Kansas Department of Agriculture Division of Water Resources

APPROVAL OF NEW APPLICATION WORKSHEET

1. File No.: 50,899	2. Status Change Date: 5/	13/2024`	4. Field Office: 01-Topeka GMD: Structures File No.:						
3. Package File No(s):			Filing/Pr	iority Date: 10/27 on Complete Date					
5a. ⊠ Applicant ⊠ Owner ⊠ WU ☐ Address Change	C Person ID 57743 Add Seq# 1	_	☐ WUC ss Change		rson ID 68723 d Seq# 1				
STIGERS ISLAND FARM INC ATTN: STEVE KNETTER 11801 HOLLINGSWORTH R KANSAS CITY, KS 66109	_	MT MUNCI 1500 N 8TH LANSING,	I ST	RY					
5c. ☐ Owner ☐ WUC ☐ Address Change	Person ID Add Seg#	5d.	□ WUC		rson ID d Seq#				
	PU ☐ UMW Reasonable Q: ection/Expiration Date: 12/3		7. Use of Wate		e Water				
8. Action Trail									
9. Special Conditions									
10. 5YR Allocation Type: Star Comment:	rt Year: 5YR Quan	tity: Base A	Acres:						
11. Sand & Gravel Proj ID:	☐ Active ☐ Dredge	☐ IND Evap ☐] Jr Evap □	Other Diversion	☐ Rpt on Sr				
12. Waiver Rule ID: New DApplies: Rule No.: Rule Type: Rule SubType:	ate Requested:	Justification:							
Comments				Processed 5/7/2024	Entered				
				Reviewed KAK 5/8/2024	5/14/2024 KAnderson				

	No. 5	•			13	3. Cou	inty: LV	-Leav	enwor	th Ba	sin: Mi	ssour	i Stre	am:											
Stru	ctures	File N	No:		A	quifer	Code:	113 m	ain st	em allu	ıvium						Speci	al Use	Area:						
14. P	oints of	Diver	sion, F	Rates &	Quantiti	es										Oty	AF		Rate g	pm	Sto	orage Qty	Storag	e Rate	
	PDI\	'	Qualifi	er	5	3 T		R	ID	'N	'W	Con	nment (AKA Lir	ne)	Auth			Auth	Add	Au		_		Overlaps
СНК	898	34	SW N	E NW	1	7 9	S	23E	4	4405	3780					200	20	00	1,300	1,30	0				
15.	Limita	ions				antity:			Rate:				ed with												
			Тур	e:	Qι	antity:	:	R	ate:		comb	ined v	vith file	no(s):											
16.	Meteri	ng	\boxtimes	Meterir	ng Requ	uired	☐ A	nti-Re	verse	Require	ed [] Sea	I Requi	ired	Compl	iance I	Date: 1	12/31/2	025						
17. F	Place o												SW1/4									Ourner(e)	Chan	Overlaps	
	PUSE ID	S	Т	R	ID	NE	NW NE	=1/4 sw	SE	NE	NW NW	/'/ ₄ SW	SE	NE	NW SV	SW	SE	NE	SE NW	sw	SE	Total	Owner(s)	Clig?	Overlaps
СНК	5629	8	98	23E	1											19	20			2.5		41.5	5a		
СНК	7109	17	98	23E	4		5.5	1.5		40	30	21	35.5	9	6							148.5	5a		
	7110			23E	5						5											5	5b		
				23E			1				L-3	L-3										5.5	5b		
							1				2	3.5													
18. *	Point o	t Div	ersior	and P	lace of	Use C	Overlap	S						**											
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KANSAS DEPARTMENT OF AGRICULTURE Division of Water Resources <u>M E M O R A N D U M</u>

TO: Files **DATE:** May 6, 2024

FROM: Lloyd Hemphill RE: Application, File No. 50,899

Steve Knetter, on behalf of Stigers Island Farm, Inc has filed the referenced new application requesting to appropriate 200 acre-feet of groundwater at a rate of 1,300 gallons per minute for irrigation use. The proposed point of diversion is a well located in the Southwest Quarter of the Northeast Quarter of the Northwest Quarter (SW¼ NE¼ NW¼) Section 17, Township 9 South, Range 23 East, Leavenworth County, within the Missouri River Drainage Basin. This application does not overlap any other files. The proposed place of use is owned by the applicant and the Mt. Muncie Cemetery as described on the application. The point of diversion is owned by the applicant and he signed the legal access statement.

The proposed place of use includes 200.5 acres and the maximum reasonable quantity for irrigation of this acreage in Leavenworth County is 200.5 acre-feet (200.5 acres x 1 AF/acre = 200.5 AF), per K.A.R. 5-3-23. The applicant essentially requested the full quantity. The requested rate appears reasonable for this project.

Three municipal wells owned by the City of Leavenworth were identified within one-half mile of the proposed point of diversion. There are no domestic wells within one-half mile. Nearby notification letters were sent on February 9, 2024. No response was received.

According to the WRIS database, there are seven permitted groundwater rights within two miles of the proposed point of diversion, representing 20 individual points of diversion. Most of these are municipal supplies for the City of Leavenworth and the Lansing Correctional Facility. Ten of these points of diversion are vertical wells and a horizontal collector well which are located very close to the edge of the Missouri River (within 250 to 750 feet). The river is a significant source of recharge to these wells. The nearest well is owned by the City of Leavenworth and is located about 2,240 feet away from the proposed point of diversion. There are no domestic wells within 660 feet of the proposed point of diversion. Therefore, the existing well location meets well spacing criteria per K.A.R. 5-4-4 and the proposed appropriation is not expected to impair any existing water rights.

Based on nearby water well completion (WWC5) reports, the subsurface typically consists of about 12 feet of clay and silty clay at the surface, underlain by about 57 feet of very fine to fine sand to medium to coarse sand with gravel layers. The sediments tend to be coarser in the lower half of the aquifer. On one log, limestone bedrock was noted at 72 feet depth. Static water level averages 11 feet depth indicating that the entire sand thickness is saturated in most wells.

No well log was submitted with this application but based on the well's location in the alluvial valley, geologic maps, and nearby WWC5 reports, it is reasonable to conclude that the source of water will be the Missouri River Alluvial aquifer. Safe yield was evaluated using the standard method for unconfined aquifers (K.A.R. 5-3-11). The area of consideration is 2,565 acres, defined by the extent of the alluvial aquifer within a two-mile radius. Per regulation, the aquifer extent is truncated at the state boundary. Based on a potential recharge of 5.8 inches, with 100% available for appropriation, safe yield was determined to be 1,239.7 acre-feet. Prior appropriations total 7,578 acre-feet indicating that safe yield criteria are not met using the standard analysis. Per K.A.R 5-3-11(d)(3), the calculated recharge to the Missouri River alluvium is 100% of the recharge value published in USGS WRI report 87-4230 plus the recharge from the Missouri River available to the well, as calculated by a Jenkins or similar stream-depletion technique.

The Jenkins stream-depletion method requires definition of additional parameters, namely transmissivity, storage coefficient, distance from the surface water source, and pumping time. Estimates of hydrologic parameters were obtained from other Missouri River alluvial aquifer files and limited published resources.

Several engineering studies have been completed for previous projects in the area. These studies involved potential vertical wells and horizontal collector wells located within a few hundred feet of the river. These studies concluded that 90% to 95% of water produced from the wells would be induced recharge of surface water.

The well proposed by this application is about 2,550 feet from the river, approximately the same distance from the river as Water Right, File Nos. 45,897 & 45,898. DWR evaluated these files which referenced earlier engineering reports using the same 95% to 5% surface water to groundwater ratio. However, these wells were a few thousand feet away from the river rather than a few hundred feet for the wells studied in the engineering report, so the surface water contribution may have been overstated.

Based on a review of previous water right files and published literature, storage coefficients for the Missouri River alluvial aquifer range from 0.00006 to 0.2. Lower storage coefficients (0.00006 to 0.005) likely represent confined aquifer conditions while higher values (0.1 to 0.2) likely represent the specific yield of an unconfined aquifer. As discussed above, well logs show that the aquifer is covered by fine grained sediments. Static water levels occur near the top of the aquifer (within a feet above or below). This suggests that confined conditions are possible. However, with extended pumping times, it is likely that the aquifer will tend toward unconfined conditions as the water level is drawn down below the top of the aquifer. Various reports have suggested that some aquifer tests in this water source may be too short to reflect a true storage coefficient. For this analysis, a storage coefficient of 0.001 was used to represent a semi-confined aquifer, unless more specific information was available. The Jenkins analysis is most sensitive to changes in the storage coefficient. Over the most likely range of storage coefficients (0.001 to 0.01) the Jenkins surface water contribution may vary from 70% to 90% without changing any other parameters.

There are 19 groundwater points of diversion within two miles of the proposed well. The surface water contribution, as determined by Jenkins analysis, was deducted from the authorized appropriation for 18 of the points of diversion. The remaining right (File No. 49,912) authorizes the groundwater component to a horizontal collector well. The surface water component is covered under a separate file, so no deduction can be made from the safe yield analysis. The estimated surface water contribution ranged from 84.3% to 99.4%. This results in 891 acre-feet of groundwater appropriations, leaving 348 acre-feet of water for appropriation. The pending application is requesting 200 acre-feet of water and after adjustment using the Jenkins analysis, the groundwater component is 19.4 acre-feet of water. Based on this discussion, safe yield will be met. The surface water contribution provided by the Jenkins analysis for each point of diversion could be decreased by about 4.5% before the proposed appropriation would fail safe yield. It should be noted that the Jenkins analyses were completed on an individual well basis and do not factor in the effect of multiple wells operating simultaneously.

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.

Brett Bunger, Water Commissioner, Topeka Field Office, recommended in an April 18, 2024 e-mail that the referenced new application should be approved. Based on the above discussion, the provisions of K.A.R. 5-4-4 (well spacing) are met, safe yield criteria are met with specific analysis using the Jenkins stream depletion analysis, 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 application be approved.

Lloyd Hemphill Environmental Scientist Topeka Field Office

Hemphill, Lloyd [KDA]

From: Bunger, Brett [KDA]

Sent: Thursday, April 18, 2024 2:31 PM

To: Hemphill, Lloyd [KDA]; Baum, Kristen [KDA]

Subject: RE: Application File No. 50,899: Stigers Island Farm

Lloyd, I think you did a great job here. In fact, I think you took the extra step that is required. My review of File Nos. 45897 & 45898 which are located in the immediate area showed that when those apps were processed that they simply used data from a report that was prepared for File Nos. 44718 & 44719. The safe yield under 45897 & 45898 simply applied a 5% groundwater factor to the large water right under File No. 27613. You took the extra step and applied the Jenkins Analysis as required. You are correct that there are probably some educated assertions that have to be made but it is your job as the application processor to review the situation and do your best to make a reasonable assessment of the situation. A standard safe yield analysis is not applicable here. The regulation is pretty clear that the analysis will include 100% of the recharge plus all recharge available to the well as calculated by a Jenkins or similar type analysis. With that said, and the fact that you followed the procedure, I do not believe that a waiver of safe yield is applicable. With that said, I recommend approval of the application.

Brett

From: Hemphill, Lloyd [KDA] <Lloyd.Hemphill@ks.gov>

Sent: Wednesday, April 17, 2024 3:52 PM

To: Bunger, Brett [KDA] <Brett.Bunger@ks.gov>; Baum, Kristen [KDA] <Kristen.Baum@ks.gov>

Subject: Application File No. 50,899: Stigers Island Farm

Hello,

I am processing Application, File No. 50899 in the Missouri River alluvial aquifer. It does not meet safe yield based on the standard analysis for unconfined aquifers; however the regulations allow the surface water recharge determined with the Jenkins streamflow depletion method to be deducted from the safe yield analysis. Safe yield is met with the adjustments based on the Jenkins method. Use of this method does require certain assumptions to be made.

I am not finished drawing up all the approval documents, but I wanted to provide a draft of my memo and the safe yield analysis in advance to see if you have any comments.

Since the regulations specifically allows the Jenkins analysis to be used for the Missouri River alluvium, does this application need to be accompanied by a formal safe yield waiver? I would think not?

I appreciate your input. Let me know if you have any questions about my analysis.

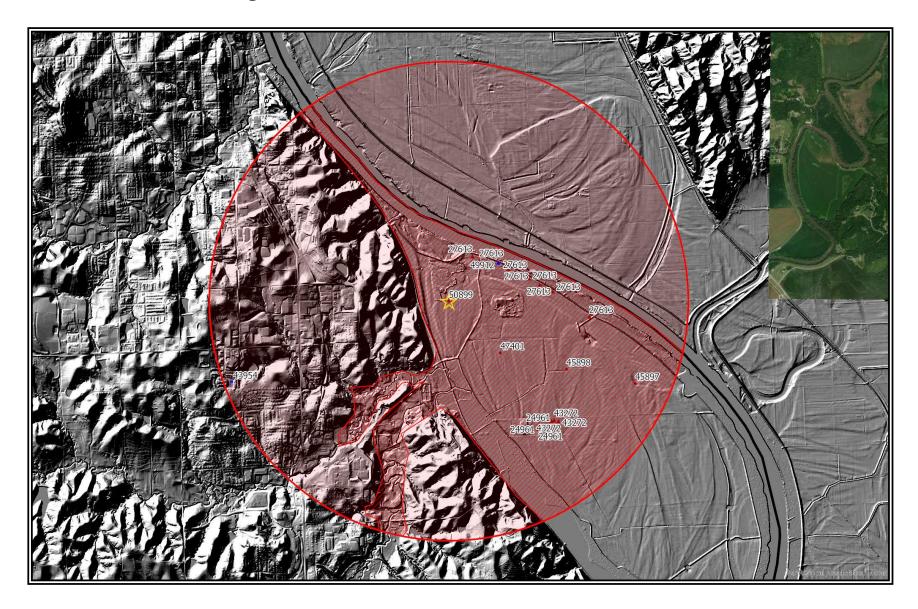
Thanks, Lloyd

Lloyd Hemphill, Environmental Scientist Kansas Department of Agriculture Division of Water Resources, Topeka Field Office 1131 SW Winding Rd, Suite 400 Topeka, KS 66615

Office: (785) 296-5733

Safe Yield Report Sheet Water Right- A5089900 Point of Diversion in 17-09S-23E

Footages from SE corner- 4,405 feet North 3,780 feet West



Analysis Results

The selected PD is in an area OPEN to new appropriations.

The safe yield based on the variables listed below is 1,239.73 AF.

Total prior appropriations in the circle is 4,961.72 AF- 2,665.51 AF + 5,481.93 AF - 200 AF (this application) = 7,578.14 AF

Total quantity of water available for appropriation is 1,239.73 AF - 7,578.14 AF = -6,338.41 AF.

[See separate sheet for further analysis using the Jenkins Streamflow Depletion method.]

Safe Yield Variables

The area used for the analysis is set at 2,565 acres.

The potential annual recharge at the circle center is estimated to be 5.8 inches.

The percent of recharge available for appropriation is 100%.

Authorized Quantity values are as of 09-FEB-2024 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 8 water rights and 20 points 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	Approx.	Tot Acres	Net Acres
																	Distance from		
																	River (ft)		
A 24961 00	MUì	I NK	G		NE	SE	NE	3816	12	20	09	23E	1	WR	306.89	306.89	6,150		
Same	MU	I NK	G		NE	NE	NE	4009	12	20	09	23E	2	WR			6,000		
Same	MU	I NK	G		NE	SE	NE	3913	12	20	09	23E	3	WR			6,075		
A 27613 00	MU	I NK	G					5278	203	17	09	23E	1	WR	5,481.93	5,481.93	430		
																2,665.51			
Same	MU	I NK	G		SE	NW	NW	4608	4399	16	09	23E	2	WR			500		
Same	MU	NK	G		NE	SE	NW	3424	2819	16	09	23E	5	WR			800		
Same	MU	I NK	G		NW	SW	SE	774	2442	08	09	23E	9	WR			415		
Same	MU	NK	G		NW	NW	NW	4946	4951	16	09	23E	1	WR			520		
Same	MU	I NK	G		NW	SW	SE	755	2108	08	09	23E	5	WR			290		
Same	MU	NK	G		SW	SE	SE	202	879	08	09	23E	7	WR			350		
Same	MU	NK	G		NE	SE	SW	970	2745	08	09	23E	4	WR			310		
Same	MU	NK	G		SW	SE	SE	344	1176	08	09	23E	10	WR			300		
A 43272 00	MU	√ KK	G		SE	NW	NW	4300	4580	21	09	23E	3	WR	767.22	767.22	5,395		
Same	MU	√ KK	G		SW	NW	NW	4300	4725	21	09	23E	4	WR			5,470		
Same	MU	√ KK	G		SE	NW	NW	4300	4435	21	09	23E	5	WR			5,320		
A 45898 00	IRR	NK	G		NW	SE	SW	1155	3912	16	09	23E	8	WR	131.00	131.00	3,150	167.00	167.00
A 45897 00	IRR	NK	G		SW	SE	SE	408	894	16	09	23E	7	WR	118.00	118.00	2,040	154.00	154.00
A 47401 00	IRR	NK	G					2036	1582	17	09	23E	3	WR	136.00	136.00	4,000	169.00	169.00
A 49912 00	MUN	I KE	G		NE	SW	SE	732	1600	08	09	23E	11	WR	637.10	637.10	230	**	
A 50899 00	IRR	AY	G		SW	NE	NW	4405	3780	17	09	23E	4	WR	200.00	200.00	2,550	200.50	200.50

Limitations

File Number	Seq Num Limitations	
A 27613 00	2 4750GPM WHEN WELLS OPERATE SIMULTANEOUSLY	*rate limitation
Same	3 1874.558MGY COM/W #LR 002 & 3578	*LV-002 & 3578 authorize a surface water intake and do not apply to this analysis,
		therefore, the full quantity authorized by #27613 is additional.
A 47401 00	1 999AF/YR COM/W #45897 & 45898	*unnecessary limitation.

^{**} A separate water right (File No. 49,913) covers the surface water portion withdrawn by this horizontal collector well.

APPLICATION, FILE NO. 50,899 - AQUIFER SAFE YIELD INCOPORATING JENKINS STREAMFLOW DEPLETION METHOD

87			[2]		[1] & [2]	Coefficient	Water % [1]	Appropriatio n (AF) [1]	Surface Water % [2]	Appropriatio n (AF) [2]
	62.2	2,9	00	180,	380	0.001	85.7%	21.9		
87	63.9	2,9	00	185,	310	0.001	86.2%	21.2		
174				183,	000					
261	62	4435	1758	275,000	109,000	0.003	99.1%	5.5	98.6%	8.5
261	67	4104	1627	275,000	109,000	0.003	99.0%	6.1	98.4%	9.7
261	67.4	4080	1617	275,000	109,000	0.003	98.4%	9.7	97.5%	15.2
261	60	4583	1817	275,000	109,000	0.003	99.2%	4.9	98.7%	7.9
261	59.5	4622	1832	275,000	109,000	0.003	99.0%	6.1	98.4%	9.7
261	47.5	5789	2295	275,000	109,000	0.003	99.4%	3.7	99.1%	5.5
261	52.2	5268	2088	275,000	109,000	0.003	99.3%	4.3	98.9%	6.7
261	54.2	5074	2011	275,000	109,000	0.003	99.4%	3.7	99.0%	6.1
261	60.3	4561	1808	275,000	109,000	0.003	99.4%	3.7	99.1%	5.5
217										
108.5	59.8	2,9	00	173,	420	0.001	88.6%	43.7		
108.5	63.9	2,9	00	185,	310	0.001	89.3%	41.0		
34	66	2,9	00	191,	400	0.001	88.5%	15.1		
35	66	2,9	00	191,	400	0.003	87.4%	14.9		
36	52			150,	800	0.001	84.3%	21.4		
216	60	224	14	134,	640	0.2/0.003	100.0%	637.1		
35	60	2,9	00	174,	000	0.001	90.3%	19.4		
	174 261 261 261 261 261 261 261 261	174 261 62 261 67 261 67 261 67.4 261 60 261 59.5 261 47.5 261 52.2 261 54.2 261 60.3 217 108.5 59.8 108.5 63.9 34 66 35 66 36 52 216 60	174 62 4435 261 67 4104 261 67 4104 261 67.4 4080 261 60 4583 261 59.5 4622 261 47.5 5789 261 52.2 5268 261 54.2 5074 261 60.3 4561 217 108.5 59.8 2,9 108.5 63.9 2,9 34 66 2,9 35 66 2,9 36 52 2,9 216 60 224	174 62 4435 1758 261 67 4104 1627 261 67.4 4080 1617 261 60 4583 1817 261 59.5 4622 1832 261 47.5 5789 2295 261 52.2 5268 2088 261 54.2 5074 2011 261 60.3 4561 1808 217 108.5 59.8 2,900 34 66 2,900 35 66 2,900 36 52 2,900 216 60 2244	174 183, 261 62 4435 1758 275,000 261 67 4104 1627 275,000 261 67.4 4080 1617 275,000 261 60 4583 1817 275,000 261 59.5 4622 1832 275,000 261 47.5 5789 2295 275,000 261 52.2 5268 2088 275,000 261 54.2 5074 2011 275,000 261 60.3 4561 1808 275,000 217 108.5 59.8 2,900 173, 108.5 63.9 2,900 185, 34 66 2,900 191, 35 66 2,900 191, 36 52 2,900 150, 216 60 2244 134,	174 183,000 261 62 4435 1758 275,000 109,000 261 67 4104 1627 275,000 109,000 261 67.4 4080 1617 275,000 109,000 261 60 4583 1817 275,000 109,000 261 59.5 4622 1832 275,000 109,000 261 47.5 5789 2295 275,000 109,000 261 52.2 5268 2088 275,000 109,000 261 54.2 5074 2011 275,000 109,000 261 60.3 4561 1808 275,000 109,000 217 108.5 59.8 2,900 173,420 108.5 63.9 2,900 185,310 34 66 2,900 191,400 35 66 2,900 191,400 36 52 2,900 150,800	174 183,000 261 62 4435 1758 275,000 109,000 0.003 261 67 4104 1627 275,000 109,000 0.003 261 67.4 4080 1617 275,000 109,000 0.003 261 60 4583 1817 275,000 109,000 0.003 261 59.5 4622 1832 275,000 109,000 0.003 261 47.5 5789 2295 275,000 109,000 0.003 261 52.2 5268 2088 275,000 109,000 0.003 261 54.2 5074 2011 275,000 109,000 0.003 261 60.3 4561 1808 275,000 109,000 0.003 217 108.5 59.8 2,900 173,420 0.001 108.5 63.9 2,900 185,310 0.001 34 66 2,900	174 183,000 183,000 261 62 4435 1758 275,000 109,000 0.003 99.1% 261 67 4104 1627 275,000 109,000 0.003 99.0% 261 67.4 4080 1617 275,000 109,000 0.003 98.4% 261 60 4583 1817 275,000 109,000 0.003 99.2% 261 59.5 4622 1832 275,000 109,000 0.003 99.0% 261 47.5 5789 2295 275,000 109,000 0.003 99.4% 261 52.2 5268 2088 275,000 109,000 0.003 99.3% 261 54.2 5074 2011 275,000 109,000 0.003 99.4% 261 60.3 4561 1808 275,000 109,000 0.003 99.4% 261 60.3 4561 1808 275,000 109,000 </td <td>174 183,000 261 62 4435 1758 275,000 109,000 0.003 99.1% 5.5 261 67 4104 1627 275,000 109,000 0.003 99.0% 6.1 261 67.4 4080 1617 275,000 109,000 0.003 98.4% 9.7 261 60 4583 1817 275,000 109,000 0.003 99.2% 4.9 261 59.5 4622 1832 275,000 109,000 0.003 99.0% 6.1 261 47.5 5789 2295 275,000 109,000 0.003 99.4% 3.7 261 52.2 5268 2088 275,000 109,000 0.003 99.4% 3.7 261 54.2 5074 2011 275,000 109,000 0.003 99.4% 3.7 261 60.3 4561 1808 275,000 109,000 0.003 99.4%<td>174 183,000 183,000 99.1% 5.5 98.6% 261 62 4435 1758 275,000 109,000 0.003 99.1% 5.5 98.6% 261 67 4104 1627 275,000 109,000 0.003 99.0% 6.1 98.4% 261 67.4 4080 1617 275,000 109,000 0.003 98.4% 9.7 97.5% 261 60 4583 1817 275,000 109,000 0.003 99.2% 4.9 98.7% 261 59.5 4622 1832 275,000 109,000 0.003 99.2% 4.9 98.7% 261 59.5 4622 1832 275,000 109,000 0.003 99.0% 6.1 98.4% 261 47.5 5789 2295 275,000 109,000 0.003 99.4% 3.7 99.1% 261 52.2 5268 2088 275,000 109,000 0.003</td></td>	174 183,000 261 62 4435 1758 275,000 109,000 0.003 99.1% 5.5 261 67 4104 1627 275,000 109,000 0.003 99.0% 6.1 261 67.4 4080 1617 275,000 109,000 0.003 98.4% 9.7 261 60 4583 1817 275,000 109,000 0.003 99.2% 4.9 261 59.5 4622 1832 275,000 109,000 0.003 99.0% 6.1 261 47.5 5789 2295 275,000 109,000 0.003 99.4% 3.7 261 52.2 5268 2088 275,000 109,000 0.003 99.4% 3.7 261 54.2 5074 2011 275,000 109,000 0.003 99.4% 3.7 261 60.3 4561 1808 275,000 109,000 0.003 99.4% <td>174 183,000 183,000 99.1% 5.5 98.6% 261 62 4435 1758 275,000 109,000 0.003 99.1% 5.5 98.6% 261 67 4104 1627 275,000 109,000 0.003 99.0% 6.1 98.4% 261 67.4 4080 1617 275,000 109,000 0.003 98.4% 9.7 97.5% 261 60 4583 1817 275,000 109,000 0.003 99.2% 4.9 98.7% 261 59.5 4622 1832 275,000 109,000 0.003 99.2% 4.9 98.7% 261 59.5 4622 1832 275,000 109,000 0.003 99.0% 6.1 98.4% 261 47.5 5789 2295 275,000 109,000 0.003 99.4% 3.7 99.1% 261 52.2 5268 2088 275,000 109,000 0.003</td>	174 183,000 183,000 99.1% 5.5 98.6% 261 62 4435 1758 275,000 109,000 0.003 99.1% 5.5 98.6% 261 67 4104 1627 275,000 109,000 0.003 99.0% 6.1 98.4% 261 67.4 4080 1617 275,000 109,000 0.003 98.4% 9.7 97.5% 261 60 4583 1817 275,000 109,000 0.003 99.2% 4.9 98.7% 261 59.5 4622 1832 275,000 109,000 0.003 99.2% 4.9 98.7% 261 59.5 4622 1832 275,000 109,000 0.003 99.0% 6.1 98.4% 261 47.5 5789 2295 275,000 109,000 0.003 99.4% 3.7 99.1% 261 52.2 5268 2088 275,000 109,000 0.003

^{*} Where divided, transmissivity or hydraulic conductivity was obtained from [1] a 1975 Layne Western engineering report [2] a 2001 Malcolm Pirnie engineering report. Storage coefficient was either based on Malcolm Pirnie report (0.003) or assumed to be 0.001.

red text indicates estimated values; k was estimated using an average of data from other Missouri River alluvium files; T was calculated as K x saturated thickness; S = 0.001 is a balance between expected confined and unconfined storage coefficients.

Prior Appropriations: 7,578.14 AF Safe Yield: 1,239.73 AF Water Available: -6,338.41 AF

Scenario 1 - Transmissivity for File No. 27,613 = 275,000 gpd/ft

Jenkins Adjusted Appropriations: 864 AF

> Water Available: 375.9 AF

Scenario 2 - Transmissivity for File No. 27,613 = 109,000 gpd/ft

Jenkins Adjusted Appropriations: 891 AF Water Available: 348.5 AF



KANSAS DEPARTMENT OF AGRICULTURE Mike Beam, Secretary of Agriculture

DIVISION OF WATER RESOURCESEarl D. Lewis Jr., 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. 50,899 of the applicant

STEVE KNETTER STIGERS ISLAND FARM INC 11801 HOLLINGSWORTH RD KANSAS CITY, KS 66109

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 **October 27, 2022**.
- 2. That the water sought to be appropriated shall be used for irrigation use on land described in the application as follows:
 - 19.0 acres in the Southwest Quarter of the Southwest Quarter (SW1/4 SW1/4).
 - 20.0 acres in the Southeast Quarter of the Southwest Quarter (SE1/4 SW1/4).
 - 2.5 acres in the Southwest Quarter of the Southeast Quarter (SW1/4 SE1/4).

a total of 41.5 acres in Section 8, and

- 5.5 acres in the Northwest Quarter of the Northeast Quarter (NW1/4 NE1/4).
- 1.5 acres in the Southwest Quarter of the Northeast Quarter (SW1/4 NE1/4),
- 40.0 acres in the Northeast Quarter of the Northwest Quarter (NE1/4 NW1/4),
- 5.5 acres in Lot 3,
- 35.0 acres in the Northwest Quarter of the Northwest Quarter (NW1/4 NW1/4),
- 21.0 acres in the Southwest Quarter of the Northwest Quarter (SW1/4 NW1/4).
- 35.5 acres in the Southeast Quarter of the Northwest Quarter (SE½ NW½).
- 9.0 acres in the Northeast Quarter of the Southwest Quarter (NE1/4 SW1/4),
- 6.0 acres in the Northwest Quarter of the Southwest Quarter (NW1/4 SW1/4).

a total of 159.0 acres in Section 17,

all in Township 9 South, Range 23 East, Leavenworth County, Kansas.

File No. 50,899 Page 2 of 3

3. That the authorized source from which the appropriation shall be made is groundwater in the Missouri River basin, to be withdrawn by means of one (1) well located in the Southwest Quarter of the Northeast Quarter of the Northwest Quarter (SW½ NE½ NW½) of Section 17, more particularly described as being near a point 4,405 feet North and 3,780 feet West of the Southeast corner of said section, in Township 9 South, Range 23 East, Leavenworth County, Kansas, located substantially as shown on the map accompanying the application.

- 4. That the appropriation sought shall be limited to a maximum diversion rate not in excess of **1,300** gallons per minute (2.9 c.f.s.) and to a quantity not to exceed **200** 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</u>, <u>2025</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, 2029</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.
- 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 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. The required 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 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.
- 16. 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 condition satisfactory to the Chief Engineer.
- 17. That failure without cause to comply with the provisions of this 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.

	Ordered t	his /3 day of EARLD LEWIS, JR., P. 5 CHIEFENGINEER	See Jan	, 2024, in Manhattan, Ri arl D. Lewis Jr., P.E. Chief Engineer	ley County, Kansas
		A DEPTOF AGRICULT	///	on of Water Resources Department of Agriculture	
State of Kansas)) SS				
County of Riley)				

The foregoing instrument was acknowledged before me this β day of β , 2024, by Earl D. Lewis Jr., P.E., Chief Engineer, Division of Water Resources, Kansas Department of Agriculture.

Notary Public

MELINDA JENNINGS My Appointment Expires April 7, 2025 1320 Research Park Drive Manhattan, KS 66502 785-564-6700 www. agriculture.ks.gov



900 SW Jackson, Room 456 Topeka, KS 66612 785-296-3556

Mike Beam, Secretary

Laura Kelly, Governor

May 16, 2024

STEVE KNETTER STIGERS ISLAND FARM INC 11801 HOLLINGSWORTH RD KANSAS CITY KS 66109

RE:

Appropriation of Water

File No. 50,899

Dear Mr. Knetter:

Enclosed is a permit authorizing you to proceed with construction of the proposed diversion works, if applicable, and to appropriate water for beneficial use as set forth in the permit. Your attention is directed to the enclosures and to the terms, conditions, limitations, and requirements specified in this permit.

Notice must be filed on the enclosed form once the diversion works have been completed. Failure to complete the diversion works within the time allowed, or within any authorized extension of time thereof, will result in dismissal of this permit. If you need an extension of time, you must request it before the deadline for completion set forth in the permit. Any request for an extension of time must be accompanied by the statutorily required fee, which is currently \$100.00.

An acceptable water flowmeter must be installed on the diversion works authorized by this permit prior to using water. An annual water use report must be filed with the Chief Engineer by March 1, following the end of each calendar year. If a complete annual water use report is not received by the deadline, then a fine may be assessed and all water use under such permit or right may be suspended. Reports may be submitted online at www.kswaterusereport.org for no fee. Reports submitted in paper form will be assessed a \$20 per file number paper filing fee.

The approval of your application constitutes a permit to appropriate water. It does not give authority to construct any dam or other stream obstruction regulated by K.S.A. 82a-301 through 305a. It does not give authority to access any right-of-way or authorize trespassing upon or injury to public or private property. It may also be necessary for you to comply with other local, state or federal requirements.

Enclosed is an informational sheet that sets forth the procedure to obtain a Certificate of Appropriation which will establish the extent of your perfected water right. Additional information and applicable forms may be found on our website at <u>agriculture.ks.gov/dwr</u>. If you have any questions or need assistance with any of these requirements, please contact our office at 785-564-6640, or your local Topeka Field Office at 785-296-5733. If you call, please reference the file number so we can help you more efficiently.

Sincerely,

Kristen A. Baum

New Application Unit Supervisor Water Appropriation Program

KAB:kak:lhh Enclosures

pc:

MT Muncie Cemetery Topeka Field Office

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 request an evidentiary hearing before the Chief Engineer or 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 Division, 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 review 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.

CERTIFICATE OF SERVICE

On this 16 day of May , 2024, I hereby certify that the foregoing Approval of Application and Permit to Proceed, File No. 50,899, dated May 13 , 2024, was mailed postage prepaid, first class, US mail to the following:

STEVE KNETTER STIGERS ISLAND FARM INC 11801 HOLLINGSWORTH RD KANSAS CITY KS 66109

With photocopies to:

MT MUNCIE CEMETARY 1500 N 8TH ST LANSING KS 66043

KDA-DWR Topeka Field Office

Division of Water Resources