

Limited Water in Kansas

- Kansas: variability in hydrologic conditions across the state
 - Average precipitation ranges from 16 inches in western Kansas to 40 inches in eastern Kansas
 - Droughts can be persistent
- Western Kansas
 - Primarily relies on the Ogallala-High Plains aquifer for its water supply
- Eastern Kansas
 - Primarily relies on surface water supplies
- Central Kansas
 - Relies on a mixture of surface and groundwater

House Agriculture & Natural
Resources Committee

Date 1-22-2013

Attachment # 1

Kansas Water Appropriation Act

1-2

- All water dedicated to use of the people of Kansas
- Right to use water is based on **“First in time is first in right”** priority system
- Limits rights to reasonable needs
- Allows a limited resource to be allocated for beneficial use and to protect minimum desirable streamflows
- Protects investments, property rights and the resource

Kansas Water Appropriation Act

- Chief Engineer is charged with administering the act
- Single priority system for ground and surface water
- A “water right” is not to the ownership of water, but it is a real property right to divert and use water for beneficial purposes with certain limitations.
- No type of use is given preference in appropriations, although conversion of water rights tends to move toward higher valued uses

Protections

- During periods of shortage, junior water rights may be curtailed to satisfy senior rights and minimum desirable stream flow
- Releases from storage may be protected
- Statutes provide additional comprehensive tools to deal with long-term water problems, e.g. Intensive Groundwater use Control Areas (IGUCAs) and Local Enhanced Management Areas (LEMAs)

Trends in water management

15

- Closing of many areas to new water rights
- New rights in other areas limited to safe yield
- Increased use of metering
- Increased water conservation
- Increasing use of changes in water rights to accommodate new and different uses in closed/restricted areas

KANSAS DEPARTMENT OF AGRICULTURE
Dale A. Rodman, Secretary of Agriculture

DIVISION OF WATER RESOURCES
David W. Barfield, Chief Engineer

**Kansas Water Appropriation Act
K.S.A. 82a-701 et seq (Selected Statutes)**

K.S.A. 82a-702. Dedication of use of water. All water within the state of Kansas is hereby dedicated to the use of the people of the state, subject to the control and regulation of the state in the manner herein prescribed. (History: L. 1945, ch. 395, § 2; June 28.)

K.S.A. 82a-711. Permits to appropriate water; standards for approval of use; review of action on application. (a) If a proposed use neither impairs a use under an existing water right nor prejudicially and unreasonably affects the public interest, the chief engineer shall approve all applications for such use made in good faith in proper form which contemplate the utilization of water for beneficial purpose, within reasonable limitations except that the chief engineer shall not approve any application submitted for the proposed use of fresh water in any case where other waters are available for such proposed use and the use thereof is technologically and economically feasible. Otherwise, the chief engineer shall make an order rejecting such application or requiring its modification to conform to the public interest to the end that the highest public benefit and maximum economical development may result from the use of such water.

(b) In ascertaining whether a proposed use will prejudicially and unreasonably affect the public interest, the chief engineer shall take into consideration:

- (1) Established minimum desirable streamflow requirements;
- (2) the area, safe yield and recharge rate of the appropriate water supply;
- (3) the priority of existing claims of all persons to use the water of the appropriate water supply;
- (4) the amount of each claim to use water from the appropriate water supply; and
- (5) all other matters pertaining to such question.

(c) With regard to whether a proposed use will impair a use under an existing water right, impairment shall include the unreasonable raising or lowering of the static water level or the unreasonable increase or decrease of the streamflow or the unreasonable deterioration of the water quality at the water user's point of diversion beyond a reasonable economic limit. Any person aggrieved by any order or decision by the chief engineer relating to that person's application for a permit to appropriate water may petition for review thereof in accordance with the provisions of K.S.A. 2005 Supp. 82a-1901 and amendments thereto. (History: L. 1945, ch. 13 390, § 11; L. 1957, ch. 539, § 16; L. 1977, ch. 356, § 6; L. 1980, ch. 332, § 3; L. 1986, ch. 392, § 3; L. 1991, ch. 292, § 3; L. 1999, ch. 130, § 5; July 1.)

K.A.R. 5-4-4. Well spacing. (a) The spacing between wells shall be sufficient to prevent direct impairment between wells located in a common source of supply or hydraulically connected sources of supply and to protect the public interest. Except as set forth in subsection (b), the following guidelines shall be used to determine the spacing required between wells permitted by the chief engineer in a common source of supply, unless it is determined by the chief engineer in any specific instance that the spacing guidelines set forth in this regulation are insufficient to prevent direct impairment or are not necessary to prevent direct impairment.

(b) Whenever an applicant proposes to divert water from a source of supply in a location where there is a significant hydraulic connection between the proposed source of supply and another source or sources of supply, the chief engineer shall determine the spacing necessary to prevent impairment and to protect the public interest on a case by case basis.

(c) Except as set forth in subsection (e) below, each well that is described in an application for a permit to appropriate water for beneficial use or for a term permit, excluding any domestic or temporary well, shall meet the minimum spacing requirements set out in paragraphs (1) and (2) below.

(1) The minimum distance from the well which is the subject of the application to all other senior authorized non-domestic and non-temporary wells in the same aquifer or a hydraulically connected aquifer shall be:

- (A) four miles between wells whose common source of supply is the confined Dakota aquifer system;
- (B) one-half mile between wells whose common source of supply is the unconfined Dakota aquifer system;
- and
- (C) 1320 feet for wells whose common source of supply is any other aquifer.

(2) In addition to meeting the minimum spacing requirements of paragraph (1) above, the minimum distance from the well which is the subject of the application to all domestic wells, except where the domestic well owner has given the applicant written permission to reduce the spacing interval, shall be:

- (A) one-half mile for wells whose common source of supply is the confined Dakota aquifer system;
- (B) 1320 feet for wells whose common source of supply is the unconfined Dakota aquifer system; and
- (C) 660 feet for wells whose common source of supply is any other aquifer.

(d) Except as provided in subsection (e), the location of a well or wells on an application to change the point of diversion under an existing water right shall either:

- (1) meet the spacing requirements in paragraphs (c)(1) and (c)(2) above; or
- (2) not decrease the distance to other wells or authorized well locations by more than 300 feet.

(e) This regulation shall not apply if the chief engineer has adopted another regulation, or issued an order pursuant to K.S.A. 82a-1036 et seq., specifying a different well spacing for the source of supply in which the proposed point of diversion is located.

(f) In the case of a battery of wells, the distance shall be measured from the geographic center of the points of diversion comprising the battery.

(g) If the proposed point of diversion does not meet the well spacing requirements in this regulation, the applicant shall be notified by the chief engineer in writing prior to dismissal that the requirements have not been met. The applicant shall then have 15 days to request time in which to submit additional information. Upon written request, the applicant shall be given a specified reasonable amount of time by the chief engineer to submit an engineering or similar type of hydrologic analysis to show that the spacing can be decreased without impairing existing rights or prejudicially and unreasonably affecting the public interest. The burden shall be on the applicant to make such a showing to the satisfaction of the chief engineer. (Authorized by K.S.A. 82a-706a; implementing K.S.A. 1993 Supp. 82a-711; effective May 31, 1994.)

Safe Yield Report Sheet

Proposed Water Right Application

Point of Diversion in SWSMENNW 01-22S-08W



Analysis Results

The selected PD is in an area to new appropriations.

The safe yield, based on the variables listed below is 1,156.04 AF.

Total prior appropriation in the circle is 2,112.89 AF.

Total quantity of water available for appropriation is 0.00 AF.

Safe Yield Variables

The area used for the analysis is set at 8,042 acres.

Potential annual recharge of the area is estimated to be 2.3 inches.

The percent of recharge available for appropriation is 75%.

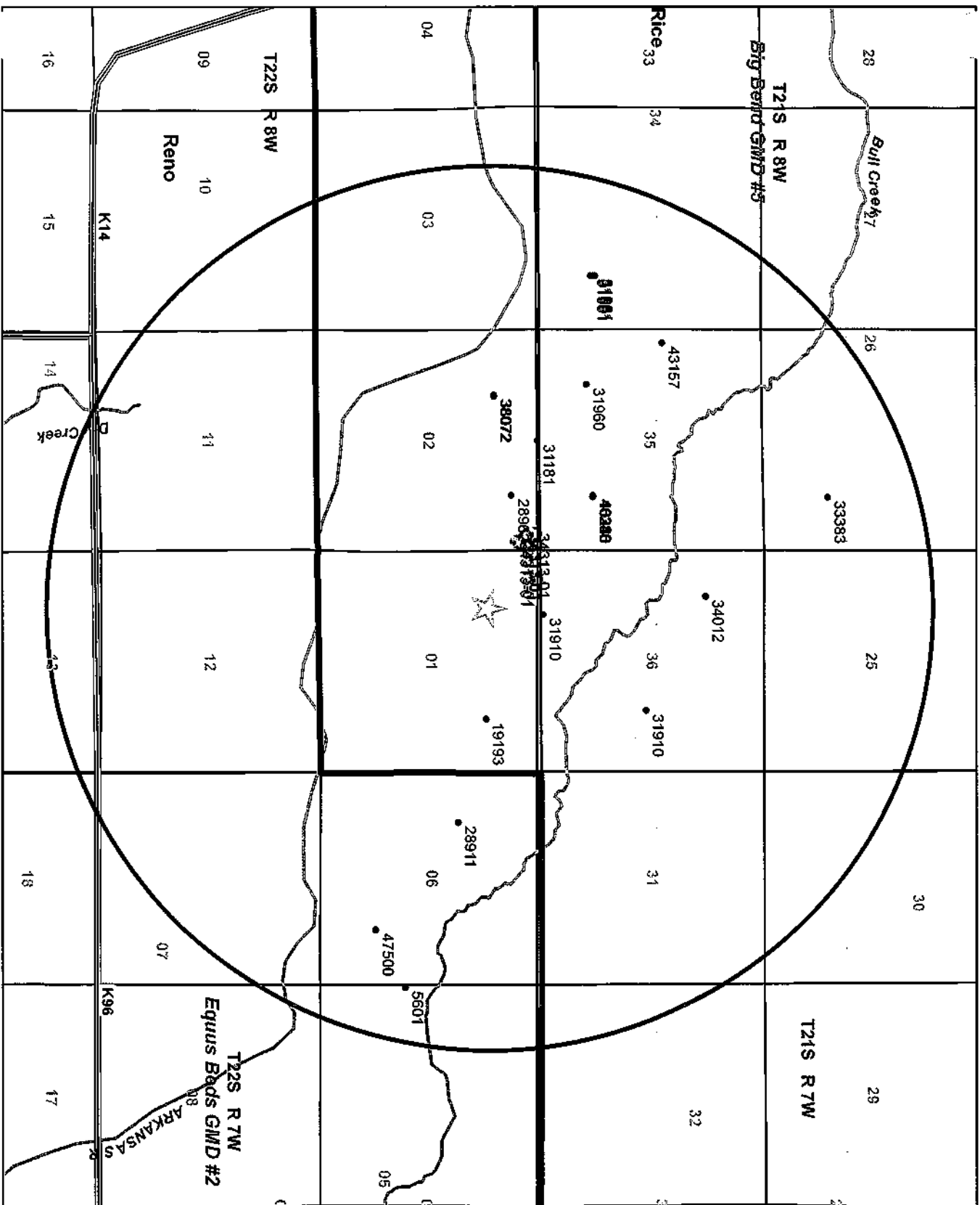
Authorized Quantity values are as of 18-JAN-2013 and are based on Appropriated and Vested ground water right and possible stream nodes for GMD #2. Domestic, Term and Temporary water rights have been excluded.

There are 16 water right(s) and 27 point(s) of diversion within the circle.

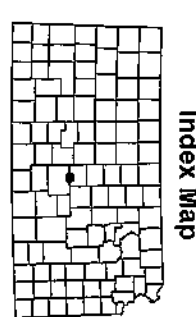
File Number	Use	ST	SR	Q4	Q3	Q2	Q1	FeetN	FeetW	Sec	Twp	Rng	ID	Qind	Auth_Quant	Add_Quant	Tacres	Nacres	
A	5601	00	IRR	NK	G	NW	NW	SW	0	0	05	22	07W	2	WR	160.00	160.00	160.00	160.00

A	10246 00	IRR NK G	NC SE	1270	1312	35	21	08W	6	WR	213.00	213.00	160.00	160.00
Same		IRR NK G	NC SE	1270	1342	35	21	08W	7	WR				
Same		IRR NK G	NC SE	1270	1327	35	21	08W	8	WR				
A	19193 00	IRR NK G	NC NE	3960	1295	01	22	08W	2	WR	195.00	195.00	132.00	132.00
A	28911 00	IRR NK G	NC S2 NW	3300	3895	06	22	07W	1	WR	161.00	161.00	146.00	146.00
A	28962 00	IRR NK G	NW NE NE	4626	1287	02	22	08W	1	WR	150.00	150.00	110.00	110.00
A	31181 00	IRR NK G		5230	2630	02	22	08W	2	WR	10.50	10.50	7.00	7.00
A	31910 00	IRR NK G	SW SE SW	50	3795	36	21	08W	1	PD	126.00	126.00	207.00	207.00
Same		IRR NK G	CN SE	2510	1485	36	21	08W	2	PD	120.00	120.00		
A	31960 00	IRR NK G	NC SW	1117	4000	35	21	08W	10	WR	180.00	180.00	156.00	156.00
A	31961 00	IRR NK G	NC SE	1370	1320	34	21	08W	3	WR	192.00	192.00	160.00	160.00
Same		IRR NK G	NC SE	1320	1320	34	21	08W	1	WR				
Same		IRR NK G	NC SE	1270	1320	34	21	08W	2	WR				
A	33383 00	IRR NK G	SW NE SE	1518	1287	26	21	08W	2	WR	107.00	107.00	80.00	80.00
A	34012 00	IRR NK G	NE SW NW	3920	4224	36	21	08W	3	WR	143.00	143.00	124.00	124.00
A	34313 01	STK NK G		4826	160	02	22	08W	7	WR	34.99	34.99		
Same		STK NK G		5209	358	02	22	08W	8	WR				
Same		STK NK G		5009	344	02	22	08W	9	WR				
Same		STK NK G		4754	172	02	22	08W	10	WR				
Same		STK NK G		4969	323	02	22	08W	11	WR				

Two (2) Mile Circle Safe Yield Example - Reno County



- Legend**
- WIMAS_PD
 - S_UMW
 - G_IRR
 - G_STK
- 1-13



This map was created by KAK/DWR on 1/18/2013

NEW APPLICATION PROCESSING IN RENO COUNTY
(Beginning with Priority Date of June 2011)

Big Bend GMD No. 5

GMD 5 is closed to new appropriations of water, so no new applications have been approved within GMD No. 5 boundaries.

Loda Township Area

This is a limited area located between GMD 5 and GMD 2 boundaries. There are several South Central Kansas Designated Unit Areas located within the Loda Township area. Processing new applications located within a South Central Kansas Designated Unit Areas, is a 2 step process: First the unit area must have water available (e.g. SNI-27 is currently closed to new appropriations), then a two-mile circle safe yield must also show that water is available.

There have been several new applications filed in this general area starting in the Summer and Fall of 2011 (see attached summary sheet). Six were approved, three are still pending, and one was dismissed. Of the pending applications, there is only 52.8 acre-feet left in the designated unit area, so the last two are likely to be denied and dismissed.

Reno County

There is only a limited area of Reno County located outside of GMD boundaries. Starting with a priority date of June 1, 2011, as of January 14, 2013, we have approved 28 applications, including the six listed above within the Loda Township area (see attached summary sheet). The majority of the files are located within GMD 2. There are still 40 pending applications in Reno County.

1-14

NEW APPLICATIONS APPROVED IN LODA TOWNSHIP AREA

File Number	Priority Date	Approval Date	Applicant	Use	ST	Q1	Feet N	Feet W	Sec	Twp	Rng	Auth	Quantity	Add	Quantity	Acres
47,834	06/23/11	04/03/12	D. Stauffer	IRR	GY	NE	3770	1167	21	26	8	182	182	182	130	NMI-37 Original Available 1017 Acre-Feet
47,848	07/05/11	04/04/12	S. Livingston	IRR	KE	SE	2310	2310	30	26	8	182	182	182	130	
47,921	08/29/11	07/31/12	Ed Miles	IRR	GY	NE	5236	2631	22	26	8	224	224	224	160	
47,949	09/27/11	08/08/12	Ed Miles	IRR	GY	NW	3090	5070	14	26	8	100	100	100	80	Total Appropriated 964.2 Acre-Feet Difference = 52.8 Acre-Feet
48,183	06/19/12	11/05/12	D. Stauffer	IRR	GY	NE	3851	2607	21	26	8	164.2	164.2	164.2	126	
48,184	06/20/12	11/05/12	B. Stauffer	IRR	GY	SW	109	3758	19	26	8	112	112	112	80	
48,265	08/31/12	Pending	Scott Brady	IRR	AY	NW	4431	4938	28	26	8	182	182	182	130	Difference = 52.8 Acre-Feet
48,275	09/13/12	Pending	F. Krehbiel	IRR	AY	NE	3960	1320	14	26	8	182	182	182	130	
48,315	10/25/12	Pending	D. Stauffer	IRR	AY	NE	4071	417	19	26	8	82.6	82.6	82.6	59	

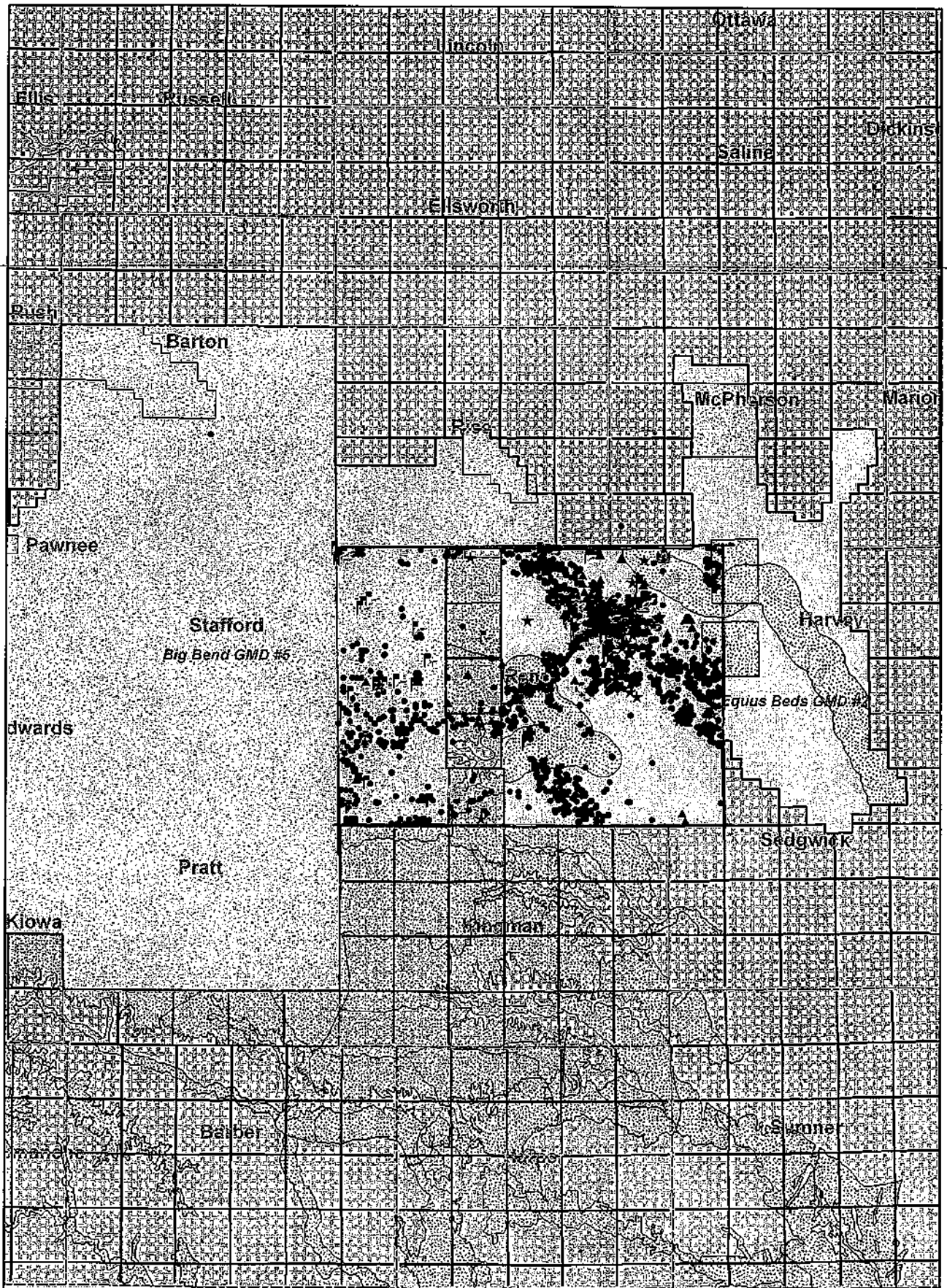
FILE NO. 48,186 (B. Stauffer) was denied and dismissed in this same area on November 5, 2012 for failure to return.

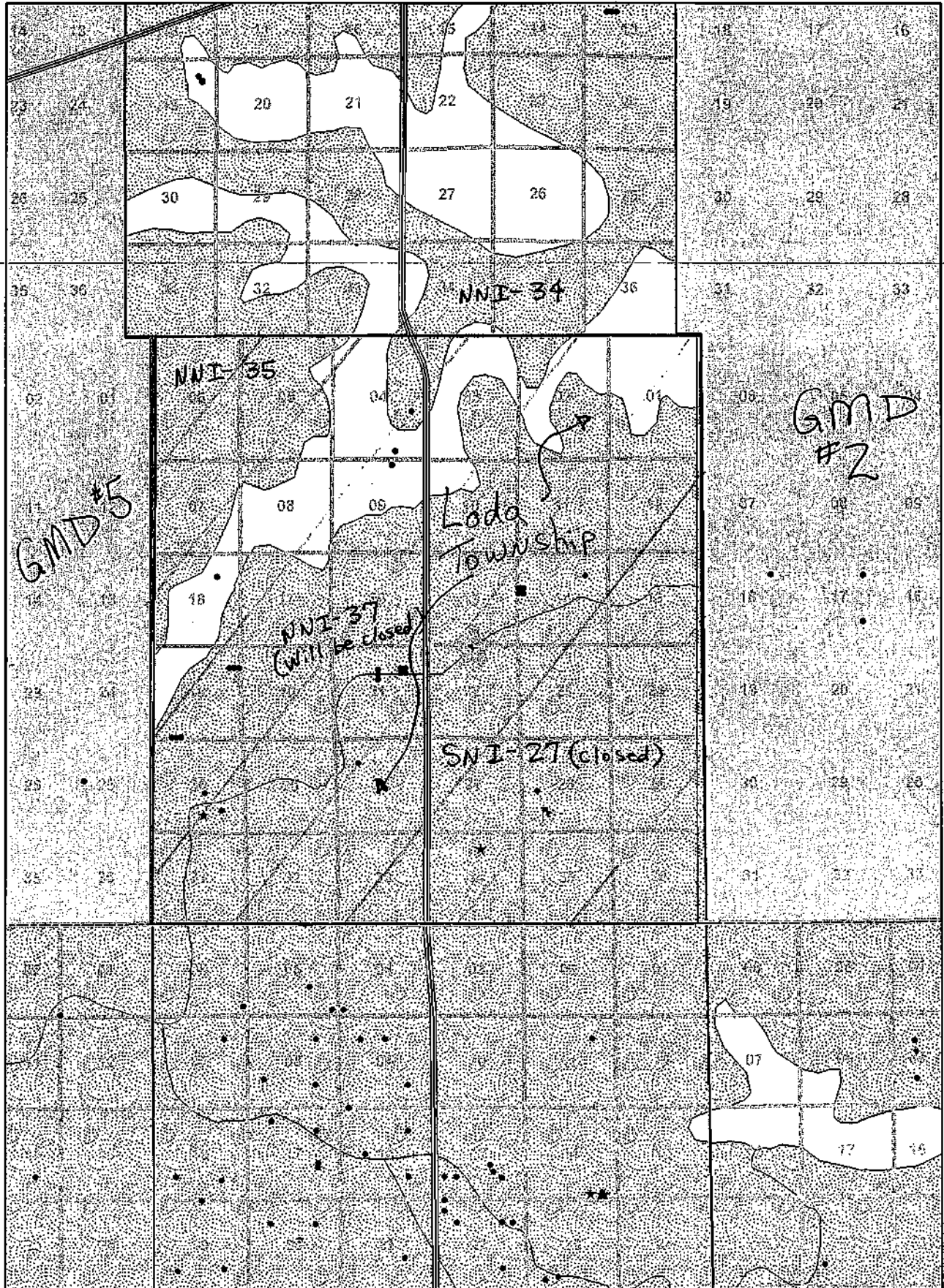
NEW APPLICATIONS APPROVED IN RENO COUNTY (28)

File Number	Priority Date	Approval Date	Applicant	Use	Sec	Twp	Rng	Auth	Quantity	Add	Quantity	Acres	GMD
47,804	06/03/11	07/20/12	S. Strohl	IRR	16	26	6	196	196	196	140	2	
47,814	06/10/11	07/20/12	S. Strohl	IRR	16	26	6	196	0	0	140	2	
47,834	06/23/11	04/03/12	D. Stauffer	IRR	21	26	8	182	182	182	130	None	
47,848	07/05/11	04/04/12	S. Livingston	IRR	30	26	8	182	182	182	130	None	
47,877	07/26/11	06/06/12	E. Jacques	IRR	22	24	7	221.2	221.2	221.2	158	2	
47,882	07/29/11	06/06/12	R. Jacques	IRR	22	24	7	212.8	212.8	212.8	152	2	
47,883	07/29/11	06/06/12	R. Jacques	IRR	22	24	7	212.8	0	0	152	2	
47,898	08/03/11	06/06/12	Sam Miller	IRR	14	24	5	184.8	184.8	184.8	132	2	
47,906	08/17/11	07/06/12	L. Bontrager	IRR	5	24	5	91	91	91	65	2	
47,921	08/29/11	07/31/12	Ed Miles	IRR	22	26	8	224	224	224	160	None	
47,922	08/29/11	06/21/12	D. Krehbiel	IRR	34	25	7	224	224	224	160	2	
47,924	08/29/11	07/19/12	Cann Pearce	IRR	25	24	7	99.4	99.4	99.4	71	2	
47,937	09/19/11	10/05/12	S. Dillon	IRR	25	24	8	187.6	187.6	187.6	134	None	

NEW APPLICATIONS APPROVED IN RENO COUNTY (continued)

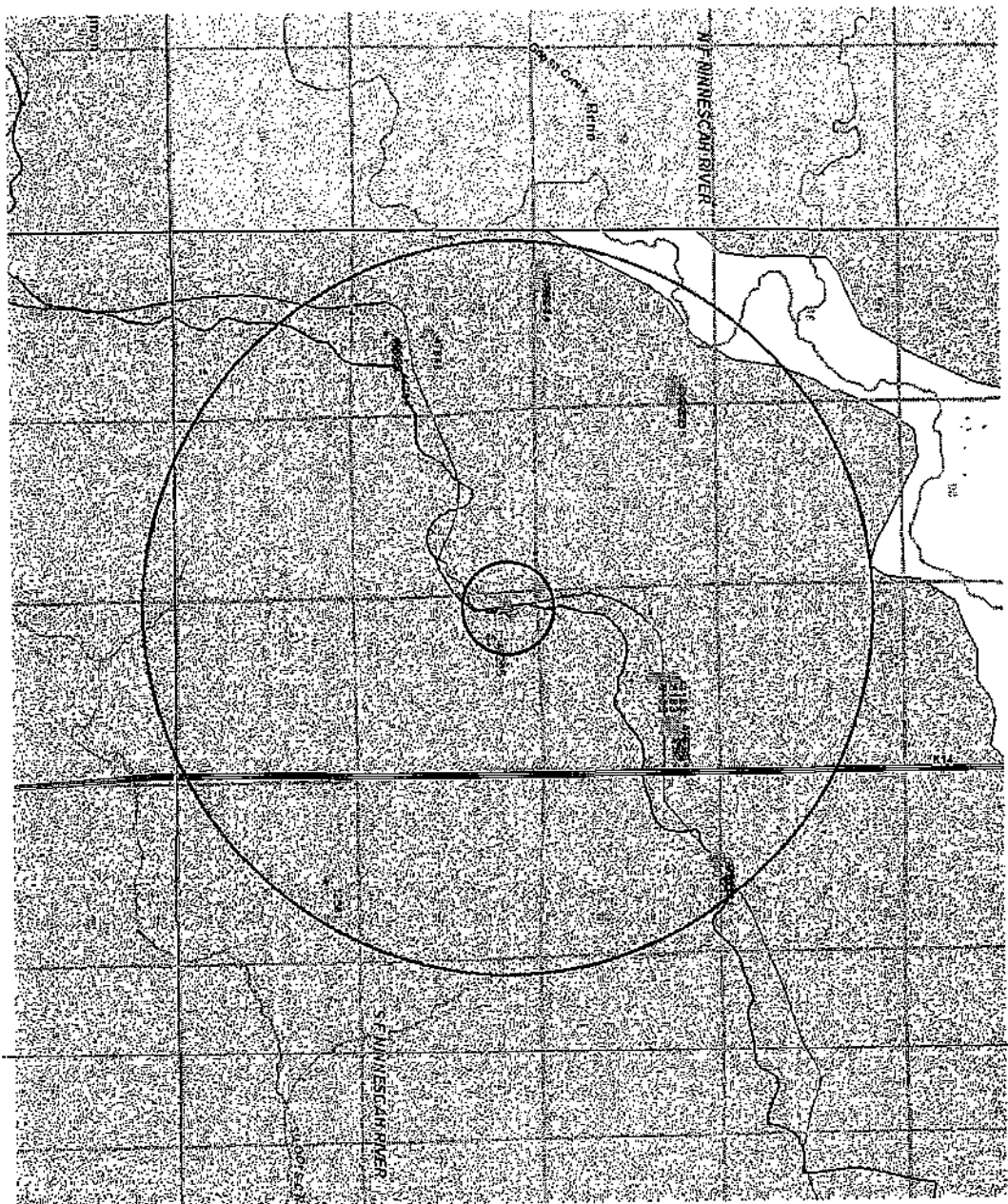
File Number	Priority Date	Approval Date	Applicant	Use	Sec	Twp	Rng (West)	Auth Quantity	Add Quantity	Acres	GMD
47,942	09/21/11	07/27/12	Matt Brack	IRR	28	23	5	182	182	130	2
47,949	09/27/11	08/08/12	Ed Mies	IRR	14	26	8	100	100	80	None
47,988	11/08/11	10/23/12	Henry Hinz	IRR	24	24	8	221.2	221.2	158	None
47,989	11/08/11	07/11/12	Henry Hinz	IRR	5	25	7	215.6	215.6	154	2
47,990	11/08/11	07/11/12	Henry Hinz	IRR	11	25	7	221.2	221.2	158	2
48,025	12/22/11	07/06/12	Sam Miller	IRR	14	24	5	91	91	65	2
48,034	01/04/12	07/27/12	Matt Brack	IRR	34	23	5	112	112	80	2
48,067	02/15/12	08/20/12	Maj. Cokeley	IRR	2	25	4	32.9	5.9	23.5	2
48,068	02/16/12	09/17/12	S. Trembley	IRR	8	25	7	182	182	130	2
48,073	02/22/12	08/27/12	J. Bauman	IRR	14	25	4	107.2	107.2	76.6	2
48,088	03/05/12	10/26/12	Orange Acres	IRR	23	25	4	204.4	204.4	146	2
47,906	02/15/12	07/06/12	L. Bontager	IRR	5	24	5	91	91	65	2
48,183	06/19/12	11/05/12	D. Stauffer	IRR	21	26	8	164.2	164.2	126	None
48,184	06/20/12	11/05/12	B. Stauffer	IRR	19	26	8	112	112	80	None
48,198	07/05/12	12/27/12	Brad Rayl	IRR	19	22	4	102.9	102.9	73.5	2





1 20

Safe Yield Report Sheet
Proposed Water Right Application
Point of Diversion in NESMNMW 28-26S-08W
(4,431'N and 4,938'W)



NMI-37

S.H. Minnesota Basin

1-20

Analysis Results

The selected PD is in an area to new appropriations.
 The safe yield, based on the variables listed below is 1,005.25 AF.
 Total prior appropriation in the circle is 1,128.80 AF. ~ 264.6 = 864.2
 Total quantity of water available for appropriation is ~~0-00~~ AF.

141.05 - Available

Safe Yield Variables
 The area used for the analysis is set at 8,042 acres.
 Potential annual recharge of the area is estimated to be 2 inches.
 The percent of recharge available for appropriation is 75%.

Authorized Quantity values are as of 09-JAN-2013 and are based on Appropriated and Vested ground water right and possible stream nodes for GMD #2. Domestic, Term and Temporary water rights have been excluded.

There are 7 water right(s) and 22 point(s) of diversion within the circle.

File Number	Use	ST	SR	Q4	Q3	Q2	Q1	FeetN	FeetW	Sec	Twp	Ring	ID	Qind	Auth	Quant	Add	Quant	Tacres	Nacres
A 47834 00	IRR	GY	G		NW	SE	NE	3770	1167	21	26	08W	1	WR		182.00	182.00	130.00	130.00	
Same	IRR	GY	G		NW	SE	NE	3910	1307	21	26	08W	2	WR						
Same	IRR	GY	G		NW	SE	NE	3910	1027	21	26	08W	3	WR						
Same	IRR	GY	G		NW	SE	NE	3630	1307	21	26	08W	4	WR						
Same	IRR	GY	G		NW	SE	NE	3630	1027	21	26	08W	5	WR						
A 47848 00	IRR	KE	G		NW	NW	SE	2310	2310	30	26	08W	3	WR		182.00	182.00	130.00	130.00	
A 47921 00	IRR	GY	G		NW	NW	NE	5236	2631	22	26	08W	1	WR		224.00	224.00	160.00	160.00	
Same	IRR	GY	G		NE	NE	NW	5286	2768	22	26	08W	2	WR						
Same	IRR	GY	G		NE	NE	NW	5086	2768	22	26	08W	3	WR						
Same	IRR	GY	G		NW	NW	NE	5286	2588	22	26	08W	4	WR						
Same	IRR	GY	G		NW	NW	NE	5286	2398	22	26	08W	5	WR						
A 48183 00	IRR	GY	G		NW	SW	NE	3571	2607	21	26	08W	6	WR		164.20	164.20	126.00	126.00	
Same	IRR	GY	G		NW	SW	NE	3851	2607	21	26	08W	7	WR						
Same	IRR	GY	G		SW	SW	NE	3291	2607	21	26	08W	8	WR						
Same	IRR	GY	G		NW	SW	NE	3571	2607	21	26	08W	9	WR						
A 48184 00	IRR	GY	G		SW	SE	SW	109	3758	19	26	08W	1	WR		112.00	112.00	80.00	80.00	
Same	IRR	GY	G		SE	SW	SW	109	4033	19	26	08W	5	WR						
Same	IRR	GY	G		SW	SE	SW	109	3483	19	26	08W	6	WR						
A 48265 00	IRR	AY	G		NW			3960	3960	28	26	08W	1	WR		182.00	182.00	130.00	130.00	
A 48315 00	IRR	AY	G		SE	NE	NE	4071	417	19	26	08W	2	WR		82.60	82.60	59.00	59.00	
Same	IRR	AY	G		SE	NE	NE	4071	142	19	26	08W	3	WR						
Same	IRR	AY	G		SE	NE	NE	4071	692	19	26	08W	4	WR						

264.6

London

Consequences of Overpumping

Conserving water resources in Kansas is critical to the state's agricultural community. The Kansas Department of Agriculture has worked with the Kansas legislature and all water stakeholders to improve flexibility of water law to promote locally-driven, individually-managed water regulations.

Kansas water rights have established legal limits for the quantity of water authorized, diversion rate, place of use, type of use, and other conditions and limitations. Using more water than is authorized is called overpumping. Owners should be aware of the legal limits of their water rights because overpumping violations can result in costly penalties and potential temporary or permanent loss of the water right.

Starting with the 2013 calendar year KDA will apply the following revised progressive penalties when an individual diverts more water than is authorized by his or her water right or permit to appropriate water.

- First offense: Notice of Non-compliance (NONC);
- Second offense: Monetary fine of \$1,000 and a reduction in authorized quantity for the following irrigation season by two times the amount overpumped;
- Third offense: Monetary fine of \$1000 per day of overpumping (capped at \$10,000) and a one-year suspension; and
- Fourth offense: Water right revocation. The water could become available for appropriation to someone else if located in an area not closed to new applications.

There may be exceptions to the progression listed above. For example, if overpumping is flagrant, the agency may proceed to a stricter penalty without waiting for repeat offenses.

Sanction documents will be recorded with the local county register of deeds to ensure individuals who purchase land are aware of any water pumping violations.

Once annually, the Kansas Department of Agriculture will publish a list of all individuals in Kansas who violated their water right by overpumping. This list will be distributed to media statewide.

Past violations may be expunged from the department's records in the following schedule:

- 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.



The Division of Water Resources sends orders for civil penalties issued by the chief engineer. The order explains the reasons for the penalties and identifies the amount of water authorized by the water right or permit to appropriate water. If the authorized quantity is reduced for the next year, the reduced amount is identified in the order.

KDA allows water users the flexibility to determine how they will comply with their reduced allocations in a manner that creates the least impact on their operations. For example, an irrigator who has received such a penalty may have to plant a crop that requires less water or reduce their acres planted to comply with the reduction in their authorized quantity.

It is very important for individuals who have been penalized for overpumping to not repeat the violation, as it leads to more severe penalties, could negatively affect the value of the water right and could eventually lead to a temporary or permanent loss of the water right or permit.