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

1. File Number: 49,907	2. Status Change Date:	3. Field Office:	4. GMD:				
5. Status: Approved Denied b	y DWR/GMD	Dismiss by Request/Failur	e to Return				
6. Enclosures: ⊠ Check Valve ⊠ N of C Form	n ⊠ Water Tube	☐ Driller Copy	⊠ Meter				
7a. Applicant(s) Person ID New to system ☐ Add Seq#	7c. Landown New to sy	ner(s) ystem □	Person ID Add Seq#				
CLOUD RWD 01 BOOKKEEPER PO BOX 416 CONCORDIA KS 66901							
7b. Landowner(s) Person ID New to system ☐ Add Seq#	7d. Misc. New to sy	vstem □	Person IDAdd Seq#				
7a.							
8. WUR Correspondent Person ID New to system ☐ Add Seq# Overlap File (s) WUC Agree ☐ Yes ☐ No	9. Use of Wat	⊠ Groundwater □	Yes 🛛 No Surface Water DEW 🖾 MUN				
7a.	□ ѕтк		DOM CON				
	☐ HYD DRG		ART RECHRG				
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 ☐	ate to Comply:	Date WLMD Inst	alled:				
Date Prepared: 10/12/2017 By: DWS Date Entered: 11/28/2017 By: WM							

File No.	49,907		15. F	ormatio	n Code: 1	112/331		Drainage	Basin: Re	public	an RIVER	County	r: CD		Special U	se:		Stream:	
16. Poin T MOD DEL	ts of Divers	ion										17. Ra		Quantity thorized	MOD A	ADDL (QTY Additional	94	
ENT _.		Qu	ıalifier	S	Т	R	ID	'N	W			Rate gpm		Quant mgy		Rate gpm		Quantity Trigy O	/erlap PD Files
$\sqrt{}$	71351	1 WN	W NE	25	5	5W	3	5227	2507	7		400		10)	400		4.176	46,173
<u>.</u>																			
18. Stora	ge: Rate _			NF	: Q	uantity	· · · · · ·		a	c/ft	Addition	al Rate			NF	Add	itional Quan	ntity	ac/ft
	ation: 40	=												-	•		•	and 49,606	
	r Required?																		
21. Plac	e of Use					NE¼		N'	W¹/₄		sw	1/4		SE1/4	4	Total	Owner	Chg? NO	Overlap Files
MOD DEL ENT I	PUSE S	Т	R	ID	NE NY		SE 1/4	NE NW	SW S	SE 1	NE NW	S SE 1/4	NE 1/4		SW SE 1/4				
	3150 9		4W		WITH	N THE	ВО	UNDAR	IES OF	RV	VD #1 C	LOUD	OUI	VTY			7a	No	*See Below
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									<u> </u>										
Commen	ts: *File	Nos. 1	9,812;	35,45	2; 45,2	284; 46	,173	; 49,906	6; and 4	49,9	07 All C	verlap i	n Pl	ace of	Use.				
			•																

KANSAS DEPARTMENT OF AGRICULTURE Division of Water Resources <u>M E M O R A N D U M</u>

TO: Files DATE: October 12, 2017

FROM: Doug Schemm RE: Applications, File Nos. 49,906

and 49,907

Cloud County RWD 1 has filed the referenced applications, each proposing to appropriate 10 million gallons of groundwater per calendar year at a diversion rate not to exceed 400 gallons per minute for municipal use from existing wells. The application forms were signed by a representative of the applicant, stating the District has access to the points of diversion. The wells are located within the Republican River Basin.

FILE NO. 49,906

Application, File No. 49,906 will overlap in point of diversion with File No. 45,284, and will overlap in place of use with File Nos. 19,812; 35,452; 45,284; 46,173, and 49,907. The applicant did not identify any wells of any kind within one-half mile of the proposed point of diversion (other than his other nearby MUN supply well). No nearby well owner letters are required. There are several other permitted groundwater wells within a two-mile radius according to the WRIS database. However, **PLEASE NOTE, that all other wells within this area are sourcing the Dakota aquifer system**. The applicant's well is sourcing tributary alluvium. Per the requirements in K.A.R. 5-4-4 for all other aquifers, the minimum well spacing should be 1,320 feet to wells in the same **common source of supply** for non-domestic wells and 660 feet to domestic wells. Therefore, even though the proposed point of diversion is only 476 feet from the applicant's other municipal well (File No. 35,452), spacing is met because they are not in a common source of supply. This is an existing well that has been utilized for municipal use for many years. The requested quantity of water and rate of diversion are still relatively small, and there is no reason to believe that any senior water rights will be impaired with approval of this application.

File No. 49,906 the well log clearly shows creek sand and gravel extending from 48 feet to 69 feet below ground surface (screened from 55' to 71'), ending on a hard clay layer. For File No. 35,452 the well log shows sandrock (Dakota) 83 feet to 109 feet below ground surface (screened from 90' to 110'). Based on the well log, and the senior file 45,284, and the geographical location of the well near the stream, the source of water is the tributary alluvial aquifer of West Branch Oak Creek. Per K.A.R. 5-3-11, the area of consideration was based on the extent of this alluvial aquifer, which was determined to be 1,965 acres. Thus 1,965 acres x 2.5 inches of recharge x 75% recharge available / 12 provides a safe yield of 307 acre-feet. Prior appropriations total 79.25 acre-feet, leaving over 227 acre-feet available and the application requesting 30.7 acre-feet meets safe yield. Note that the nearby wells sourcing Dakota formation were subtracted from the prior appropriations.

FILE NO. 49,907

Application, File No. 49,907 will overlap in point of diversion with File No. 46,173, and will overlap in place of use with File Nos. 19,812; 35,452; 45,284; 46,173, and 49,906. The applicant did not identify any wells of any kind within one-half mile of the proposed point of diversion (other than his other nearby MUN supply well). No nearby well owner letters are required. There are only two other permitted groundwater wells within a two-mile radius according to the WRIS database. Per the requirements in K.A.R. 5-4-4 for the unconfined Dakota aquifer system, the minimum well spacing should be 2,640 feet to non-domestic wells and 1,320 feet to domestic wells. The nearest non-domestic well is over 2,900 feet away, so spacing is met. This is an existing well that has been utilized for municipal use for many years. The requested quantity of water and rate of diversion are still relatively small, and there is no reason to believe that any senior water rights will be impaired with approval of this application.

Cloud County RWD 1 File Nos. 49,906 and 49,907 Page 2

File No. 49,907 is sourcing both tributary alluvium/terrace and unconfined Dakota aquifer system aquifers. The well log clearly shows creek gravel extending from 54.5 feet to 66 feet below ground surface and sandstone from 68 feet to 82.5 feet, with the well screened from 55.5 feet to 82 feet below ground surface. Per K.A.R. 5-3-11, (and the senior file) the area of consideration was based on the extent of the alluvial aquifer overlying the Dakota aquifer system, which was determined to be 4,892 acres. Thus 4,892 acres x 2.4 inches of recharge x 75% recharge available / 12 provides a safe yield of 733.8 acre-feet. Prior appropriations total 198.23 acre-feet, leaving over 535 acre-feet available and the application requesting 30.7 acre-feet meets safe yield. By definition in K.A.R. 5-3-11(d)(6), the Republican Basin does not include the unconfined Dakota, Meade formation, or any other areas located outside the effective alluvium. This existing well is outside the effective alluvium.

File No. 19,812 is authorized 10.237 million gallons, File No. 35,452 is authorized 11.501 million gallons, File No. 45,284 is authorized 25.824 million gallons, but limited to 25.824 with senior files, so only 4.086 million gallons additional, and finally File No. 46,173 is authorized 10.238 million gallons, with 0 additional quantity. Therefore, the total authorized by all senior files is 25.824 million gallons.

The applicant has provided a Municipal Supplemental Information Sheet and additional information to justify the requested quantity of water. In addition, based on Water Use Records and the applicant's information, they have nearly exceed their authorized quantity in the past few years. The Kansas Municipal Water Use report indicates an average of 125 gpcd, (which is relatively high for a small public water supplier – Avg. 97 gpcd). The Kansas Water Office water needs projection is 26 million gallons in 2040, however in many situations these estimates tend to be on the low side. An estimated quantity of water can be determined as follows:

Population of 493 x 125 gpcd x 365 days
Industrial, Stock, and Bulk
Other Water Used (Unaccounted for)
TOTAL

= 22.5 million gallons
= 8.6 million gallons
= 7.7 million gallons
= 38.8 million gallons

The applicant has projected a need of 34.2 million gallons by 2037. The applicant has noted the age of the District (over 20 years) and the difficulty in finding leaks to account for much of the unaccounted water. The District is updating their system with AMR master meters and they anticipate being able to detect leaks much easier. Actual customer usage has also been updated from a self read system. They anticipate continued growth in both residential and stock uses. Based on this information, it appears that a projected quantity of water need of 40 million gallons would be reasonable. Since the senior files authorize 25.824 million gallons, this would mean the pending applications would provide 14.176 million gallons of additional water (40 mgy – 25.824 mgy). File No. 49,906 would be all additional, while File No. 49,907 would be limited to 40 million gallons with the senior files (4.176 mgy additional).

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, a check valve will also need to be installed.

Kelly Stewart, Water Commissioner of the Stockton Field Office, recommended approval of the referenced applications in an October 12, 2017 e-mail. Based on the above discussion, the additional quantity of water will help the applicant meet future water demands, 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 new 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

November 30, 2017

CLOUD RWD 01 % MARCIA JOHNSON PO BOX 416 CONCORDIA KS 66901

FILE COPY

Re: Appropriation of Water, File Nos. 49,906 and 49,907

Dear Ms. Johnson:

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.

Kristen A. Baum

New Application Unit Supervisor Water Appropriation Program

KAB:dws Enclosures

pc: Stockton Field Office

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. 49,907 of the applicant

CLOUD RWD 01 BOOKKEEPER PO BOX 416 CONCORDIA KS 66901

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 **September 18, 2017.**
- 2. That the water sought to be appropriated shall be used for municipal use within the boundaries of Rural Water District No. 1, Cloud County, Kansas and the immediate vicinity.
- 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 Northwest Quarter of the Northwest Quarter of the Northwest Quarter (NW¼ NW¼ NE¼) of Section 25, more particularly described as being near a point 5,227 feet North and 2,507 feet West of the Southeast corner of said section, in Township 5 South, Range 5 West, Cloud 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 **400** gallons per minute (0.89 c.f.s.) and to a quantity not to exceed **10** million gallons (30.69 acre-feet) of water for any calendar year.
- 5. That installation of works for diversion of water shall be completed on or before <u>December 31, 2018</u> 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 <u>December 31, 2037</u> 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.

File No. 49,907 Page 2 of 4

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 re-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 an acceptable water flow meter shall be installed and maintained on the diversion works authorized by this permit in accordance with the 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).
- 13. 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.
- 14. That no water user shall engage in nor allow the waste of any water diverted under the authority of this permit.
- 15. 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.
- 16. 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.
- 17. 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.

18. That the quantity of water approved under this permit is further limited to the quantity which combined with Water Right, File Nos. 19,812 and 35,452; and Appropriation of Water, File Nos. 45,284; 46,173, and 49,906, will provide a **total not to exceed 40 million gallons** of water per calendar year for municipal use as described herein.

RIGHT TO A HEARING AND TO ADMINISTRATIVE REVIEW

If you are aggrieved by this Order, then pursuant to K.S.A. 82a-1901, you may:

- 1) request an evidentiary hearing before the Chief Engineer, or
- 2) request administrative review by the Secretary of Agriculture.

Failure to request an evidentiary hearing before the Chief Engineer does not preclude your right to administrative review by the Secretary.

To obtain an evidentiary hearing before the Chief Engineer, a written request for hearing must be filed within 15 days after service of this Order as provided in K.S.A. 77-531 (i.e., within a total of 18 days after this Order was mailed to you), with: Kansas Department of Agriculture, Attn: Legal Section, 1320 Research Park Drive, Manhattan, Kansas 66502, FAX (785) 564-6777.

If you do not file a request for an evidentiary hearing before the Chief Engineer, you may petition for administrative review of the Order by the Secretary of Agriculture. A petition for review shall be in writing and state the basis for requesting administrative review. The request for hearing may be denied if the request fails to clearly establish factual or legal issues for review. See K.S.A. 77-527. The petition must be filed within 30 days after service of this Order as provided in K.S.A. 77-531 (i.e., within a total of 33 days after this Order was mailed to you), and be filed with: Secretary of Agriculture, Attn: Legal Division, Kansas Department of Agriculture, 1320 Research Park Drive, Manhattan, Kansas 66502, FAX (785) 564-6777.

If neither a request for an evidentiary hearing nor a petition for administrative review is filed as set forth above, then this Order shall be effective and become a final agency action as defined in K.S.A. 77-607(b). Failure to timely request either an evidentiary hearing or administrative review may preclude further judicial review under the Kansas Judicial Review Act.

Ordered this Well day of November, 2017, in Topeka, Shawnee County, Kansas.

Lane P. Letourneau, L.G.

Program Manager

Water Appropriation Program Division of Water Resources

Kansas Department of Agriculture

State of Kansas

SS

DANIELLE WILSON My Appointment Expires

August 23, 2020

County of Riley

The foregoing instrument was acknowledged before me this Lange of Lange of

Notary Public

CERTIFICATE OF SERVICE

On this 30 day of November, 2017, I hereby certify that the foregoing Approval of Application and Permit to Proceed, File No. 49,907, dated wher leading was mailed postage prepaid, first class, US mail to the following:

CLOUD RWD 01 BOOKKEEPER PO BOX 416 CONCORDIA KS 66901

With photocopies to:

Stockton Field Office

Division of Water Resources

APPLICATION COMPLETE
9/18/17
Reviewer_DWS



KANSAS DEPARTMENT OF AGRICULTURE

Jackie McClaskey, Secretary of Agriculture

DIVISION OF WATER RESOURCES

David W. Barfield, Chief Engineer

File Number 49907
This item to be completed by the Division of Water Resources.

WATER RESOURCES RECEIVED

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.)

1320 Research Park Drive, Manhattan, KS 66502:

To the Chief Engineer of the Division of Water Resources, Kansas Department of Agriculture,

SEP 18 2017 ||:3| KS DEPT OF AGRICULTURE

Name of Applicant (Please Print): CLOUD CO. RWD 1 Address: P.O. BOX 416 State: KS Zip Code: 66901 City: CONCORDIA Telephone Number: (785) 243-7929 2. The source of water is: ☐ surface water in OR 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. The maximum quantity of water desired is _____ acre-feet OR $l\mathcal{D}$ million gallons per calendar year. to be diverted at a maximum rate of 400 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. The water is intended to be appropriated for (Check use intended): (a) ☐ Artificial Recharge (c) ☐ Recreational (d) ☐ Water Power (b) ☐ Irrigation (e) ☐ Industrial (f) Municipal (g) ☐ Stockwatering (h) ☐ Sediment Control

For Office Use Only: F.O. 3 GMD 0 Meets K.A.R. 5-3-1 (YES / NO) Use MUN Source GYS County CD By KAB Date 9 18 17 Code REG Fee \$ 200 TR # Receipt Date 9 18 17 Check # 3916

TO SUBSTANTIATE YOUR REQUEST FOR THE AMOUNT OF WATER FOR THE INTENDED USE REFERENCED ABOVE.

YOU MUST COMPLETE AND ATTACH ADDITIONAL DIVISION OF WATER RESOURCES FORM(S) PROVIDING INFORMATION

(i) ☐ Dewatering

(m) ☐ Thermal Exchange (n) ☐ Contamination Remediation

(k) ☐ Hydraulic Dredging

(I) ☐ Fire Protection

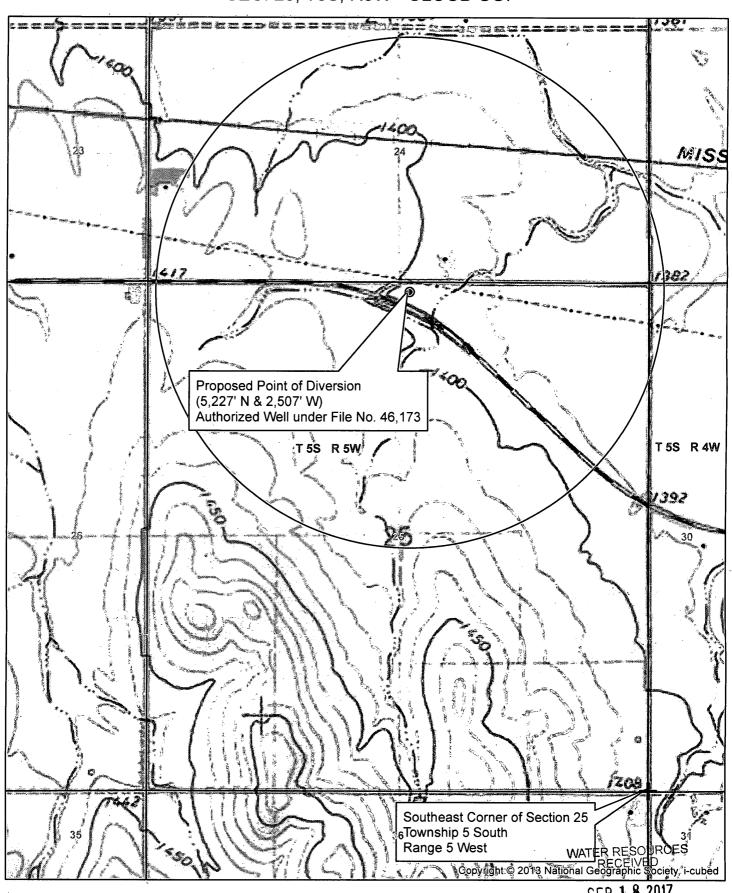
(i) Domestic

ο.	ıne	location of the proposed wells, pump sites of 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 $\ \underline{NW}$ quarter of the $\ \underline{NW}$ quarter of the $\ \underline{NE}$ quarter of Section 25, more particularly
	٠,	described as being near a point $\underline{5.227}$ feet North and $\underline{2.507}$ feet West of the Southeast corner of
		said section, in Township 5 South, Range 5 WEST, CLOUD 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.
	radiu minu A ba than pum	ells, except that a single application may include up to four wells within a circle with a quarter (¼) mile us in the same local source of supply which do not exceed a maximum diversion rate of 20 gallons per ute per well. Interty of wells is defined as two or more wells connected to a common pump by a manifold; or not more four wells in the same local source of supply within a 300 foot radius circle which are being operated by ps not to exceed a total maximum diversion rate of 800 gallons per minute and which supply water to a
6		mon distribution system. owner of the point of diversion, if other than the applicant is (please print):
6.	me	owner of the point of diversion, if other than the applicant is (please printy.
		(name, address and telephone number)
	land	must provide evidence of legal access to, or control of, the point of diversion from the landowner or the owner's authorized representative. Provide a copy of a recorded deed, lease, easement or other ament 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 <u>September 12</u> , 2017. By: Marcia Johnson Applicant's Signature
7.	The	proposed project for diversion of water will consist of ONE WELL (number of wells, pumps or dams, etc.)
	and	(was)(will be) completed (by) EXISTING (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

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 o 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 <u>must</u> be supplemented by a U.S.G.S. topographic map, aerial photograph or a detailed plasshowing 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 ½ 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 ½ mile, please advise us.
	(c) If the application is for surface water, the names and addresses of the landowner(s) ½ mile downstream and ½ 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.
	46,173 OVERLAP IN PD AND PU. WATER RESOURCES
	RECEIVED 19,812; 35,452; AND 45,284 OVERLAP IN PU.
	SEP 1 8 2017
	KS DEPT OF AGRICULTURE

	well has not been complete									
	Information below is from:	☐ Test holes	☐ Well a	as completed	☐ Drillers	log attached				
	Well location as shown in p	aragraph No.	(A)	(B)	(C)	(D)				
	Date Drilled	<u>S</u>	ee Senior							
	Date Dillied		File							
	Total depth of well		· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·					
	Depth to water bearing form	mation _	·							
	Depth to static water level	_								
	Depth to bottom of pump in	itake pipe								
14. 15.	The relationship of the applicant to the proposed place where the water will be used is that of OWNER (owner, tenant, agent or otherwise) The owner(s) of the property where the water is used, if other than the applicant, is (please print):									
		(name, addr	ess and tele	ephone number)					
		, ,		ephone number						
16.	The undersigned states that this application is subn	(name, addr	ess and tele	ephone number) he best of hi	s/her knowledge an				
16.	that this application is subp	(name, addr	ess and tele	ephone number) he best of hi	,2017				
16 .	that this application is subn Dated at <u>Concord</u> to	(name, addratthe information nitted in good fait	ess and tele	ephone number pove is true to t day of <u>Sept</u>	he best of hi CMOCY (month)	, <u>2017</u> (year)				
16. 	that this application is subn Dated at <u>Concool</u> to	(name, addratthe information nitted in good fait	set forth ath.	ephone number pove is true to to day of Sept) he best of hi	,2017 (year) URITY				
16.	that this application is subnoted at Concord to Concord to County River Marcia Solventry River Rive	(name, addraged (name, addraged) at the information (name) which is the information (name) which	set forth ath.	ephone number pove is true to to day of Sept	he best of hi (month)	,2017 (year) URITY				
16. - <u>B</u>	that this application is subn Dated at <u>Concool</u> to	(name, addraged (name, addraged) at the information (name) which is the information (name) which	set forth ath.	ephone number pove is true to to day of Sept	he best of his empore (month) S) SOCIAL SECUTION NUMBER 33194 and/or					
16. — <u>B</u>	that this application is subnoted at Concord to Concord to County River Marcia Solventry River Rive	(name, addraged (name, addraged) at the information (name) which is the information (name) which	set forth ath.	APPLICANT(S IDENTIFICA	he best of his empore (month) S) SOCIAL SECUTION NUMBER 33194 and/or					
16.	that this application is subnoted at Concord to Concord to County River Marcia Solventry River Rive	(name, addraged (name, addraged) at the information (name) which is the information (name) which	set forth ath.	APPLICANT(S IDENTIFICA	he best of his empore (month) S) SOCIAL SECUTION NUMBER 33194 and/or					

CLOUD COUNTY RWD NO. 1 NEW APPLICATION SITE MAP SEC. 25, T5S, R5W - CLOUD CO.



Proposed Point of Diversion

(4)

1:12,000

All known wells within one half mile of the proposed point of diversion are shown on this map.

Mauric Physics CANNED

Applicant's Name: CLOUD CO RWD 1

MUNICIPAL (PUBLIC WATER SUPPLY) APPLICATION SUPPLEMENTAL INFORMATION SHEET

Application File	e Number 🖫	
49,907		
(assigned by		

(/) []]

SECTION 1: PRESENT WATER USE SUMMARY (IF NO PREVIOUS MUNICIPAL WATER USE HAS BEEN UTILIZED, PROCEED TO SECTION 3)

ゔ	NOTE:	WORKSHEET FOR WA	TER PUMPED, PURCHASED		ATER DISTRIBUTION SYSTE		JRCE 017	TING S
7	Column 1	Column 2	Column 3	Column 4 Water Sold to Your	Column 5 Water Sold to Your	Column 6	Column 7 2	PRO CO
1	Raw Water Diverted Under Your Rights	Water Purchased From All Sources	Water Sold to Other Public Water Suppliers	Industrial, Stock, and Bulk Customers	Residential and Commercial Customers	Other Metered Water	Remaining Water Used (See Below Explanation)	OF A
_	23,351,000	0	0	4167,000	12.060,000	143,000	6981,000 5	29 %
TOTAL WATER = Columns 1 + 2				UNACCOUNTED FOR WATER	 			
=				,				-32

UNACCOUNTED FOR WATER = TOTAL WATER - ACCOUNTED FOR WATER

- 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.
- The amount of water sold wholesale to all other public water supply systems. Column 3:
- 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 Column 4: 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.
- 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 in Column 7.

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

Percent Unaccounted = Unaccounted For Water x 100

Total Water (Columns 1,2)

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

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							
15 years ago							
10 years ago 2008	25,086,000	0	6	5.765,000	11,518,000	90,000	7,713,000
5 years ago 2011	20,508,000	0	0	6,090,000	11.131,000	273,000	3.014.000
	TOTAL WATER	= Columns 1 + 2	Α	UNACCOUNTED FOR WATER			

SECTION 3: PROJECTED FUTURE WATER NEEDS PLEASE COMPLETE THE FOLLOWING TABLE SHOWING YOUR FUTURE WATER REQUIREMENTS FOR THE NEXT 20 YEARS: Column 6 Column 7 Column 5 Column 1 Column 2 Column 3 Column 4 Water Sold to Your Water Sold to Your Remaining Water Used Raw Water Diverted Water Purchased Water Sold to Other Industrial, Stock, and Residential and Other (See Explanation on other side) Metered Water Under Your Rights From All Sources Public Water Suppliers **Bulk Customers** Commercial Customers 263000 Year 5 25.686.000 157,000 600 489 000 Year 10 254.000 0 0 190,000 000 Year 15 31.080.000 0

ACCOUNTED FOR WATER = Columns 3 + 4 + 5 + 6

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)

TOTAL WATER = Columns 1 + 2

LAST 20 YEARS	POPULATION
20 years ago	
15 years ago ,	
🕏 years ago	412
5 years ago	431
Last Year	453

PROJECTED FUTURE POPULATION
ESTIMATE FUTURE POPULATION AND SUBSTANTIATE NUMBERS ON SEPARATE ATTACHMENTS

209,000

82,000

UNACCOUNTED FOR WATER

NEXT 20 YEARS	POPULATION
Year 5	463
Year 10	473
Year 15	483
Year 20	493

	•			
192	Residential	Industrial	Oti	her (specify)
-	Commercial	82	_274 to	otal

SECTION 5: PRESENT GALLONS PER PERSON PER DAY
CALCULATE YOUR GALLONS PER PERSON PER DAY

Provide number of current active service connections:

34,188,000

Year 20

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

19,184,000 ÷ 453 ÷ 365 Days/Year = 116 GALLONS PER PERSON PER DAY.

Amount of water in Columns 5, 6, and 7 Population from Last Year of Section 4

Stockwater/ Feedlot

SECTION 6: AREA TO BE SERVED

of Section 1

Schemm, Doug

From:

Stewart, Kelly

Sent:

Thursday, October 12, 2017 8:06 AM

To:

Schemm, Doug

Cc:

Billinger, Mark; Hageman, Rebecca

Subject:

RE: Cloud Co. RWD 1

Doug,

I have no objection to the approval of these applications.

Kelly

From: Schemm, Doug

Sent: Wednesday, October 11, 2017 4:16 PM **To:** Stewart, Kelly <Kelly.Stewart@ks.gov> **Cc:** Billinger, Mark <Mark.Billinger@ks.gov>

Subject: Cloud Co. RWD 1

Hello Stockton,

I figure we should give them 40 MGY, which would be about 15 mgy more than they have.

They have been close to over pumping in several years.

Please review,

Thanks, Doug

49907 00

AMOUNT STATISTICS REPORT FOR POINTS OF DIVERSION UNDER A

49907 00 MUN

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

5227 Feet North and 2507 Feet West of the Southeast Corner of Section 25 T 5S R 5W GROUNDWATER ONLY

meets spacing

File	Number		Use	ST	SR	Dist	(ft)	Q4	Q3	Q2	Q1	FeetN	FeetW	Sec	Twp	Rng	ID B	Batt Auth_Quan	Add_Quan '	Unit
A	30660	00	IRR	NK	G		2983		NE	NE	NE	5180	230	26	5	5W	1	131.00	131.00	AF
A	42913	00	MUN	LO	G		8214		NE	SE	SE	1128	134	22	5	5W	7	46.03	46.03	AF
A	46173	00	MUN	LO	G		0		NW	NW	NE	522 7	2507	25	, 5	5W	3	31.42	.00	AF
A	49907	00	MUN	AY	G		0		NW	NW	NE	5227	2507	25	5	5W	3	30.69	30.69	AF
VCD	5	00	MUN	AA	G		8214		NE	SE	SE	1128	134	22	5	5W	7	21.20	21.20	AF

Total Net Quantities Authorized: Direct Storage Total Requested Amount (AF) = 30.69 0.0 Total Permitted Amount (AF) = .00 Total Inspected Amount (AF) = 46.03 .00 Total Pro Cert Amount (AF) = .00 .00 . 00 Total Certified Amount (AF) = 131.00 21.20 .00 Total Vested Amount (AF) = (AF) =228.92 .00 TOTAL AMOUNT

An * after the source of supply indicates a pending application for change under the file number.

An \star after the ID indicates a 15 AF exemption was granted under 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:

5227 Feet North and 2507 Feet West of the Southeast Corner of Section 25 T 5S R 5W

GROUNDWATER ONLY

WATER USE CORRESPONDENTS:

File Number Use ST SR

A 30660 00 IRR NK G

> FRED M & PHYLLIS E LARSEN

> 1950 N 110TH RD

> CONCORDIA KS 66901

>----------

A__ 42913 00 MUN LO G

> CITY OF JAMESTOWN

> PO BOX 274

> JAMESTOWN KS 66948

\-----

A 46173 00 MUN LO G

> CLOUD RWD 01

> BOOKKEEPER

> PO BOX 416

> CONCORDIA KS 66901

>-----

A 49907 00 MUN AY G

> CLOUD RWD 01
> BOOKKEEPER
> PO BOX 416
> CONCORDIA KS 66901
>
VCD 5 00 MUN AA G
> CITY OF JAMESTOWN
>
> PO BOX 274
> JAMESTOWN KS 66948
>
#######################################

File #49,907 meets sofe field

Analysis Results

The selected PD is in an area—to new appropriations. The safe yield, based on the variables listed below is 733.80 AF. Total prior appropriation in the circle is 228.92 AF. — 30.69 = 198.23 AF Total quantity of water available for appropriation is 50.4.88 AF.

Safe Yield Variables

535.6 AF

The area used for the analysis is set at 4892 acres. Potential annual recharge of the area is estimated to be 2.4 inches. The percent of recharge available for appropriation is 75%.

Authorized Quantity values are as of 11-OCT-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 5 water right(s) and 3 point(s) of diversion within the circle.

File Number	Use	ST	SR	Q4	Q3	Q2	Q1	FeetN	FeetW	Sec	qwT	Rng	ID	Qind	 Auth_Quant	Add_Quant	Tacres	Nacres
A 30660 00 A 42913 00 A 46173 00 A 49907 00 V CD 5 00	MUN MUN MUN	LO LO AY	G G G		NE NW NW	SE NW NW	SE NE NE	5180 1128 5227 5227 1128	134° 2507 2507	22 25 25	05 05 05	05W 05W	7 3 3	WR WR WR WR WR	131.00 46.03 31.42 30.69 21.20	131.00 46.03 0.00 30.69 21.20	317.00	317.00

Safe Yield Report Sheet Water Right- A4990700 Point of Diversion in NENWNW 25-5S-5W 3 (71351)

		L RECORD	Form WWC-	·5	Division of Water Resources; App. No. 46, 173							
Cou	nty: C1		Fraction NE 1/4 NW 1/4 NE	1/4	Section N 25			Number S	Range R	√umber MW		
Dista loca	ance and d ted within	irection from nearest town or cicity? 2 miles East of	ty street address of wo	ell if Ks.	Latitude	:	Systems (c			f 4 digits)		
2 WA	TED WE	LL OWNER: Cloud Cou	nty DWD #1		Longitud	de:						
		ess, Box # : c/o Schwa	_ -		Elevatio	n:						
	, State, ZI	DO 1 4465	Manh	attan	Datum:							
3 1.00	CATE WE		KS KS	66502	Data Co.	llection I	vietnod:					
	CATION	LE 3 4 DEI III OF COME	LEIED WELL	• • • • • • • • • • • • • • • • • • • •		IL.						
WIT	TH AN "X TION BO	X: WÊLL'S STATIC WA	TER LEVEL 1.1	ft.	below lan	d surface	fi	on mo/day	/yr. 4/5 /	07		
Est. Yield 50gpm: Well water was												
w H		2 Irrigation 4 Ind	ustrial 7 Domesti									
\$\	W SE 	Was a chemical/bacteri Sample was submitted.	ological sample subn	nitted to I . Water	Departmen r well disi	it? Yes nfected?	No Yes . X	X ; . No	If yes, mo	'day/yrs		
5 TYP		SING USED: 5 Wrought I	ron 8 Conc	rete tile		CASING	JOINTS:	Glued X	Clamp	ed		
1	Steel	3 RMP (SR) 6 Asbestos-	Cement 9 Other	(specify	below)	CHISHIVE			·····			
	PVC	4 ABS 7 Fiberglass					· · · · · · · · · · · · · · · · · · ·	Threaded				
Blank c	asing diam	eter8 in. to55.5	ft., Diameter	ir	1. to	ft., ?	Diameter .		in. to	ft.		
Casing i	neigni abo	ve land surface 12 N OR PERFORATION MATE	in., Weight 🗗 🛦	.! 	lbs./ft.	Wall thic	kness or g	uage No	., , 995 .9.	<i>V</i> Q		
	Steel	3 Stainless Steel 5 Fibers		9 A			11 Other	(Specify)	•			
	Brass	4 Galvanized Steal 6 Concr				Cement	12 None u	(specify) . ised (onen	hole)	•••••		
SCREE	N OR PER	FORATION OPENINGS ARE		,		,		ora (opta	,			
1	Continuou	s slot 5 Gu	azed wrapped 7 To		9 Drille	ed holes	11 Non	e (open ho	ole)			
2	Louvered	shutter 4 Key punched 6 W	ire wrapped 8 S	aw Cut	10 Othe	r (specify	')					
CREE	N-PERFO.	RATED INTERVALS: From.	a.a n. to	0.4	It.,	From		ft. to	••••••	ft.		
	GRAVEI	PACK INTERVALS: From	ft. to	82	π.	From	• • • • • • • • • • • • • • • • • • • •	π. το		π.		
	GIGIVEE	From	ft. to	 	ft.,	From	• • • • • • • • • • • • • • • • • • • •	ft. to		ft.		
GRO	UT MAT	ERIAL: 1 Neat cement X C							ė			
~	itervals:	From .5 ft. to .25	Cem ft., From	25	ft. to	15Ben _{ft}	From		ft. to	ft.		
What is	the neares	source of possible contamination	on: None withi	n 1/4	mile		,					
	Septic tanl			0 Livesto		13 Inse	ecticide Sto	rage	16 Other (s	pecify		
	Sewer line	1		l Fuel sto	_		andoned wa		below)			
		sewer lines 6 Seepage pit	-		er Storage		well/gas w					
ROM	TO	ll?LITHOLOGIC		ow many FROM	TO	<u> </u>	DLUCC			•••••		
0	4	Topsoil	LUG	FROM	10		PLUGG	ING INTE	RVALS			
4	8	Clay, gray/green	· .									
8	37	Clay, gray/green Clay, brown										
37	54.5	Clay, gray			1 1							
54.5	66	Creek gravel, dir	tv w/limesto	ne								
66	68	Shale, gray	- 1			Screen	red					
68	82.5	Sandstone, brown										
82.5	85	Shale, gray										
CONT	RACTO	R'S OR LANDOWNER'S CE	RTIFICATION: Th	is water v	vell was 🖁	() constru	icted. (2) re	constructe	ed. or (3) nl	ugged		
ınder m	y jurisdicti	on and was completed on (mo/d	lay/year) . .4 / 2.6 / .0 .	7 and 1	this record	is true to	the best of	f my know	ledge and l	pelief.		
Kansas V	Water Wel	Contractor's License No1.3.	8 This Water V	Well Reco	ord was co	ompleted of	on/mo/dax	/year) 5	17/07			
inder the	e business	name of Peterson Ir	rigation, In	c. by	(signatur	e) //	4. 14	Tura	_			
NSTRUC	CTIONS: Us	e typewriter or ball point pen. PLEAS	E PRESS FIRMLY and PR	RINT clearly	y. Please fil	l in blanks,	underline or	circle the cor	rect answers.	Send top		
nree copie 185-296-5:	522. Send	Department of Health and Environment one to WATER WELL OWNE	, bureau of water, Geolog R and retain one for	y section, l	ords. Fee	e of \$5.00	nte 420, Lope) for each	ка, Kansas 6 constructed	well. Vi	sit us at		
		s.us/geo/waterwells.						2011011 40104		40 41		



KANSAS DEPARTMENT OF AGRICULTURE

Division of Water Resources

Stockton Field Office

MEMORANDUM

TO: Files

DATE:

August 29, 2016

FROM: Jodie K. Barker

RE:

Water Right,

File Nos. 19,812 & 35,452; Appropriation of Water, File Nos. 45,284 & 46,173

The referenced files are authorized for municipal use within the boundaries of RWD #1, Cloud County.

File 19812 is certified 10.237 (31.416 AF) mgy @ 55 gpm from one (1) well.

The 2015 WUR shows:

Beginning: 43352000

Ending: 43376000

Metered quantity: .024 mg (.074 AF)

No overpump.

File 35452 is certified for 11.501 mgy (35.295 AF) @ 43 gpm from one (1) well.

The 2015 WUR shows:

Beginning: 47150000

Ending: 52419000

Metered quantity: 5.269 mg (16.17 AF)

No overpump.

File 45284 is authorized 25.824 mgy (79.25 AF) @ 99 gpm from one (1) well, limited to a total of 25.824 mgy (79.25 AF) when combined with File 19812, 35452 & 44726-Closed. (*see below)

The 2015 WUR shows:

Beginning: 77330000

Ending: 89137000

Metered quantity: 11.807 mg (36.234 AF)

File 45284 (cont)

Total combined quantity File 19812 + 35452 + 45284 = 17.1 mg (52.478 AF)

*NOTE: WRIS reflects "0" additional quantity for File 45852. This file has a priority date of 10-24-2002, an approval date of 3-19-2003, and a perfection deadline of 12-31-2023.

File 44726 (priority 7-23-2001; appr. 12-5-2001; dism. 10-26-2009) was originally approved for 25.824 mgy, limited to 25.824 mgy combined with File 19812 & 35452 (4.086 mgy additional quantity). Per a F&O dated 9-29-2006, File 44726 was to be dismissed as a condition of the approval of File 45284. File 44726 was finally closed following the N&P & FIR of File 45284 in 2009.

If appropriate given the dismissal of File 44726, it is recommended that WRIS be updated to reflect 4.086 mgy additional under File 45284.

No overpump individual or combined quantity.

File 46173 is authorized 10.238 mgy (31.419 AF) @ 55 gpm from one (1) well, limited to 10.238 mgy (31.419 AF) combined with File 19812.

The 2015 WUR shows: Beginning: 37125000 Ending: 42193000

Metered quantity: 5.068 mg (15.553 AF)

Total combined quantity File 19812 + 46173 = 5.092 mg (15.627 AF)

No overpump of individual or combined quantity.

The calculated overpump appears to have been triggered due to the additional quantity of "0" under Files 45284 & 46173.

#19,812- 10.237 mgy
#35,452+11.501 mgy
#45,284 + 4.086 mgy (addl) Limited to 25.824 with Senior Files.

25.824 mgy

46,173- Oadd'l (limited to 10.238 mgy with 19,812)

CLOUD COUNTY RURAL WATER DISTRICT #1

Explanation of Unaccounted for Water Loss:

With a district as old as ours, we believe there are many undetectable small leaks throughout the system. As leaks are located, we promptly repair them. Very often we find that the pipes were not packed with sand or anything else in rocky areas where it was originally laid. The pipes have rubbed on the rocks over the years and split on the bottom of the pipe with the water running down through the rocks instead of coming up to the ground where it is able to be located.

We have a lot of water line that runs through pastures and fields that are far from the road. The only way to locate these is when a farmer notifies us that he has a soft spot or water is actually spraying out of the ground. Leaks like this may run for a long time before being detected.

We also believe that the expansion and contraction of the pipes cause water to leak that is undetectable. Glue holding pipes together has deteriorated over the years allowing pipes to pull apart. Pipes may contract enough to leak out water that is absorbed into the ground, but once the pipe expands enough, the leak stops. It is extremely difficult to locate these leaks.

Even though the water loss on the report is described as unaccounted water loss, we may know where a large leak happened or the water tower overflowed, etc. but because the water is not metered, we cannot indicate it as other metered water.

Steps Taken to Reduce Water Loss:

We used to be a self read system and it was impossible to know for sure, other than when we did a physical audit, whether exceptional usage was due to inaccurate patron readings or leaks on the system. In 2014 we invested in an AMR system so we now can compute and bill for accurate water usage. This also helps us to know if a leak is being billed for or is on a main line.

We also are monitoring the water pumped out of the wells every day and when the amount pumped is above normal, we look for leaks. We recently installed some AMR master meters on our main lines as a tool to determine where leaks are located and are looking into equipment that will assist with locating the leaks through sound moving through the pipes.

The water district board reviews and discusses water loss at every meeting and is always looking for ways to reduce it.

WATER RESOURCES

SEP 1 8 2017

CLOUD COUNTY RURAL WATER DISTRICT #1 APPLICATION FOR ADDITIONAL WATER RIGHTS

Additional information regarding our need for additional water rights:

- **-FARMING PRACTICES**: Local farming practices have changed over the years which require additional water usage. The use of no-till requires thousands of gallons of water for chemicals sprayed on weeds. Since implementation of no-till, we have not had our water rights increased to cover this additional use of water.
- -AGE OF WATER DISTRICT: Our water district is over 20 years old having been developed in the mid 1970's. Although we do our best to locate and repair leaks, a lot of the leaks are small ones or are extremely large ones that run a considerable amount of water before we are able to repair. We used to be a self read meter system but invested in an automated meter reading system in 2014 so that we would have a more accurate picture of water loss and be able to recognize high usage and possibly a leak. We have also installed master meters on our main lines to help locate leaks and reduce water loss. We continue to try to control water loss but it is very difficult with an old system.
- -ADDING NEW BENEFIT UNITS: Since 2001 when our records were computerized, we have added 41 pasture units and 41 residential units for a total of 82 units. This averages over 5 benefit units/year. We have averaged 4 new units/year in the past 5 years. The new residential units come from people building new homes in the country and also homes that have had their own wells which are failing and they want to get on a reliable, safe water source. Several homeowners have installed units but continue to use their wells until their wells fail so we can expect them to begin using rural water in the near future. In addition, many of the older homeowners are selling their properties to young families increasing the number of users in a residence. These individuals also may have a few animals (horses, a few head of cattle) which increase the daily water usage of an otherwise residential household.
- -INCREASED USAGE DURING DROUGHT: We have installed many pasture units for cattle watering in anticipation of future drought. A lot of these units do not get used when the pasture ponds are full. Water usage can increase substantially when it is a dry year and the ponds are low on water or dry which happened in 2012.
- -WILL HAVE TO STOP ISSUING NEW BENEFIT UNITS: Our current water rights provide for approximately 25 million gallons over all our wells. We have been running up against our water rights for several years and this is in time of no drought. We will have to limit or discontinue issuing new benefit units to keep from going over our water allocation if we do not receive additional water rights. We will be unable to provide water for people and animals that may not have a better option for a safe, reliable, cost effective water source. We anticipate that our greatest increase will come from agriculture but without additional water rights.

SEP 1 8 2017

	·
	(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. 49,907
Dear Sir:	Minimum Desirable Streamflow
I understand that a Minimum Desirable Streethe legislature for the source of supply to which the	eamflow requirement has been established by above referenced application applies.
I understand that diversion of water pur regulation any time Minimum Desirable Streamflow	suant to this application will be subject to requirements are not being met.
I also understand that if this application is a by the Division of Water Resources, when I would this could affect the economics of my decision to a	
Division of Water Resources proceed with proces referenced application.	Cloud County BWD#1
E	Signature of Applicant
State of Kansas)) ss County of <u>(loud</u>)	Marcia Johnson (Print Applicant's Name)
I hereby certify that the foregoing instrume before me this 13 day of September	ent was signed in my presence and sworn to _, 2017.
PATRICIA M. MURK NOTARY PUBLIC STATE OF KANSAS My Appl. Exp. 2-14-19	Jotricia M. Murk Notary Public
My Commission Expires: 2-14-19	WATER RESOURCES RECEIVED
	SEP 1 8 2017

DWR 1-100.171 (Revised 06/16/2014)

KS DEPT OF AGRICULTURE

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



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

September 18, 2017

CLOUD CO RWD 1 PO BOX 416 CONCORDIA KS 66901

FILE COPY

RE: Application File No. 49907

Dear Sir or Madam:

Your application for permit to appropriate water in 25-5S-5W in Cloud 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,

Kristen A. Baum

New Applications Unit Supervisor Water Appropriation Program

rister a Baum

BAT:

dlw

pc:

TOPEKA Field Office

GMD