

## MANAGEMENT PLAN

### For the Designation of a Water Conservation Area (WCA)

### Wheatland Electric Cooperative Inc (WEC Inc.) WCA; Finney County, KS

January 2018 through December 2022

In order to conserve and extend the productive life of the aquifer in our region and increase the value and viability of our water rights and water resources for future generations we, the undersigned water right owners propose the following management plan, pursuant to K.S.A. 82a-745 (WCA Law), to form the basis of a Consent Agreement and Order Designating a Water Conservation Area (WCA).

#### Expression of Conservation Goals

WEC Inc. would like to enter into a WCA that not only conserves water for the future but also helps boost the economy of Southwest Kansas. WEC Inc. currently operates 14 industrial wells as a unit that supply water to Tyson Fresh Meats Inc. on a daily basis throughout the year. Tyson Fresh Meat Inc. has shown an increase in production in recent years and is expected to increase in future years. As more water has been used for industrial purposes we have reduced our irrigation wells to help maintain the Ogallala aquifer in our area. In this WCA, we shall include the 14 industrial wells along with 23 irrigation wells. The water use history on the irrigation wells shows we have used very little in recent years. These have little use because we have chosen not to pump from these wells. During this WCA period we do not intend to exceed the total combined quantity authorized for the industrial wells and only intend to use up to 1,400 Acre-Feet (AF), or 23%, of the total irrigation authorized quantity in any year. We ask to have this recognized to gain some flexibility on the industrial wells in order to ensure an increase in production for Tyson Fresh Meat Inc. and to help the economy thrive in Southwest Kansas.

#### Water Rights Enrolled and Geographic Boundaries

This WCA shall include the water rights listed in the attached documents. These lists include details of all points of diversion associated with those water rights; as well as legal descriptions of the locations of the points of diversion and/or identification numbers. The current total appropriations authorized for all industrial water rights included in this WCA is 4,496.727 acre-feet (AF) per year and 6,026 AF per year for irrigation water rights. The geographic boundary for this WCA is shown on the attached map(s) and attached table defined by legal locations. This table includes total acres and legal definitions by section, township, and range of the WCA boundary.

#### Findings Regarding Groundwater Conditions

We understand that the WCA Law requires a finding that one of the following circumstances be present within the area geographic boundaries of this WCA; specified in K.S.A. 82a-1036 (a) through (d):

- a) Groundwater levels in the area in question are declining or have declined excessively;
- b) The rate of withdrawal of groundwater in the area equals or exceeds the rate of recharge within such area;
- c) Preventable waste of water is occurring or may occur within the area in questions; or

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- d) Unreasonable deterioration of the quality of water is occurring or may occur within the area in question

and amendments thereto, exist, or include a finding or findings that the area within the geographic boundaries described in paragraph (1) has been closed to new appropriations by rule, regulation or order of the Chief Engineer.

We have been informed that the following conditions exist:

- Groundwater levels in the area in question are declining or have declined excessively
- The rate of withdrawal of groundwater in the area equals or exceeds the rate of recharge within such area

These conditions suggest the advisability of implementing this WCA.

See the attached maps and figures supporting these findings and observations. Such attached documents may include:

- Maps with WCA geographic boundaries defined- Attachments A, B, & C
- Detailed table with description of WCA geographic boundaries- Attachment D
- Summary of water rights with description of legal locations- Attachments E & F
- KGS Observation well(s) data (if applicable) – Attachment G
- KDA-DWR Theis analysis report(s) (if applicable) – Attachment H

Per the Corrective Controls Provisions and Plan for Conservation Section under this WCA management plan it has been determined that the proposed provisions listed will not significantly affect nearby points of diversion. This has been determined by a Theis analysis conducted by the Kansas Department of Agriculture. The Theis report(s) for the water rights in question are included in the attached documents.

### Due Consideration for Past Conservation

We acknowledge that as described in the law, a water conservation area (WCA) management plan shall give due consideration to water users who have previously implemented reductions in water use resulting from voluntary conservation measures.

We, the water right owners are committed to best water management practices and have voluntarily shifted approximately over 3,000 acres to native grass land and have ceased irrigation on 17 wells, 10 water rights and over 5,000 AF. We shall continue to cease irrigation use on the 17 water rights for the duration of this WCA, except for minimal use to maintain a crop cover if needed, as well as reduce the use on the six active wells we currently operate. We plan to continue to maintain the water use in the area and take further actions in the future to ensure the life of the aquifer in the region. We request that this past voluntary conservation of water use be considered under the terms of this WCA. As enumerated below we, the owners, also request that its further conservation under this plan be considered in any LEMA proposed for the area or in a subsequent WCA under the terms herein.

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## Corrective Control Provisions and Plan for Conservation

We acknowledge that the following corrective controls will be in effect within this WCA during the term of the WCA period listed:

1. Water rights, at the discretion of the owners, may be pumped as directed by the owner, provided that:
  - a) All Industrial water rights cannot exceed a total combined quantity of 4,496.727 AF in any year.
    - a. All industrial water rights cannot exceed authorized pumping rates
    - b. Water Rights #18992-D2/20138-D2, #20136-D2, #28623-D1, #29843, & #29941-D1 cannot exceed annual authorized quantities.
    - c. Water Rights, #14826-D1, #16034/29942, #16035/29942, #20137/22026, #22025/29942, & #29943 may exceed their annual authorized quantity, limited to 600 AF each, in any calendar year. *Luke West 7-26-18*
  - b) All Irrigation water rights cannot exceed a total combined quantity of 1,400 AF in any year.
    - a. All irrigation water rights cannot exceed authorized pumping rates
    - b. Water Right #29945 cannot exceed 260 AF in any year.
    - c. All irrigation water rights, except WR #29945, cannot exceed annual authorized quantities.
2. The corrective control provisions of this WCA cannot conflict with the rules and regulations of the local GMD that result in greater overall conservation of water resources. If a Local Enhanced Management Area (LEMA) plan or an Intensive Groundwater Use Control Area (IGUCA) is formed after the initiation of this WCA, and the WCA is partially or wholly within the LEMA or IGUCA, the corrective control provisions that result in the greater overall conservation of water resources based on inches per acre and not based on percent reduction of average historical use shall prevail. However, any LEMA or IGUCA must give due consideration to the conservation achieved by WCA participants pursuant to 82a-745(a)(6). The Chief Engineer is authorized to amend the provision of the WCA to conform to any rules, regulations, or requirements that result in greater conservation of the water resource subject to the foregoing due consideration for past and current conservation.

We, the water right owners enrolling in this WCA understand we may gain the following additional incentive(s) in consideration for our WCA participation.

3. Up to the 1,400 AF may be carried over and added to a subsequent WCA period for irrigation purposes after 2022; if unused by the irrigation wells during the duration of this WCA period. In order for the carryover quantity to be included, all owners must enter into agreement to participate into a subsequent WCA by December 31st of the last year of this WCA period.

## Compliance Monitoring and Enforcement

We, the owners, understand that the following compliance monitoring and enforcement provisions are proposed. This section also includes any specific provisions regarding measuring or reporting water usage.

There is one recognized observation well within one (1) mile of this WCA boundary that has been measured annually by the Kansas Geological Survey (KGS). See attached maps for locations. The well(s) will continue to be measured annually and the data collected will help in evaluating the effectiveness of the WCA. An onsite observation well may be necessary to monitor the local water level more accurately.

We will submit an annual report no later than March 1<sup>st</sup> and maintain a spreadsheet detailing the following information for each well and all wells combined: beginning and ending meter readings, quantity of water diverted, acres irrigated, and the quantity of water remaining for the WCA period listed. These records will be available to KDA-DWR upon request.

We will ensure backup measurements will be supported or an alternate measurement device will be available to be put into service in case the water flowmeter record for any given well is questionable or not reliable.

We acknowledge that water flowmeters within the WCA will be sealed to the measurement chamber by KDA-DWR during the duration of this management plan to ensure an accurate water use record.

We, water right owners within this WCA shall be responsible for ensuring the water flowmeters comply with state and local law(s). Any water right owner or authorized designee who finds a flow meter that is inoperable or inaccurate shall within 48 hours contact the KDA-DWR concerning the matter. Whenever an inoperable or inaccurate meter is repaired or replaced, the owner or authorized designee shall notify the KDA-DWR within seven (7) days on a form prescribed by the Chief Engineer of the water flowmeter installation and any water flowmeter repair or replacement event.

We acknowledge that failure to abide by the terms of this agreement may result in the termination of the WCA. Failure to abide by the terms, conditions, and limitations of the individual water rights will be subject to the civil penalties outlined in K.A.R. 5-14-10 and K.A.R. 5-14-12.

## Review of Effectiveness

We acknowledge that a review of this WCA shall be completed prior to November 1<sup>st</sup> of the final year of the WCA period listed to ensure the above terms remain appropriate and are achieving the stated goals of this WCA. Should the Chief Engineer find that the terms are no longer appropriate or that no progress has been made towards the stated goal, the Chief Engineer may refuse to renew a WCA and may suggest new terms and goals. We understand that upon review, and a finding by the Chief Engineer that the WCA has achieved or made progress towards its goals and that the same terms be included in a subsequent WCA for another designated period. The terms of the WCA may be continued as long as this WCA is in good standing with its most recent WCA period and upon formal approval by the Chief Engineer. The Chief Engineer shall issue findings addressing the terms and goals of the existing management plan prior to any renewal of a subsequent WCA.

We acknowledge that unless terminated under the provisions below (e.g. due to the development of a LEMA), the WCA will be in effect for the listed period with an evaluation at the end of every WCA period. We understand that KDA-DWR will conduct this evaluation to ensure compliance and conservation. The evaluation will determine total water use during the WCA period.

We acknowledge that should an order of designation for a LEMA be implemented prior to end of this WCA period, an evaluation of this WCA will be conducted the year prior to the start of a LEMA. This evaluation may be used to determine an additional allocation amount of water to be carried over into a LEMA; should this be the case.

### Member addition, withdrawal, and removal

We acknowledge that the water right owners and their associated water right(s) and geographic boundaries may be added to the WCA upon written notification to the Chief Engineer by the owners of each enrolling water right with legal descriptions of the areas to be added. A member may withdraw from the WCA through written notification to the Chief Engineer signed by the owners of the participating water right or rights to be withdrawn from the WCA.

If the addition or withdrawal of water rights requires modification to the water allocation quantities, geographic boundaries, places of use, terms, or conditions of the original WCA, the management plan shall be revised to incorporate such changes and the associated consent agreement shall be reaffirmed by all parties, after opportunity for comment on the proposed revisions by the applicable GMD.

### Termination

We acknowledge this WCA agreement may be terminated by written notification, signed by all then-existing members of the WCA, to the Chief Engineer of the intent to terminate.

We also acknowledge that the Chief Engineer may terminate this WCA upon findings that it is not being upheld to its terms. Such termination shall give notice and require a full evaluation of the WCA and water rights associated to ensure follow up actions.

### State Law

We acknowledge that this WCA is subject to compliance with all other applicable state laws.

### Notification to Nearby Owners

We acknowledge that, by statute, the Chief Engineer is required to provide written notification to all water right owners with a point of diversion within ½ of a mile, or farther if deemed necessary, by a rule and regulation of the Chief Engineer, of the geographic boundaries of this WCA.

### Assurances

We acknowledge this WCA will not alter the terms, conditions, and limitations of the base water rights.

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**Review of Other Applicable Requirements**

We acknowledge that upon review, this WCA management plan was found to effect equal or greater overall conservation than applicable GMD regulations, LEMA, and IGUCA requirements.

**Participant's Agreement**

By signing below, we, the water right owners, agree that this management plan is fair and equitable. This management plan, provided to the Chief Engineer and water right owners, is the expressed written intent of the parties and the whole agreement between the parties. We, the water right owners agree to be bound by all the terms contained in this management plan and understand that the provisions of this agreement shall be construed to give effect to the provisions listed. We, the water right owners also agree that this management plan is the basis for a consent agreement among the Chief Engineer and the undersigned water right owners, and therefore any order and consent agreement issued by the Chief Engineer, designating this WCA, shall be binding upon all parties as the necessary formal implementation of this management plan.

**For the Participants:** All participating water right owner(s) signing below, affirm their approval of this WCA management plan and if approved by the Chief Engineer allow consent to the Chief Engineer to formally approve the designation of this Water Conservation Area, described herein, by means of a Consent Agreement and Order

*Bruce Mueller* Date: 5-21-18  
WHEATLAND ELECTRIC COOPERATIVE INC-Spokesperson (Signature)

BRUCE W. MUELLER (Print Name)  
GENERAL MANAGER  
PO BOX 953, GARDEN CITY KS 67846 (Full Mailing Address)

BMUELLER@WECI.NET 620-872-5885  
Email Address Phone Number

**ACKNOWLEDGMENT OF NOTARY**

State of Kansas )  
) SS  
County of Finney )  
Acknowledged before me on May 21, 2018  
by Bruce Mueller  
Signature: *Megan Jo Sneath*  
Notary Public



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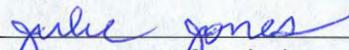
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My commission expires: 01-23-2022  
(Notary Seal)

**CERTIFICATE OF SERVICE**

I hereby certify that on this 17<sup>th</sup> day of August, 2018 copies of the foregoing were sent via first class, U.S. mail, to the following:

WHEATLAND ELECTRIC COOPERATIVE INC  
PERRY SMITH  
PO BOX 953  
GARDEN CITY KS 67846

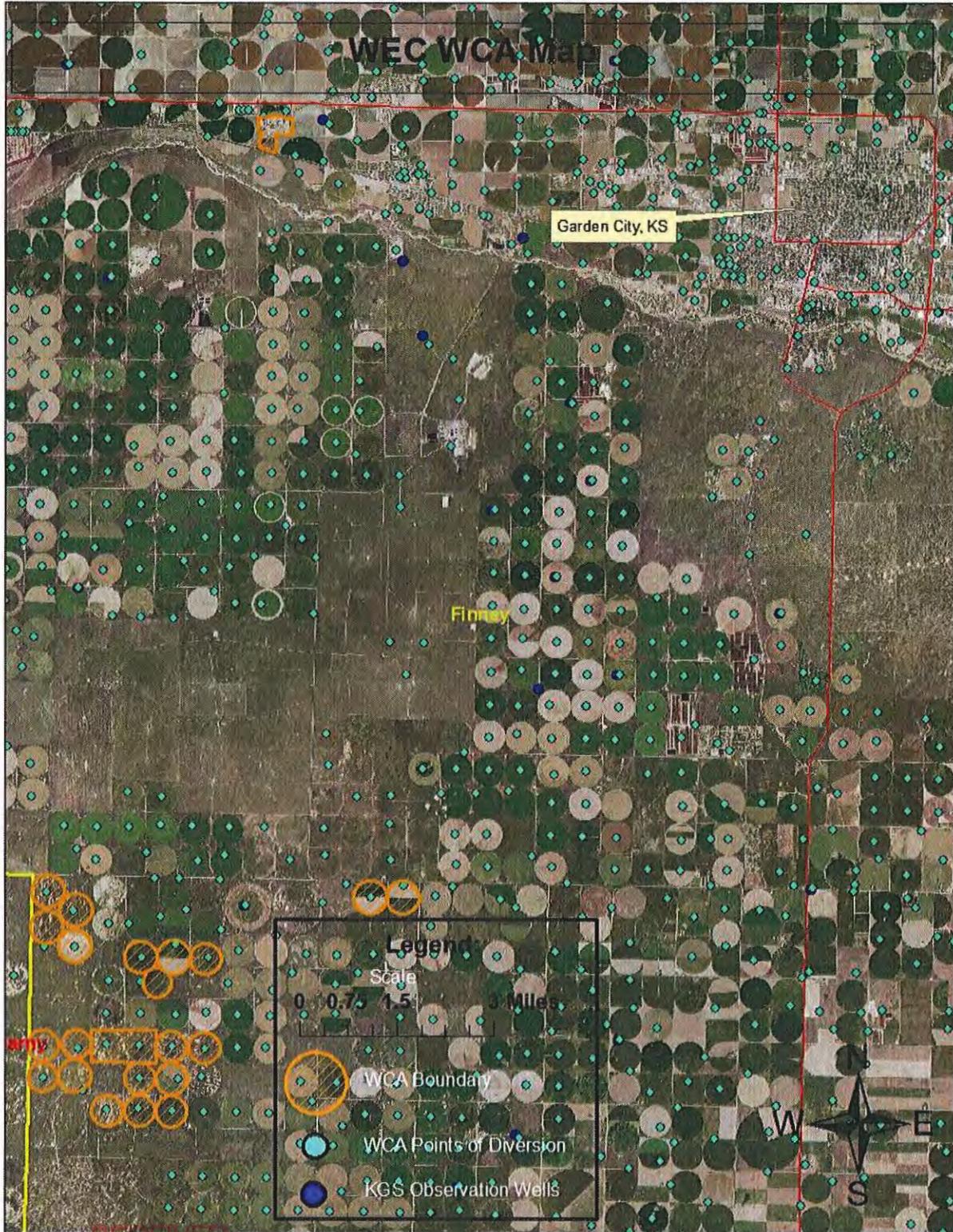
  
Kansas Department of Agriculture  
Staff Person

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Attachment A- WCA Map

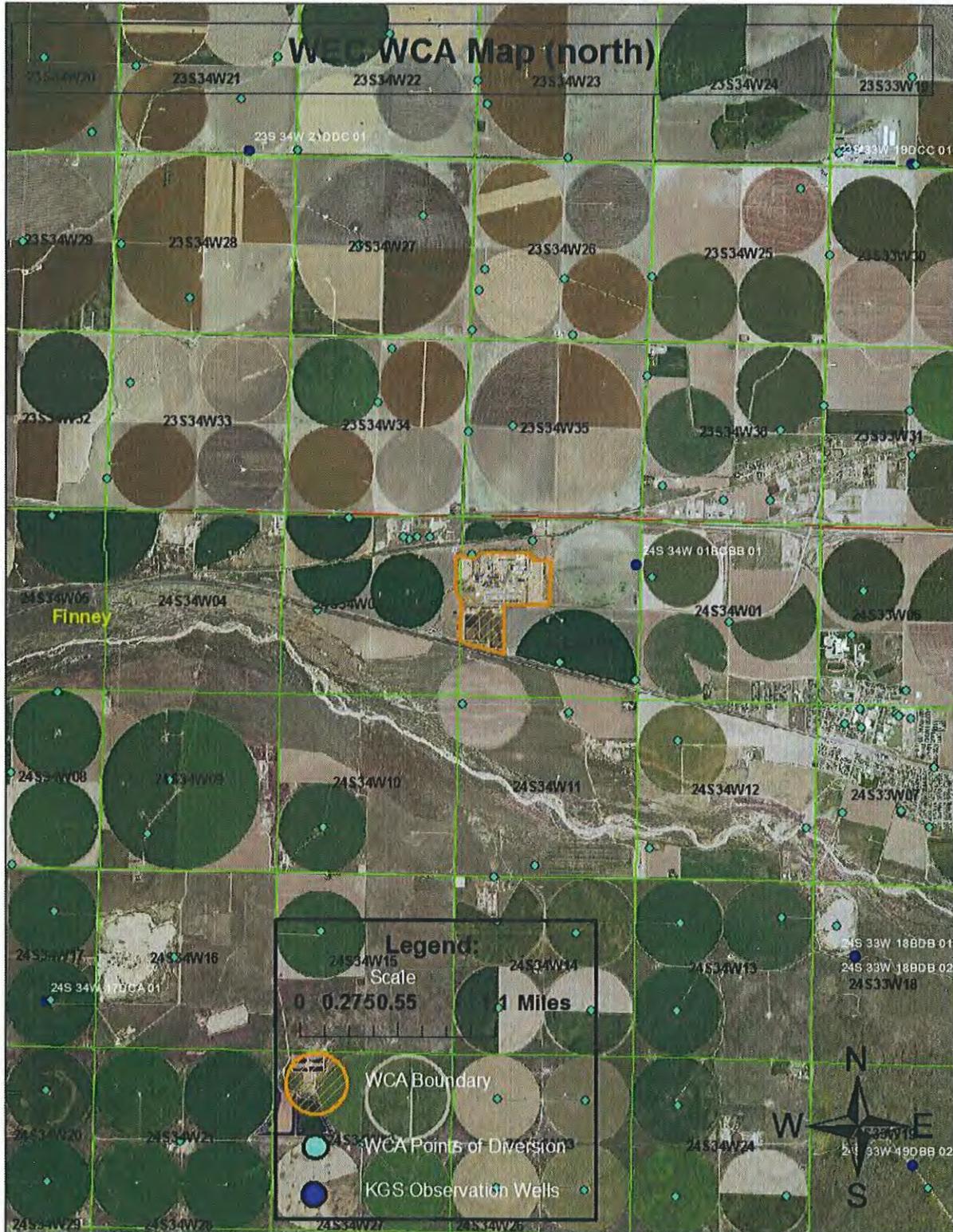


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Attachment B- WCA Map (north)

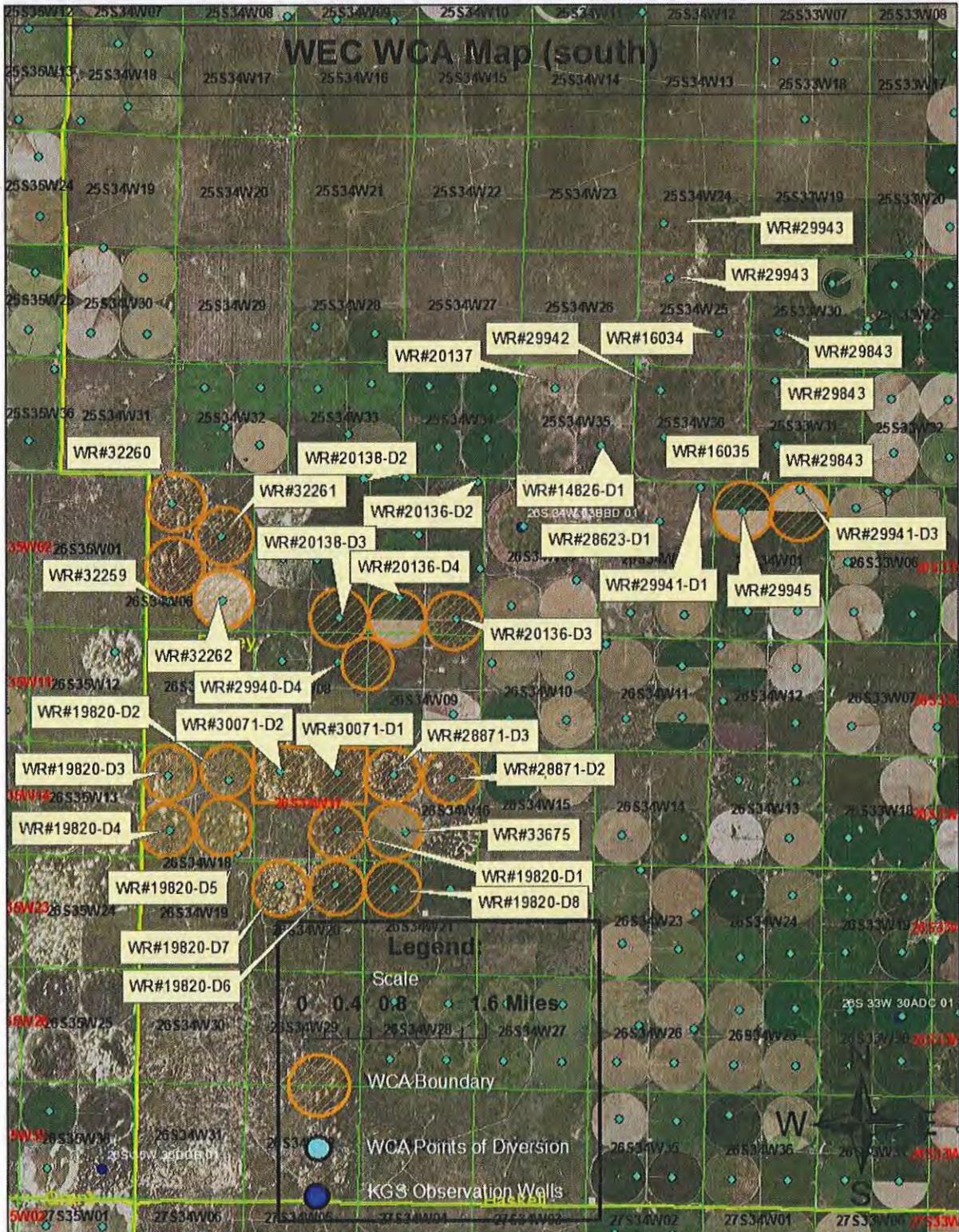


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### Attachment C- WCA Map (south)



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Attachment D- Table of WCA Geographic Boundary

WCA Boundary																			
Sec	T (S)	R (W)	NE (1/4)				NW (1/4)				SW (1/4)				SE (1/4)				Total Acres
			NE (1/4)	NW (1/4)	SW (1/4)	SE (1/4)	NE (1/4)	NW (1/4)	SW (1/4)	SE (1/4)	NE (1/4)	NW (1/4)	SW (1/4)	SE (1/4)	NE (1/4)	NW (1/4)	SW (1/4)	SE (1/4)	
2	24	34					x	x	x	x	x	x	x						X
3	24	34	x	x	x	x													X
1	26	34	66.50	66.65			63.80	63.80											260.75
1	26	34	L-1	L-2			L-3	L-4											X
4	26	34								15.00	15.00	38.00	38.00	15.00	15.00	38.00	38.00		212.00
5	26	34												15.00	15.00	38.00	38.00		106.00
6	26	34	44.00	58.00	38.00	31.00	94.00	64.00	30.00	40.00	39.00	25.00		3.00	37.00	39.00	37.00	36.00	615.00
6	26	34	L-1	L-2			L-3	L-4	L-5				L-6						X
8	26	34	37.50	15.00		34.5													87.00
9	26	34	15.00	15.00			15.00	37.50	22.50										105.00
16	26	34	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00					408.00
17	26	34	40.00	40.00	40.00	40.00	40.00	40.00	40.00	40.00				34.00	34.00	34.00	34.00		456.00
18	26	34	34.00	34.00	34.00	34.00	34.00	31.00	31.00	34.00	34.00	31.00	31.00	34.00	34.00	34.00	34.00	34.00	532.00
18	26	34						L-1	L-2			L-3	L-4						X
20	26	34	34.00	34.00	34.00	34.00	34.00	34.00	34.00	34.00									272.00
21	26	34					34.00	34.00	34.00	34.00									136.00

Grand Total Acres 3189.75

**Additional Boundary Notes:**

- Legal Note
- 02-24S-34W MEAT PROCESSING PLANT (W2)
- 03-24S-34W MEAT PROCESSING PLANT (NE)
- 01-26S-34W L-1 (NE NE) L-2 (NW NE) L-3 (NE NW) L-4 (NW NW)
- 03-26S-34W L-1 (NE NE), L-2 (NW NE), L-3 (NE NW), L-4 (NW NW)
- 06-26S-34W L-1 (NE NE) L-2 (NW NE) L-3 (NE NW) L-4 (NW NW) L-5 (SW NW) L-6 (NW SW)
- 18-26S-34W L-1 (NWNW) L-2 (SWNW) L-3 (NWSW) L-4 (SWSW)

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## Attachment E- Summary of Industrial Water Rights

### WEC WCA IND Summary

"Legal Ave Water Use"- A historical average calculated only using water use reports of equal or less than the annual authorized quantity.

WR #	ID#	PDIV#	Location (Sect, Twn, Range)	Historical Period (20XX-20XX)	2018 Annual Auth Qty (AF)	Legal Ave WU (AF)
29843	5	73508	31-25S-33W	10-17	314.592	279.922
29943	8	75669	25-25S-34W	10-17	329.120	320.369
16035	7	75690	36-25S-34W	10-17	329.120	299.158
29942	7	75690	36-25S-34W	10-17		
14826-D1	7	76169	35-25S-34W	10-17	319.499	288.386
29943	3	75670	24-25S-34W	10-17	329.120	323.523
16034	9	76158	25-25S-34W	10-17	329.120	295.392
29942	9	76158	25-25S-34W	10-17		
22025	9	76157	36-25S-34W	10-17	329.120	268.892
29942	9	76157	36-25S-34W	10-17		
20137	6	76160	35-25S-34W	10-17	329.120	282.619
22026	6	76160	35-25S-34W	10-17		
29843	6	76825	30-25S-33W	10-17	314.592	247.968
29843	6	76826	31-25S-33W	10-17	314.592	254.951
28623-D1	5	77286	2-26S-34W	10-17	369.064	259.821
20136-D2	13	77285	4-26S-34W	10-17	164.554	149.820
18992-D2	8	77284	5-26S-34W	10-17	329.107	191.477
20138-D2	8	77284	5-26S-34W	10-17		
29941-D1	6	77499	2-26S-34W	10-17	396.009	230.371

Summary		
2018 Annual Auth Qty (AF)	Legal Ave WU (AF)	% Use of Authorized
4,496.727	3,692.667	82%

Annual Total Water Use		
Year	Use (AF)	% of Auth
2010	3636.849	81%
2011	3494.935	78%
2012	3125.769	70%
2013	3532.418	79%
2014	3613.781	80%
2015	3777.935	84%
2016	4048.949	90%
2017	4329.482	96%

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### Attachment F- Summary of Irrigation Water Rights

#### WEC WCA IRR Summary

"Legal Ave Water Use" - A historical average calculated only using water use reports of equal or less than the annual authorized quantity.

WR #	ID #	PDIV#	Location (Sect, Twn, Range)	Historical Period (20XX-20XX)	2018 Annual Auth Qty (AF)	Legal Ave WU (AF)
19820-D1	2	37306	17-265-34W	03-12	260	105.333
19820-D2	1	20211	18-265-34W	03-12	228	No Use
19820-D3	2	50622	18-265-34W	03-12	260	No Use
19820-D4	3	17782	18-265-34W	03-12	260	No Use
19820-D5	4	31916	18-265-34W	03-12	272	No Use
19820-D6	1	8903	20-265-34W	03-12	260	111.500
19820-D7	2	31708	20-265-34W	03-12	260	76.716
19820-D8	1	43596	21-265-34W	03-12	260	33.800
20136-D3	16	84306	4-265-34W	03-12	272	123.500
20136-D4	15	84285	4-265-34W	03-12	272	257.224
20138-D3	3	36731	05-265-34W	03-12	272	131.804
28871-D2	2	16136	16-265-34W	03-12	260	95.400
28871-D3	1	32718	16-265-34W	03-12	260	48.000
29940-D4	4	38231	08-265-34W	03-12	230	106.500
29941-D3	5	70454	1-265-34W	03-12	260	227.133
29945	1	3569	1-265-34W	03-12	228	142.148
30071-D1	3	8666	17-265-34W	03-12	272	149.725
30071-D2	4	22941	17-265-34W	03-12	272	147.086
32259	1	7932	06-265-34W	03-12	261	136.000
32260	2	30776	06-265-34W	03-12	286	198.502
32261	3	45830	06-265-34W	03-12	281	167.974
32262	4	52648	06-265-34W	03-12	280	121.333
33675	4	9722	16-265-34W	03-12	260	239.813

Historical Use Summary				
2018 Annual Auth Qty (AF)	Legal Ave WU (AF)	Ave Irr Acres	Actual AI/Acre	% Use of Authorized
6,026	2,619.490	2,594.47	12.72	43%

Recent Water Use Reports				
2015 Use	2016 Use	2017 Use	2017 Acres	
933,000	1,132,000	741,000	654	AF
15%	19%	12%	N/A	% of Auth

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**Attachment G- KGS Observation Well 26S 34W 03BBD**

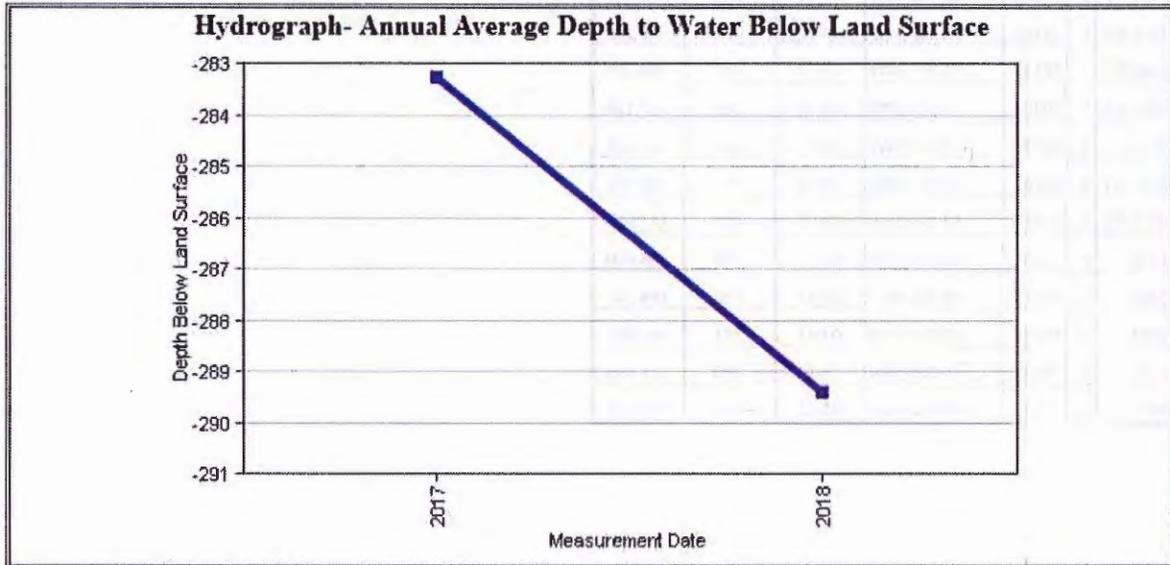
**General Well Site Information**

<b>USGS ID:</b>	374924101014401	<b>KGS Local Well ID:</b>	26S 34W 03BBD 01
<b>County:</b>	Finney	<b>PLSS Description:</b>	26S 34W 3 SENWNW
<b>HUC 8 Code:</b>	11030003	<b>GMD:</b>	Southwest Kansas GMD #3
<b>Longitude:</b>	-101.028898	<b>Lat/Long Source:</b>	GPS (within 50 feet)
<b>Latitude:</b>	37.823244	<b>Lat/Long Accuracy:</b>	1 seconds
<b>Surface Elevation (ft):</b>	2960	<b>Depth of Well (ft):</b>	420
<b>Geological Unit Codes:</b>	TO	<b>USGS Map Name:</b>	Deerfield SE
<b>Use of Site:</b>	Withdrawal of Water	<b>Use of Water:</b>	Irrigation
<b>WWC5 Links:</b>	<a href="#">335207</a>	<b>WIMAS Link:</b>	<a href="#">68091</a>

**Water Level Measurements**

374924101014401

Note that depth to water is feet below land surface and all measurements for the well are included.



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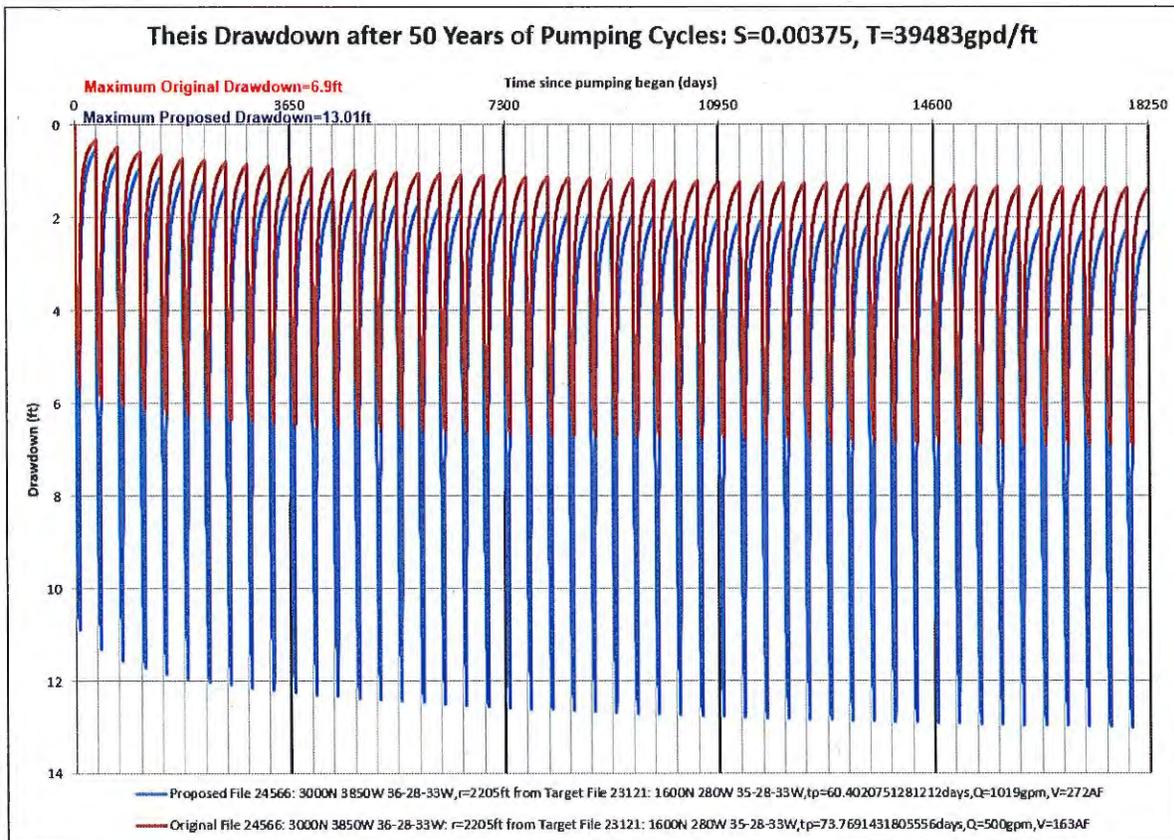
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**Attachment H- This Report on WR #29945 to nearby well**

A Thisis analysis was used evaluate the impact of pumping the well authorized by water right 29,945 at the neighboring well authorized by water right. The original scenario is the 2003-2012 average water use of 163 acre-feet per year at 500 gallons per minute. The proposed scenario is 272 acre-feet per year at 1,019 gallons per minute. The transmissivity and saturated thickness are from the GMD No. 3 model projected to 2066. The storage coefficient was assumed to be the well depth multiplied by  $10^{-5}$ . The 50-year drawdowns under the original and proposed scenarios are 6.90 and 13.01 feet respectively. The difference is 6.11 feet, or 4.43% of the 2066 saturated thickness.

**Table 1: Parameters used for Thisis analysis**

Storage Coefficient, S	.00375	
Transmissivity, T (gpd/ft)	39,483	
	<b>Proposed</b>	<b>Original</b>
Distance from Pumping Well, r (feet)	2,205	2,205
Pumping Time, tp (days)	60.4	73.8
Pumping Rate, Q (gpm)	1,019	500
Pumping Volume, V (AF)	272	163
Pumping Well	29,945 01-26-34W 1	
Target Well	29,941-D1 02-26-34W 6	



**Figure 1: Thisis drawdown under original and proposed scenarios after 50 years of pumping cycles**

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