

NOTICE

This scan only represents the application as filed. The information contained herein meets the requirements of K.A.R. 5-3-1 or K.A.R. 5-5-1, and has been found acceptable for filing in the office of the Chief Engineer. The application should not be considered to be a complete application as per K.A.R. 5-3-1b or K.A.R. 5-5-2a.

Submit To: CHIEF ENGINEER
Division of Water Resources
Kansas Department of Agriculture
1320 Research Park Drive
Manhattan, Kansas 66502
http://agriculture.ks.gov/dwr

**APPLICATION FOR APPROVAL TO
CHANGE THE PLACE OF USE, THE
POINT OF DIVERSION OR THE USE
MADE OF THE WATER UNDER AN
EXISTING WATER RIGHT**



State of Kansas

Filing Fee Must Accompany the Application
(Please refer to Fee Schedule on signature page of application form.)

Paragraph Nos. 1, 2, 3, 4 & 8 must be completed. Complete all other applicable portions. A topographic map or detailed plat showing the authorized and proposed points(s) of diversion and /or place of use must accompany this application.

1. Application is hereby made for approval of the Chief Engineer to change the

- (Check one or more)
- Place of Use
 - Point of Diversion
 - Use Made of Water

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File No. 11,511 D2

Garden City Field Office
Division of Water Resources

2. Name of applicant: Cimarron Crossing Feeders LLC

Address: PO Box 349

City, State and Zip: Cimarron, KS 67835

Phone Number: (620) 855-3162

E-mail address: philwoods25@hotmail.com

What is your relationship to the water right; owner tenant agent other? If other, please explain. _____

Name of water use correspondent: Cimarron Crossing Feeders LLC

Address: PO Box 349

City, State and Zip: Cimarron, KS 67835

Phone Number: (620) 855-3162

E-mail address: philwoods25@hotmail.com

3. The change(s) proposed herein are desired for the following reasons (please be specific): Complete a partial change in use made of water from irrigation to stockwatering to provide a sufficient water supply for the Cimarron Crossing Feeders LLC beef cattle feeding facility. This change will also allow the facility to expand to its future planned capacity. An additional well will supply the requested stockwater quantity.

The change(s) ~~was~~ will be completed by upon approval of application.

(Date)

For Office Use Only:

F.O. 4 GMD 3 Meets K.A.R. 5-5-1 (YES) / NO Use FRR Source G/S County GY By AW Date 4/14/17
Code LC3 Fee \$ 100 TR # _____ Receipt Date 4/14/17 Check # 13065

4. The presently authorized place of use is:

Owner of Land — NAME: Cimarron Crossing Feeders LLC

ADDRESS: PO Box 349, Cimarron, KS 67835

Sec.	Twp.	Range	NE¼				NW¼				SW¼				SE¼				TOTAL ACRES
			NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	
32	25S	28W	40	40	40	40									30			25	215
33	25S	28W									40	40	40	26	37	39	24	15	261

List any other water rights that cover this place of use. _____

Owner of Land — NAME: _____

ADDRESS: _____

Sec.	Twp.	Range	NE¼				NW¼				SW¼				SE¼				TOTAL ACRES
			NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	

List any other water rights that cover this place of use. _____

(If there are more than two landowners, attach additional sheets as necessary.)

5. It is proposed that the place of use be changed to:

Owner of Land — NAME: Cimarron Crossing Feeders LLC

ADDRESS: PO Box 349, Cimarron, KS 67835

Sec.	Twp.	Range	NE¼				NW¼				SW¼				SE¼				TOTAL ACRES
			NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	
IRR 32	25S	28W	40	40	40	40									30			25	215
IRR 33	25S	28W									40	40	40	26	37	39	24	15	261
STK 4	26S	28W			X	X			X	X	X	X	X	X	X	X	X	X	Feedlot

List any other water rights that cover this place of use. GY 10 D1, 8,887, 19,925.08, 28,476 & 40,238 in S ½ N ½ & S ½ Sec. 4

Owner of Land — NAME: Cimarron Crossing Feeders LLC

ADDRESS: PO Box 349, Cimarron, KS 67835

Sec.	Twp.	Range	NE¼				NW¼				SW¼				SE¼				TOTAL ACRES
			NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	
STK 10	26S	28W					X	X	X	X									Feedlot

List any other water rights that cover this place of use. GY 10 D1, 8,887, 19,925.08, 28,476 & 40,238 in NW ¼ Sec. 10

IF MORE SPACE IS NEEDED, ATTACH ADDITIONAL SHEETS AS NECESSARY

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6. The presently authorized point(s) of diversion (~~is~~) (are) 1 active and 1 inactive well, pumps and appurtenances
(Provide description and number of points)
7. The proposed point(s) of diversion (~~is~~) (are) 2 active wells, pumps and appurtenances
(Provide description and number of points)

List all presently authorized point(s) of diversion:

8. **Presently authorized point of diversion:**
 One in the NW Quarter of the SW Quarter of the NE Quarter of Section 32, Township 25 South, Range 28W (E/W), in Gray County, Kansas, 3481 feet North 2532 feet West of Southeast corner of section.
 Authorized Rate 740 gpm Authorized Quantity 496 AF
 (DWR use only: Computer ID No. 4 GPS _____ feet North _____ feet West)
 This point will not be changed This point will be changed as follows:
Proposed point of diversion: (Complete only if change is requested)
 One in the NW Quarter of the SW Quarter of the NE Quarter of Section 32, Township 25 South, Range 28W (E/W), in Gray County, Kansas, 3481 feet North 2532 feet West of Southeast corner of section.
 Proposed Rate 540 gpm Proposed Quantity 272.8 AF
 This point is: Additional Well Geo Center List other water rights that will use this point File No. 31,342

9. **Presently authorized point of diversion:**
 One in the _____ Quarter of the _____ Quarter of the _____ Quarter of Section _____, Township _____ South, Range _____ (E/W), in _____ County, Kansas, _____ feet North _____ feet West of Southeast corner of section.
 Authorized Rate _____ Authorized Quantity _____
 (DWR use only: Computer ID No. _____ GPS _____ feet North _____ feet West)
 This point will not be changed This point will be changed as follows:
Proposed point of diversion: (Complete only if change is requested)
 One in the CW Quarter of the NW Quarter of the SE Quarter of Section 32, Township 25 South, Range 28W (E/W), in Gray County, Kansas, 1940 feet North 2620 feet West of Southeast corner of section.
 Proposed Rate 200 gpm Proposed Quantity 200 AF
 This point is: Additional Well Geo Center List other water rights that will use this point _____

10. **Presently authorized point of diversion:**
 One in the _____ Quarter of the _____ Quarter of the _____ Quarter of Section _____, Township _____ South, Range _____ (E/W), in _____ County, Kansas, _____ feet North _____ feet West of Southeast corner of section.
 Authorized Rate _____ Authorized Quantity _____
 (DWR use only: Computer ID No. _____ GPS _____ feet North _____ feet West)
 This point will not be changed This point will be changed as follows:
Proposed point of diversion: (Complete only if change is requested)
 One in the _____ Quarter of the _____ Quarter of the _____ Quarter of Section _____, Township _____ South, Range _____ (E/W), in _____ County, Kansas, _____ feet North _____ feet West of Southeast corner of section.
 Proposed Rate _____ Proposed Quantity _____
 This point is: Additional Well Geo Center List other water rights that will use this point _____

11. Describe the current condition of and future plans for any point(s) of diversion which will no longer be used. _____
 - Not applicable -

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12. The presently authorized use of water is for irrigation purposes.
It is proposed that the use be changed to irrigation and stockwatering purposes.
13. If changing the place of use and/or use made of water, describe how the consumptive use will not be increased. Refer to the consumptive use evaluation included with the attached supporting documentation. The results of the consumptive use evaluation indicate that consumptive use will not be substantially increased. This finding complies with the requirements of K.A.R. 5-5-3, 5-5-8 and 5-5-9.

(Please show any calculations here.)

14. It is requested that the maximum annual quantity of water be reduced to 472.8 acre-feet (acre-feet or million gallons).
15. It is requested that the maximum rate of diversion of water be reduced to _____ gallons per minute (_____ c.f.s.).

16. The application must include either a topographic map or detailed plat. A U.S. Geological Survey Topographic Map, scale 1:24,000, is available through the Kansas Geological Survey, 1930 Constant Avenue, University of Kansas, Lawrence, Kansas 66047-3726 (www.usgs.gov). The map should show the location of the presently authorized point(s) of diversion. Distances North and West of the Southeast corner of the section must be shown. The presently authorized place of use should also be shown. Identify the center of the section, the section lines and the section corners and show the appropriate section, township, and range numbers on the map. In addition the following information must also be shown on the map.

- a. If a change in the location of the point(s) of diversion is proposed, show:
- 1) The location of the proposed point(s) of diversion. Distances North and West of the Southeast corner of the section must be shown. Please be certain that the information shown on the map agrees with the information shown in Paragraph Nos. 9, 10 and 11 of the application.
 - 2) If the source of supply is groundwater, please show the location of existing water wells of any kind, including domestic wells, within 1/2 mile of the proposed well or wells. Identify each well as to its use and furnish name and mailing address of the property owner or owners. If there are no wells within 1/2 mile, please indicate so on the map.
 - 3) If the source of supply is surface water, the names and mailing addresses of all landowner(s) 1/2 mile downstream and 1/2 mile upstream from your property lines must be shown.
- b. If a change in the place of use is desired, show the proposed place of use by crosshatching on the map. Please be certain that the information shown on the map agrees with the information shown in Paragraph No. 5 of the application.

17. Attach documentation to show the change(s) proposed herein will not impair existing water rights and relates to the same local source of supply as to which the water right relates. This information may include statements, plats, geology reports, well logs, test hole logs, and other information as necessary information to show the above. Additional comments may be made below.

Please refer to the letter, maps and supporting documentation that are included with this application.

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Division of Water Resources

18. If the proposed change(s) does not meet all applicable rules and regulations of the Kansas Water Appropriation Act, please identify the rules and regulations for which you request a waiver. State the reason why a waiver is needed and why the request should be granted. Attach documentation showing that granting the request will not impair existing water rights and will not prejudicially and unreasonably affect the public interest.

The basis for determining consumptive use as it relates to this application is the factor listed for Gray County in the draft "Default Consumptive Use Factor by County in Kansas" map issued by KDA-DWR. A waiver of K.A.R. 5-5-9 and K.A.R. 5-5-10 is requested if this information does not satisfy the requirements of K.A.R. 5-5-9 (b).

IF MORE SPACE IS NEEDED, ATTACH ADDITIONAL SHEETS AS NECESSARY

Any use of water that is not as authorized by the water right or permit to authorize water before the chief engineer approves this application is a violation of the Kansas Water Appropriation Act for which criminal or civil penalties may be assessed. Such violation is a class C misdemeanor, punishable by a fine not to exceed \$500 and/or a term of confinement not to exceed one month in the county jail. K.S.A. 82a-728(b). Civil penalties shall be not less than \$100 nor more than \$1,000 per violation. In the case of a continuing violation, each day such violation continues may be deemed a separate violation. In addition to these penalties the water right may be modified or suspended. K.S.A. 82a-737, as amended.

The application must be signed by all owners of the place of use authorized under the water right and his or her spouse, if married. Please indicate if there is no spouse. If land is being purchased under contract, the seller must sign as landowner until such time as the contract is completed.

In the event that all applicants cannot appear before one notary public, they may as necessary sign separate copies of the application before any notary public conveniently available to them. All copies signed in this manner shall be considered to be valid parts of the application.

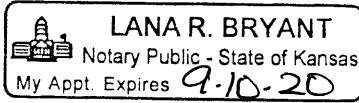
If the request is signed on behalf of any Owner by someone with legal authority to do so (for example, an agent, one who has power of attorney, or an executor, executrix, conservator), it will be necessary to attach proper documents showing such authority.

I declare that I am an owner of the currently authorized place of use as identified herein, or that I represent all such owners and am authorized to make this application on their behalf, and declare further that the statements contained herein are true, correct, and complete. By filing this application I authorize the chief engineer to permanently reduce the quantity of water and/or rate of diversion as specified in sections 14 and 15 of this application.

Dated at Cimarron, Kansas, this 10th day of April, 2017.

Griffith Ridge (Owner)
Dori Hilker-Ridge (Please Print)
(Owner) (Please Print)
(Owner) (Please Print)
(Owner) (Please Print)
(Owner) (Please Print)

State of Kansas
County of Gray } SS



I hereby certify that the foregoing application was signed in my presence and sworn to before me this 10th day of April, 2017.

Lana R. Bryant
Notary Public

My Commission Expires 9-10-20

FEE SCHEDULE

Each application to change the place of use, the point of diversion or the use made of the water under this section shall be accompanied by the application fee set forth in the schedule below:

- (1) Application to change a point of diversion 300 feet or less \$100
(2) Application to change a point of diversion more than 300 feet \$200
(3) Application to change the place of use \$200
(4) Application to change the use made of the water \$300

Make check payable to Kansas Department of Agriculture.

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Division of Water Resources

KLA ENVIRONMENTAL SERVICES, INC.

PROJECT: **CIMARRON CROSSING FEEDERS LLC**

LOCATION: SECTIONS 4 & 10 T26S R28W, GRAY COUNTY, KANSAS

BY: FCM
DATE: 3/17/2017

CHECKED BY: DLB
DATE: 3/17/2017

CONSUMPTIVE USE CALCULATION PERTAINING TO FILE NO. 11,511 D2 FOR PARTIAL CHANGE OF USE FROM IRRIGATION TO STOCKWATER

File No. 11,511 D2: Authorized Quantity = 496 AF
Authorized Rate = 740 GPM

Proposed change in use made of water: Convert 200 AF and 200 GPM to stockwatering use

Apply consumptive use factor from "Default Consumptive Use Factor by County in Kansas" issued by DWR:
→ For Gray County, the factor = 10.7%

$$\begin{aligned} \rightarrow \text{Consumptive Use} &= (496 \text{ AF}) - (496 \text{ AF} \times 10.7\%) \\ &= (496 \text{ AF}) \times (1.00 - 0.107) = 442.9 \text{ AF} \end{aligned}$$

$$\begin{aligned} \text{Proportion of partial use based on proposed change} &= (\text{Stockwater Use}) / (\text{Consumptive Use}) \\ &= \frac{200 \text{ AF}}{442.9 \text{ AF}} = 45\% \end{aligned}$$

$$\begin{aligned} \rightarrow \text{Proportion remaining for irrigation} &= 100\% - 45\% = 55\% \\ \rightarrow \text{Remaining quantity for irrigation} &= (55\%) \times (496 \text{ AF}) = 272.8 \text{ AF} \end{aligned}$$

Check reasonable use for stockwatering quantity (K.A.R. 5-3-22):

Current facility capacity = 22,500 head of beef cattle
Planned expansion capacity = 28,000 head of beef cattle

$$\begin{aligned} \rightarrow \text{Maximum Reasonable Use} &= (28,000 \text{ head}) \times (15 \text{ gallons/head/day}) \times (365 \text{ days/year}) = 153.30 \text{ MGY} \\ &= 470.5 \text{ AF} \end{aligned}$$

Facility Stockwater Summary:

File No.	Quantity (AF)
GY 10 D1	94.01
8,887	9.15
28,476(2)	53.12
28,476(4)	53.12
19,925.08	17.86
40,238	17.16
11,511 D2	200.00
Total	444.42

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Division of Water Resources

→ Requested stockwatering quantity is reasonable

Check requested rate for capacity to supply 200 AF:

$$\begin{aligned} \text{Maximum quantity supplied} &= (200 \text{ gpm}) \times (60 \text{ min/hr}) \times (24 \text{ hr/day}) \times (365 \text{ days/yr}) \times (1 \text{ AF}/325,851 \text{ gal}) \\ &= 322.6 \text{ AF} \quad \rightarrow 200 \text{ gpm rate is sufficient to supply the requested quantity} \end{aligned}$$

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Division of Water Resources

Default Consumptive Use Factor by County in Kansas based on area weighted average irrigation return flow

CN 12.4%	RA 12.7%	DC 13.7%	NT 15.9%	PL 14.1%	SM 16.7%	JW 17.3%	RP 16.8%	WS 15.1%	MS 13.6%	NM 12.1%	BR 15.2%	DP 12.5%			
SH 12.3%	TH 12.5%	SD 12.3%	GH 13.0%	RO 13.4%	OB 21.3%	MC 14.6%	CD 15.6%	CY 15.8%	RL 15.8%	PT 14.6%	JA 12.0%	AT 12.0%	JF 15.2%	LV 13.8%	WY 12.4%
WA 12.5%	LG 13.0%	GO 13.3%	TR 13.9%	EL 18.0%	RS 17.0%	LC 13.7%	OT 13.7%	DK 13.6%	GE 14.1%	WB 13.6%	SN 16.5%	DG 13.5%	JO 15.0%		
GL 13.0%	WH 17.2%	SC 18.2%	LE 18.9%	NS 18.9%	RH 6.3%	BT 14.4%	EW 13.8%	SA 13.8%	MR 17.0%	LY 12.0%	OS 17.0%	FR 17.0%	MI 13.3%*		
HM 17.0%	KE 12.7%	FI 12.6%	HG 16.2%	PN 12.7%	SF 15.6%	RC 17.4%	MP 12.3%	MN 15.4%	CS 13.3%*	CF 17.0%	AN 13.3%	LN 13.3%*			
ST 13.4%	GT 13.1%	HS 15.1%	GY 10.7%	FO 10.6%	ED 16.6%	PR 18.5%	RN 20.3%	HV 13.4%	BU 17.7%	GW 13.3%*	WO 13.3%*	AL 13.3%*	BB 13.3%*		
SV 10.9%	SW 12.4%	ME 15.2%	CA 13.3%	KW 21.3%	PR 18.5%	KM 27.3%	SG 15.0%	CL 12.8%	EK 13.3%*	WL 13.3%*	NO 13.3%*	CR 17.0%			
				CM 13.1%	BA 16.6%	HP 12.0%	SU 11.8%	CQ 13.3%*		MG 13.3%*	LB 13.3%*	CK 12.5%			

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These default values were developed to ensure that a change in use made of water does not increase net consumptive use per K.A.R. 5-5-9.

KDA-DWR will consider site-specific data provided by the water right holder during the change process and may adjust the consumptive use factor accordingly.

Example: A 150 acre-foot irrigation water right is purchased in Gove (GO) County for use in a dairy operation. Applying the default factor from the map (13.3%), the amount of water that the dairy could annually divert with this water right is:

$$150 - (150 \times 13.3\%) = 150 \times (1 - 0.133) = 130 \text{ acre-feet}$$

* State-wide average factor calculated using the Northwest Kansas model used for counties with no reported irrigation use.

Model data was used for counties within GMDs 1, 3, 4 and 5.



Kansas Department of Agriculture
Division of Water Resources
December 14, 2016

KLA ENVIRONMENTAL SERVICES, INC.

PROJECT: **CIMARRON CROSSING FEEDERS LLC**
 LOCATION: SECTIONS 4 & 10 T26S R28W, GRAY COUNTY, KANSAS

BY: FCM
 DATE: 4/4/2017

CHECKED BY: DLB
 DATE: 4/5/2017

JUSTIFICATION FOR IRRIGATED ACRES AND MAINTAINING CURRENT PLACE OF USE

Cimarron Crossing Feeders LLC must comply with KDHE regulations pertaining to confined animal feeding operations (CAFO). The regulations include implementation of an approved Nutrient Management Plan (NMP). The NMP prescribes the requirements for agronomic application of facility wastewater through irrigation systems owned by the facility. This includes the center pivot sprinklers that irrigate the place of use pertaining to File Nos. 11,511 D1 and 11,511 D2. The NMP also indicates the areas that must be available for wastewater application and this includes the entire place of use currently associated with File Nos. 11,511 D1 and 11,511 D2. It is therefore necessary to retain all of the acres associated with this place of use for NMP compliance, which relies on both groundwater and wastewater irrigation to manage nutrient levels in the fields where wastewater is applied. The total quantities of groundwater and wastewater available for irrigation are summarized as follows:

Wastewater quantity based on recent application records:

YEAR	WASTEWATER APPLICATION
2013	76 AF
2014	113 AF
2015	149 AF
2016	215 AF
AVERAGE	138 AF

AF = Acre-Feet

Water quantities available for irrigation:

File No. 11,511 D1 authorized quantity = 456.0 AF
 File No. 11,511 D2 authorized quantity = 272.8 AF
 Average annual wastewater quantity = 138.0 AF
 Total Annual Quantity = 866.8 AF

Current place of use associated with File Nos. 11,511 D1 and 11,511 D2:

215 acres in Section 32 T25S R28W
261 acres in Section 33 T25S R28W
 476 acres total place of use

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$$\rightarrow \text{Average application} = \frac{\text{Total Annual Quantity}}{\text{Total Acres}} = \frac{866.8 \text{ AF}}{476 \text{ ac.}} = 1.82 \text{ Ft.}$$

$$\rightarrow \text{Groundwater only} = \frac{\text{Total Authorized Quantity}}{\text{Total Acres}} = \frac{728.8 \text{ AF}}{476 \text{ ac.}} = 1.53 \text{ Ft.}$$

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 Division of Water Resources

Compare with criteria for reasonable irrigation use:

K.A.R. 5-5-11 (e) (2): $\geq 50\%$ Chance NIR/0.85 = 1.15 Ft./ 0.85 = 1.35 Ft. (Gray County)

K.A.R. 5-3-24, Reasonable quantity for irrigation use (map): 1.8 Ft. (AF/ac.) (Gray County)

Therefore, a reasonable quantity for irrigation is provided and the acres associated with the current place of use can be justified.

KLA ENVIRONMENTAL SERVICES, INC.

PROJECT: CIMARRON CROSSING FEEDERS LLC

LOCATION: SECTIONS 4 & 10 T26S R28W, GRAY COUNTY, KANSAS

BY: FCM
DATE: 3/16/2017

CHECKED BY: DLB
DATE: 3/17/2017

**CONSUMPTIVE USE EVALUATION PERTAINING TO FILE NO. 11,511
OWNED BY CIMARRON CROSSING FEEDERS LLC**

CRITERIA:

K.A.R. 5-5-3: Extent of consumptive use shall not be substantially increased based upon the perfection period.

K.A.R. 5-5-8: Consumptive Use = (Gross Diversion) - (Waste of Water) - (Return Flows)

Assumptions: → Waste of water during the perfection period cannot be accurately documented.
→ Current and proposed operation produces no discernible waste of water.

Therefore, for the purposes of this evaluation, Consumptive Use = (Gross Diversion) - (Return Flows)

Water Right File No. 11,511 attributes:

DWR ID	POINT OF DIVERSION					AUTHORIZED	
	LOCATION FROM SE CORNER OF SECTION	SEC	TWP	RGE	QUANTITY (AF)	RATE (GPM)	
1	5080 FT N 100 FT W	32	25S	28W	456	740	
4	3481 FT N 2532 FT W	32	25S	28W	496	740	
2	1940 FT N 2620 FT W	32	25S	28W	NOT ACTIVE		

Consumptive use during perfection period based upon authorized quantities:

DWR records indicate that a surface (i.e. gravity or flood) irrigation system was used during the perfection period. Typical practices associated with this system include delivery pipelines and gated pipe, land leveling where needed, and tailwater pits.

From USDA NRCS NEH Part 652, Irrigation Guide, Table KS6-1, the typical efficiency of this type of system is **80%**.

The sum of the authorized quantities for File No. 11,511 is 456 AF + 496 AF = 952 AF.

$$\begin{aligned} \rightarrow \text{Consumptive Use} &= (\text{Gross Diversion}) - (\text{Return Flows}) \text{ where Return Flow} = 100\% - \text{Efficiency} \\ &= (952 \text{ AF}) - [(100\% - 80\%) \times (952 \text{ AF})] \\ &= \mathbf{761.6 \text{ AF}} \end{aligned}$$

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Consumptive use resulting from proposed change application based upon authorized quantities:

The proposed changes are:

- Divide File No. 11,511 such that 11,511(1) = D1 and 11,511(4) = D2.
- Reactivate 11,511 (2) as an additional well for stockwatering use.
- Move 200 AF and 200 gpm from D2 to additional well [11,511(2)] for stockwatering authority.
- Reduce irrigation quantity pertaining to File No. 11,511 D2 for consumptive use. Apply 10.7% consumptive use factor for Gray County from the draft weighted average irrigation return flow map ("Default Consumptive Use Factor by County in Kansas") issued by DWR. The resulting quantity is 272.8 AF.

File No. 11,511 D1 and D2 are currently center pivot sprinklers with drop nozzles (nozzles near the ground). From USDA NRCS NEH Part 652, Irrigation Guide, Table KS6-1, the typical efficiency of this type of system is **87%**.

Consumptive use from irrigation contributions includes irrigation based on authorized quantities as well as contributions from wastewater irrigation that is applied to the same place of use. The source of the wastewater is the Cimarron Crossing Feeders LLC facility. The peak wastewater quantity applied by the applicant is **215 AF** in 2016.

All wastewater is pumped from the Cimarron Crossing Feeders LLC facility to a storage pond located in the SW 1/4 of Section 33 T25S R28W. This pond is adjacent to the place of use for File No. 11,511. The wastewater stored in this pond is then pumped through the sprinklers that are also used for irrigation. The area of this pond is approximately **1.25 acres**. All seepage from this pond acts as a return flow. KLA Environmental Services, Inc. has conducted three whole-pond seepage tests on wastewater retention structures in the Cimarron Crossing Feeders LLC facility. The seepage rates were 0.0570 in./day, 0.1477 in./day and 0.2045 in./day. The average seepage rate is **0.1364 in./day**. All of these seepage rates comply with KDHE regulations and the average seepage rate is used to account for return flows from the irrigation storage pond. It is estimated that the pond contains wastewater at least **180 days** per year on average.

Consumptive use evaluation for proposed change application:

Gross Diversion:

File No. 11,511 D1 irrigation =	456.0 AF
File No. 11,511 D2 irrigation =	272.8 AF
File No. 11,511 stockwater =	<u>200.0 AF</u>
→ Total gross diversion =	928.8 AF

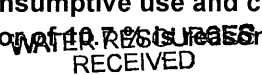
Return Flows:

File No. 11,511 D1 irrigation return flow = (456.0 AF) x (100% - 87%) =	59.3 AF
File No. 11,511 D2 irrigation return flow = (272.8 AF) x (100% - 87%) =	35.5 AF
Wastewater irrigation return flow = (215.0 AF) x (100% - 87%) =	28.0 AF
Wastewater pond return flow = (0.1364 in./day) x (180 days) x (1.25 acres) =	<u>30.7 AF</u>
→ Total return flows =	153.5 AF

→ Consumptive Use = Total Gross Diversion - Total Return Flow =	928.8 AF
	<u>-153.5 AF</u>
	775.3 AF

Comparison: $\frac{\text{Proposed Consumptive Use}}{\text{Perfection Period Consumptive Use}} = \frac{775.3 \text{ AF}}{761.6 \text{ AF}} = 102\%$

→ **Proposed change does not substantially increase consumptive use and complies with the requirements of K.A.R. 5-5-3. Therefore, the consumptive use factor of 10.7% is reasonable.**


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**KS652.0605 State supplement -
irrigation system design****(a) General information**

This part contains additional technical information required for the design of the various types of irrigation systems. Section KS652.0605(b) addresses gravity irrigation systems. Section KS652.0605(c) addresses sprinkle irrigation systems. Section KS652.0605(d) addresses micro (drip) irrigation systems.

Table KS6-1 is provided for guidance in determining the recommended irrigation efficiency to use in the various system designs. The efficiencies shown are for the system efficiency. System efficiency considers all water losses beginning at the water source and ending at the soil surface or point of application. These values are appropriate for use in irrigation scheduling programs, which are addressed in Chapter 9, Irrigation Water Management. It does not consider impacts of irrigation management alternatives. Those issues are discussed in KS652.0505.

Table KS6-1 Typical Efficiency for Irrigation Systems

Irrigation System Type	Efficiency (%)
Surface Irrigation - Basic (Earthen conveyance ditch and siphon tubes or cutouts)	50
Surface Irrigation - Basic (Earthen conveyance ditch, siphon tubes or cutouts, land leveled)	60
Surface Irrigation - Basic (Earthen conveyance ditch, gated pipe, land leveled, tailwater reuse)	70
Surface Irrigation - Improved (Delivery pipeline, gated pipe)	70
Surface Irrigation - Improved (Delivery pipeline, gated pipe, land leveled)	75
Surface Irrigation - Improved (Tailwater reuse, land leveled, delivery pipeline, gated pipe)	80
Center Pivot ^{1/2/} and Linear Move - Sprinklers on top of pipe	80
Center Pivot ^{1/2/} and Linear Move - Nozzles below lateral but > 6 feet height above ground	85
Center Pivot ^{1/2/} and Linear Move - Nozzles near ground (in canopy)	87
Center Pivot and Linear Move - Low Energy Precision Application (LEPA)	92
Sprinkler - Solid set	75
Sprinkler Irrigation - Side roll	70
Subsurface Drip Irrigation (SDI)	92

^{1/} When the center pivot system includes an end gun, reduce the efficiency by 5%.

^{2/} When the center pivot system includes a corner system (sometimes referred to as a trailer section), reduce the efficiency by 3%.

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**CIMARRON FEEDERS OF KANSAS, LLC
P.O. BOX 349
CIMARRON, KANSAS 67835
KANSAS (KDHE) PERMIT A-UAGY-C001
FEDERAL (NPDES) PERMIT KS0037541**

**EVALUATION OF SEEPAGE RATE FROM RETENTION CONTROL STRUCTURE 1
LOCATED IN SECTION 4 AND 9 T26S R28W AND S 1/2 SECTION 33 T25S R28W
GRAY COUNTY, KANSAS**

SUMMARY

Water balance techniques were used to accurately measure seepage losses from a waste storage pond located at Cimarron Feeders of Kansas, LLC. Changes in the liquid level of the pond and evaporation were measured continuously for 2 nighttime periods ranging from February 3, 2015 to February 4, 2015 and from February 6, 2015 to February 7, 2015. No precipitation occurred and other inflows and outflows were precluded during this period. The average daily seepage rate of the pond was calculated. This seepage rate, which is summarized in Table 2, was 0.0570 in./d (1.448 mm/d).

SITE DESCRIPTION

A water balance study was conducted to measure the whole-pond seepage rate from a waste storage pond at Cimarron Feeders of Kansas, LLC. This is a beef cattle feeding facility with a total permitted capacity of 22,500 animal units, and is located in Section 4 and 9 T26S R28W and S 1/2 Section 33 T25S R28W, Gray County, Kansas. This pond, identified as Retention Control Structure 1, is shown on the location map contained in the Appendix. Runoff, sediment and process wastes from the facility are stored in the pond for subsequent application on agricultural land.

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CIMARRON FEEDERS OF KANSAS, LLC
P.O. BOX 349
CIMARRON, KANSAS 67835
KANSAS (KDHE) PERMIT A-UAGY-C001
FEDERAL (NPDES) PERMIT KS0037541

**EVALUATION OF SEEPAGE RATE FROM RETENTION CONTROL STRUCTURE 2
LOCATED IN SECTION 4 AND 9 T26S R28W AND S 1/2 SECTION 33 T25S R28W
GRAY COUNTY, KANSAS**

SUMMARY

Water balance techniques were used to accurately measure seepage losses from a waste storage pond located at Cimarron Feeders of Kansas, LLC. Changes in the liquid level of the pond and evaporation were measured continuously for 2 nighttime periods ranging from November 12, 2014 to November 13, 2014 and from November 13, 2014 to November 14, 2014. No precipitation occurred and other inflows and outflows were precluded during this period. The average daily seepage rate of the pond was calculated. This seepage rate, which is summarized in Table 2, was 0.1477 in./d (3.752 mm/d).

SITE DESCRIPTION

A water balance study was conducted to measure the whole-pond seepage rate from a waste storage pond at Cimarron Feeders of Kansas, LLC. This is a beef cattle feeding facility with a total permitted capacity of 22,500 animal units, and is located in Section 4 and 9 T26S R28W and S 1/2 Section 33 T25S R28W, Gray County, Kansas. This pond, identified as Retention Control Structure 2, is shown on the location map contained in the Appendix. Runoff, sediment and process wastes from the facility are stored in the pond for subsequent application on agricultural land.

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CIMARRON FEEDERS OF KANSAS, LLC
P.O. BOX 349
CIMARRON, KANSAS 67835
KANSAS (KDHE) PERMIT A-UAGY-C001
FEDERAL (NPDES) PERMIT KS0037541

**EVALUATION OF SEEPAGE RATE FROM THE IRRIGATION RESERVOIR
LOCATED IN SECTION 4 AND 9 T26S R28W AND S 1/2 SECTION 33 T25S R28W
GRAY COUNTY, KANSAS**

SUMMARY

Water balance techniques were used to accurately measure seepage losses from a waste storage pond located at Cimarron Feeders of Kansas, LLC. Changes in the liquid level of the pond and evaporation were measured continuously for 2 nighttime periods ranging from November 26, 2014 to November 27, 2014 and from November 27, 2014 to November 28, 2014. No precipitation occurred and other inflows and outflows were precluded during this period. The average daily seepage rate of the pond was calculated. This seepage rate, which is summarized in Table 2, was 0.2045 in./d (5.195 mm/d).

SITE DESCRIPTION

A water balance study was conducted to measure the whole-pond seepage rate from a waste storage pond at Cimarron Feeders of Kansas, LLC. This is a beef cattle feeding facility with a total permitted capacity of 22,500 animal units, and is located in Section 4 and 9 T26S R28W and S 1/2 Section 33 T25S R28W, Gray County, Kansas. This pond, identified as the Irrigation Reservoir, is shown on the location map contained in the Appendix. Runoff, sediment and process wastes from the facility are stored in the pond for subsequent application on agricultural land.

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Division of Water Resources



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

April 14, 2017

CIMARRON CROSSING FEEDERS, LLC
PO BOX 349
CIMARRON, KS 67835

FILE COPY

RE: File No. 11511 D2

Dear Sir or Madam:

An application for approval of the Chief Engineer to change the following condition or conditions of the file number referred to above has been received:

- place of use PU/PD/UMW
- point of diversion
- use made of water

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. You will be contacted regarding this application as soon as it has been examined.

In accordance with the provisions of the Kansas Water Appropriation Act, a portion of which is included below, the use of water prior to approval of the application is unlawful. You should not proceed and divert water as indicated by your plans in your application for a change for this file until you receive approval for this change from the Chief Engineer. 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...

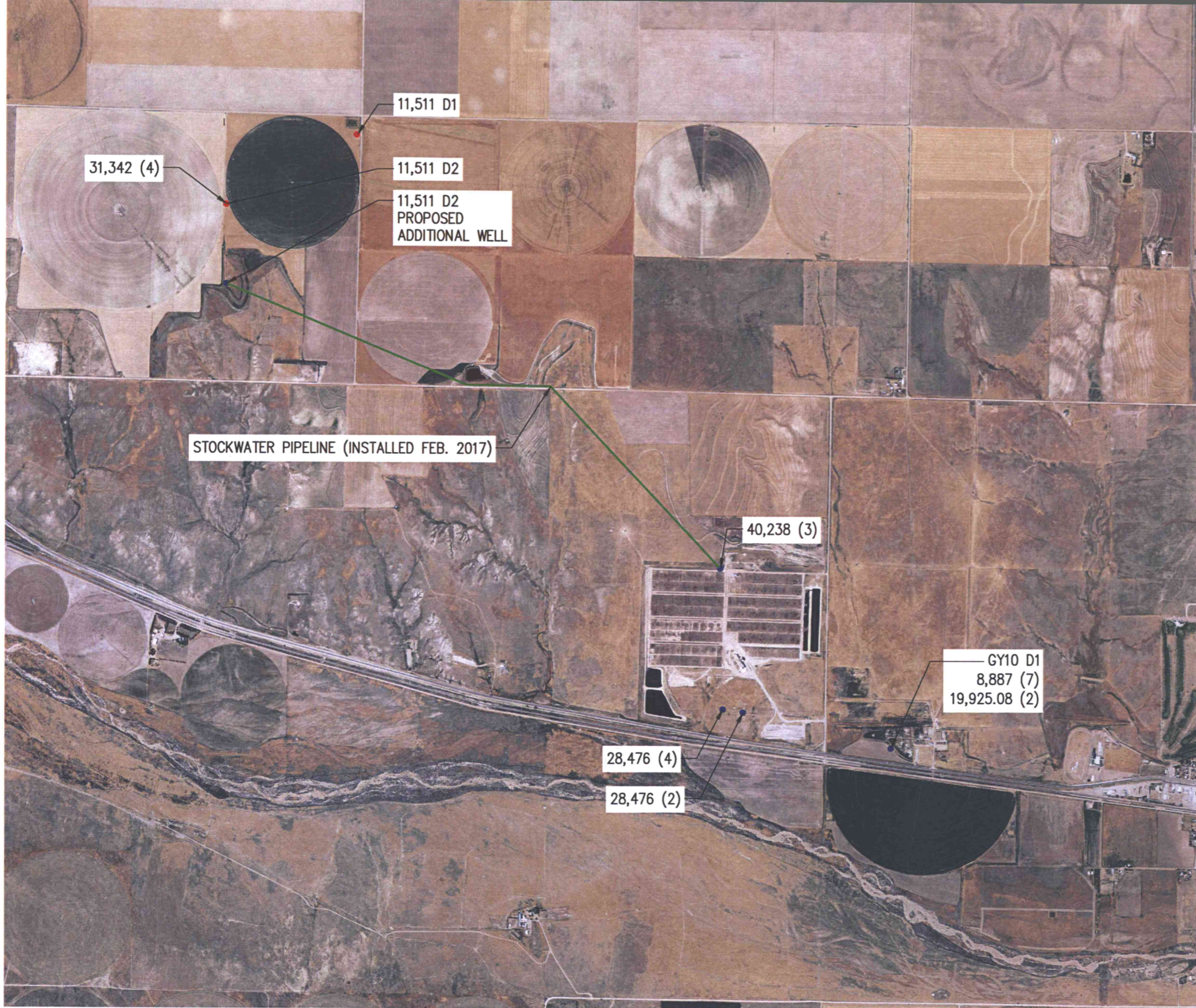
A class C misdemeanor is punishable by a fine not to exceed \$500 and/or a term of confinement not to exceed one month in the county jail. Each day that the violation occurs constitutes a separate offense.

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,

Brent A Turney, L.G.
Change Applications Unit Supervisor
Water Appropriation Program

BAT: DLW
pc: GARDEN CITY Field Office GMD 3



LEGEND

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- OWNED POINT OF DIVERSION (STK)

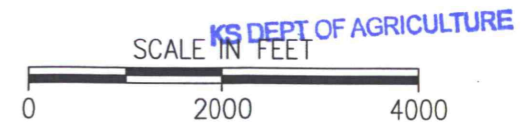
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CHECKED	FCM	DATE
APPROVED	FCM	DATE

CIMARRON CROSSING FEEDERS LLC
 SECTIONS 4&10 T26S R28W
 GRAY COUNTY, KANSAS

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 SALINA, KANSAS 67401
 (785) 823-0097
 1303 YUCCA STREET
 SCOTT CITY, KANSAS 67871
 (620) 872-2300





CURRENT: 11,511 D2, 496 AF, 740 GPM
 PROPOSED: 11,511 D2, 272.8 AF, 540 GPM

PROPOSED: 11,511 D2, 200 AF, 200 GPM

STOCKWATER PIPELINE (INSTALLED FEB. 2017)

LEGEND

- OWNED POINT OF DIVERSION (IRR)
- OWNED POINT OF DIVERSION (STK)
- PLACE OF USE – IRRIGATION (CURRENT AND PROPOSED)
- PLACE OF USE – STOCKWATER (PROPOSED)

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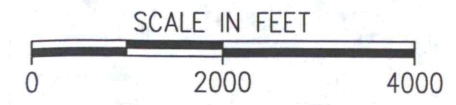
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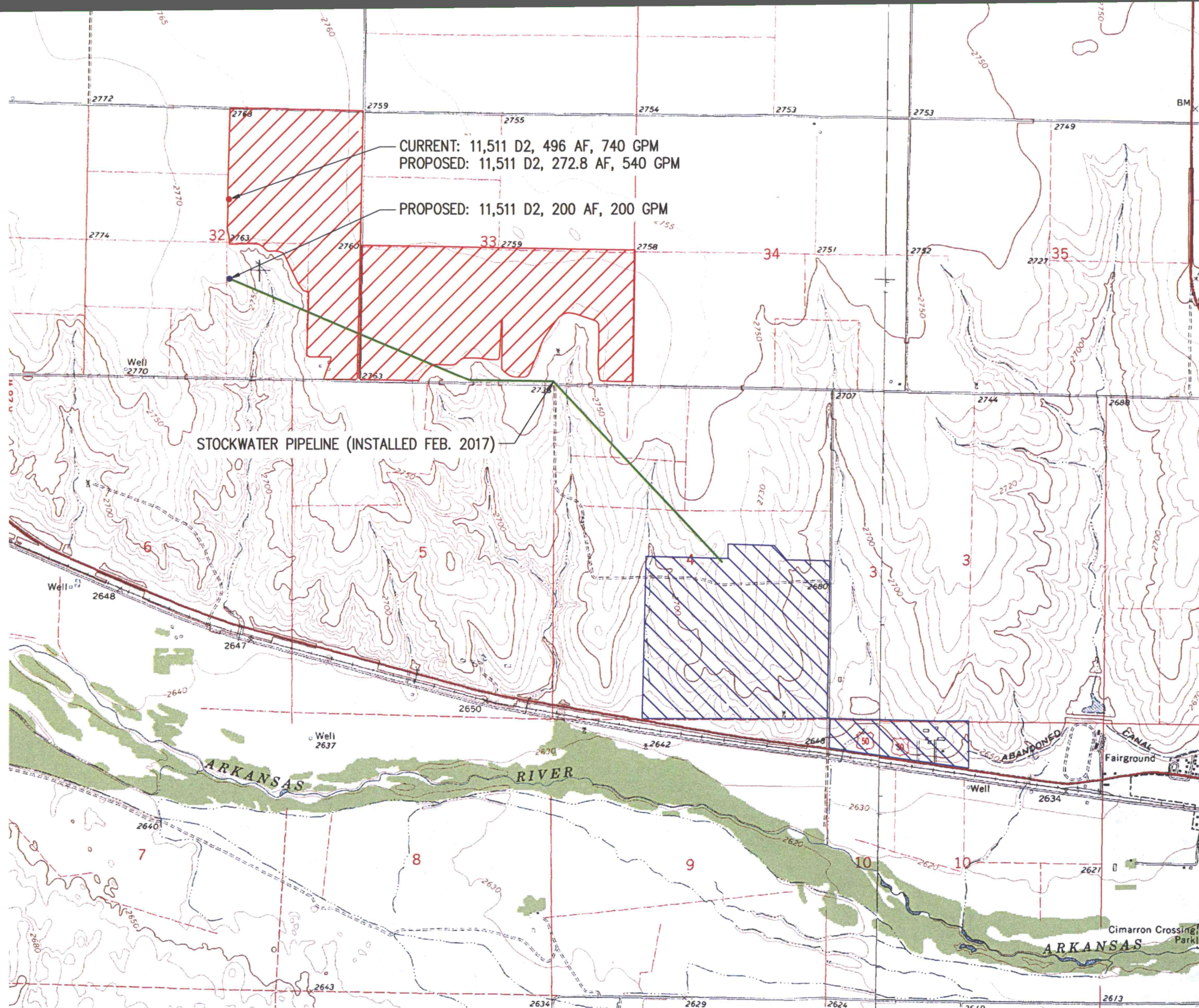
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DRAWN	CHECKED	APPROVED

CIMARRON CROSSING FEEDERS LLC
 SECTIONS 4&10 T26S R28W
 GRAY COUNTY, KANSAS

1700 E. IRON
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CURRENT: 11,511 D2, 496 AF, 740 GPM
 PROPOSED: 11,511 D2, 272.8 AF, 540 GPM
 PROPOSED: 11,511 D2, 200 AF, 200 GPM

STOCKWATER PIPELINE (INSTALLED FEB. 2017)

LEGEND

- OWNED POINT OF DIVERSION (IRR)
- OWNED POINT OF DIVERSION (STK)
- PLACE OF USE - IRRIGATION (CURRENT AND PROPOSED)
- PLACE OF USE - STOCKWATER (PROPOSED)

T25S
T26S

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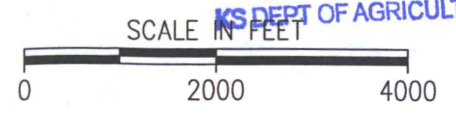
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DATE	DATE	DATE
DLB	FCM	FCM
DRAWN	CHECKED	APPROVED

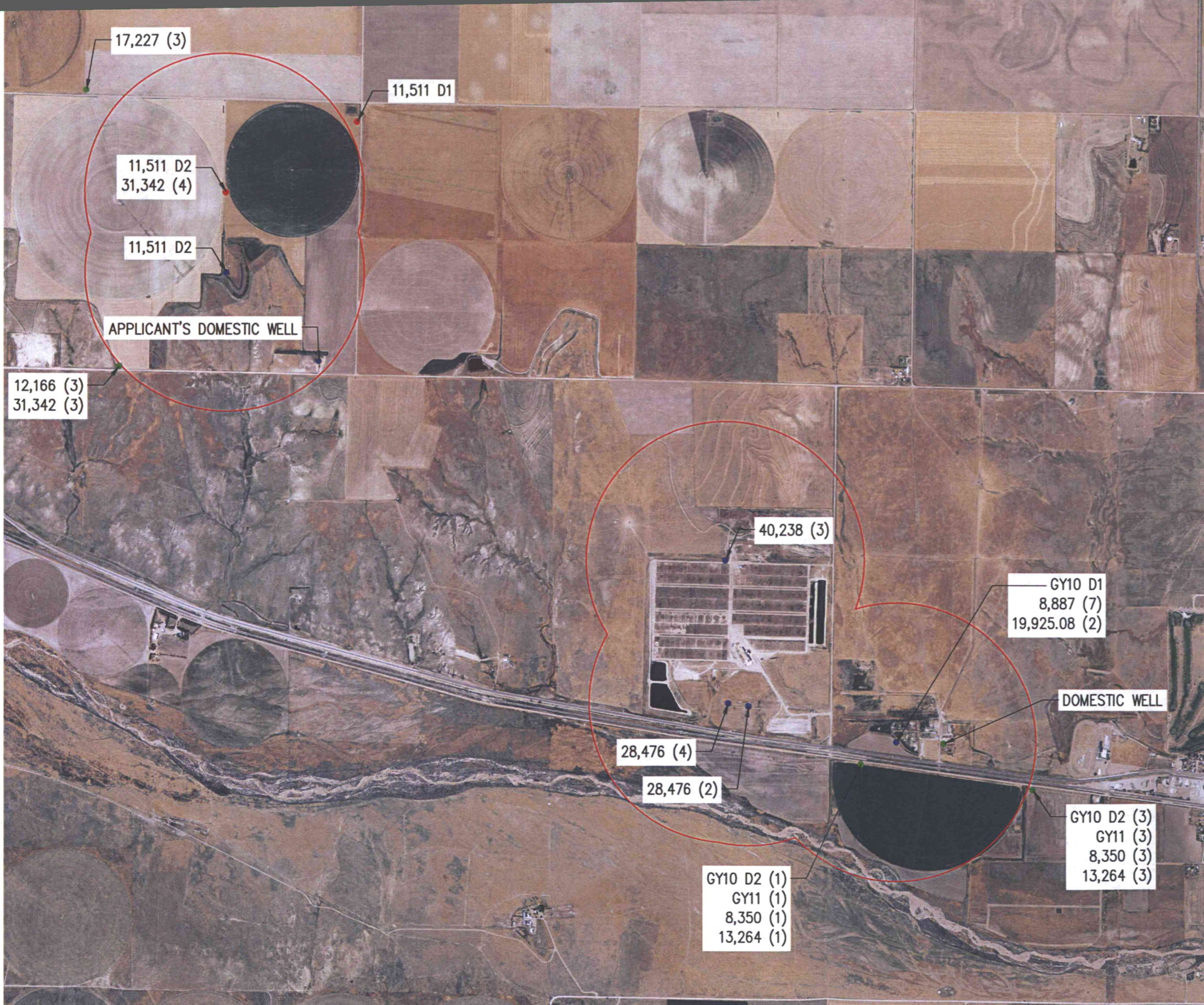
CIMARRON CROSSING FEEDERS LLC

SECTIONS 4&10 T26S R28W
GRAY COUNTY, KANSAS

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LEGEND

- OWNED POINT OF DIVERSION (IRR)
- OWNED POINT OF DIVERSION (STK)
- NEIGHBORING POINT OF DIVERSION
- BOUNDARY OF 1/2 MILE SPACING FROM OWNED WELL

DRAWN	DLB	DATE	3
CHECKED	FCM	DATE	3
APPROVED	FCM	DATE	3

CIMARRON CROSSING FEEDERS LLC
 SECTIONS 4&10 T26S R28W
 GRAY COUNTY, KANSAS

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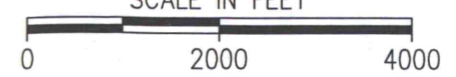
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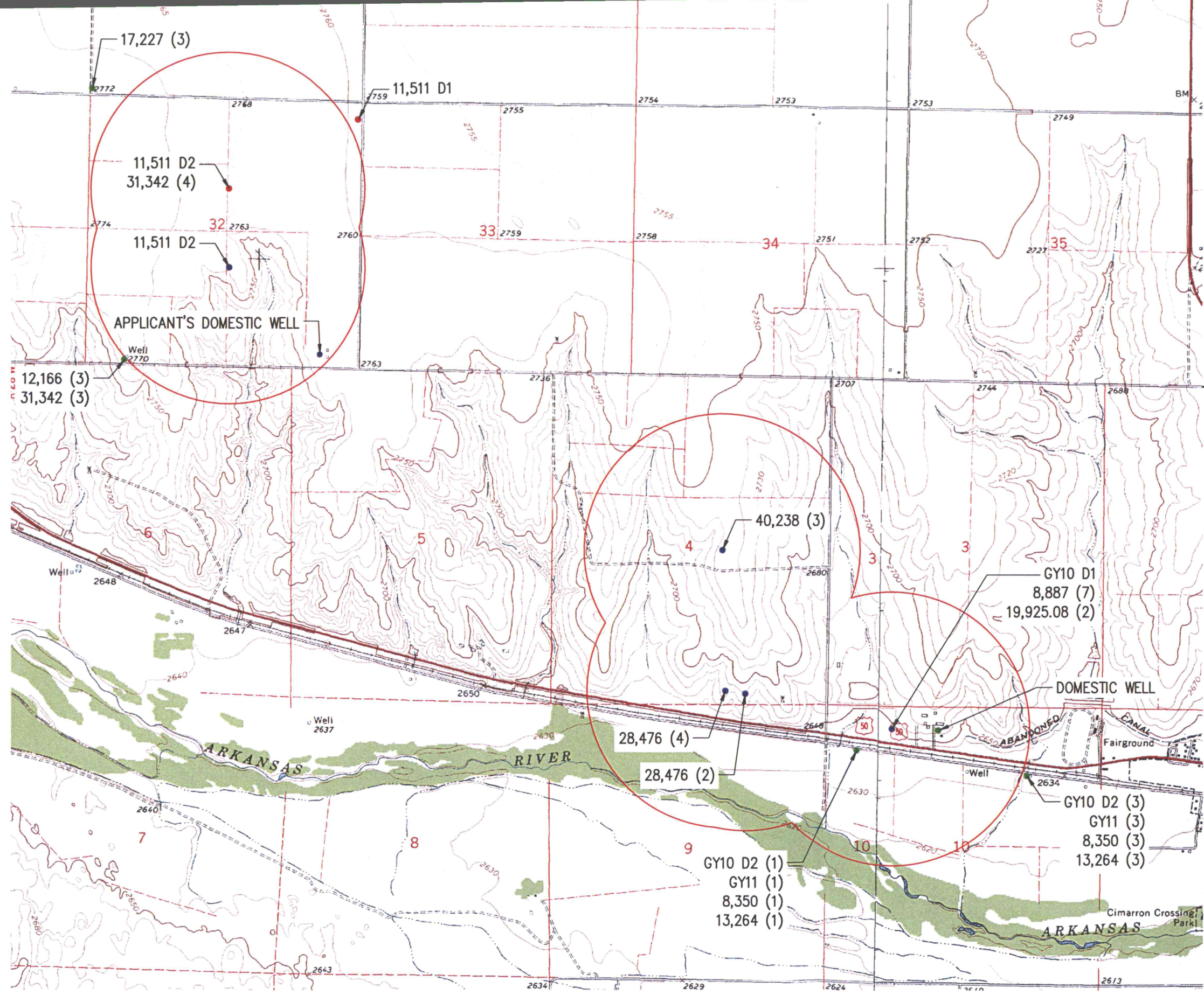


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LEGEND

- OWNED POINT OF DIVERSION (IRR)
- OWNED POINT OF DIVERSION (STK)
- NEIGHBORING POINT OF DIVERSION
- BOUNDARY OF 1/2 MILE SPACING FROM OWNED WELL

DATE	3/31
DLB	
CHECKED	FCM
APPROVED	FCM
DATE	3/31
DATE	3/31

CIMARRON CROSSING FEEDERS LLC
 SECTIONS 4&10 T26S R28W
 GRAY COUNTY, KANSAS

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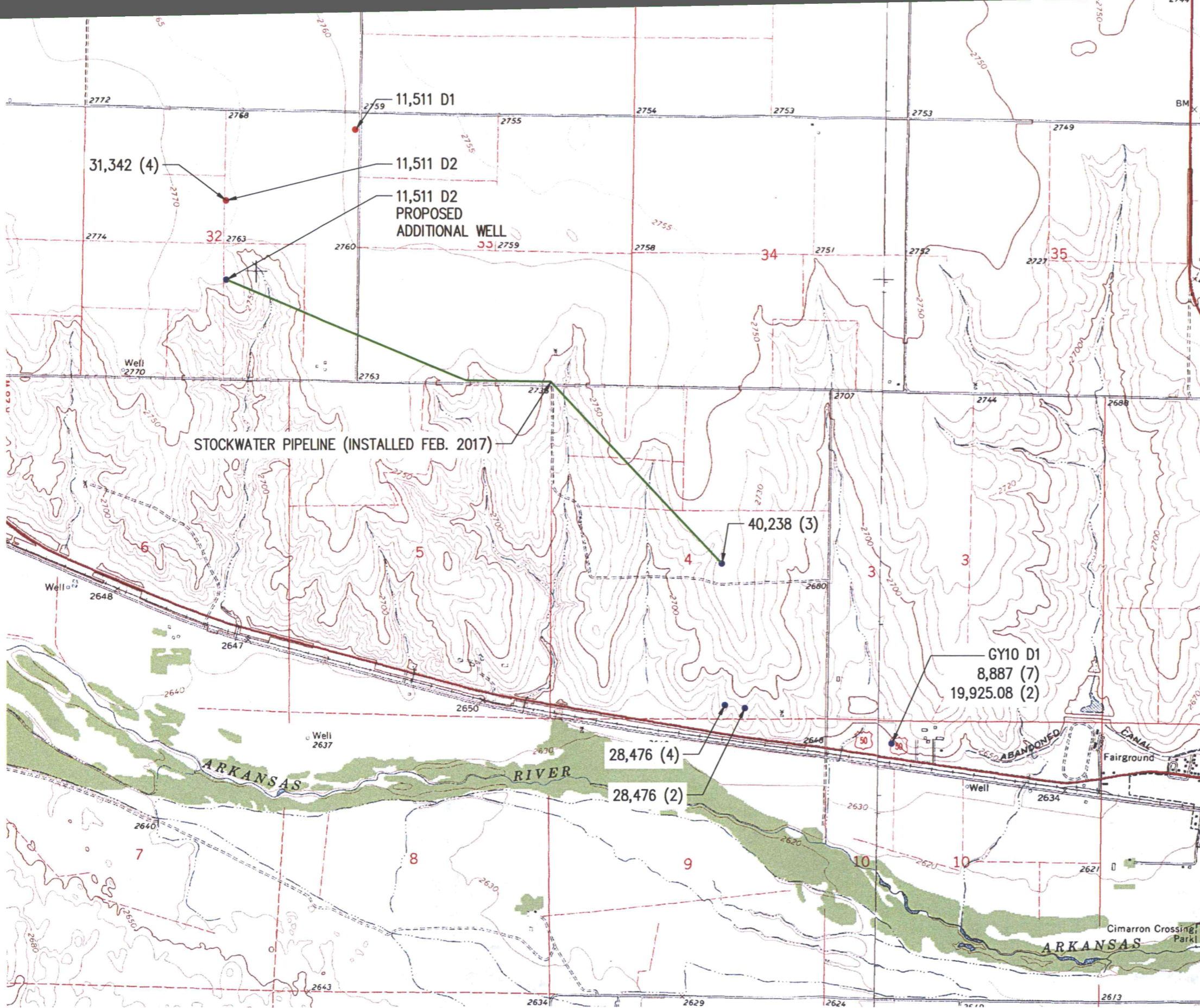
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LEGEND

- OWNED POINT OF DIVERSION (IRR)
- OWNED POINT OF DIVERSION (STK)

T25S
T26S

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CIMARRON CROSSING FEEDERS LLC
SECTIONS 4&10 T26S R28W
GRAY COUNTY, KANSAS

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SALINA, KANSAS 67401
(785) 823-0097
1303 YUCCA STREET
SCOTT CITY, KANSAS 67871
(620) 872-2300



CAD FILE NAME:



11,511 D1

CURRENT: 11,511 D2, 496 AF, 740 GPM
 PROPOSED: 11,511 D2, 272.8 AF, 540 GPM

PROPOSED: 11,511 D2, 200 AF, 200 GPM

31,342 (4)

STOCKWATER PIPELINE (INSTALLED FEB. 2017)

40,238 (3)

GY10 D1
 8,887 (7)
 19,925.08 (2)

28,476 (4)

28,476 (2)

LEGEND

- OWNED POINT OF DIVERSION (IRR)
- OWNED POINT OF DIVERSION (STK)

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 SCALE IN FEET



DATE	3	DATE	3	DATE	3
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CIMARRON CROSSING FEEDERS LLC

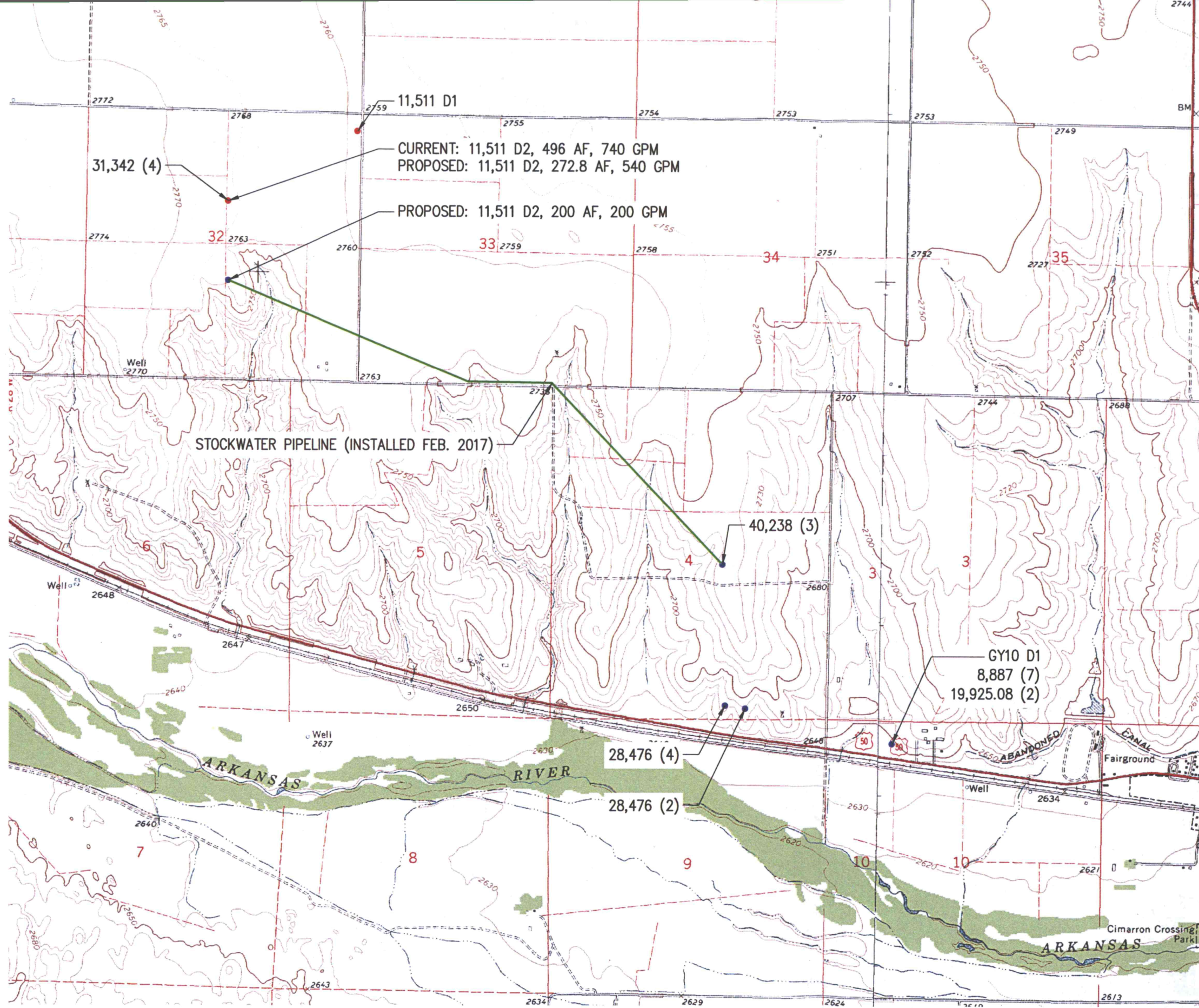
SECTIONS 4&10 T26S R28W
 GRAY COUNTY, KANSAS

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28,476 (2)

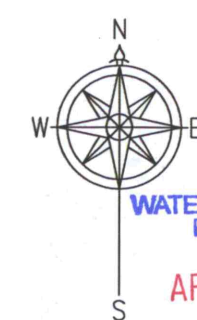
LEGEND

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- OWNED POINT OF DIVERSION (STK)

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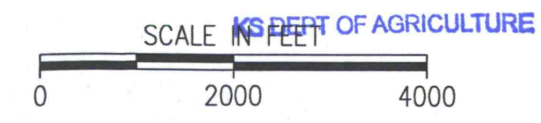
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