

Rainwater Harvesting and the Kansas Water Appropriation Act

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Division of Water Resources

K.S.A. 82a-728: Unlawful Acts

- Exceptions:
 - Production and return of salt water in connection with the operation of oil and gas well.
 - Withdrawal and use of water in accordance with the provisions of the State Water Plan Storage Act.
 - Annual diversion and beneficial use of not more than **15 *acre feet*** of surface water impounded in any reservoir having a total water volume of less than **15 *acre feet***.

Domestic Use: K.S.A. 82a-701

"Domestic uses" means the use of water by any person or by a family unit or household for household purposes, or for the watering of livestock, poultry, farm and domestic animals used in operating a farm, and for the *irrigation of lands not exceeding a total of two acres in area for the growing of gardens, orchards and lawns.*

Household Purposes

- The use of water by a person for cooking, cleaning, washing, bathing, human consumption, rest room facilities, fire protection, and other uses normally associated with the operation of a household.
- The use of 1½ acre-feet of water or less per calendar year by an industrial user, restaurant, hotel, motel, church, camp, correctional facility, educational institution, or similar entity for household purposes.

Exempt but not Unregulated

- The priority of the appropriation right to use water for domestic purposes shall date from the time of the filing of an application in the office of the Chief Engineer or from the time the user makes actual use of water for domestic purposes, whichever is earlier.
- The use of water for domestic purposes, to the extent that it is beneficial, shall constitute an appropriation right.
- The Chief Engineer may require any person using water for any purpose to furnish information with regard to such use thereof.

Safe Yield Calculations Account for Domestic Use

- K.A.R. 5-3-11: The amount of available recharge shall be multiplied by the percent of calculated recharge determined by the chief engineer to be available nondomestic groundwater and surface water for appropriation.

Most Restrictive Basins = 50%

- Bluff Creek-Chikaskia River
- Bluff Creek-Cimarron River
- Chikaskia River
- Cimarron River outside GMD No. 3
- Medicine Lodge River
- North Fork Ninnescah River
- Rattlesnake Creek
- Salt Fork Arkansas River
- Sandy Creek
- Smoots Creek on the South Fork Ninnescah River

Less Restrictive = 75%

- Arkansas River above Hutchinson
- Caney River
- Cottonwood River
- Cow Creek outside the boundaries of GMD No. 2 and GMD No. 5
- Elk River
- Fall River
- Kansas River
- Little Arkansas River above GMD No. 2
- Lower Republican River Basin
- Neosho River
- Ninnescah River
- Saline River
- Salt Creek
- Smoky Hill above its confluence with the Saline River
- Solomon River
- South Fork Ninnescah River
- Upper Republican Basin outside areas closed to new appropriations
- Verdigris River

Considerations for New Applications

- Safe Yield of the Source of Supply (Precipitation Recharge vs. Existing Appropriations.)
- Well Spacing between wells, both domestic and appropriated wells.
- Requested Rate and Quantity (Proposed annual quantity must be reasonable.)

**ESTIMATES OF FRESHWATER STORAGE AND
POTENTIAL NATURAL RECHARGE FOR PRINCIPAL
AQUIFERS IN KANSAS**

U.S. GEOLOGICAL SURVEY
Water-Resources Investigations Report 87-4230

Prepared in cooperation with the
KANSAS WATER OFFICE



**ESTIMATES OF FRESHWATER STORAGE AND POTENTIAL
NATURAL RECHARGE FOR PRINCIPAL AQUIFERS IN
KANSAS**

By Cristi V. Hansen

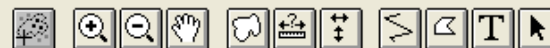
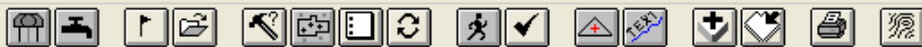
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Lawrence, Kansas

1991

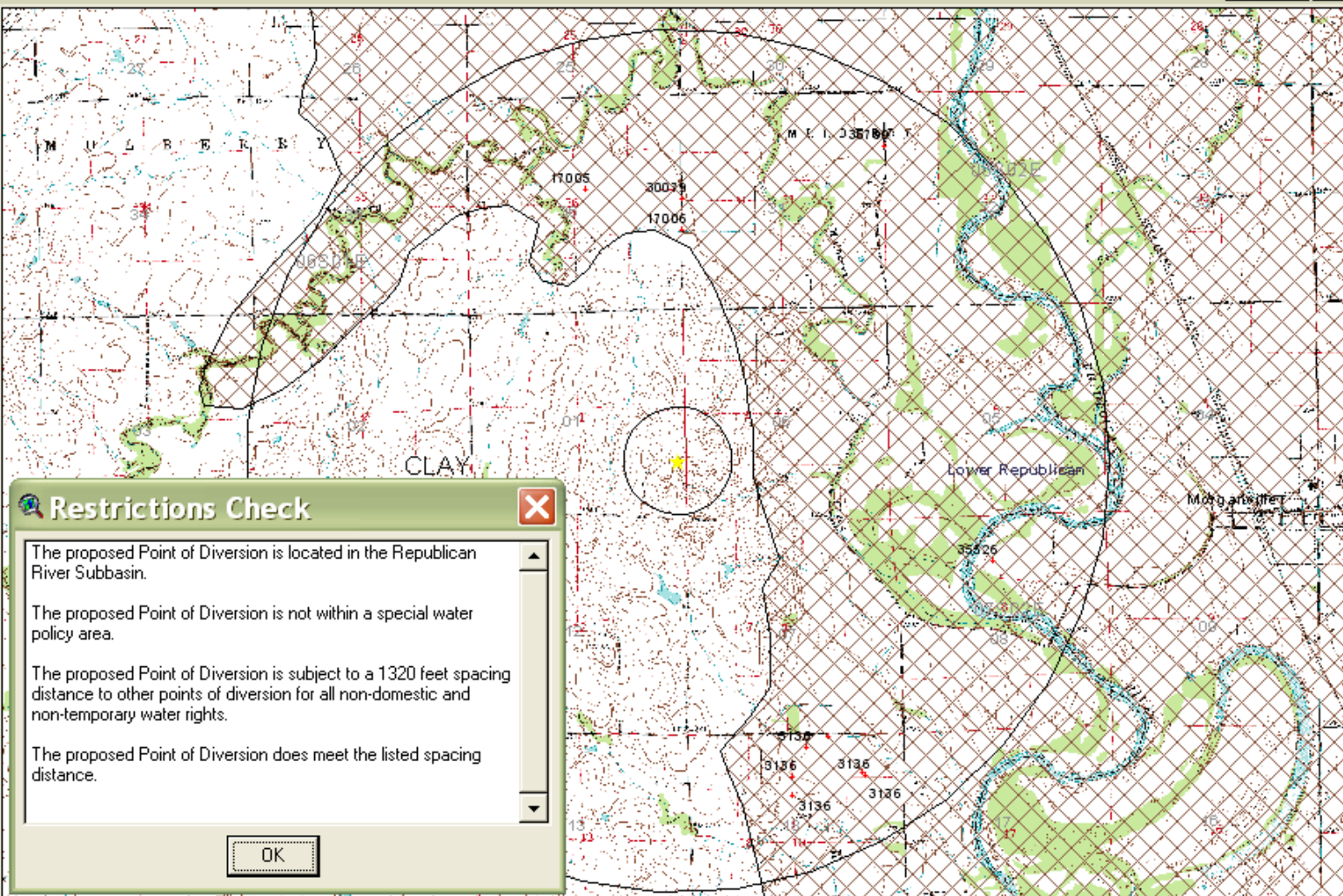


Scale 1:43,819

81,066.80
387,061.08

WIMAS Analysis Screen- Proposed PD in 06-07S-02E (1420N,5200W) with a 2 mile buffer

- ☒ PD
 - + Ground Water
- ☒ Special Areas
 - Closed
 - Restricted
- ☒ MILTONVLE_NE.tif
- ☒ CLAY_CNTR_NW.tif
- ☒ CLIFTON.tif
- ☒ LINN_SW.tif
- ☒ Subbasins
 -
- ☒ Hydrology
 - ~
- ☒ PLSS
 -
- ☒ Section Corners
 -
- ☒ Townships
 -
- ☒ Cities
 -
- ☒ Towns
 -
- ☒ Lakes
 -
- ☐ Alluvium
 -
- ☒ County
 -
- ☒ GMD
 -



Restrictions Check

The proposed Point of Diversion is located in the Republican River Subbasin.

The proposed Point of Diversion is not within a special water policy area.

The proposed Point of Diversion is subject to a 1320 feet spacing distance to other points of diversion for all non-domestic and non-temporary water rights.

The proposed Point of Diversion does meet the listed spacing distance.

OK

- County
- Subbasin
- User Defined Area
- Water Right
- Circle
- State
- Set Projection



Scale 1: 3,325

113.22
492.82

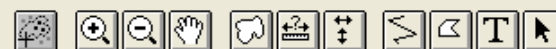
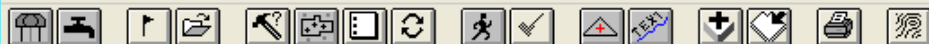
Kansas Department of Agriculture



Water Information Management and Analysis System (WIMAS) for ArcView

*Version 4
June 1998*

Division of Water Resources
Technical Services Section



Scale 1:42,821

40,773.75
352,222.74

☒ Queried PD(s)

☒ PD

☒ Subbasins

☒ Hydrology

☒ Special Areas

☒ PLSS

☒ Section Corners

☒ Townships

☒ Cities

☒ Towns

☒ Lakes

☐ Alluvium

☐ County

☐ GMD

☐ Closed

☐ Restricted

☐ Section Corners

☐ Townships

☐ Cities

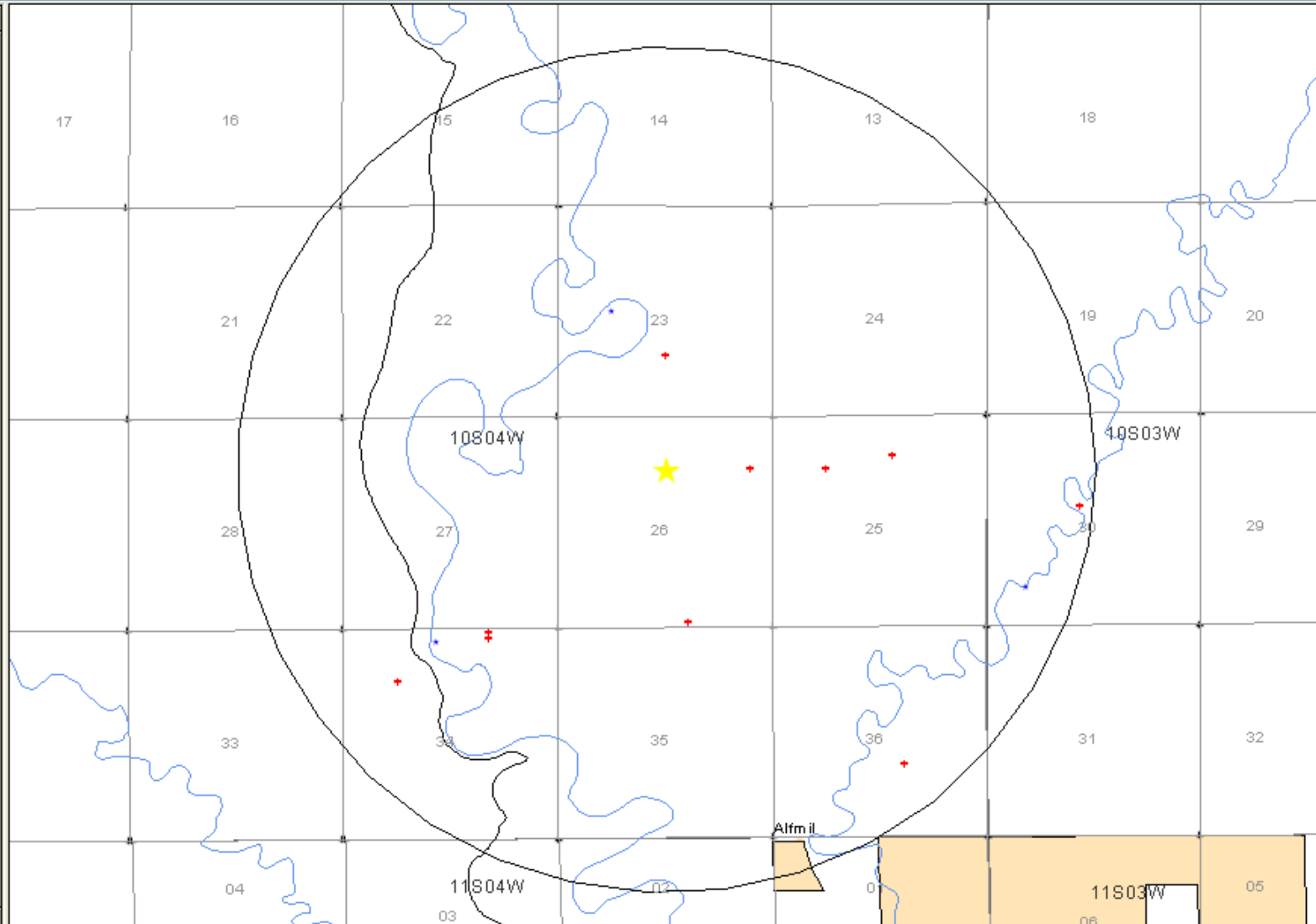
☐ Towns

☐ Lakes

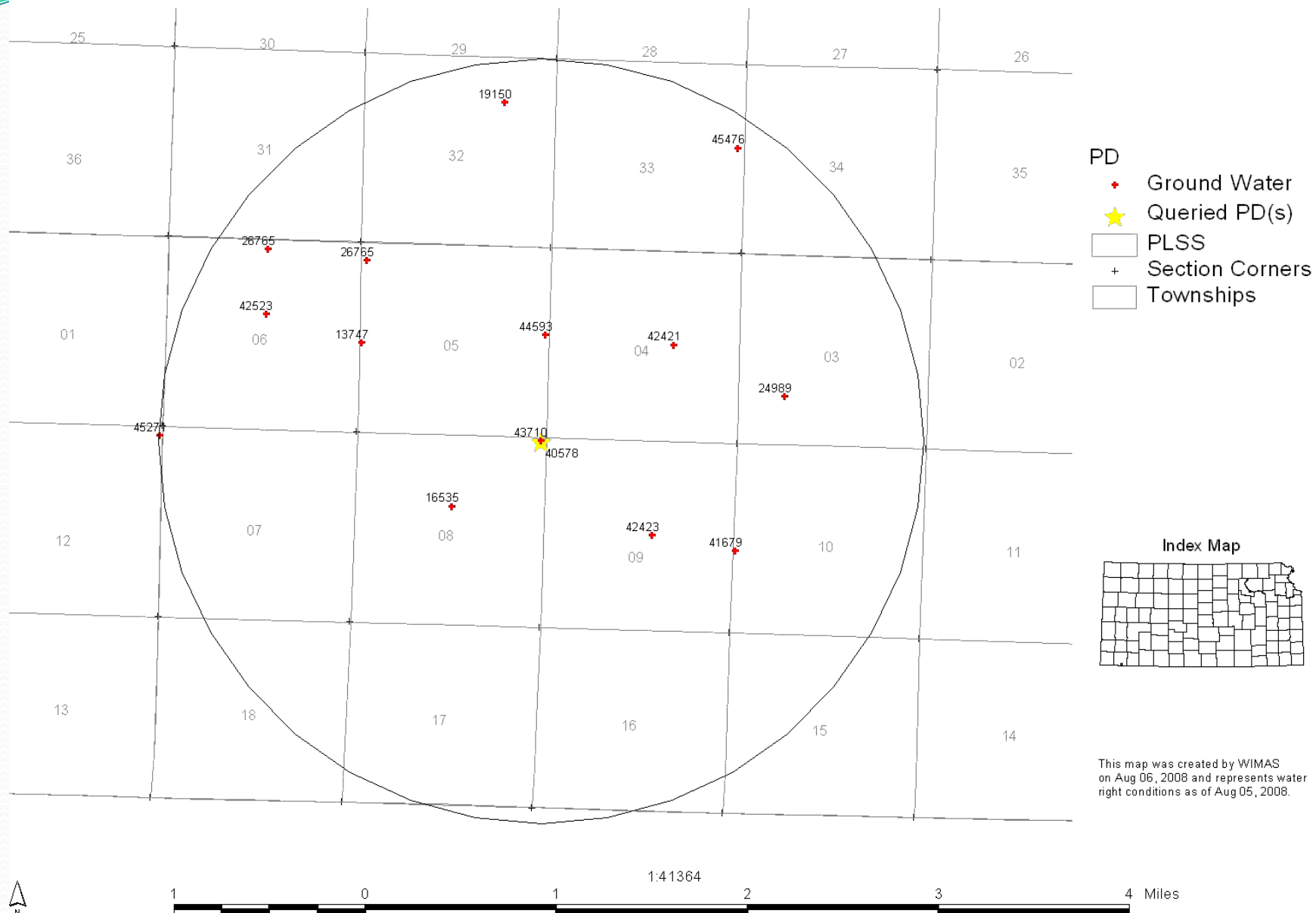
☐ Alluvium

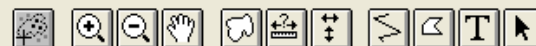
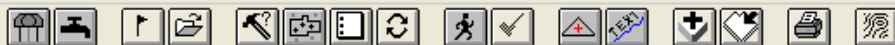
☐ County

☐ GMD



Water Right Number, 40578-00, With A 2 Mile Buffer





Scale 1:42,821

39,504.81
346,229.27

WIMAS Analysis Screen- water right number, 12336, with a 2 mile buffer

☒ Queried PD(s)



☒ PD

• Ground Water

• Surface Water

☐ Subbasins



☒ Hydrology



☒ Special Areas

■ Closed

■ Restricted

☒ PLSS



☒ Section Corners



☒ Townships



☒ Cities



☒ Towns



☒ Lakes



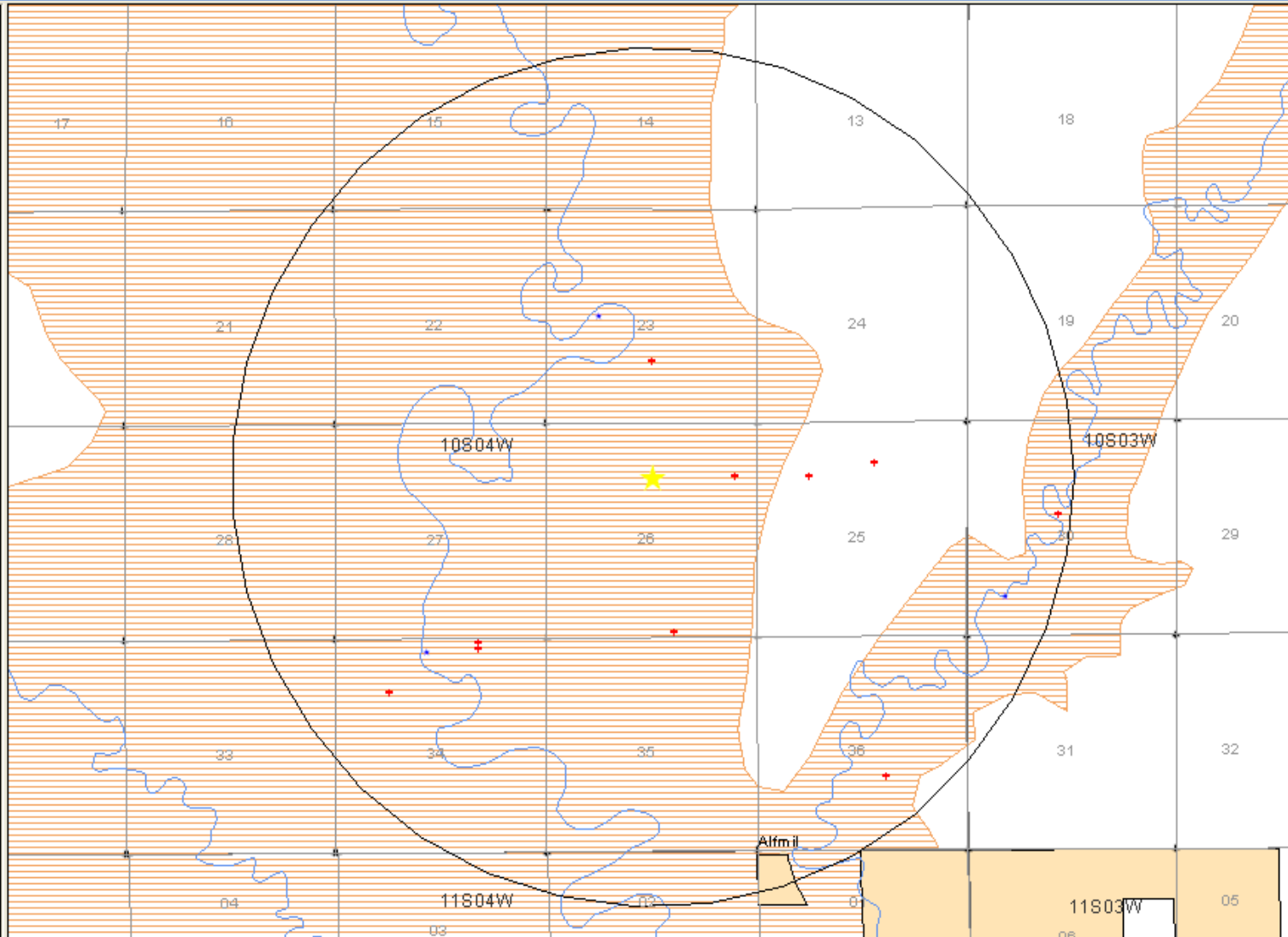
☒ Alluvium

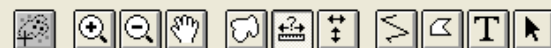
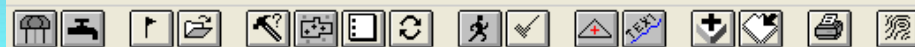


☐ County



☐ GMD

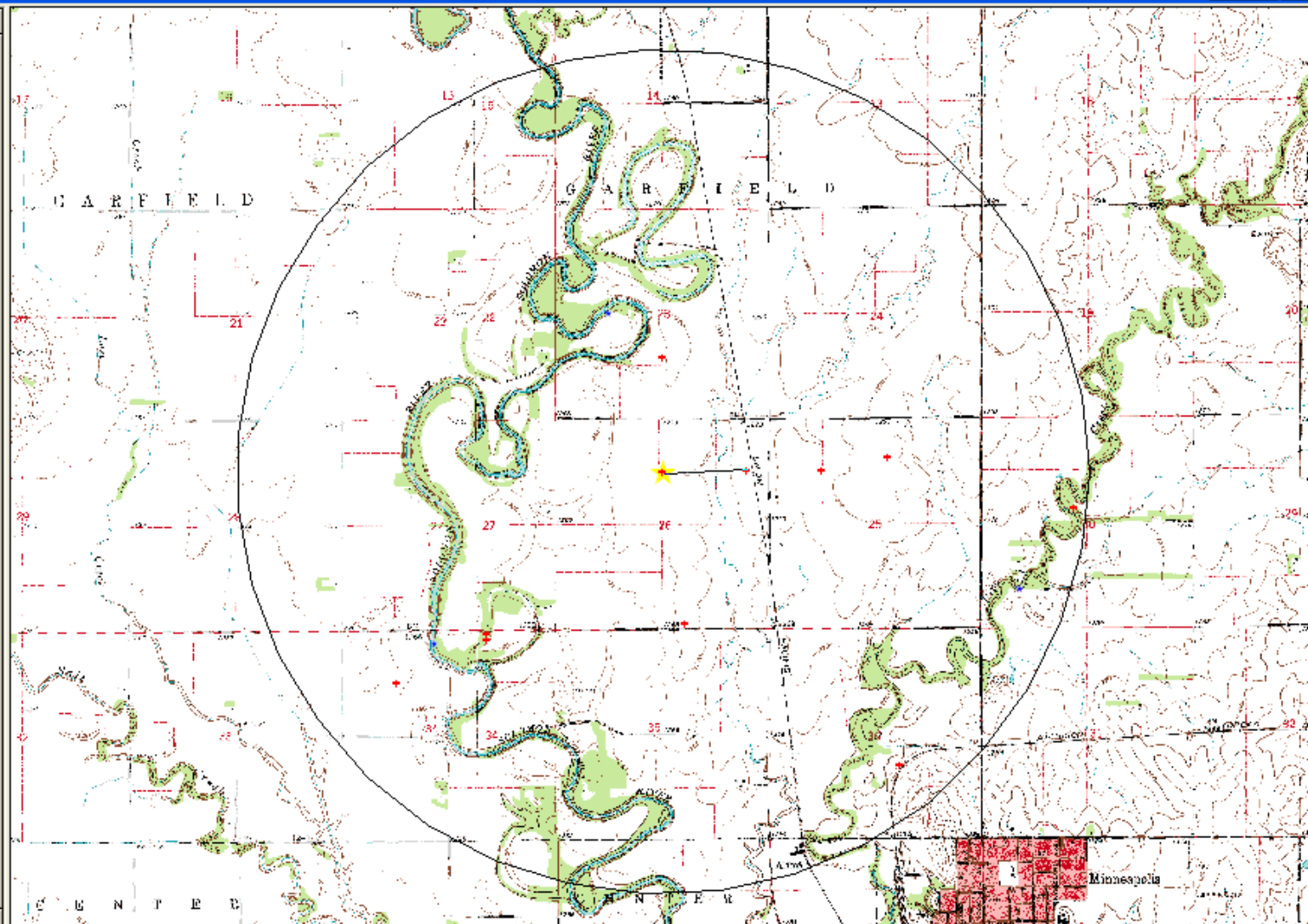




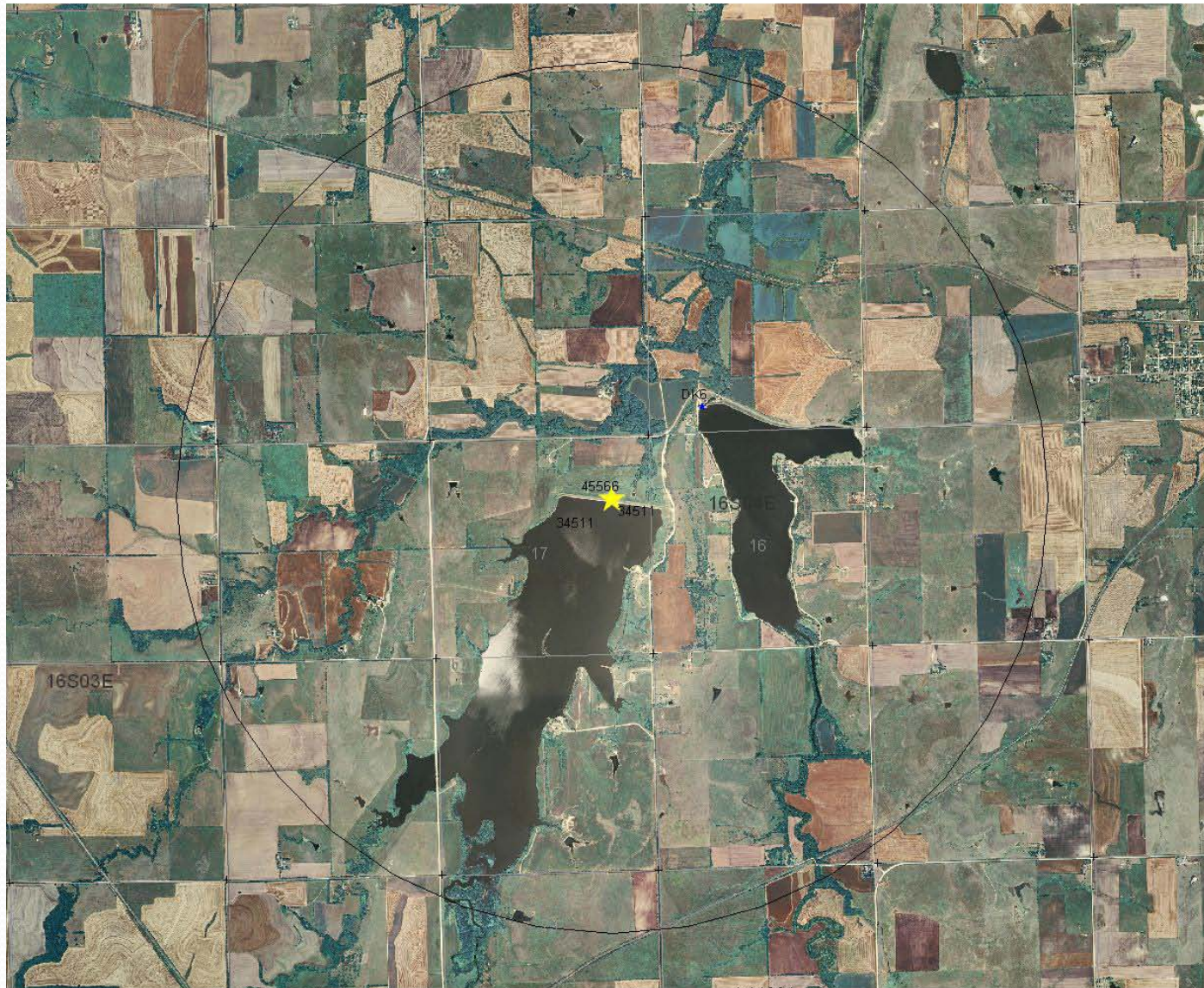
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44,410.62
348,801.14

- ☒ PD
 - + Ground W ater
 - + Surface W ater
- ☒ Queried PD(s)
 - ★
- ☐ Alluvium
 -
- ☒ TESCOTT_NE.tif
- ☒ MINNEAPOLISN.tif
- ☐ Subbasins
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- ☐ Hydrology
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- ☐ County
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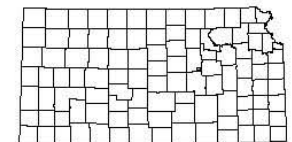


File Nos. DK 006, 34,511 and 45,566



- Townships
- Section Corners
- PLSS
- Queried PD(s)
- PD
- Surface Water

Index Map



This map was created by WIMAS on Apr 30, 2007 and represents water right conditions as of Apr 30, 2007.



1 0 1 2 3 4 Miles

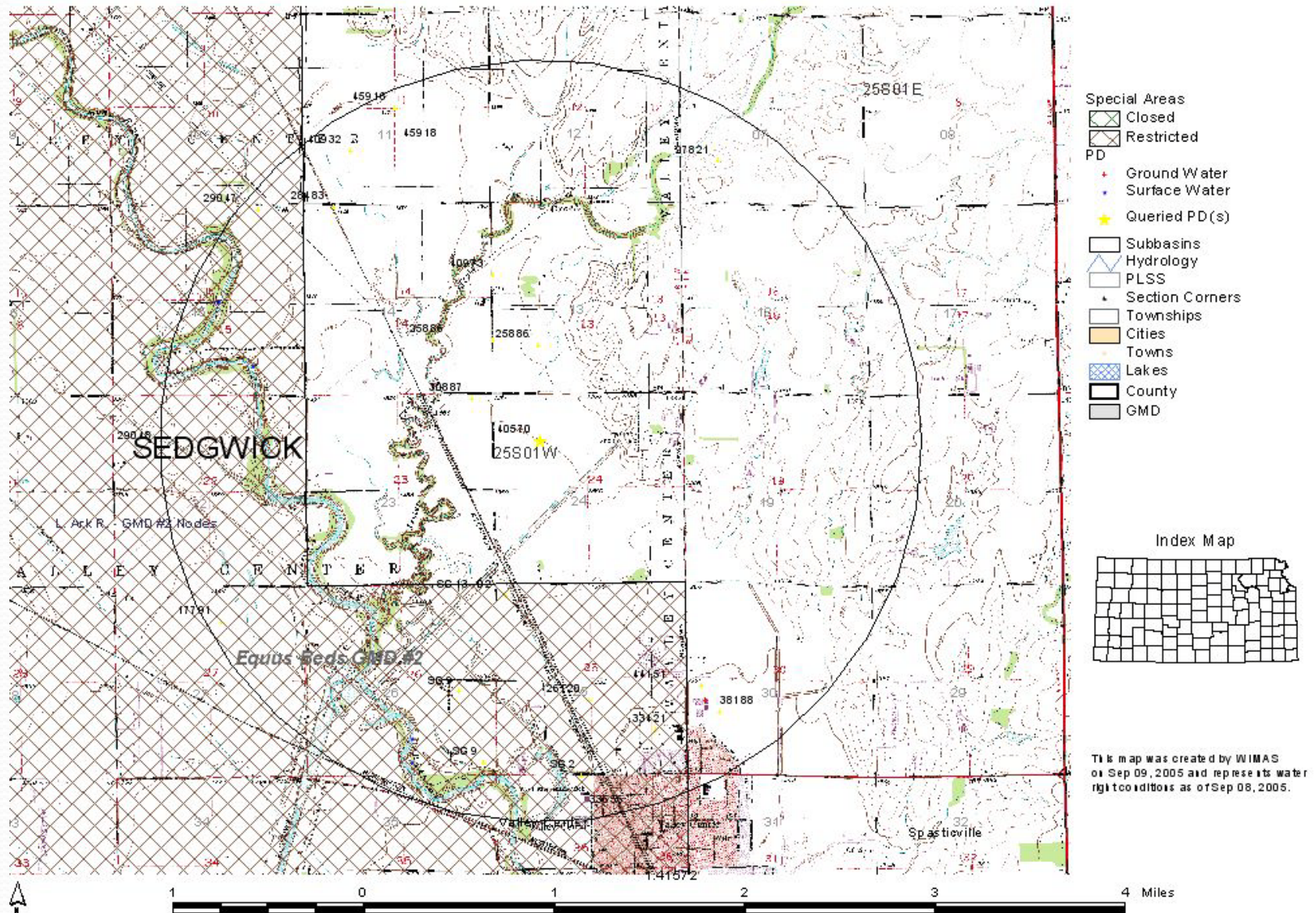
Analysis Results

Safe Yield Variables

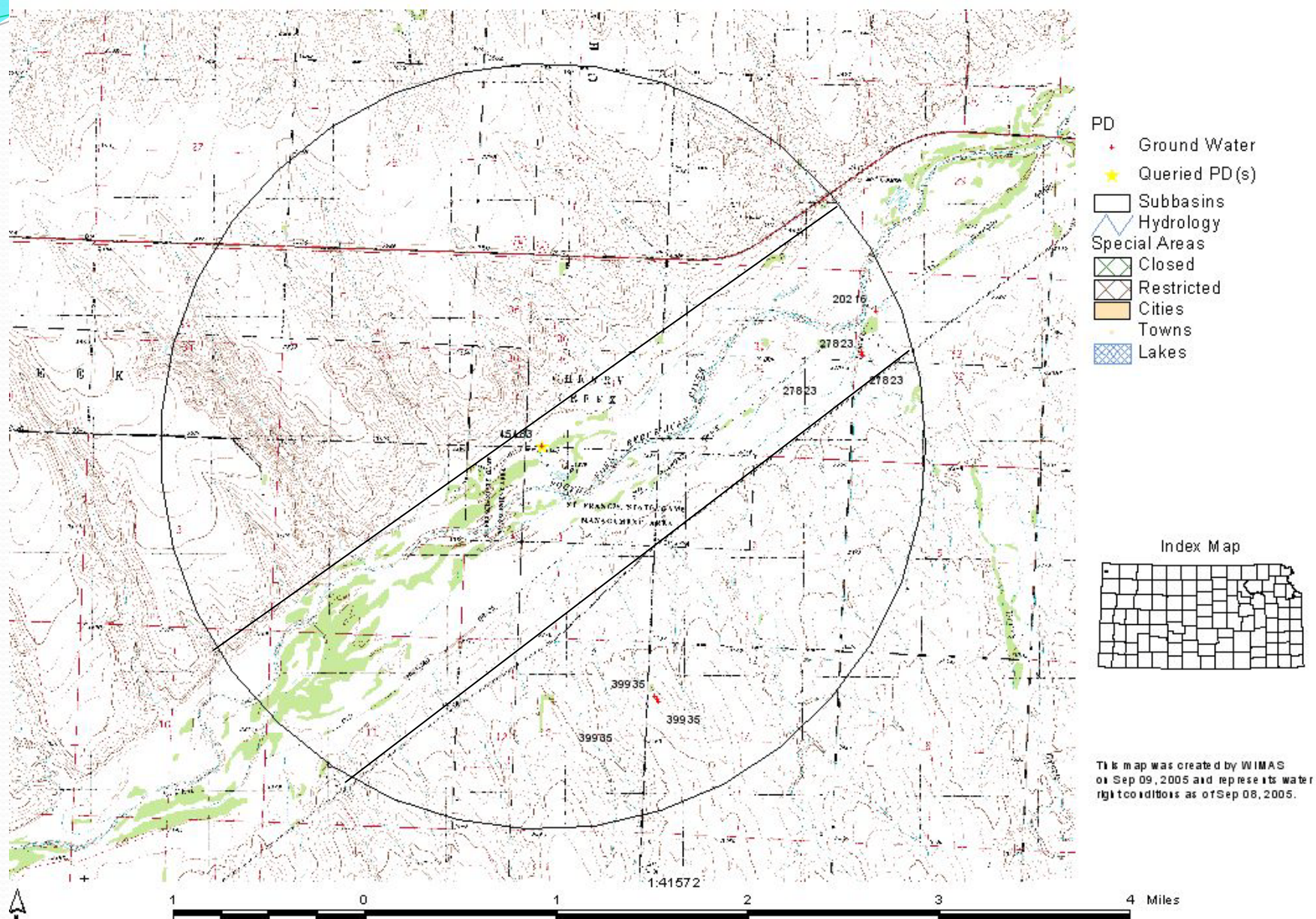
There are 9 water right(s) and 10 point(s) of diversion within the circle.

File	Number	Use	ST	SR	Q4	Q3	Q2	Q1	FeetN	FeetW	Sec	Twp	Rng	ID	Qind	Auth_Quant	Add_Quant	Tacres	Nacres	
A	12336	00	IRR	NK	G		CW	NE			26	10	4W	1	WR	169.00	169.00	137.00	137.00	
A	13231	00	IRR	NK	G		NC	NW			25	10	4W	2	WR	159.00	159.00	160.00	160.00	
A	14304	00	IRR	NK	G		SE	SE	NW		30	10	3W	4	WR	44.00	0.00	97.00	23.00	
A	15906	00	IRR	NK	G		SW	NW	SE	1545	2620	23	10	4W	2	WR	114.00	114.00	129.00	129.00
A	26370	00	IRR	NK	G		SE	NE	NE	3995	515	26	10	4W	2	WR	153.00	153.00	120.00	120.00
A	44518	00	IRR	LO	G		SW	SW	SE	125	2060	26	10	4W	3	WR	200.00	200.00	160.00	160.00
A	44770	5	DOM	LO	G		SW	NW	SE	1821	2038	36	10	4W	2	WR	3.33	3.33	0.00	0.00
A	44791	00	IRR	GY	G		NC	NW		3960	3960	34	10	4W	2	WR	147.00	147.00	113.00	113.00
A	44834	00	IRR	LO	G		NE	NW	NE	5154	1718	34	10	4W	4	WRF	150.00	139.00	100.00	100.00
A	44834	00	REC	LO	G		NE	NW	NE	5042	1713	34	10	4W	3	WRF	11.00	11.00	0.00	0.00

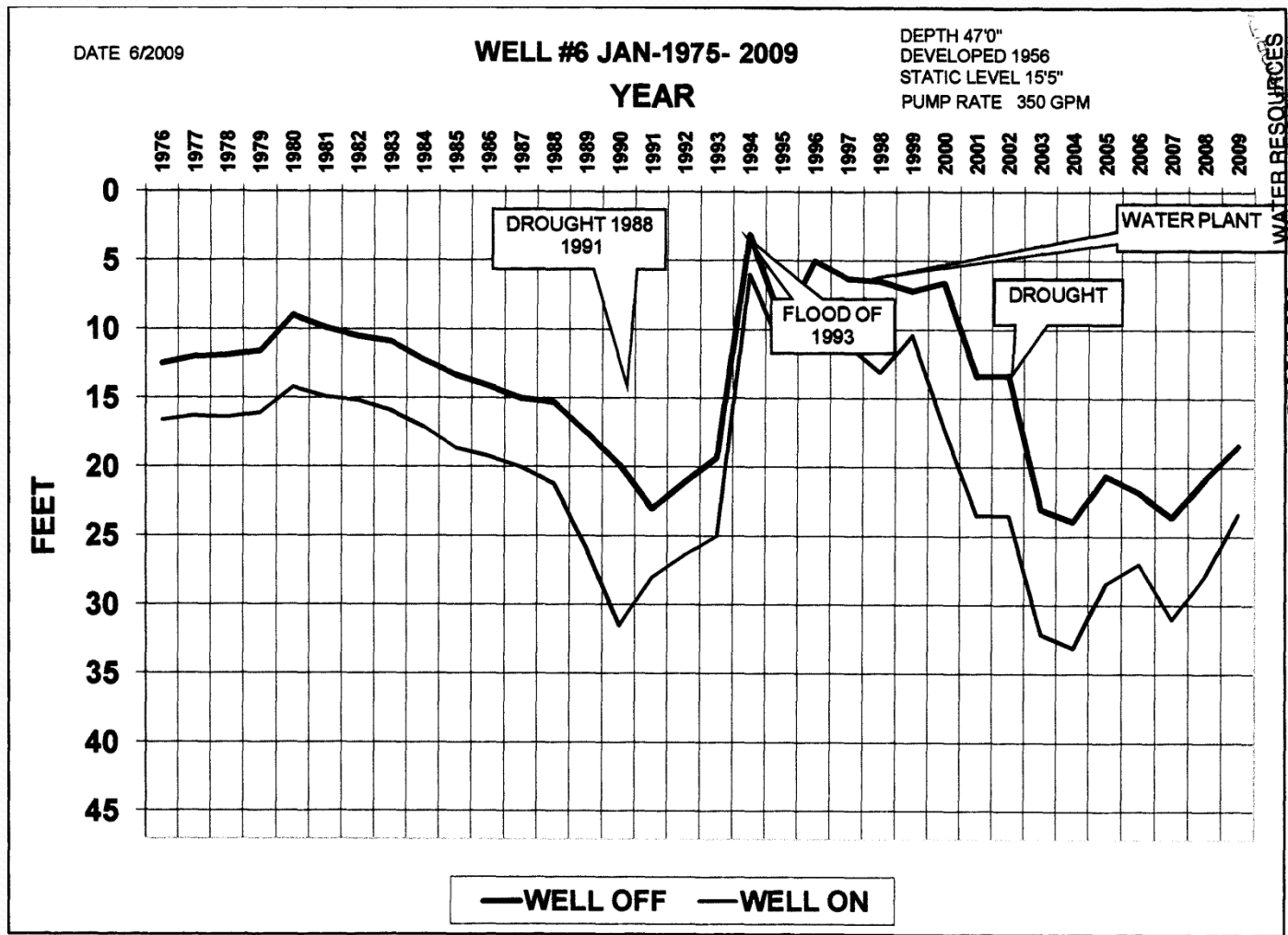
Safe Yield Evaluation 2 mile circle - File 40,570



Safe Yield Analysis - Truncated at alluvial boundary



DWR Counts on Precipitation Recharge



Questions?

