

# Compliance with use conditions and methods of enforcement – Kansas experience

AWSE 2013, Bismarck, ND  
September 24, 2013

David Barfield, Chief Engineer

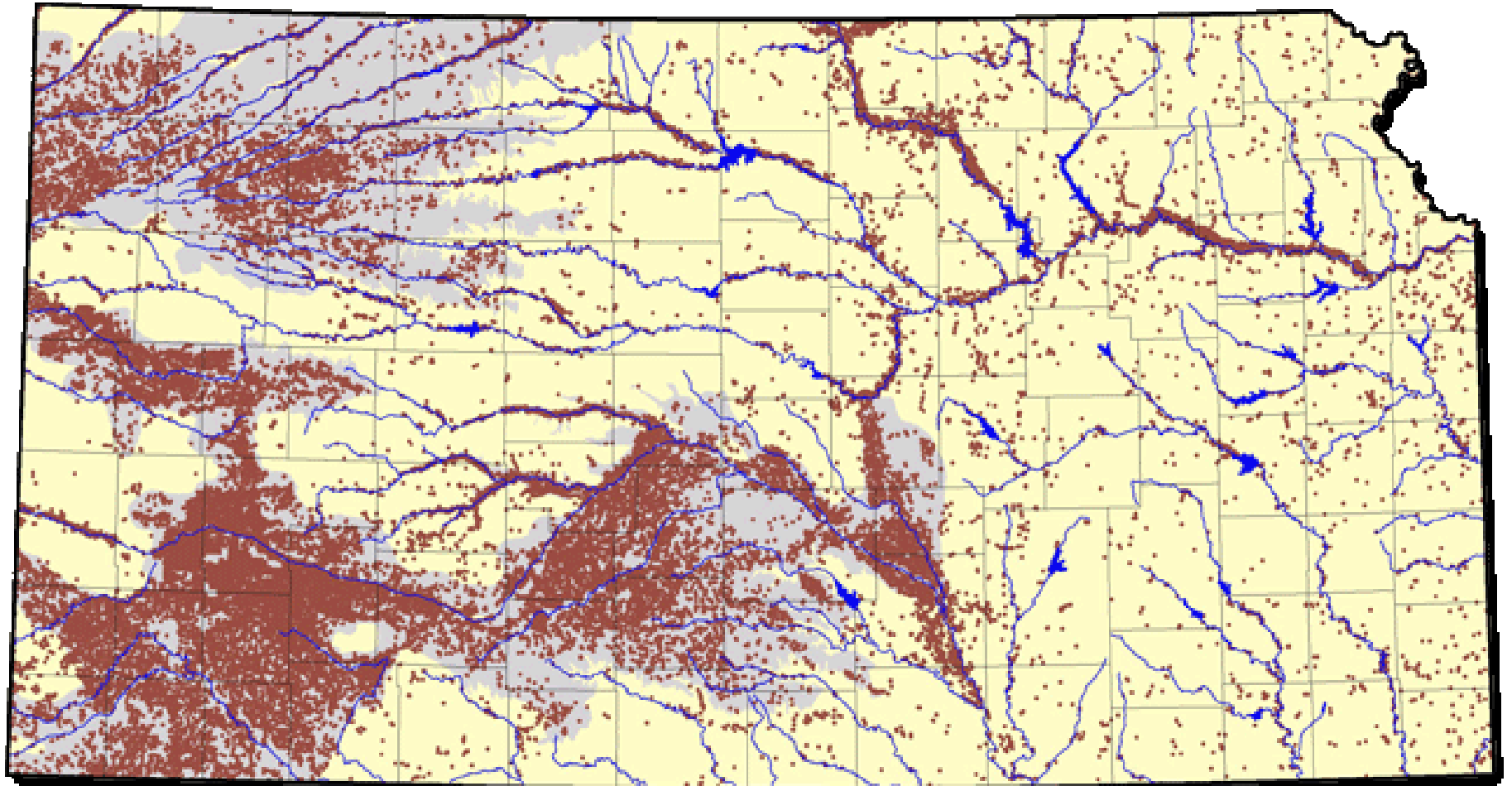
Division of Water Resources  
Kansas Department of Agriculture



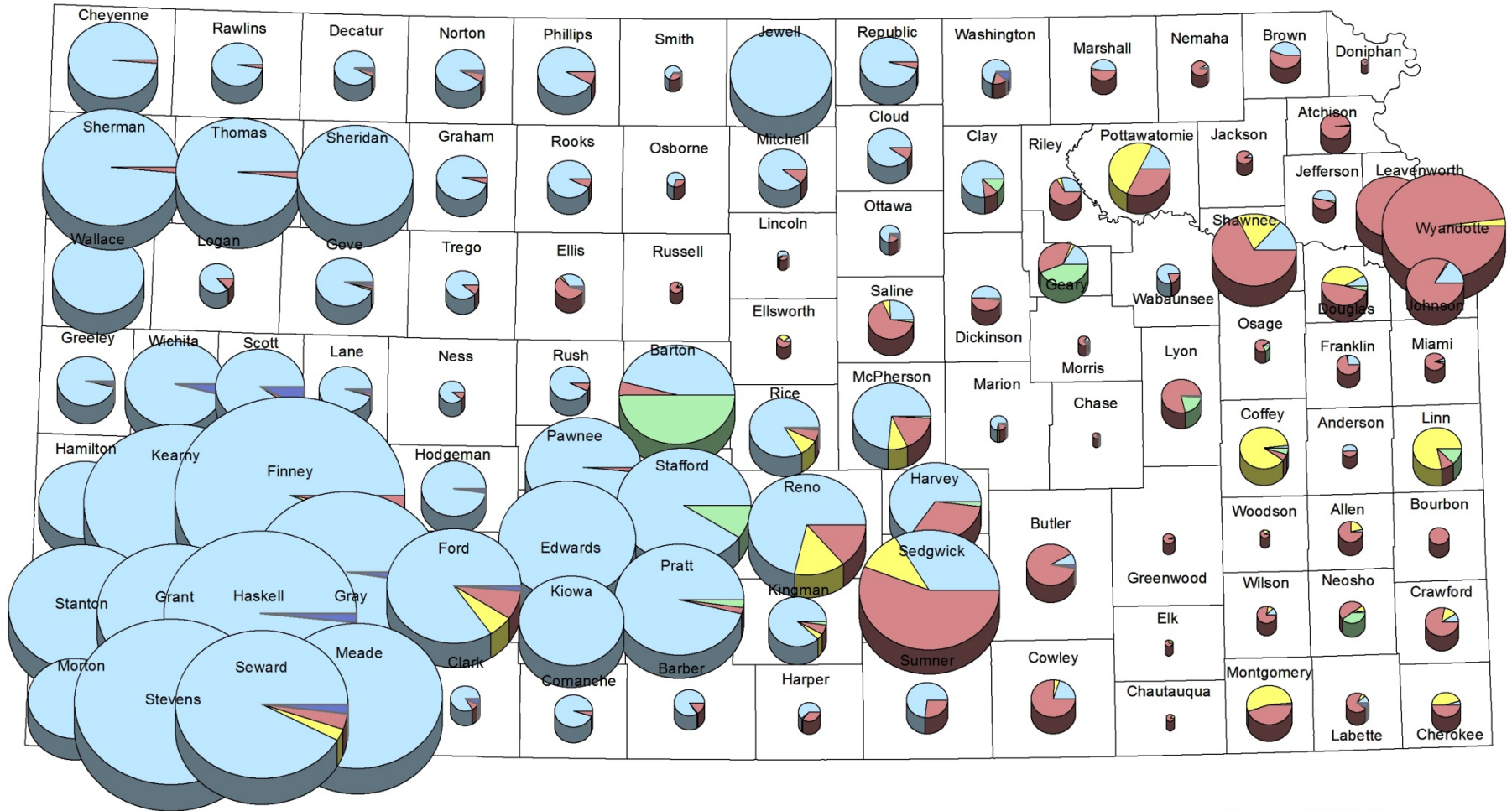
# Topics

- Why and where of our compliance and enforcement program
- Requirements for meters, water use reporting
- Compliance & Enforcement authority
- Consequences of Overpumping
  - Warning
  - Progressive penalties
- Consequences of Meter Tampering and false reporting

# Distribution of Water Rights



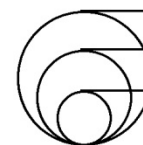
# 2011 Reported Water Use for Kansas Counties



Disclaimer: Features on this map represent conditions as of the date of the map and are subject to change. The user is referred to specific policies, regulations and/or orders of the Chief Engineer.

Percentages of 1.5% or less do not show up in the pie charts.

This map is intended for planning purposes only.



Barton: 79,608 AF

Harvey: 49,505 AF

Lane: 16,567 AF

## Use Made of Water

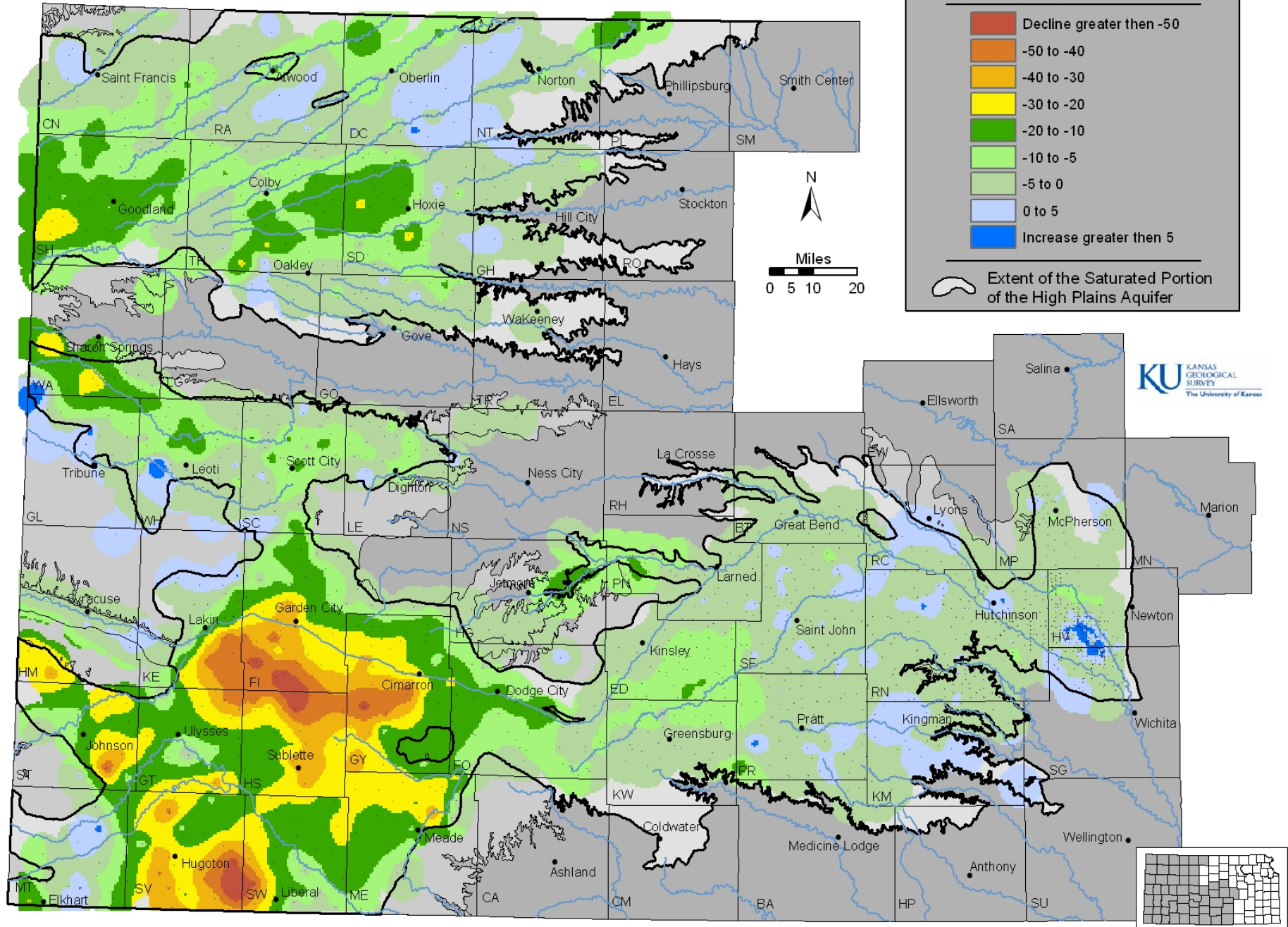


Kansas Department of Agriculture  
Division of Water Resources  
Water Use Unit  
October 18, 2012



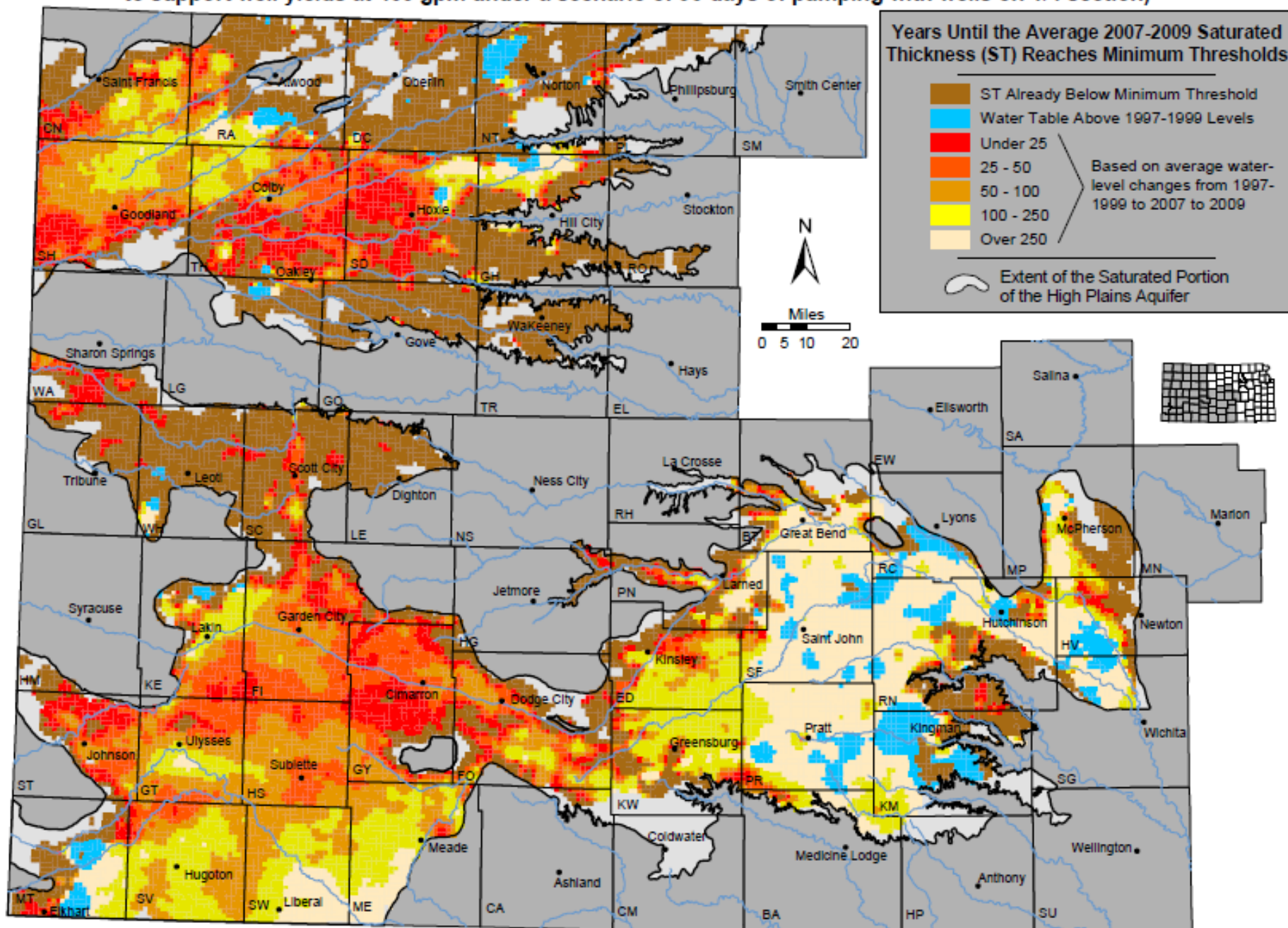


# Interpolated Water Level Change in the High Plains Aquifer from Average 1997-1999 to Average 2007-2009



# Estimated Usable Lifetime for the High Plains Aquifer in Kansas

(Based on ground water trends from 1999 to 2009 and the minimum saturated thickness required to support well yields at 400 gpm under a scenario of 90 days of pumping with wells on 1/4 section)





# Background of DWR Compliance and Enforcement Activities

- **1945** – Kansas Water Appropriation Act set up our system whereby water could be developed, water right holder to establish their priority (Law not Compulsory)
- **1977** – KWAA amendments requiring permits for all non-domestic use. (Law became compulsory)
- **1989** – KWAA amended to provide ability to levy fines for non-reporting of water use; additional staffing in water use program.
- **2001/2003** – Statute and then rules and regulations to enhance compliance and enforcement actions. DWR began enforcement activities in 2004.
- **2005** – start additional field staff



# Meters - K.S.A. 82a-706c

The chief engineer shall have full authority to require any water user to install meters, gages, or other measuring devices, which devices he or she or his or her agents may read at any time, and to require any water user to report the reading of such meters, gages, or other measuring devices at reasonable intervals.

*(History: L. 1957, ch. 539, § 11: June 29.)*

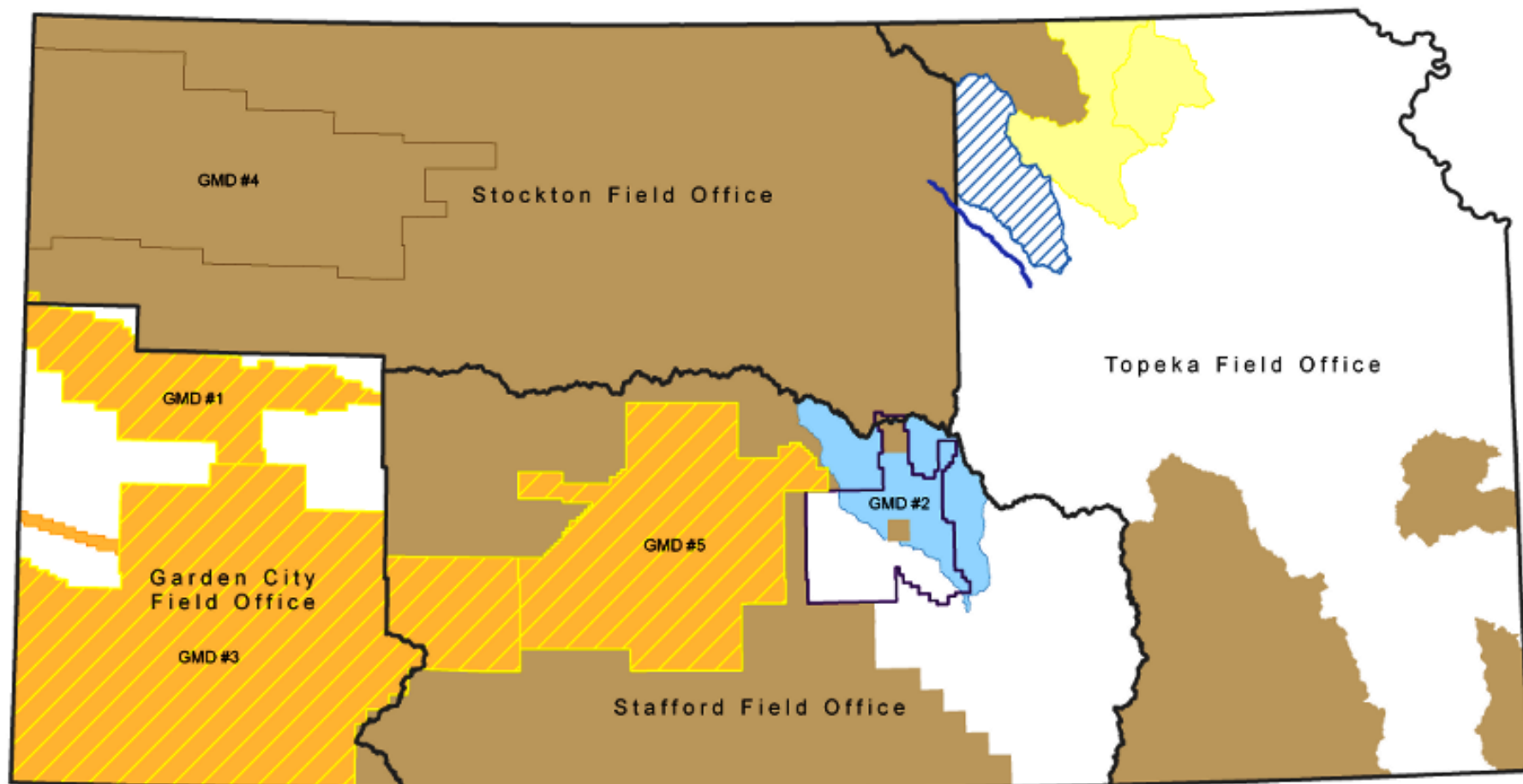




# Water Flowmeters

- Most water rights are required to have water flowmeter installed on each point of diversion to measure diversions and for use in annual water use reporting
- K.A.R. 5-1-4 through 5-1-12 are Kansas' metering regulations
- Meter must:
  - Be listed on the Acceptable List
  - Have chamber and flow-straightening vanes
  - Have 5 pipe diameters up and 2 down straight pipe
  - Be properly sealed

# State Wide Meter Order Areas



## Legend

Orange Groundwater Only

Blue Surface Water Only

Brown Groundwater and Surface Water

Orange with diagonal lines Surface Water in Progress

Yellow Groundwater and Surface Water in Progress

Blue with diagonal lines Lower Republican Alluvium and Surface Water Only

Blue line Chapman Creek Surface Water

# Kansas Water use data program

- Filing annual water use reports required since 1978.
- Prior to fees & enhanced efforts, approx 65-70% submitted, data not evaluated
- 1989 legislation provided additional staff, ability to issue civil penalties
  - \$50 fine; then \$250; then enforcement. Collect ~ \$50,000/yr
  - Staffing: 4 dedicated staff plus many others involved
- Results:
  - 99+% reporting
  - Touch every water right holder every year
  - Ownership annually updated



# Water Use Reporting

- All nondomestic water rights required to file annual water use reports
- Agency mails over 14,000 water use forms for over 33,000 active water rights/permits (multiple rights on some forms; forms specific to use of water)
- Water right correspondents required to fill-in and return forms
- Civil penalties for delinquent filing

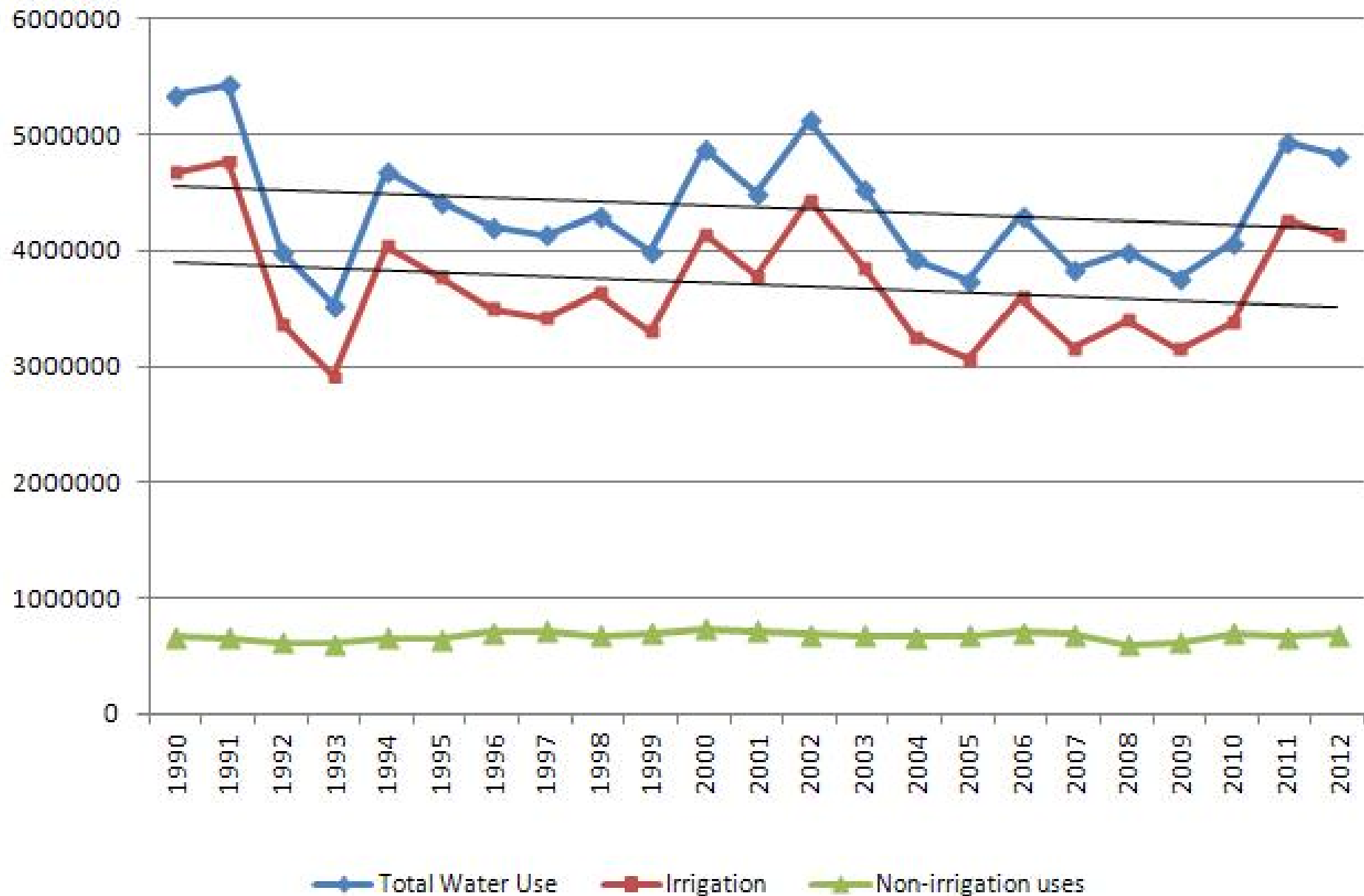




# Data collected

- Varies by use made of water
- For all: water use (metered quantity or hours and rate)
- For irrigation:
  - Acres irrigated
  - Crop(s)
  - System type
  - Well information

# Kansas Reported Water Use 1990-2012, Acre-feet



# Data-Rich Reports

Qualifier description of the point(s) of diversion. May be in ten acre tract designation or in feet distances from SE corner of stated SEC - TWP - RNG

Legal description of the point(s) of diversion in the customary form of Section-Township-Range. The Range East or West is shown also

Hours of pump time and diversion rate in gallons per minute

Crop Code & System Type  
See Instructions

Unique File No.  
Assigned by  
DWR

**IRRIGATION WATER USE REPORT**

This is the annual Water Use Report required to be filed by the owner of a well or appropriation right. It is required by Kansas Law. Failure to do so will subject the owner to a civil fine not to exceed \$250. If any point of diversion shown below is permanently inoperable, please circle E. IF YOU DID NOT USE WATER, YOU MUST REPORT THE REASON FOR NON-USE definitions.

FILE NUMBER	LEGAL DESCRIPTION OF POINTS OF DIVERSION		CIN	CHM	ACRES IRR	INCLUDE MULTIPLICATION FACTOR			UNIT	HOURS PUMPED	PUMP RATE (GPM)	CROP CODE	TYPE OF SYSTEM	WELL DATA		
	QUALIFIERS	SEC TWP RNG				BEGINNING WATER METER READING	ENDING WATER METER READING	METERED QUANTITY OF WATER						WELL DEPTH	DEPTH TO WATER	DATE MEASURED
50001-00	SW SW SW	11-22-33W	02		40	86.636	123.456	36.820	A	400	500	3	1	200	50	2/1/01

CALENDAR YEAR: 01 OFFICE USE: 45555 1 1-IRR FIELD OFFICE: GC CO: FI GMD: 03

I submit the report as the best information available. I understand that knowingly falsifying the report is a violation of State law.

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

CIRCLE ONE: OWNER AGENT TENANT

County: \_\_\_\_\_

Groundwater Management District in which the point(s) of diversion are located: \_\_\_\_\_

WATER USE REPORT CORRESPONDENT  
3456 ANY CO RD  
THANK YOU KS 66777-4321

TELEPHONE NUMBER: \_\_\_\_\_

(DWR 1-014 (Rev. 7/1-1992))

Computer ID no. - DWR use only

Indicate whether chemigation will be used next year

Acres irrigated from this point of diversion

-Meter Readings- Don't forget the decimals or zeroes (see instructions)

Subtract to arrive at net water diverted from this point of diversion

Meter unit is critical

Well Information: If available

Unique person identification number assigned by DWR

Please read:

Sign and date:

Circle one as Owner, Agent or Tenant

Number of irrigation card in series

DWR Field Office in which the point(s) of diversion are located

Please add up for total acres irrigated on this card. Do not count acres twice

Groundwater Management District in which the point(s) of diversion are located

Name and Address of the Water Use Correspondent. If this information has changed - please correct

# 2006 IRRIGATION WATER USER REPORT

This is the annual Water Use Report required to be filed for all Vested or Appropriation Rights. IMPORTANT: Kansas Law requires this completed report to be filed by March 1. Failure to do so will subject the owner to a civil fine not to exceed \$250 per file number. If any point of diversion shown below is permanently inoperable, please circle it. IF YOU DID NOT USE WATER, YOU MUST REPORT THE REASON FOR NON-USE TO HELP PROTECT YOUR WATER RIGHT. Information on each point of diversion must be completed. Please begin by reading the attached instructions and definitions.

FILE NUMBER	LEGAL DESCRIPTION OF POINT(S) OF DIVERSION		CIN	CHM	M	ACRES IRR.	INCLUDE MULTIPLICATION FACTOR			UNIT	HOURS PUMPED	PUMP RATE (GPM)	CROP CODE	TYPE OF SYSTEM	TYPE OF ENERGY	WELL DATA	
	QUALIFIERS	SEC TWP RNG					BEGINNING WATER METER READING	ENDING WATER METER READING	METERED QUANTITY OF WATER							DEPTH TO WATER	DATE MEASURED
16080-00	1 4150N 150W AKA: 200'S OF PREVIOUS WELL	15-25S-29W	6	Y		141	778460000	876365000	97,905,000	G			2/11	3	N		
16080-00	2 2710N 2670W	15-25S-29W	7	Y		125	745211000	851737000	106,526,000	G			2/11	3	N		
16619-00	4 2597N 3781W	12-25S-29W	1	Y		115	420572000	496918000	76,346,000	G			2	3	N		
16619-00	3 2590N 1423W	12-25S-29W	2	Y		20	NA	205309000	205309000	G			2	3	N		
23938-A	26 100N 3066W	26-24S-29W	1	Y		250	405171000	530063000	124,892,000	G			2/5	3	D		
23938-A	4 2353N 484W	34-24S-29W	3	Y	A	125	696.015	790.211	94.196	AF			5	3	D		
24905-00	4 3940N 3975W	3-26S-29W	2	Y		125	353.754	564.117	210.363	AF			17	3	E		
24905-00	3 1295N 3960W	3-26S-29W	3	Y		125	620.967	966.684	345.717	AF			1	3	E		

CALENDAR YEAR 06 OFFICE USE 8257 FIELD OFFICE 36299 CO GMD 1 2 - IRR GC GY 03

I submit the report as the best information available. I understand that knowingly falsifying the report is a violation of state law.

SIGNATURE  
CIRCLE ONE: OWNER AGENT TENANT

1-18-06  
DATE

10260 WATER RESOURCES RECEIVED

FEB 20 2007

KS DEPT OF AGRICULTURE

TELEPHONE NO

421381

008019 DWR 1-514 (Rev. 11/06)





# Water Use Quality Control

- Data entered into our Water Right Information System (WRIS)
- Edits performed by staff: compare pumping reported with CIR, use by peers, more
- Follow-up of incomplete data, data that appears erroneous
- USGS assists in additional quality control, publishing of data

# Water Use Program Cost to State

- About 10,000 person-hours/year
- Between \$0.25M/yr to \$0.5M/yr including salaries and other expenses

By comparison...

- 2008 rough estimate for Landsat thermal imaging approach ranged from \$0.4M to \$0.7M
- Landsat approach would not address non-irrigation uses

# Water Use Data Critical For...

- Water right certification
- Water resources planning & management
- Focus our compliance & enforcement work
- Abandonment determinations
- Determine water protection fees (state water plan fund)
- Our data widely used by others for planning, improve hydrologic modeling, much more
- USGS national water use report



# Compliance Tool





# Statutory Provisions Related to Compliance and Enforcement

- K.S.A. 82a-728. Unlawful acts; penalties (1977)
  - Class C Misdemeanor for violating the KWAA
  - Each day of violation is considered to be a separate violation
  - Illegal to use water for any purpose without a permit, except
    - Domestic and household purposes
    - Storage and use of less than 15 AF of water in a pond
    - Production of salt water related to oil and gas well operations



# Civil Penalties (K.S.A. 82a-737)

- Enacted in 2001 - Authorizes monetary fines (\$100 to \$1000), water right modification and/or suspensions
  - Violating any provision of the KWAA or R&Rs
  - Violating an IGUCA order
  - Violating any term, condition or limitation of permit or water right
    - Unauthorized places of use
    - Pumping more than authorized (Rate or Quantity)
    - Meter violations
    - Unlawful diversions
    - Waste of water

# Regulations on Enforcement Process (K.A.R. 5-14-1ff)

- Investigation and written report prepared by DWR staff
- If investigation concludes that a violation has occurred, DWR issues an order explaining the violation, what actions are needed to correct the violation and a reasonable time in which to do so
- Opportunity for a hearing  
(Hearings are commonly requested)

# Enforcement, con't (K.A.R. 5-14-1)

- If water right holder fails to correct the violation within the time allowed, an order will be issued requiring the owner to cease water use until the violation is corrected
- If water right holder ignores order to cease Chief Engineer may take further legal action to enforce the order
  - Attorney General
  - Criminal Proceedings
  - Consent Agreement

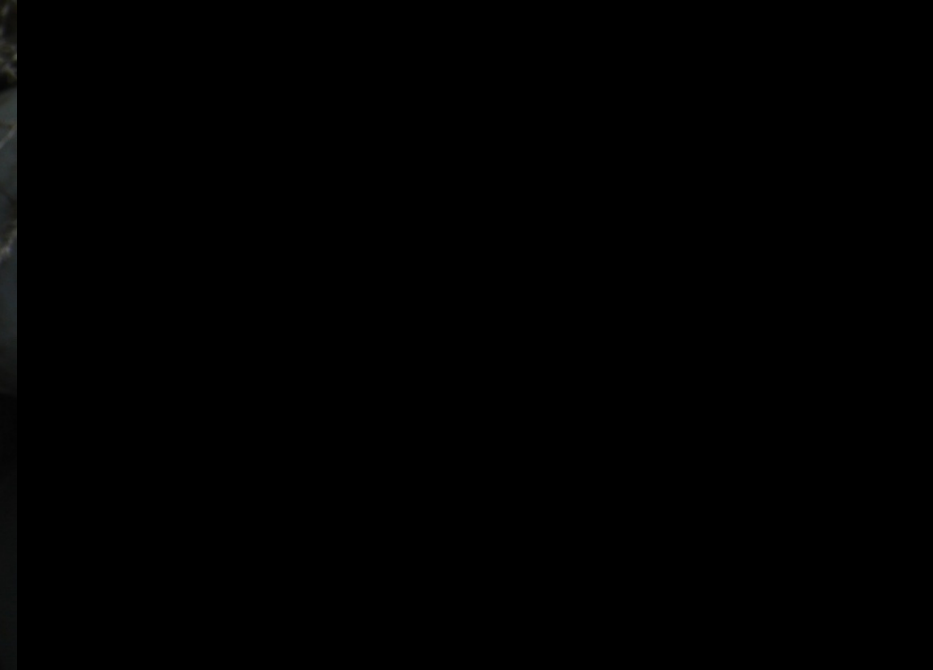


# K.A.R. 5-14-10 – 2003

- Three categories of offenses
  - Category 1 - \$100
  - Category 2 - \$500
  - Category 3 - \$1000
- Authorizes increased fines for aggravating or extenuating circumstances
  - Prior violations
  - Intentional noncompliance or gross negligence
  - Failure to correct violation

# K.A.R. 5-14-10 – 2003

- In addition to the assessment of a civil penalty or any other penalty provided for by law, any water right may be modified or suspended by the chief engineer upon the issuance of a written order finding a violation (Water penalty)
- Seems to be more effective at achieving compliance than monetary fines









KANSAS DEPARTMENT OF AGRICULTURE  
DIVISION OF WATER RESOURCES  
NOTICE OF NON-COMPLIANCE



Date \_\_\_\_\_  
File No. \_\_\_\_\_

Except for domestic use, the Kansas Water Appropriation Act, K.S.A. 82a-701, et seq., establishes requirements for all diversion of water within the state. Every water right of every kind includes terms and conditions with which the water user must comply. This document indicates a compliance problem may exist which needs your attention.

TO: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- ☐ **Your attention to this Notice is required.**  
Please take corrective action  
by \_\_\_\_\_

This notice may not be a complete listing  
of all violations which may be identified for  
the file number referenced above.

Any response to this notice  
must be submitted to:

Division of Water Resources  
Field Office  
Address  
City, State, Zip

Telephone:  
FAX:

- ☐ CEASE DIVERSION IMMEDIATELY

By: \_\_\_\_\_  
(authorized representative of the chief engineer)

Description of Non-Compliance: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CITATION:

K.A.R. 5-14-10 (c)(1) - CATEGORY 1

- ☐ (A) Threat to divert water without a permit  
☐ (B) Unauthorized Place of Use  $\leq 10$  acres  
☐ (C) Excessive rate of diversion  $< 115\%$   
☐ (D) Failure to maintain meter/wm device  
☐ (E) Failure to file a monthly water use report

K.A.R. 5-14-10 (d)(1) - CATEGORY 2

- ☐ (A) Unauthorized Point of Diversion  
☐ (B) Unauthorized Place of Use  $> 10$  acres  
☐ (C) Water Conservation Plan failure  
☐ (D) Waste of Water  
☐ (E) Excessive rate of diversion  $> 115\%$   
☐ (F) Failure to install a meter as required  
☐ (G) Failure to make required special reports  
☐ (H) Exceeding authorized annual quantity  
☐ \_\_\_\_\_ water use report  
☐ From Field Investigation  
☐ (I) Unauthorized Use Made of Water  
☐ (J) Other: \_\_\_\_\_

K.A.R. 5-14-10 (e)(1) - Category 3

- ☐ (A) Meter tampering  
☐ (B) Altering meter readings  
☐ (C) Failure to timely install meter/wm device  
☐ (D) Falsifying water use/other data  
☐ (E) Denying access to DWR personnel  
☐ (F) Violating Cease & Desist Order  
☐ (G) Impediment to securing water  
☐ (H) Violating an IGUCA order  
☐ (I) Violating an MDS order

☐ More information on reverse  
Date Entered \_\_\_\_\_ by \_\_\_\_\_

# Investigating overpumping

- All water rights authorize a maximum annual quantity of water for use under each right
- Under KWAA, water use reports for every right must be submitted annually
- Water use entered into WRIS, follow-up, checked
- Using this record and/or on-site compliance investigations, identify individual rights that overpumped
  - Also inspect previous overpumpers and random inspections

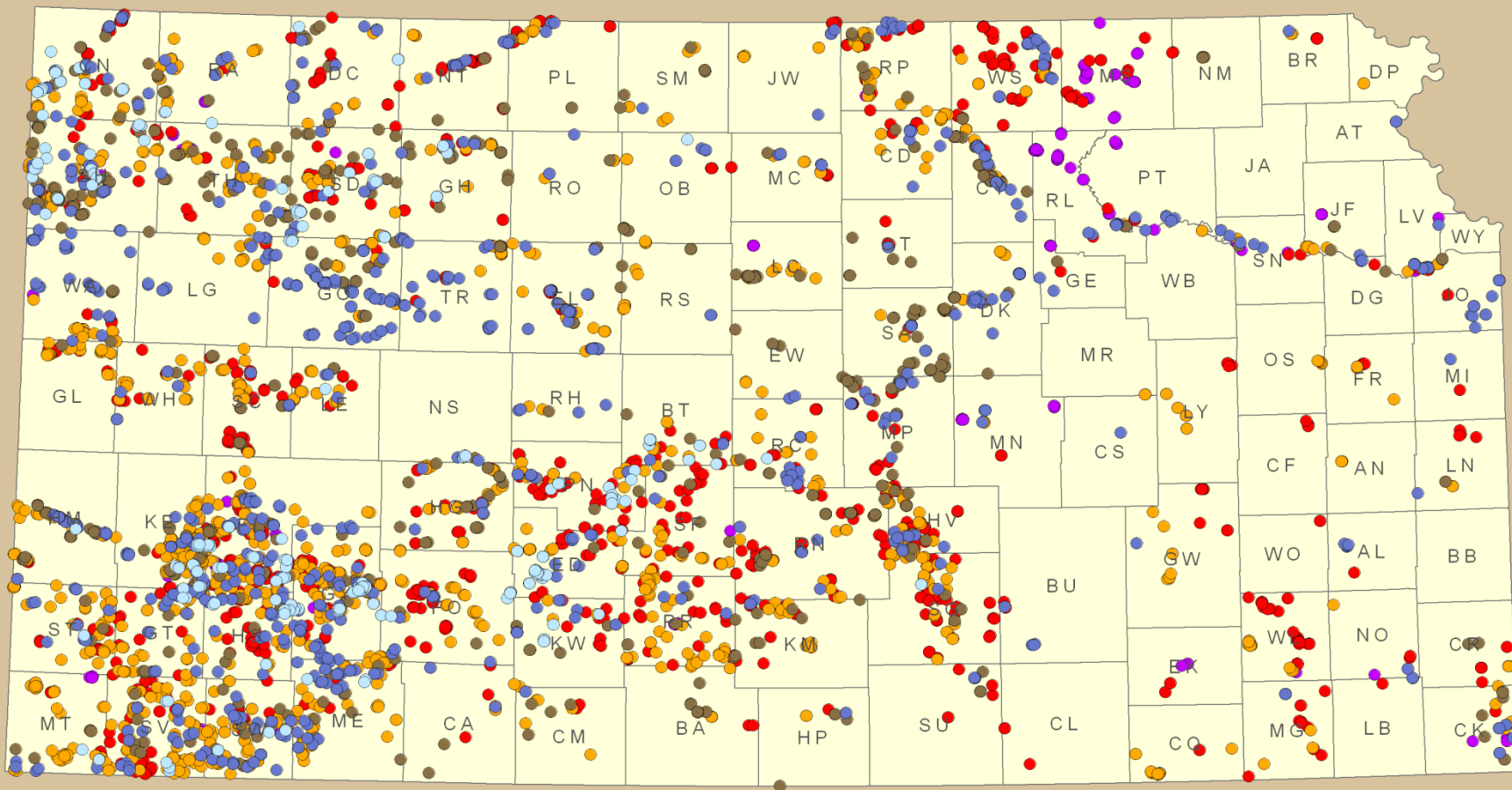
# Consequences of Overpumping

- **First offense:** Notice of Noncompliance (NONC)
- **Second offense:** \$1000 fine + 2X water penalty.
- **Third offense:** \$1000 per day fine + 1 year suspension.
- **Fourth offense:** Revoke water right or permit.

# Consequences of Meter Tampering

- Water Right suspended for 1 year
- Issue \$1,000 civil penalty for causing the meter to show an incorrect reading
- Also issue \$500 civil penalty for exceeding the authorized quantity
- Meter required to be sealed into the pipe
- More frequent compliance investigations on site





File numbers having at least one  
well identified as an overpumper

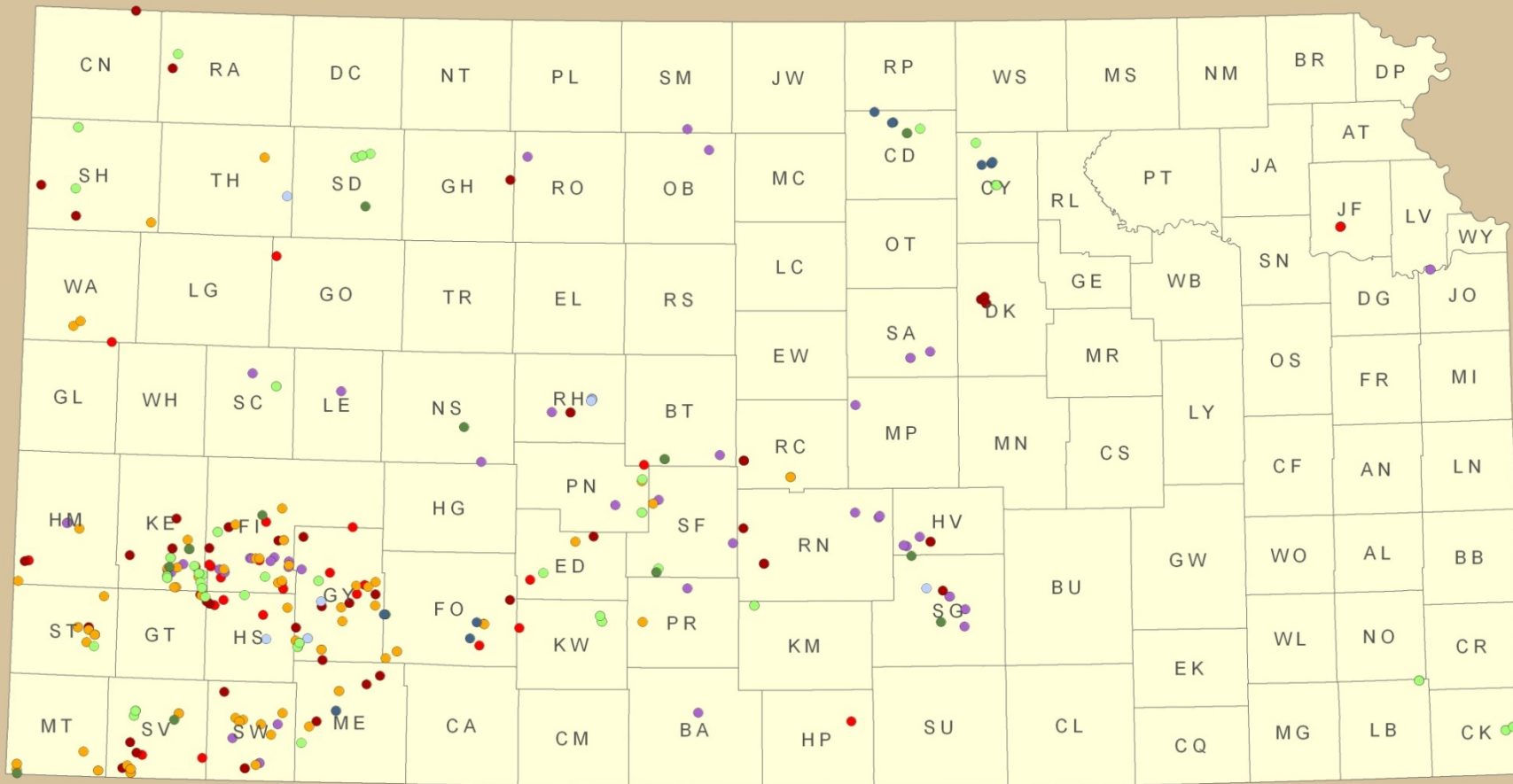
● 2007   ● 2009   ● 2011  
 ● 2008   ● 2010   ● 2012

## Notice of Non-Compliance

Kansas Department of Agriculture  
Administrative Services, GIS  
March 6, 2012



0 20 40 80 Miles



### Penalties Issued

- 2004 • 2006 • 2008 • 2010
- 2005 • 2007 • 2009 • 2011

## Penalties Issued After Warning

Kansas Department of Agriculture  
Administrative Services, GIS  
May 20, 2011



0 20 40 80 Miles

# Notices of Non-Compliance

Year	NONCs Issued
2007	176
2008	705
2009	531
2010	1118
2011	904
2012	1748
2013	887

Total of 6069 notices issued as of September 19, 2013



# Fines and Quantity Reductions

Year	Numbers of Penalties	Monetary Fine	Quantity Reductions
2004	9	\$4500	
2005	7	\$3000	
2006	12	\$13200	
2007	20	\$11600	
2008	58	\$37600	-1932
2009	46	\$46901	-2410
2010	47	\$55600	-1564
2011	92	\$56400	-2203
2012	124	\$29500	-5664
2013	206	\$106800	-10951

Water penalties are generally more effective than monetary penalties for achieving compliance.

# Penalty Changes for Over-Pumping

- Past violations may be allowed to expire:
  - Five years from the date of the NONC if there are no violations in the 5 years after NONC.
  - Ten years from the date of the NONC if there is a violation after NONC in the 5 year period.
  - Fifteen years from the date of the NONC if there are two violations after the NONC within the 10 year period.



# More information

- DWR web page
  - <http://agriculture.ks.gov/divisions-programs/dwr/water-appropriation/compliance-and-enforcement>
- Fact Sheet – Consequences of over-pumping

# Questions?





Inspecting meter installations (models, spacing, accuracy, etc.)

# Problems with Meters

- Tampering
  - Manually reset totalizer (“odometer”)
  - Reverse meter to run it backwards
  - Removing meter at nights and on weekends
- Access limitations
  - Hog facilities (biosecurity protocols)
  - Difficult locations
- **\*\*What's Next?\*\*** Considering non-reversible meters and radio-read/telemetry meters

# Category 1 offenses - \$100

- Irrigating unauthorized land – 10 acres or less
- Diverting water at a rate in excess of the authorized rate of diversion – if within 115 percent authorized
- Failure to operate and maintain a compliant water flowmeter or other water-measuring device as required by the chief engineer
- Failing to file monthly water use reports, if required to do so
- Threat to divert without authorization  
(EG: Completing a new well without approval)



# Category 2 Offenses - \$500

- Diverting water from an unauthorized point of diversion of water (Pumping an illegal well)
- Irrigating unauthorized land – more than 10 acres
- Failure to properly implement a conservation plan if required by the chief engineer
- Committing a waste of water
- Diversion of water at a rate that equals or exceeds 115 percent of the authorized
- Failure to install a water flowmeter or other acceptable water-measuring device

# Category 2 Offenses - \$500

- Failure to promptly provide complete and accurate water use or other data, information, or records requested by the chief engineer
- Diversion of water in excess of the authorized quantity of water
- Using water for an unauthorized type of beneficial use
- Violating any condition of a water right or approval of application not listed as a category 1 or 3 offense



# Category 3 Offenses - \$1000

- Tampering with a water flowmeter or other acceptable water-measuring device or causing meters or measuring devices to show an incorrect reading by any method
  - Altering the propeller
  - Reversing the water flowmeter
  - Running the water flowmeter in reverse

# Category 3 Offenses - \$1000

- Failing to install (or removing) required meters or measurement devices
- Falsifying water use or other data
- Denying access/entry as required by 82a-706b
- Violating a cease and desist order
- Violating a water release protection order
- Violating an IGUCA order
- Violating a MDS order

# MYFA Specific Enforcement

Failure to comply with the terms, conditions and limitations of a MYFA order may result in revocation of the Multi-Year Flex Account permit, and imposition of penalties (monetary fines and a 2-year suspension of all water use) as provided in K.A.R. 5-14-10



# MYFA Specific Meter Requirements

K.S.A. 82a-736: The chief engineer shall have full authority pursuant to K.S.A. 82a-706c, and amendments thereto, to require any additional measuring devices and any additional reporting of water use for term permits issued pursuant to this section.

- Monthly Metering Reading Requirements
- Timely Replacement/Repair/Reporting



# MYFA Specific Enforcement

K.S.A. 82a-736: Failure to comply with any measuring or reporting requirement may result in a penalty, up to and including the revocation of the term permit and the suspension of the base water right for the duration of the term permit period.

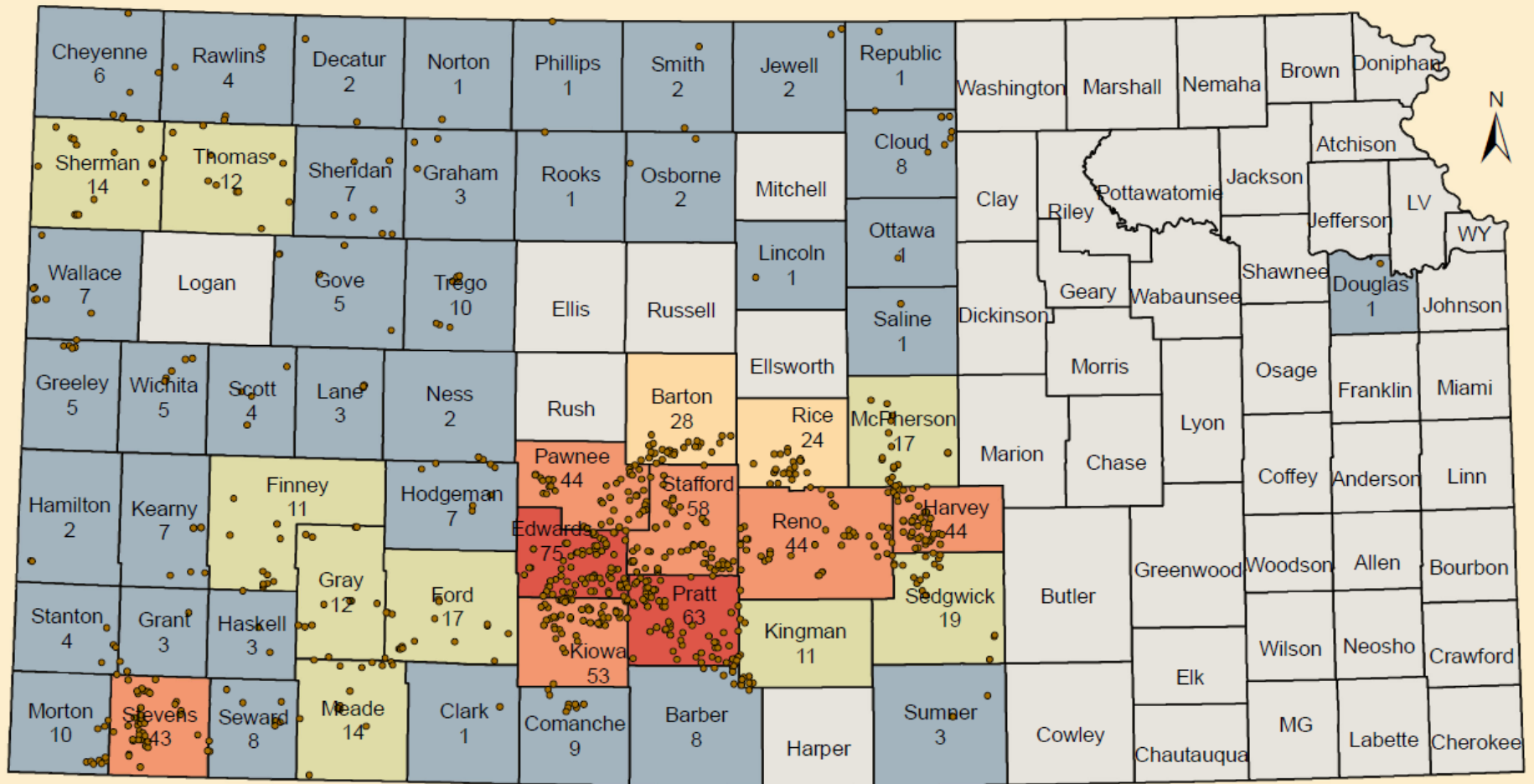
# 2012 response: Legislative revisions to Multi-Year Flex Account, K.S.A. 82a-736

- Added to KWAA in 2001
- For a 5-year period, suspends base water right and replaces it with a 5-year term permit
- Removes annual authorized quantity limitation
- Term permit quantity was based on: average water use less a 10% conservation factor
- Very few permits issued 2001 to 2011
- 2012 amendments removed conservation requirement, added more options to determine 5-year allocation



# 2012 Multi-Year Flex Accounts by County

(753 Total)



July 2013

Kansas Department of Agriculture

## Number per County

