

File No. **50,974** 13. County: **RL-Riley** Basin: **13 - Big Blue River** Stream:
 Structures File No: Aquifer Code: **540 Chase Group** Special Use Area:

14. Points of Diversion, Rates & Quantities										Qty AF		Rate gpm		Storage Qty AF		Storage Rate	
PDIV	Qualifier	S	T	R	ID	'N	'W	Comment (AKA Line)		Auth	Add	Auth	Add	Auth	Add	Auth/Add	Overlaps
MOD	90113	SW NE SE	26	7S	5E	2	1800	765		200	200	800	800				

15. Limitations **NEW** Type: Quantity: **AF** Rate: **gpm** combined with file no(s):
NEW Type: Quantity: **AF** Rate: **gpm** combined with file no(s):

16. Metering Metering Required Anti-Reverse Required Seal Required Compliance Date: **12/31/2025**

17. Place of Use					NE¼				NW¼				SW¼				SE¼				Total	Owner(s)	Chg?	Overlaps
PUSE	S	T	R	ID	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE				
CHK	71254	23	7S	5E	1	33	40	27	5								40			40	185.00	5a	<input type="checkbox"/>	*
CHK	71255	26	7S	5E	1	40	40	40	38.5								29	40	40	40	307.50	5a	<input type="checkbox"/>	*
																					0.00		<input type="checkbox"/>	
																					0.00		<input type="checkbox"/>	
																							<input type="checkbox"/>	
																							<input type="checkbox"/>	

18. Point of Diversion and Place of Use Overlaps
 * **50,971** **
 + ++
 # ##
 ^ ^^

MEMORANDUM TO FILE

Division of Water Resources, Water Appropriation Program

Date: September 4, 2024

From: Christa Anhold, Environmental Scientist

Re: New Applications File No. 50,971 & 50,974 – Brian D. Wurtz

Summary

Brian D. Wurtz has filed the above referenced applications proposing to appropriate surface water and groundwater for storage and irrigation in Riley County. The above reference applications will overlap the place of use, no files overlap the point of diversion. The applicant owns the point of diversion and place of use.

File No. 50,971 proposes to appropriate 204.6 AF of surface water per year from natural flows to be stored behind one (1) existing dam in Walnut Creek Tributary 1 and to re-divert 160 AF per year of storage at a re-diversion rate of 1,000 GPM to irrigate 492.5-acres in Riley County. The applicant's dam was registered with KDA dam safety team under DRL-0076 on June 13, 2024.

File No. 50,974 proposes to appropriate 200 AF of groundwater per year at a rate of 800 GPM from one (1) well to irrigate 492.5-acres in Riley County. File No. 50,974 overlaps the place of use with File No. 50,971. Combined the files provide less than the maximum reasonable quantity of water to irrigate the requested 492.5 acres, because of this, there will be no limitation on either file.

Reasonable Rate and Quantity

File No. 50,971 proposes to store 204.6 AF of water in a 3.5-acre pond. Assuming a drainage area of 240-acres, a soil complex number 77 and normal annual precipitation of 32-inches, there is a twenty percent chance the drainage area can supply 214.36AF of water from runoff. Therefore, the drainage area can support the requested quantity of water.

The applicant requests sufficient water to cover one (1) year of evaporation, one (1) year of storage and one (1) year of direct use, which was calculated as follows.

$$\text{Indirect Use (evaporation)} = (3.5 \text{ acre}) \times (16'' \text{ potential evap}) / 12'' = 4.6 \text{ acre}$$

$$\text{Direct Use (irrigation)} = 160 \text{ AF}$$

$$\text{Estimated reservoir capacity} = 40 \text{ AF}$$

$$\text{Reasonable quantity} = 160\text{AF} + 4.6\text{AF} + 40\text{AF} = 204.6 \text{ AF}$$

When File No. 50,971 was accepted for filing the quantity requested was based on a reservoir surface area of 3.5 acres and a capacity of 40AF. The applicant submitted a structural survey after the application was accepted that indicates the reservoir surface area to the spill way is roughly 14 acres and the capacity is 94.4 AF. Per K.A.R. 5-3-1(b) once an application has been accepted for filing the quantity can not be increased. Therefore the storage capacity was not changed once the structural survey was received. From looking at aerial images of the reservoir, it appears to be no larger than 4 acres, making the original quantity requested reasonable.

File No. 50,974 proposes 200AF of groundwater per year. For Riley County, the maximum reasonable quantity of water to irrigate 492.5-acres at 1.1 acre-foot per acre is equivalent to 541.75 AF of water. A minimum reasonable quantity to irrigate 492.5-acres in Riley County based on 40% of 50% chance of rainfall assuming irrigation efficiency of 85% is equivalent to 164.5AF. Combined, File Nos. 50,971 and 50,974 can provide 360 AF of water, which is less than the maximum reasonable quantity but more than minimum reasonable quantity, therefore both files requested quantities can be considered reasonable and neither will be limited.

Source of Supply and Safe Yield

A well log submitted with the File No. 50,974 shows alternating limestone and shale units from surface to 138 feet, with three (3) distinct layers of limestone. The first limestone unit between 38 feet and 52 feet which is separated from the second limestone layer by 5 feet of shale (52 feet to 57 feet). The second limestone unit was encountered from 57 feet to 61 feet, followed by alternating red and gray shale from 61 feet to 105 feet. The third limestone unit

was encountered from 105 feet to 123 feet, followed by a 2-foot void from 123 feet to 125 feet, the borehole ended in a gray shale from 125 feet to 138 feet.

Static water level was measured at 52 feet, the level at which water was first encountered is not included in the well log or application. The first layer of limestone ends at 52 feet. At around 100 feet water flow rate was estimated at roughly 100 gallons per minute. The test hole was advanced to 138 feet where more water was encountered near the third extremely weathered limestone and void, flow rate was then estimated to exceed 200 gallons per minute. It appears the primary aquifers are limestone units from 57 to 61 feet and 105 to 125 feet below ground surface. Based on nearby well logs, "The Geology of Riley and Geary Counties, Kansas" Bulletin No. 39 and "Geology and Ground-water Resources of Marshall County, Kansas" Bulletin No. 106 it is likely that the source of water is Permian Age Chase Group. The primary limestone formations within the Chase Group are listed as yielding small to moderate quantities of water. Surrounding well logs indicate similar confined aquifer sources.

If the aquifer is confined, per K.A.R. 5-3-14 safe yield for a confined aquifer is processed on a case-by-case basis using the best available information. There are no KDA-DWR permitted water appropriations within a 2-mile radius. Therefore we went ahead and performed a safe yield assuming recharge of 2-miles around the proposed point of diversion, which is consistent with other applications in similar bedrock sources of supply. A safe yield report covered 8,042 acres. Based on a potential recharge of 2.6 inches, with 100% recharge available for appropriation, safe yield was determined to be 1,742.54 acre-feet. There are no existing water rights in the area, leaving all 1,742.52 acre-feet available and the application meets safe yield criteria.

This safe yield value per K.A.R. 5-3-11 provides the maximum allowable recharge (2.6 inches) for the area of consideration, a deeper confined aquifer would receive only a portion of the recharge that a shallow, unconfined aquifer would receive. Even with a reduction in the amount of recharge reaching the confined aquifer there would still be sufficient water available. For this application the maximum recharge could be reduced to 0.3 inches of recharge (less than 11.5% of the maximum) and there would still be sufficient water available. As noted above, there are no other water appropriations in the 2-mile area of consideration.

Nearby Water Rights

File No. 50,971: There are no other water right holders on the upstream or downstream portions of Walnut Creek Tributary 1. The applicant provided names and addresses of upstream and downstream landowners within one-half mile. Nearby notifications were mailed on May 3, 2024. Two written responses were received from nearby neighbors who voiced concerns over potential depletion of the stream and nearby wells as well as the potential for negative impacts on the surrounding wildlife.

One of the nearby is an upstream landowner located on the opposite side of the drainage area of the applicant. There is little chance the proposed application would cause impairment. The other nearby neighbor states they have a shallow domestic well roughly 100-yards from the creek on their property. The exact location of the neighbors well is not known but the distance from where the creek enters the neighbor's property to the proposed point of diversion under File No. 50,971, is 2,197 feet. Assuming a drainage area of 595.2-acres, a soil complex number 77 and normal annual precipitation of 32-inches, there is a twenty percent chance the drainage area can supply 531.61 AF of water from runoff to the neighbor. Minus the 204.6 AF the applicant requests, leaves 327.01 AF of water from runoff to supply the downstream neighbor. Additionally, the applicant will utilize groundwater in conjunction with surface water for irrigation.

File No. 50,974: The closest nondomestic well, Water Appropriation File No. 43,238 a municipal well for the City of Leonardville, is over 3-miles away. The closest domestic well is 2,000 feet away. Well spacing requirements per K.A.R. 5-4-4 have been met. The application provided names and addresses of domestic well owners within one-half mile radius from the proposed point of diversion. An additional potential domestic water user was identified during the application review process. Nearby notifications were mailed on May 3, 2024. No responses have been received to date.

Recommendations

The applications were sent for consideration to Nathan Westrup, Water Commissioner of the Topeka Field Office and Shaun Johnson, Assistant Water Commissioner of the Topeka Field Office on September 4, 2024, and were recommended for approval in an e-mail dated September 6, 2024.

The applications comply with all regulations concerning reasonable quantity, safe yield, and minimum spacing requirements. It does not appear that approval of these applications will impair senior water rights nor prejudicially or unreasonably affect the public interest. Therefore, it is recommended that the referenced applications be approved.

Christa Anhold
Environmental Scientist
Manhattan Headquarters

From: Westrup, Nathan [KDA]
Sent: Fri 9/6/2024 4:34 PM
To: Anhold, Christa [KDA]
Cc: Johnson, Shaun [KDA]
Subject: RE: 50971 and 50974 recommendation request

Hi Christa,

I have no objection to approval of these applications.

I do have a couple comments. I found a survey in DocuWare that indicates a capacity of 94.4 AF, rather than 40 AF. I think it would be good to explain that the original estimated capacity of 40 AF was used for computing the requested quantity but the survey, conducted after the application was submitted, shows the capacity will be 94.4 AF and the surface area will be about 14 acres. So, they are stuck with what they applied for but it would be good to get the most recent information in there.

Good job on the source of supply/safe yield/nearby sections.

Thanks,

Nathan Westrup, Water Commissioner

Topeka Field Office

Division of Water Resources

Kansas Department of Agriculture

Phone: 785-296-7064

Mobile: 785-230-2991

Nathan.Westrup@ks.gov

From: Anhold, Christa [KDA] <Christa.Anhold@ks.gov>
Sent: Wednesday, September 4, 2024 1:33 PM
To: Westrup, Nathan [KDA] <Nathan.Westrup@ks.gov>
Cc: Johnson, Shaun [KDA] <Shaun.Johnson@ks.gov>
Subject: 50971 and 50974 recommendation request

Nathan,

I have attached a draft memo for new applications 50,971 and 50,974 for your review and recommendation. Nearby notifications were mailed on May 3, 2024. Two written letters were received for File No. 50,971 and are included in DW. No additional responses have been received to date.

Let me know if you need anything else.

Christa Anhold
Environmental Scientist
Department of Water Resources
(785)-564-6644
Christa.anhold@ks.gov

Safe Yield Report Sheet
Water Right- A5097400
Point of Diversion in 26-07S-05E
Footages from SE corner- 1,800 feet North 765 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 1,742.54 AF.

Total prior appropriations in the circle is 200.00 AF. **-200.00 = 0AF**

Total quantity of water available for appropriation is 1,542.54 AF. **+200.00 = 1742.54 AF**

Safe Yield Variables

The area used for the analysis is set at 8,042 acres.

The potential annual recharge at the circle center is estimated to be 2.6 inches.

The percent of recharge available for appropriation is 100%.

Authorized Quantity values are as of 01-MAY-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 is 1 water right and 1 point 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		Tot Acres	Net Acres
A 50974 00	IRR	AY	G		SE	NE	SE	1800	765	26	07	05E	2	WR	200.00	200.00	-200.00	492.50	0.00

Minimum recharge to yield satisfy File No. 50,974:

$$200\text{AF} / (8042 \text{ acres} / 12\text{in}) = X$$

X=0.3-inches minimum necessary recharge to sustain 200 acre-feet

$$(0.3/2.6)*100 = 11.5\% \text{ less than max}$$

THE STATE OF KANSAS



KANSAS DEPARTMENT OF AGRICULTURE
Mike Beam, Secretary of Agriculture

DIVISION OF WATER RESOURCES
Earl 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. 50,974** of the applicant

BRIAN D WURTZ
12595 GREEN RANDOLPH RD
RANDOLPH KS 66554

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 **February 23, 2023**.

2. That the water sought to be appropriated shall be used for irrigation use on land described in the application, as follows:

Sec. Twp. Range	NE¼				NW¼				SW¼				SE¼				TOTAL
	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	
23 - 7S - 5E	33.0	40.0	27.0	5.0									40.0			40.0	185.0
26 - 7S - 5E	40.0	40.0	40.0	38.5									29.0	40.0	40.0	40.0	307.5

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 Southwest Quarter of the Northeast Quarter of the Southeast Quarter (SW¼ NE¼ SE¼) of Section 26, more particularly described as being near a point 1,800 feet North and 765 feet West of the Southeast corner of said section, in Township 7 South, Range 5 East, Riley 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 **800 gallons per minute (1.78 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 **December 31, 2025**, or within any authorized extension thereof. The applicant shall notify the Chief Engineer and pay the statutorily required field inspection fee of \$400.00 when construction of the works has been completed. Failure to timely submit the notice and the fee will result in revocation of the permit. Any request for an extension of time shall be submitted prior to the expiration of the deadline and shall be accompanied by the required statutory fee of \$100.00.

6. That the proposed appropriation shall be perfected by the actual application of water to the proposed beneficial use on or before **December 31, 2029**, or any authorized extension thereof. Any request for an extension of time shall be submitted prior to the expiration of the deadline and shall be accompanied by the required statutory fee of \$100.00.

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

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

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

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

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

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

13. That an acceptable water flow meter shall be installed and maintained on the diversion works authorized by this permit in accordance with Kansas Administrative Regulations 5-1-4 through 5-1-12 adopted by the Chief Engineer. 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).

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

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

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

18. That 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 this 10 day of September, 2024, in Manhattan, Riley County, Kansas.

Lane P. Letourneau

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

State of Kansas)
) SS
County of Riley)

The foregoing instrument was acknowledged before me this 10 day of September, 2024, by Lane P. Letourneau, P.G., Water Appropriation Program Manager, Division of Water Resources, Kansas Department of Agriculture.

Vickie L. Belanger

Notary Public



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

September 13, 2024

BRIAN D WURTZ
12595 GREEN RANDOLPH RD
RANDOLPH KS 66554

RE: Appropriation of Water
File Nos. 50,971 and 50,974

Dear Mr. Wurtz:

Enclosed are permits authorizing you to proceed with construction of the proposed diversion works and to appropriate water for beneficial use. Your attention is directed to the enclosures and to the terms, conditions, limitations, and requirements specified in each permit.

Notices must be filed on the enclosed forms 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 the permits. 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, per file number.

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 submitted in paper form will be assessed a \$20 per file number paper filing fee. In order to avoid this filing fee, you may submit your report online at www.kswaterusereport.org.

The approval of your applications constitutes permits to appropriate water. They do not give authority to construct any dam or other stream obstruction regulated by K.S.A. 82a-301 through 305a. They do 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.

Also included with your permits is an informational sheet that sets forth the procedure to obtain a Certificate of Appropriation which will establish the extent of your perfected water rights. Additional information and applicable forms may be found on our website at agriculture.ks.gov/dwr. 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 Applications and Changes Supervisor
Division of Water Resources

KAB:kak:cla
Enclosure(s)
pc: 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 13 day of September, 2024, I hereby certify that the foregoing Approval of Application and Permit to Proceed, File Nos. 50,971 and 50,974, dated September 10, 2024, were mailed postage prepaid, first class, US mail to the following:

Original to:

BRIAN D WURTZ
12595 GREEN RANDOLPH RD
RANDOLPH KS 66554

With photocopies to:

KDA-DWR Topeka Field Office



Division of Water Resources