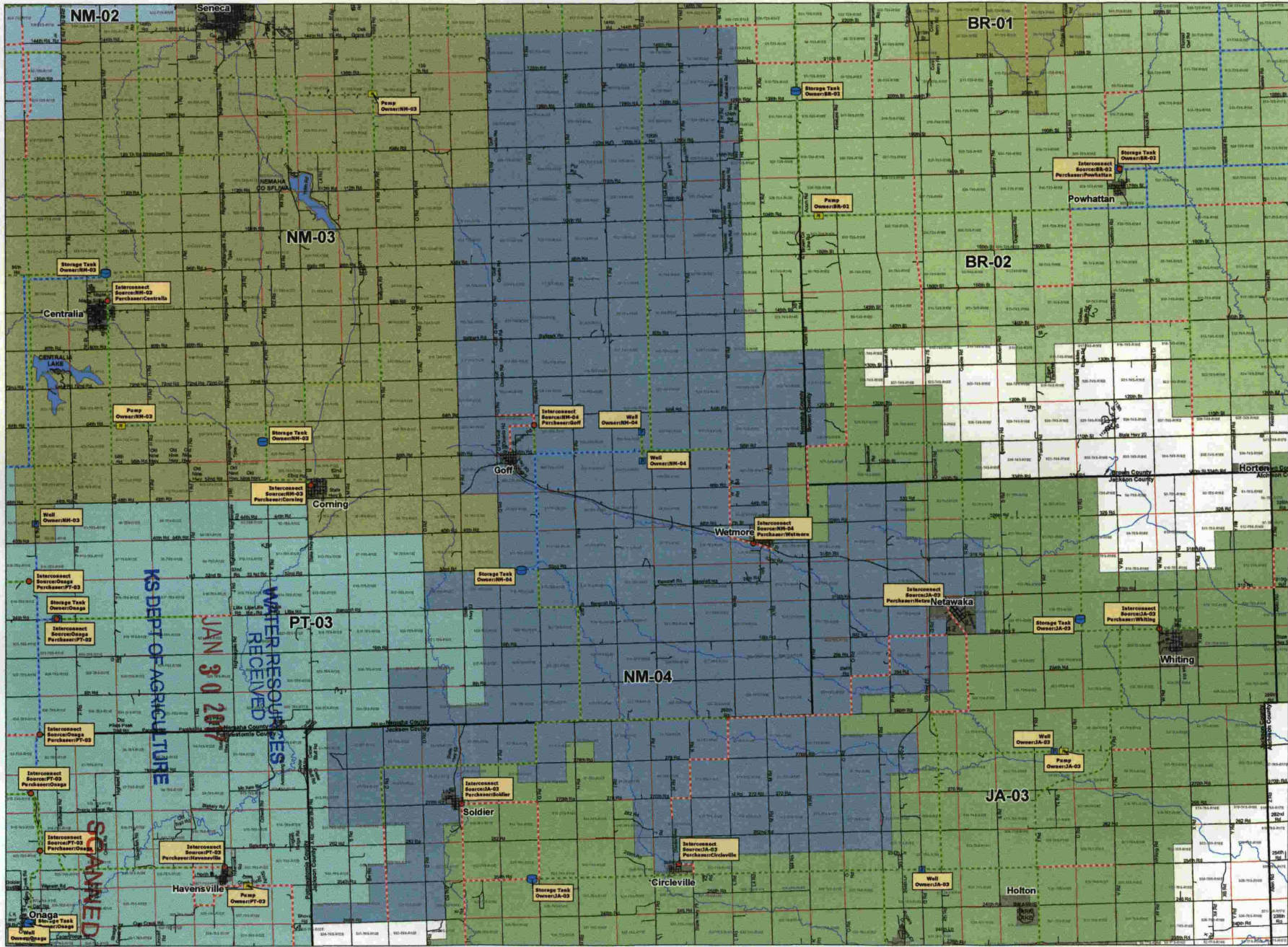


**Legend**

- Interconnect
- Pump
- Storage Tank
- Surface Intake
- Treatment Facility
- Well

**Water Mains**

- Less than 4 inch
- 4 to 6 inch
- greater than 6 inch
- Roads
- Streams
- PLSS
- County Boundary
- City Boundary
- Lakes



Produced by Kansas Rural Water Association with the cooperation of the Kansas Water Office and the Data Access and Support Center October 2015

REQUESTED PLACE OF USE: WITHIN BOUNDARIES OF RURAL WATER DISTRICT NO. 4 & IMMEDIATE VICINITY, AND WITHIN THE CITY OF GOFF & IMMEDIATE VICINITY.

KS DEPT. OF AGRICULTURE  
 WATER RESOURCES  
 RECEIVED  
 JAN 30 2017

SCANNED