

MANAGEMENT PLAN

For the Designation of a Water Conservation Area (WCA) T & O LLC / Thomas Willis (T & O) WCA, Finney County January 2016 through December 2018

In order to reduce the rate of decline of water levels in our aquifer and extend the life of our water supply, we, the undersigned water right owners propose the following management plan, pursuant to 2015 Kansas Session Laws, Chapter 37, Sec. 1 (WCA Law), to form the basis of a Consent Agreement and Order Designating a Water Conservation Area (WCA).

Goal Expression

The water right owners of the T& O LLC / Thomas Willis (T & O) WCA desire to conserve and extend the productive life of the aquifer in our region. We have concluded that conserving Ogallala aquifer water today will increase the value and viability of our water rights and water resources for future generations. Our goal is to extend the life aquifer in this immediate area for our future generations to continue the economic benefit of using groundwater for irrigation use.

T & O Location is a group of water rights that were purchased in 2013. These water rights have been tied together by underground pipe and by legal authority under the water rights (overlapping water rights in place of use) to help distribute the water more efficiently to the crops and land. Since we have purchased this land and water rights, in 2014 we used 38% of our total water right quantity or 64% of the 10 year average from 2003 thru 2012. T & O is committed to continue this level of conservation within the term of this WCA by limiting use of all of the base water rights with the T & O LLC WCA to no more than 1,511 acre- feet annually for the next 3 year period beginning January 1, 2016 and ending December 31, 2018. T & O LLC WCA would like to reserve the option of being allowed to renew this WCA after 2019.

Water Technology Farm

As a compliment to the implementation of this WCA, T & O LLC is participating in a Water Technology Farm. An action item in the Vision calls for the development of Water Technology Farms at locations throughout the Ogallala by working in concert with irrigation technology manufacturers and the irrigation research community. The Vision also calls for the state to work with equipment manufacturers and dealers in public-private partnerships to provide the equipment necessary to participating landowners and operators. The Willis Water Technology Farm is one of the first and the most comprehensive water technology farm implemented to date.

The Willis Water Technology Farm involves eight fields under center pivot irrigation. Four will deploy DragonLine, or mobile drop irrigation and four will be irrigated with low pressure spray nozzles. Additional technology and management techniques that will be applied to the farm include deep soil moisture probes and crop rotations. An independent crop consultant will lead the technical oversight in conjunction with the K-State Garden City Experiment Station staff. A web-site with real time dashboard will be built to demonstrate the results, field days are scheduled and signage will be posted to highlight the research and its contributors. The

conservation potential from the irrigation technology and management changes will be documented.

The base water rights considered for this WCA are part of the Willis Water Technology Farm. After the first three year pilot implementation of the irrigation technology and crop rotations included, T & O LLC may evaluate any additional conservation or flexibilities for consideration in future WCA renewals.

Water Rights Enrolled and Geographical Boundaries

The T & O LLC WCA shall include the following water rights and all points of diversion associated with those water rights. The following legal descriptions define the areas included in T & O LLC WCA:

Water Right Number	Twp Range Sec Qual ID
5871	26-33W19 SENWSE, id#5
7517	26-33W21SWNWSW, id#1
28621 D1	26-33W19 NCNE, id#2
34371	26-33W-20 NENWSE, id#4
34769	26-33W21 NESESE, id#4
35902/42771	26-33W-22 CSSESW, id#3

The current appropriation for the water rights included in the T & O LLC WCA totals 2,268 acre-feet. The 10-year average (calendar years 2003 to 2012) is 1,511 acre-feet. All water diversions within the T & O LLC WCA are to be collectively restricted to an allocation of 4,533 acre-feet from January 1, 2016 to December 31, 2018. This is a 33% conservation factor based on their annual use from 2003 through 2012.

The geographic boundary for the place of use for the irrigation use is shown on the attached map and described as follows:

- 136 acres (center pivot irrigation circle) of the Northeast Quarter (NE $\frac{1}{4}$)
- 95 acres (center pivot irrigation circle) of the Southeast Quarter (SE $\frac{1}{4}$)
- Both in Section 19
- 520 acres (130 center pivot irrigation circles) in the Northeast Quarter (NE $\frac{1}{4}$), Northwest Quarter (NW $\frac{1}{4}$), Southwest Quarter (SW $\frac{1}{4}$), Southeast Quarter (SE $\frac{1}{4}$) of Section 20
- 260 acres (center pivot irrigation circles) in the south half (S $\frac{1}{2}$) of Section 21
- 133 acres (center pivot irrigation circle) in the south half of the Northwest Quarter (NW $\frac{1}{4}$), the north half of the Southwest Quarter (SW $\frac{1}{4}$) in Section 22
- 130 acres (center pivot irrigation) of the Northwest Quarter (NW $\frac{1}{4}$) of Section 27
- All in Township 26 South, Range 33 West, Finney County, Kansas.

Findings Regarding Groundwater Conditions

The WCA Law requires a finding that one of the following conditions be present within the area proposed as a WCA.

- 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;
- Preventable waste of water is occurring or may occur within the area in question; or
- Unreasonable deterioration of the quality of water is occurring or may occur within the area in question.

We have determined 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;
- Preventable waste of water is occurring or may occur within the area in question.

See the attached maps and figures supporting these findings and observations:

- Water Use Density, 2003 to 2012
- Changes in Water Levels, 2003 to 2012
- Location Maps (3)
- Change in Water Level, Observation Well
- Estimated Useable Life Map

These conditions necessitate the implementation of the T & O LLC WCA.

Due Consideration for Past Conservation

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.

Average reported water use from 2003 to 2012 for the water rights enrolling in the T & O LLC WCA (12.56 average inches per acre) were lower than most water rights for irrigation in the immediate area. In calendar year 2014, average use was further reduced to 9.12 inches per acre. The T & O LLC has achieved their recent low water use by electing to use less water intensive crops and farming practices.

Duration and Terms

The T & O LLC WCA shall be in effect upon issuance of a Consent Agreement and Order Designating a Water Conservation Area, approved by the undersigned and the Chief Engineer of the Division of Water Resources. The proposed term of the WCA is three years, with an option to renew for three 5-year evaluation periods.

- a) All allocation values shall be expressed in terms of total water volumes for each of the three one-year evaluation periods.
- b) All water rights shall be limited to no more than 1,511 acre-feet annually over three one-year periods beginning January 1, 2016 and ending December 31, 2018.
- c) Wells pumping to a common system may be provided a single allocation (1,511 acre feet annually) for the total system acres. The total amount pumped by all of the wells involved must remain within the system allocation.
- d) Water rights may, at the discretion of the owners, be combined into a single allocation account with flexibility of pumping the multiple wells within the account as directed by

the owner, provided the total account allocation is not exceeded and the annual authorized quantities of the constituent water rights are not exceeded.

- e) Wells located on Section 21, or Water Right, File Nos. 7517 and 34769 shall be given a combined annual quantity of their base rights or a total of 238 acre feet. This will allow for flexibility between these two wells and center pivot systems to operate efficiently. A term permit for each water right may be proposed to allow the combined annual quantity of these two rights and wells.
- f) No water right shall be allowed to pump more than its authorized annual quantity in any single year unless a Term Permit is filed and approved within the conditions expressed in this Management Plan. A term permit may be proposed to allow a multi-year group allocation of 4,533 AF for the three year period.
- g) In all cases the allocation shall be assigned to the point of diversion and shall apply to all water rights and acres involving that point of diversion.
- h) Moreover, in all cases the original water right, such as it existed before the WCA, shall be retained.

Review of Effectiveness

A review of the WCA shall be completed in December 2018 to ensure the above terms remain appropriate and are achieving the stated goals of the T & O LLC WCA. The review shall be completed prior to renewing for a subsequent 5-year period (prior to March 1, 2019). Upon review, and a finding by the Chief Engineer that the WCA has achieved the goals stated herein and that conditions allow it to continue under the same terms for an additional period, the terms of the WCA may be continued upon written request by the water right holders to the Chief Engineer and consent of the Chief Engineer.

Corrective Control Provisions and Plan for Conservation

WCA Law states that Corrective Control Provisions may include any of the following:

- Closing the water conservation area to any further appropriation of groundwater. In which event, the chief engineer shall thereafter refuse to accept any application for a permit to appropriate ground water. The area of the T & O LLC WCA has been closed.
- Determining the permissible total withdrawal of groundwater in the water conservation area each day, month or year, and apportioning such permissible total withdrawal among the valid groundwater right holders in such area in accordance with the relative dates of priority of such rights.
- Reducing the permissible withdrawal of groundwater by any one or more appropriators thereof, or by wells in the water conservation area.
- Requiring and specifying a system of rotation of groundwater use in the WCA area.
- Any other provisions necessary to effectuate agreed-upon water conservation goals consistent with the public interest.

The following corrective controls will be in effect within the T & O WCA during the term of the WCA:

- All water right owners within the T & O WCA shall be responsible for ensuring their water flowmeters are in compliance 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, Garden City Field Office concerning the matter. Whenever an inoperable or inaccurate meter is repaired or replaced, the owner or authorized designee shall notify the KDA Garden City Field Office 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.

- The corrective control provisions of the T & O LLC WCA cannot conflict with the rules and regulations of GMD#3. If a Local Enhanced Management Plan (LEMA) or Intensive Groundwater Use Control Area (IGUCA) is formed after the initiation of the T & O LLC 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 shall prevail. The Chief Engineer is authorized to amend the provisions of the WCA to conform to any rules, regulations or requirements that result in greater conservation of the water resource.

Compliance Monitoring and Enforcement

The following compliance monitoring and enforcement provisions are proposed. This section also includes any specific provisions regarding measuring or reporting water usage.

There are two recognized observation wells within the T & O LLC WCA that have for many years been measured annually by the Kansas Geological Survey (KGS). See attached Water Right Area map. These wells 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.

T & O LLC will submit an annual report no later than March 1st 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, the inches per acre, and the quantity of water remaining for the first three year period and each following five year period. The records should be maintained by the members of the WCA and available for KDA upon request.

T & O LLC will agree to maintain a record of the quantity diverted under the approval at the first of each month of the period of authorization. Further, they agree to make such information available upon the request of the KDA, DWR, Chief Engineer or his/her authorized representative.

Backup measurements will be supported or an alternate measurement device in the event that the water flowmeter record is questionable or not reliable.

Water flowmeter will be sealed to the measurement chamber by the KDA-Division of Water Resources, during the duration of this management plan to ensure an accurate water use record.

T & O LLC acknowledges 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.

State Law

We acknowledge that the T & O WCA is subject to compliance with all other applicable state laws.

Member addition, withdrawal, and removal

Water right owners and their associated water rights and geographic boundaries may be added to the T & O LLC WCA through written notification to the Chief Engineer and all living members of the WCA, and amendment to the management plan laying out the water rights and legal descriptions of the areas to be added. A statement permitting the addition must be signed by all living participants in the WCA. Members of the T & O LLC WCA may withdraw from the consent agreement at any time through written notification to the Chief Engineer and all living members of the WCA. A statement permitting the withdrawal must be signed by all living participants in the WCA.

If the addition or withdrawal of water rights requires modification to the water allocation quantities, geographical boundaries, places of use, terms, or conditions of the in the original T & O LLC WCA, the management plan and associated consent agreement shall be modified to describe the changes and the associated consent agreement shall be reaffirmed by all parties.

Termination

The T & O LLC WCA agreement may be terminated by written notification, signed by all living members of the WCA, to the Chief Engineer of the intent to terminate.

Assurances

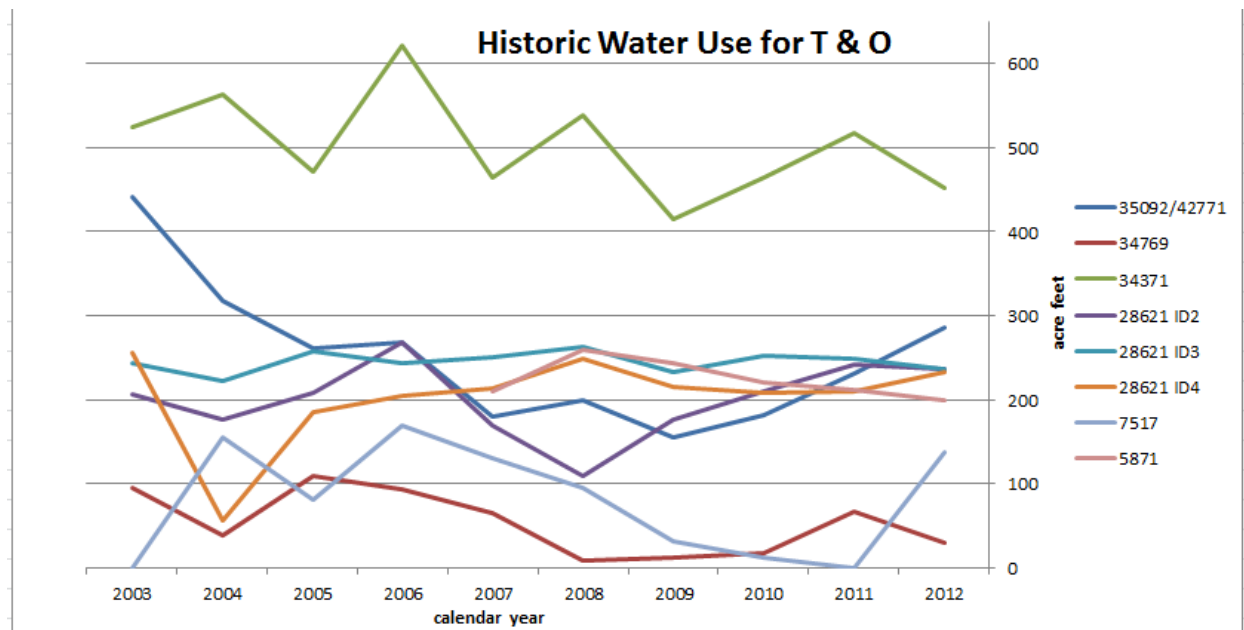
This management plan and any related orders will not permanently alter the authorized quantity, rate, ownership and places of use connected to any water right enrolled in the T & O LLC WCA.

Review of Other Applicable Requirements

Upon review, the T & O LLC WCA management plan was found to effect equal or greater overall conservation than applicable GMD regulations, LEMA, and IGUCA requirements.

We, the undersigned certify that we are the owners of the aforementioned water rights and hereby collectively approve and submit this management plan for approval by the Chief Engineer of the Kansas Department of Agriculture, Division of Water Resources.

Water Right Owner



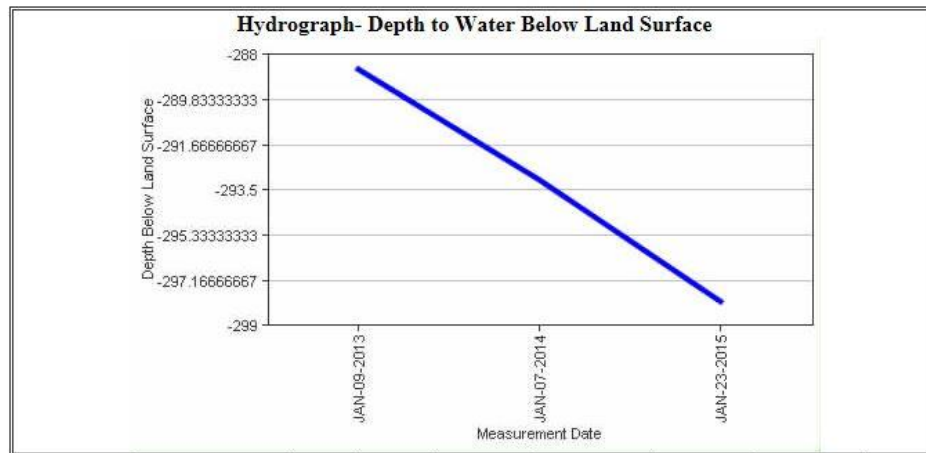
General Well Site Information ?

USGS ID:	374540100580101	KGS Local Well ID:	26S 33W 30ADC 01
County:	Finney	PLSS Description:	26S 33W 30 NCN2S2NE
HUC 8 Code:	11030003	GMD:	Southwest Kansas GMD #3
Longitude:	-100.966772	Lat/Long Source:	GPS (within 50 feet)
Latitude:	37.761496	Lat/Long Accuracy:	5 seconds
Surface Elevation (ft):	2955	Depth of Well (ft):	525
Geological Unit Codes:	TO	USGS Map Name:	Garden City SW

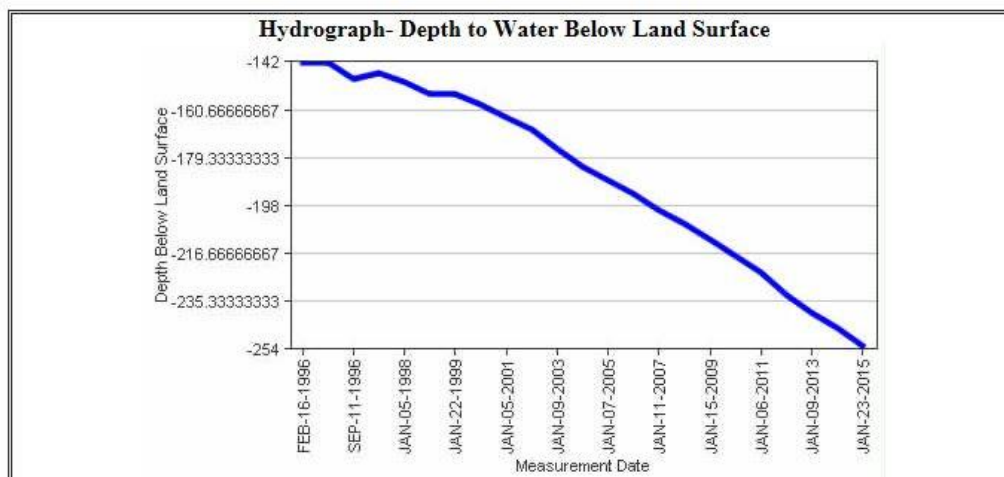
Water Level Measurements ?

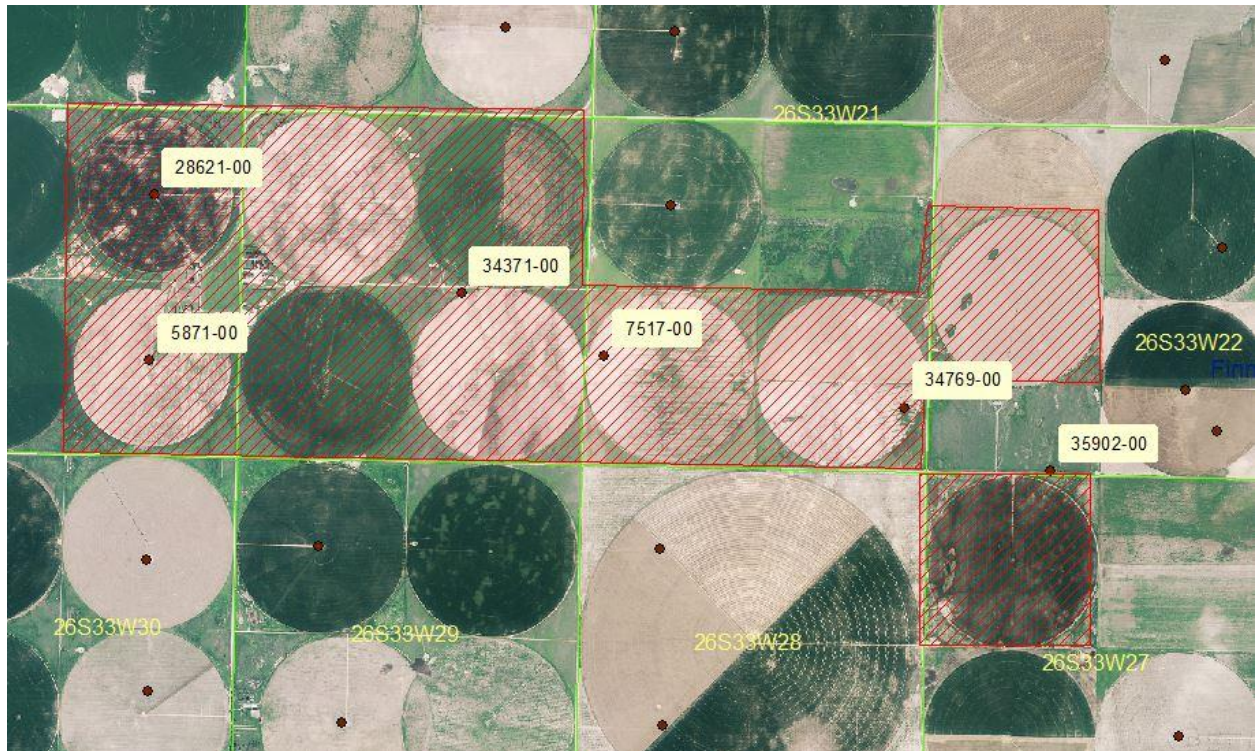
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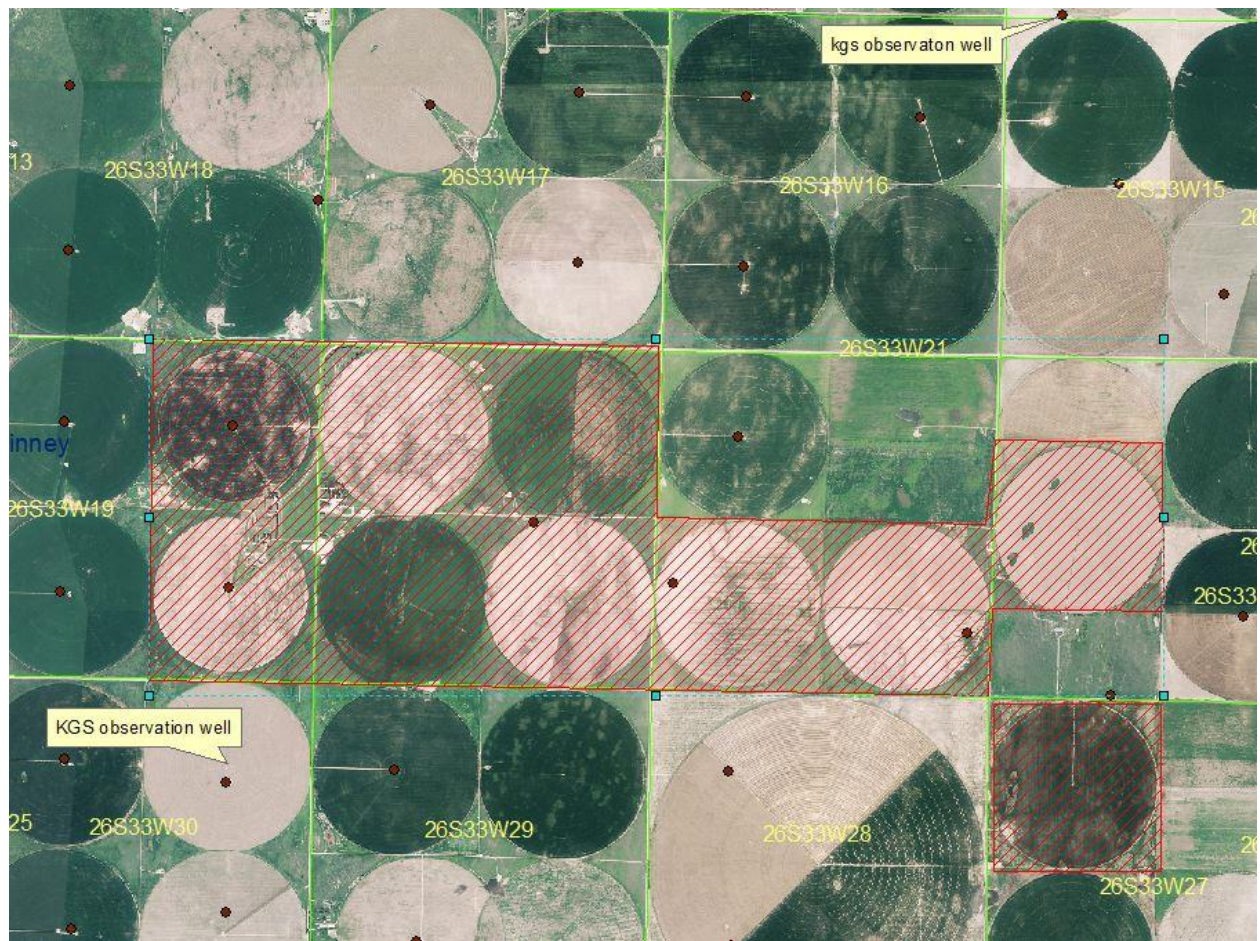
Note that depth to water is feet below land surface and all measurements for the well are included.

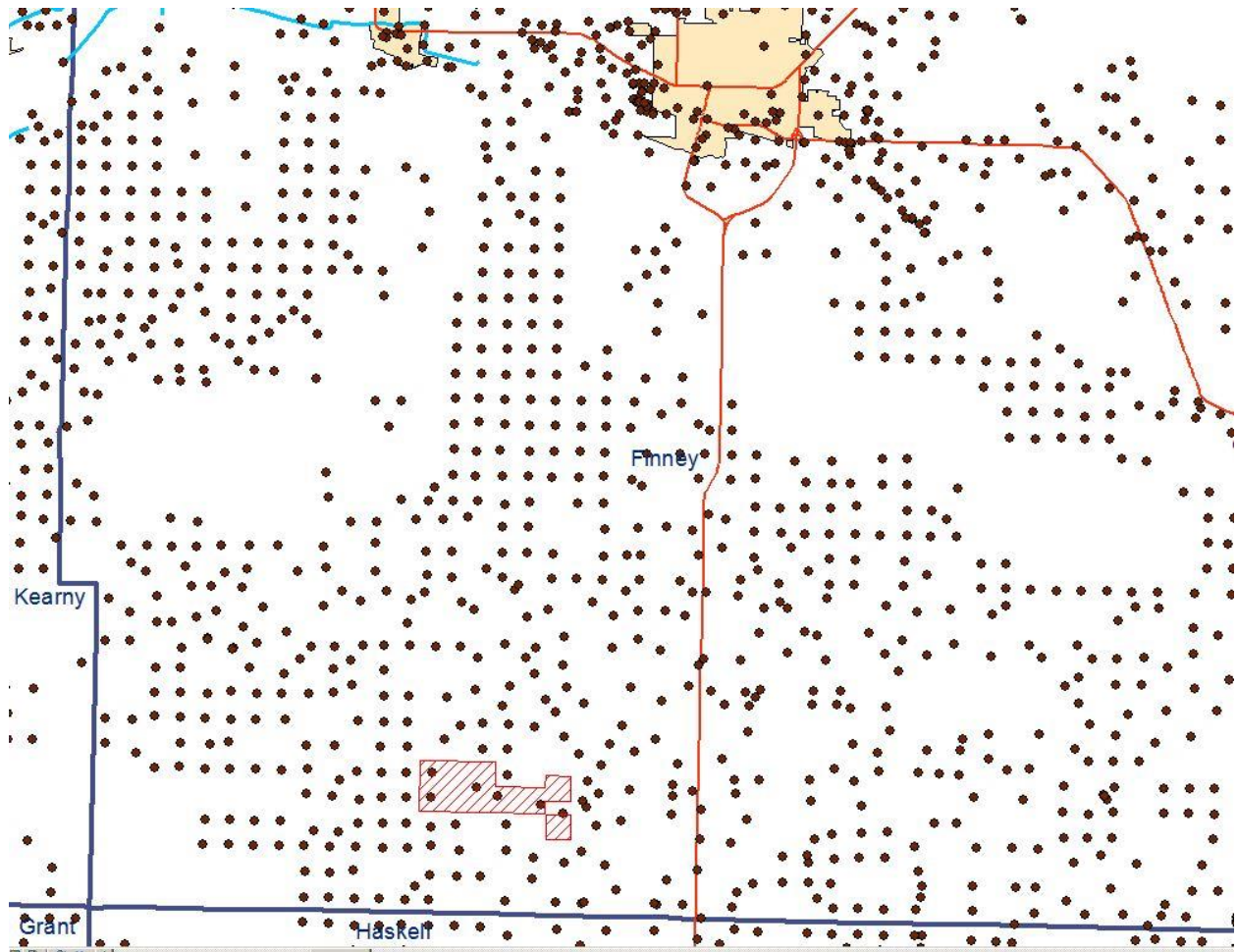


USGS ID:	374747100552101	KGS Local Well ID:	26S 33W 10CCD 01
County:	Finney	PLSS Description:	26S 33W 10 SESWSW









Estimated Useable Life Remaining -No Reduction

(Based on KGS Section Level Data for saturated thickness (2012-2014) and revised minimum saturated thickness required to support 400 gpm under a 90-day pumping scenario with wells on 1/4 section, USGS average specific yield, USGS 1947 to 2007 average recharge, and DWR section-level groundwater use data 2009-2013 for an average 2-mile radius)

