

WATER PERMIT NO. 7928-3

Name of Applicant: Kevin Kannas

Address: 45410 186th St, Hayti SD 57241 Phone: 605 880-1317

Amount of Water Claimed: 1.78 cfs Total Acres: 160 acres

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation County: Hamlin

Type of Waste Disposal System:

Location: 10 miles east of Hayti

PRIORITY Date Received: 12-2-13 Application/License Fee: \$ 1050

Corrected Application Received: Period of Annual Use: April 1- Sept 30

Remarks:

Diversion Point: SW 1/4 NW 1/4 Sec 24-T114N-
R52W

Land to be Irrigated: NW 1/4 Sec 24-T114N-
R52W

Depth of Well: 60 feet

Well Driller: Kaiser Well Drilling

Remarks:

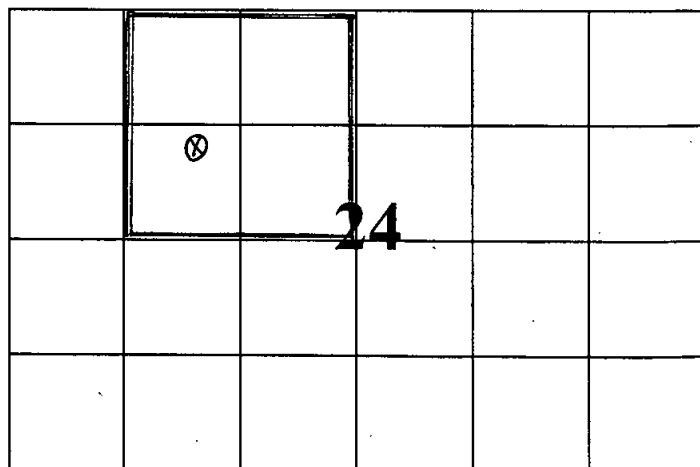
Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 12-2-13

By: Karen Schlaak

Notice of Hearing - date to intervene: _____



FORM 2: Application for irrigation in South Dakota
(type or print)

Mail to:
PMB 2020
DENR - Water Rights
523 E Capitol Ave
Pierre, SD 57501-3182
ph. (605) 773-3352

(office use only)
No. 7928-3 Hydrologic Unit 10170202
Basin Sioux River 605-783-3636
Newspaper Hamlin Co. Herald Ent. Box 207 Hayti
605-886-6901
Public Opinion Box/D Watutown 57201

RECEIVED

57241 DEC - 2 2013

WATER RIGHTS
PROGRAM**Application For Permit To Appropriate Water For Irrigation**

Type of Application: ☒ New ☐ Vested Right ☐ Amendment/Correction to Permit No. _____

(Use predates Mar 2, 1955)

Description of amendment/correction: (i.e. change diversion point(s), add diversion point(s), change use, etc.)

1. Name to Appear on Irrigation Permit KEVIN KANNAS

(check one) ☒ Owner ☐ Tenant/lessee ☐ Owner's Legal Agent

(name and complete address if different than above name)

Mailing Address 45410 186TH ST HAYTI SD 57241
(Address) (City) (State) (Zip Code)

Home Phone 605-783-3442 Cell 605-880-1317 Email KLKAN@ITCTEL.COM

2. Amount of water claimed 1.78 *CFS or 800 **GPM ***AF Total Acreage 160
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply ONE WELL

4. Location of point of diversion 500' SW OF THE CENTER OF THE NW 1/4 SECT 24 T114N - R52W

(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)

County HAMLIN

5. County or counties where water will be used HAMLIN

6. Annual period during which water is to be used APRIL-SEPTEMBER

7. List below each forty acre division, or lot, or fraction thereof and show number of acres to be irrigated in each.

(Attach sheet if more space is needed)

Land Description	Acres	Land Description	Acres
NW 1/4 OF THE NW 1/4 SEC 24 T114N R52W	40		
SW 1/4 OF THE NW 1/4 SEC 24 T114N R52W	40		
NE 1/4 OF THE NW 1/4 SEC 24 T114N R52W	40		
SE 1/4 OF THE NW 1/4 SEC 24 T114N R52W	40		

8. Give a description of the project. (Attach sheet if more space is needed)

INSTALLATION OF NEW CENTER PIVOT IRRIGATION SYSTEM TO BE SUPPLIED BY ONE WELL

I, Kevin A Kannas, the applicant, certify that I have read this application, have examined the attached map, and that the matters stated are true.

**SOUTH DAKOTA
WATER PERMIT NO. 7928-3**

Date of first receipt of application December 2, 2013.

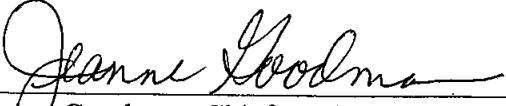
The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7928-3 to Kevin Kannas, 45410 186th St, Hayti SD 57241 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 7928-3 appropriates 1.78 cubic feet of water per second from one well to be completed into the Big Sioux:Brookings Aquifer (60 feet deep) located in the SW 1/4 NW 1/4 Section 24 for irrigation of 160 acres located in the NW 1/4 Section 24; all in T114N-R52W.
2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: April 1 – September 30.
3. The date from which applicant may claim right is December 2, 2013.
4. The date of approval of Permit No. 7928-3 is February 17, 2014.
5. One-fifth of the construction is to be completed on or before August 17, 2016.
6. All construction is to be completed on or before February 17, 2019.
7. Water is to be put to beneficial use on or before February 17, 2023.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

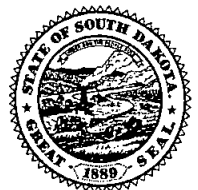
1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 7928-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

WATER MANAGEMENT BOARD

By: 
Jeanne Goodman, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

FEB 27 2014

date



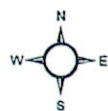
(type or print)

(check one or both as applicable) ☒ Drilling new well(s) ☐ Using existing well(s)

- 2012-09



United States Department of Agriculture Farm Service Agency



1:8,221

South Dakota
Hamlin County **2009**

Farm Number
2000

Township-Range-Section
114N52W24

Legend

- Restricted Use
- ▼ Limited Restrictions
- Exempt from Conservation Compliance Provisions
- CLU Field Boundary
- Tract Boundary

USDA FSA maps are for FSA Program administration only. This map does not represent a legal survey or reflect actual ownership; rather it depicts the information provided directly from the producer and/or the 2008 ortho rectified imagery for South Dakota. The producer accepts the data 'as is' and assumes all risks associated with its use. The USDA Farm Service Agency assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside of FSA Programs. Wetland identifications do not represent the size, shape or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.

Mar 30, 2009

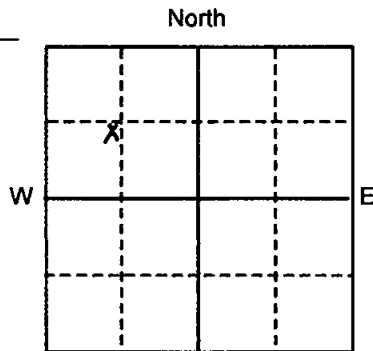
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WATER RIGHTS
PROGRAM

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW 1/4 NW 1/4 Sec 24 Twp 114N Rg 52WCounty* HAMLINPlease mark well
location with an "X"

Well Completion Date

10-21-13

1 Mile

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?

ft. from _____ (identify source)

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☒ Test holes
☒ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well
METHOD OF DRILLING:
ROTARY DRILL

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
40.0 LB/FT	3.00 IN	0.0 FT	50.0 FT	6.00 IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Grt Well DF	54.0	Lb/gal	0.0 Ft	50.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure

PRESSURE PULL

SCREEN:

☐ Perforated pipe ☒ Manufactured
 Diameter 3.00 Inches Length 10.0 Feet
 Material PVC
 Slot Size 80 Set From 50.0 Feet to 60.0 Feet
 Other information _____
WAS A PACKER OR SEAL USED? ☐ Yes ☒ No

If so, what material? _____

Describe packer(s) and location _____

DISINFECTION: Was well disinfected upon completion?

☐ Yes, How? _____☐ No, Why Not? _____Lab to which water
quality sample sent for analysis

+ _____

Well Owner: ALLEN KANNAS

Business Name: _____

Address: 18665 459TH AVECity, State, Zip: CASTLEWOOD SD 57223

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
TOP SOIL	0	2.5
YELLOW MIXED GRAVEL	2.5	20
YELLOW CLAY	20	23
GRAVEL COURSE-MED	23	34
GRAVEL COURSE	34	50
GRAVEL MED	50	60
YELLOW CLAY	60	65

STATIC WATER LEVEL

_____ FEET

If flowing: closed in pressure _____

PSI

GPM flow _____ through _____

Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped Describe: AIR LIFT 100 GPM++
☐ Bailed
☐ Other

Pumping Level Below Land Surface

_____ Ft. After _____ Hrs. pumped _____ GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

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WATER RIGHTS
PROGRAMThis well was drilled under license # 689 and this
report is true and accurate.Drilling firm: KAISER WELL DRILLING INC

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date: _____

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 12/2, 20 13

RECEIVED OF Kevin Kannas 45410 186th St Hayti SD 57241

The following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. <u>7928-3</u> to Appropriate Water, to construct and to put water to beneficial use	850	00
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____	200	00
Fee for Filing Transfer Form <u>7928-3</u>		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	1050 00

No. 06498

By J. Earle Goodman Jr
Chief Engineer

Water Rights Program - DENR
Conversation File Documentation

NAME OF PERSON OR FILE: Water Permit Application No. 7928-3, Kevin Kannas

ADDRESS: 45410 186th St, Hayti SD 57241 COUNTY: Hamlin County

DATE: December 3, 2013 TELEPHONE: 605 880-1317

RE: legal location of well

I contacted Mr. Kannas regarding the location of the well. I believe that Item No. 4 contained an error in the legal location. Based on the map and irrigated acres, it is our understanding the well will be in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 24, T114N, R52W. Item No. 4 on the application states the well is 500' SW of the center of the SW $\frac{1}{4}$ Section 24, T114N, R52W. Mr. Kannas confirmed the well is to be located in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 24 and asked that DENR change the application accordingly.

NAME: Eric Hamlund



**DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov



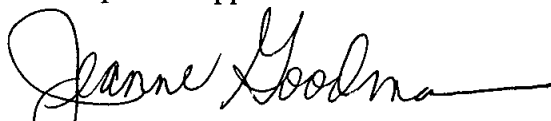
**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 7928-3, Kevin Kannas**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning Water Permit Application No. 7928-3, Kevin Kannas, 45410 186th Street, Hayti SD 57241.

The Chief Engineer is recommending APPROVAL of Application No. 7928-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and 4) it is in the public interest with the following qualifications:

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 7928-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.


Jeanne Goodman, Chief Engineer
January 29, 2014

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 7928-3
KEVIN KANNAS
JANUARY 29, 2014

Water Permit Application No. 7928-3 proposes to appropriate water at a maximum diversion rate of 1.78 cubic feet of water per second (cfs) from one well to be completed into the Big Sioux: Brookings aquifer. The well is expected to be 60 feet deep and is to be located in the SW ¼ NW ¼ Section 24 for the irrigation of 160 acres located in the NW ¼ Section 24; all in T114N-R52W in Hamlin County.

AQUIFER: Brookings management unit of the Big Sioux aquifer (BS: B)

AQUIFER CHARACTERISTICS:

The Big Sioux: Brookings aquifer is a predominantly surficial outwash aquifer that is primarily under water table conditions (Koch, 1980). The Big Sioux: Brookings aquifer extends south from Hamlin County into Brookings County, and east into Deuel County. The aquifer underlies approximately 191,100 acres and contains an estimated 642,230 ac-ft of recoverable water in storage (Hedges et. al, 1982). In Hamlin County alone, the aquifer underlies approximately 88,500 acres and contains an estimated 331,800 ac-ft of recoverable water in storage (Hedges et. al, 1982). The aquifer is hydraulically connected to area lakes, streams, and the Big Sioux River (Kume, 1985). The aquifer is also connected to the Big Sioux: North in northern Hamlin County and the Big Sioux: Moody in central Moody County (Hedges et. al, 1982). Kume (1985) estimated that the Big Sioux: Brookings has an average thickness of 30 feet, and wells completed in the aquifer could yield in excess of 1,000 gallons per minute of water that is suitable for irrigation.

The test well log submitted with this application indicated the Big Sioux: Brookings aquifer occurred from 2.5 to 60 feet below grade. The test well had a static water level of 9.3 feet below grade in October 2013.

South Dakota Codified Law (SDCL) 46-2A-9

Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued only if there is a reasonable probability that there is unappropriated water available for this applicant's proposed use, that the proposed diversion can be developed without unlawful impairment of existing rights and that the proposed use is a beneficial use and in the public interest. This report will address the availability of unappropriated water and effects on existing rights from the aquifer that are pertinent to this application.

WATER AVAILABILITY:

This application proposes to appropriate water from the Big Sioux: Brookings aquifer. Actual water use, if this application is approved, will likely be less than 320 acre-feet annually (ac-ft/yr). The probability of unappropriated water available from the aquifer can be evaluated by considering SDCL 46-6-3.1, which requires "No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the

quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source.” If the source of the water is older or lower than the Greenhorn Formation and a public water system has applied for a permit, the Board need not consider the recharge/withdrawal issue. In this case, the aquifer is not stratigraphically lower than the Greenhorn Formation and the applicant is not a public water system.

Hydrologic Budget:

Recharge:

Recharge to the Big Sioux: Brookings aquifer is by infiltration of precipitation and seepage from the Big Sioux River and its tributaries (Kume, 1985). Koch (1980) estimated a recharge rate of 6.57 inches per year (in/yr), and Hedges and others (1985) estimated a recharge rate of 4 in/yr. The recharge rate to the aquifer as a whole and just in Hamlin County is shown in Table 1. This is not to suggest that the entire volume of annual recharge or of recoverable water in the aquifer is available at every point in the aquifer but to demonstrate that in general the Big Sioux: Brookings aquifer is readily recharged.

Source	Rate (in/yr)	Entire Aquifer (ac-ft/yr)	Hamlin County (ac-ft/yr)
Koch, 1980	6.57	104,627	48,454
Kume, 1985			48,531*
Hedges et. al, 1985	4	63,700	29,500
*= rate is for Hamlin and Deuel County			

Table 1- Recharge to the Big Sioux: Brookings aquifer and in just Hamlin County

Discharge:

The Big Sioux: Brookings aquifer discharges through seepage to the Big Sioux River and its tributaries during periods of low flow and stage, evapotranspiration, and well withdrawals (Koch, 1980). There are 254 water rights/permits appropriating water, 10 future use permits reserving water, and one pending application to appropriate water from the Big Sioux: Brookings aquifer with 120 water rights/permits and five future use permits in Hamlin County alone (Water Rights, 2014b). The amount of water that can be expected to be withdrawn through water rights/permits authorizing water use for non-irrigation purposes at the current appropriation level can be estimated by assuming: 1) water rights/permits limited by an annual volume will pump the entire volume appropriated, 2) water rights/permits limited only by diversion rate will pump at the maximum permitted diversion rate 60 percent of the time, and 3) future use permits can be fully developed. The expected average annual withdrawal by non-irrigation appropriations including future use permits from the Big Sioux: Brookings aquifer is estimated to be 19,367 ac-ft and 7,854 ac-ft in Hamlin County alone (Water Rights, 2014b). Note that several of the municipalities with water rights/permits authorizing the withdrawal of water from the Big Sioux: Brookings aquifer only use their water rights/permits as backup to rural water (Friedeman, 2013). This was accounted for in the expected average annual withdrawal.

The withdrawal for domestic use from the Big Sioux: Brookings is not significant to the hydrologic budget of the aquifer, especially since many of the domestic wells are no longer used as primary sources of water since the introduction of rural water systems to the area. Table 2 shows the irrigation withdrawal from the entire Big Sioux: Brookings aquifer. The average

annual irrigation withdrawals from the Big Sioux: Brookings aquifer is 8,608.5 ac-ft and 3,983.2 ac-ft in Hamlin County alone (Water Rights, 1979-2013).

Hydrologic Budget:

Using Hedges and others (1985) recharge estimate there is approximately 35,725 ac-ft/yr of recharge in excess of expected average annual withdrawal from the entire Big Sioux: Brookings aquifer with 17,663 ac-ft in Hamlin County alone. Therefore, there is a reasonable probability that there is unappropriated water available for this proposed appropriation.

Entire Aquifer				Hamlin County		
Year	No. of Permits Reporting	Appropriation (ac-ft)	Pumpage (ac-ft)	No. of Permits Reporting	Appropriation (ac-ft)	Pumpage (ac-ft)
2012	177	63694.4	19482.51	86	30704	9699.49
2011	174	63494.4	8527.61	85	30544	4927.3
2010	172	62966.4	2713.39	84	30304	1681.63
2009	174	65098.4	9172.9	80	29384	3986.48
2008	166	62761.8	12505.85	75	28037.2	5934.02
2007	164	62374.8	12730.13	73	27571.2	5702.96
2006	161	61075.8	14325.04	69	26687.2	6807.48
2005	159	61435.8	11513.48	68	26573.2	5626.58
2004	156	60695.8	11809.91	66	26093.2	6106.78
2003	149	58970.8	11380.47	59	24353.2	5554.05
2002	149	59186.8	12410.94	60	24623.2	5620.65
2001	149	59312.8	8384.81	60	24623.2	3751.65
2000	153	60799.8	8933.72	62	25634.2	3778.59
1999	155	62181.3	7841.04	62	25646.2	3262.16
1998	157	63306.2	8109.71	63	26410.2	2908.97
1997	153	62281.7	5650	61	25867.7	2209
1996	154	62575.2	7220.95	61	25867.7	3624.86
1995	161	62961.2	3862.25	66	26997.7	2273.54
1994	160	64395.2	2854.62	65	26997.7	915.94
1993	162	64963.7	1042.9	67	28013.7	746.5
1992	162	64603.7	2331.6	67	27621.7	1289.6
1991	165	65534.97	7771.74	67	27732.7	4332.54
1990	175	71616.95	5862.92	76	32927.08	3352.82
1989	166	69391.27	13930.7	69	31952.4	7536.6
1988	167	74615.27	18521.4	64	31575.4	8181.4
1987	171	76624.07	10015	62	31060.9	4430.5
1986	179	80788.57	2854.7	64	33206.9	1453.82
1985	181	81385.57	4951.4	65	33462.9	1676.4
1984	188	84188.07	8177.6	65	33721.9	3948.1
1983	161	74854.57	8227.46	56	30070.9	2639.26
1982	155	77754.57	4551.86	55	31398.9	1771.63
1981	197	91051	9040	61	29392	2629
1980	187	87093	9837	60	27812	4597
1979	184	85701	6144	60	27200	2472
Min	149	58970.8	1042.9	55	24353.2	746.5
Max	197	91051	19482.5	86	33721.9	9699.5
Avg	166.0	68521.6	8608.5	66.6	28531.4	3983.2

Table 2- Irrigation water use from the entire Big Sioux: Brookings aquifer (Water Rights, 1979-2013)

Observation Well Data:

Administrative Rule of South Dakota Section 74:02:05:07 requires that the Water Management Board shall rely upon the record of observation well measurements to determine that the quantity

of water withdrawn annually from the aquifer does not exceed the estimated average annual recharge of the aquifer.

The DENR-Water Rights Program monitors 80 observation wells completed into the Big Sioux: Brookings aquifer (Water Rights, 2014a). Water levels in the observation wells show response to climatic conditions. The water levels rise (recharge) during wet years and gradually decline during dry years. The hydrographs show the effects of pumping, but it does not appear to be significant over the period of record. The climatic effects on water level mask the temporal impacts of well withdrawal. Therefore, recharge to and natural discharge from the Big Sioux: Brookings aquifer significantly exceeds pumping. Recognizing that natural discharge can be captured for pumping, there is a reasonable probability that unappropriated water is available for these proposed appropriations.

The nearest of the observation wells to the proposed well site are shown in Figure 1, a map of the area around the proposed well site. The hydrographs for observation wells HN-57B, HN-63A, and HN-77C, are shown in Figures 2, 3, and 4, respectively. The hydrographs, in general, show similar hydrologic conditions to the other observation wells throughout the aquifer and are representative of the aquifer.

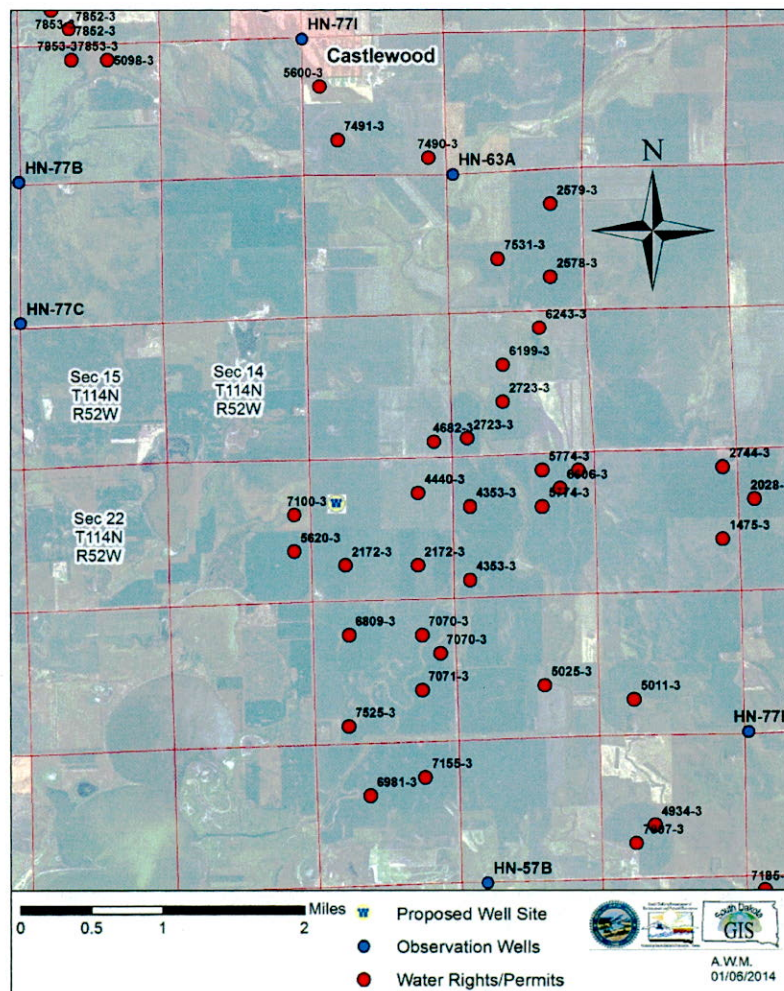


Figure 1- Map of the area around Application No. 7928-3 (Water Rights, 2014a)

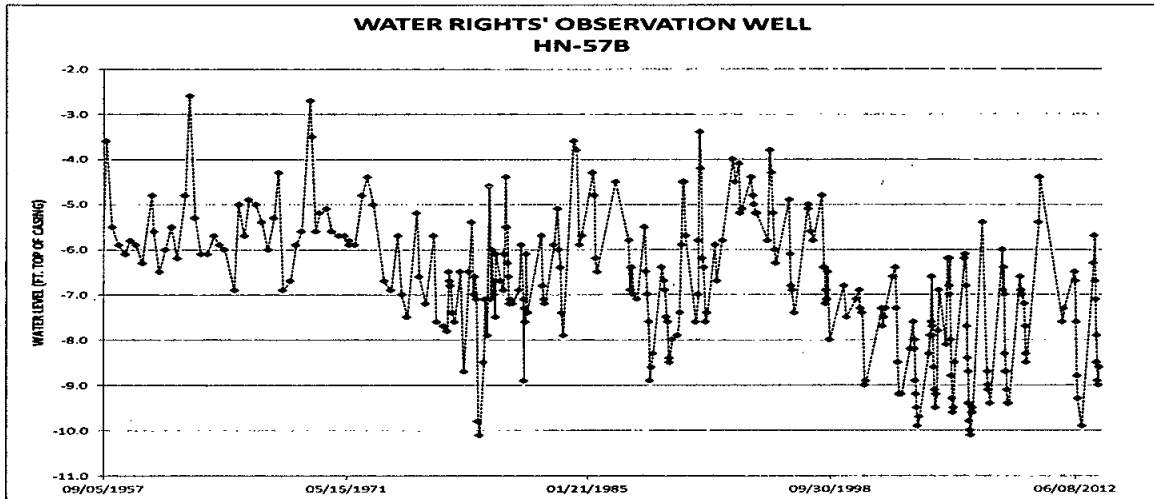


Figure 2- Hydrograph of DENR-Water Rights' observation well HN-57B (Water Rights, 2014a)

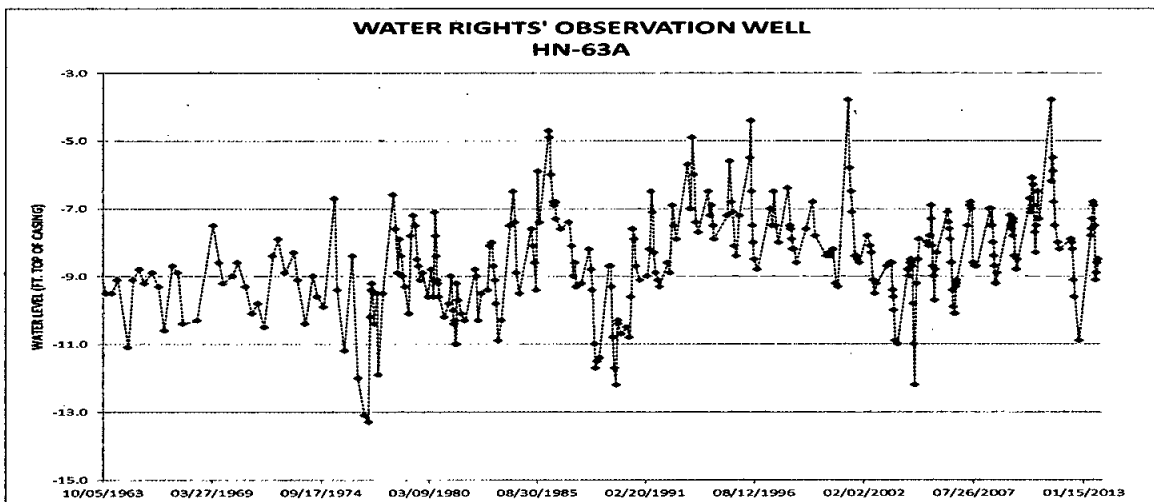


Figure 3- Hydrograph of DENR-Water Rights' observation well HN-63A (Water Rights, 2014a)

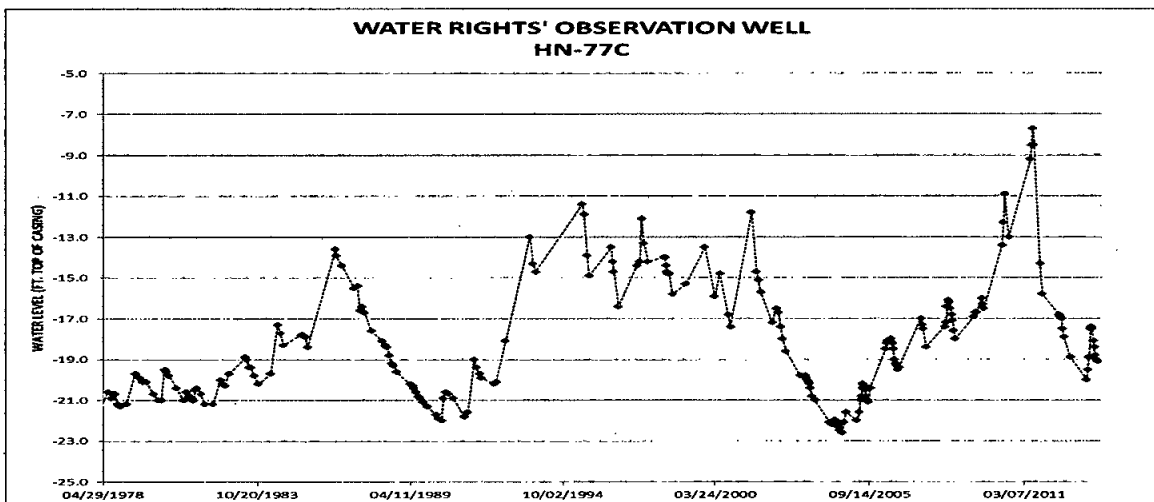


Figure 4- Hydrograph of DENR-Water Rights' observation well HN-77C (Water Rights, 2014a)

EXISTING WATER RIGHTS:

There are eight water rights/permits that authorize wells within approximately one mile of the proposed well site (Water Rights, 2014b). These water rights/permits are shown in Table 3 and in Figure 1. There are also a number of domestic wells on file with the SD DENR-Water Rights Program within approximately one mile of the proposed well site (Water Rights, 2014c). The nearest domestic well on file with the SD DENR-Water Rights Program is approximately 0.5 miles northeast of the proposed well site (Water Rights, 2014c). The nearest well authorized by a water right/permit, Water Permit No. 7100-3, is approximately one-quarter mile west of the proposed well site (Water Rights, 2013b).

Permit No.	Name	Status	Use	CFS	Acres
2172-3	Randy H. Hanson	LC	IRR	3.56	264
2723-3	Wayne Jansen	LC	IRR	2	140
4353-3	Claremont Httm Brethren	LC	IRR	2.7	188
4440-3	Randy H. Hanson	LC	IRR	1.78	131
4682-3	Randy H. Hanson	LC	IRR	1.71	125
5620-3	Randy H. Hanson	LC	IRR	1.77	126
6809-3	Walseth-Purcell Partnership	LC	IRR	1.78	140
7100-3	Bradley Jongeling	PE	IRR	2	80
LC= Water Right, PE= Water Permit, IRR= Irrigation					

Table 3- Water Rights/Permits within approximately one mile of proposed well site (Water Rights, 2014b)

In the past, the Water Management Board has recognized that to place water to maximum beneficial use, a certain amount of drawdown may occur. Since the aquifer is under unconfined conditions drawdown due to pumping would not be significant far from the proposed well site. There has also been a history of large capacity wells in the area as evidenced by the large number of irrigation wells in the area. Therefore, nearby adequate wells are not expected to be adversely or unlawfully impaired by the proposed diversion.

The Big Sioux: Brookings aquifer is a relatively thin aquifer with a limited amount of water in storage. While the average annual withdrawal would not exceed average annual recharge to the aquifer, conditions may occur when the withdrawal exceeds recharge. When this occurs, water will be removed from storage, consequently reducing the saturated thickness of the aquifer. If the saturated thickness is reduced to the extent that water rights/permits can no longer pump at their developed or "historically established" diversion rates, this may be considered an adverse impact. If approved, the water permit should include a qualification that the well owner should control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.

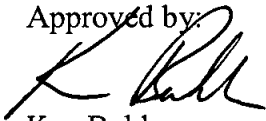
CONCLUSIONS:

1. Water Permit Application No. 7928-3 proposes to appropriate water at a maximum diversion rate of 1.78 cfs from the Big Sioux: Brookings aquifer for the irrigation of 160 acres.
2. There is a reasonable probability that unappropriated water is available for this proposed appropriation.
3. There is a reasonable probability that the diversion rate requested by this application can be made without adversely impacting existing water rights/permits and domestic users.



Adam Mathiowetz
SD DENR-Water Rights Program

Approved by:



Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

Friedeman, B. Personal Communication. SD DENR-Drinking Water Program. July 9, 2013.

Hedges, L.S., Allen, J., Holly D.E., 1985, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 7: Ground Water Recharge; U.S. Army Corps of Engineers Contract DACW 45-80-C-0185.

Hedges, L.S., S.L. Burch, D.L. Iles, R.A. Barari, and R.A. Schoon. 1982. Evaluation of Ground-water Resources in Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa. Task 1: Bedrock Topography and Distribution, Task 2: Extent of Aquifers, Task 3: Ground-Water Storage, Task 4: Computerized Data Base, Final Report; U.S. Army Corps of Engineers Contract DACW 45-80-C-0185.

Koch, N.C. 1980. Appraisal of the Water Resources of the Big Sioux Aquifer, Brookings, Deuel, and Hamlin Counties, South Dakota. Water-Resources Investigations Report 80-100. USGS, Huron, South Dakota.

Kume, J. 1985. Water Resources of Deuel and Hamlin Counties, South Dakota. Water-Resources Investigations Report 84-4069. USGS, Huron, South Dakota.

Water Rights. 1979-2013. "1979-2012 Irrigation Summaries by Aquifer": SD DENR-Water Rights Program, Joe Foss Building, Pierre, SD.

Water Rights. 2014a. Observation Well Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.

Water Rights. 2014b. Water Right/Permit Files. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.

Water Rights. 2014c. Well Completion Reports. SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.

RECEIVED

FEB - 7 2014

WATER RIGHTS
PROGRAM

Form 8

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County of Hamlin) SS

I, Lee Anne Dufek

certify that the attached printed Notice was taken

from the Hamlin County
Herald Enterprise

printed and published in Hayti
County of Hamlin and

state of South Dakota. The notice was published

in the newspaper on the following date:

Feb 5, 2014

Cost of Printing \$22.44

Lee Anne Dufek
(Signature)

Owner
(Title)

2-5-14
(Date Signed)

NOTICE OF APPLICATION
NO. 7928-3 TO
APPROPRIATE WATER

Notice is given that Kevin Kan-nas, 45410 186th St, Hayti SD 57241 has filed an application for a water permit to appropriate 1.78 cubic feet of water per second from one well to be completed into the Big Sioux:Brookings Aquifer (60 feet deep) located in the SW 1/4 NW 1/4 Section 24 for irrigation of 160 acres located in the NW 1/4 Section 24; all in T114N-R52W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7928-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on this application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to

the applicant and any person filing a petition.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by February 17, 2014.

The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained. Contact Eric Gronlund at the above Water Rights Program address to request copies of information pertaining to this application. Steven M. Pimer, Secretary, Department of Environment and Natural Resources.

Published Feb. 5, 2014, at total cost of \$22.44.

Feb. 5, 2014 / 11

RECEIVED

FEB 10 2014

WATER RIGHTS
PROGRAM

Form 8

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County of Codington) SS

I, Monica K. Saathoff

certify that the attached printed Notice was
taken

from the Watertown Public Opinion

printed and published in Watertown

County of Codington and

state of South Dakota. The notice was
published

in the newspaper on the following date:

February 5th, 2014

Cost of Printing \$50.76

DEPARTMENT OF ENVIRON- MENT AND NATURAL RESOURCES

NOTICE OF APPLICATION NO. 7928-3 TO APPROPRI- ATE WATER

Notice is given that Kevin Kannas, 45410 186th St, Hayti SD has filed an application for a water permit to appropriate 1.78 cubic feet of water per second from one well to be completed into the Big Sioux:Brookings Aquifer (60 feet deep) located in the SW 1/4 NW 1/4 Section 24 for irrigation of 160 acres located in the NW 1/4 Section 24; all in T114N-R52W.

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All legal notices in the Public Opinion and other South Dakota newspapers can be found at
www.sdpublishnotices.com

Monica K. Saathoff
(Signature)

Bookkeeper

(Title)

February 5th, 2014

(Date Signed)



DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov



January 30, 2014

Hamlin Co Herald Enterprise
PO Box 207
Hayti SD 57241

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 7928-3 to Appropriate Water. Please publish the notice once on February 5, 2014. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

The applicant must verify to you that the notice is to be published and arrange for payment. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is Kevin Kannas, 45410 186th St, Hayti SD 57241 (Ph # 605-783-3442).

Please send the Water Rights Program an affidavit or the enclosed Proof of Publication form immediately.

The applicant pays the cost of publication, but the Water Rights Program records require an affidavit or Proof of Publication. Delays in receiving the affidavit can be costly to the applicant.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov



January 30, 2014

Public Opinion
PO Box 10
Watertown SD 57201

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Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov



**NOTE: TO BE SURE OF PUBLICATION ON
THE CORRECT DATES, CONTACT
THE NEWSPAPER(S) RIGHT AWAY.**

January 30, 2014

Kevin Kannas
45410 186th St
Hayti SD 57241

Dear Mr. Kannas:

Water Permit Application No. 7928-3 for irrigation use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Hamlin Co Herald Enterprise printed at Hayti SD (Ph # 605-783-3636) and the Public Opinion printed at Watertown SD (Ph # 605-886-6901). You will need to contact the newspaper(s) and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspaper(s) to authorize publication of your Notice and to arrange for payment. Early contact with the paper(s) can eliminate delays. Upon receiving authorization from you, the publisher has been instructed to publish your notice. The newspaper has also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352
enclosures

NOTE: If you plan to contest any part of the Chief Engineer's recommendation, you must file a petition pursuant to the procedures outlined in the attached notice of hearing. The Water Management Board will then consider your concerns during a hearing on the application.

Instruction to Newspaper - Publish the Notice on February 5, 2014. The applicant is responsible for payment. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352 or email: Karen.schlaak@state.sd.us.

NOTICE OF APPLICATION NO. 7928-3 to Appropriate Water

Notice is given that Kevin Kannas, 45410 186th St, Hayti SD 57241 has filed an application for a water permit to appropriate 1.78 cubic feet of water per second from one well to be completed into the Big Sioux:Brookings Aquifer (60 feet deep) located in the SW 1/4 NW 1/4 Section 24 for irrigation of 160 acres located in the NW 1/4 Section 24; all in T114N-R52W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7928-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest. In accordance with SDCL 46-2A-23, the Chief Engineer will act on this application, as recommended, unless a petition is filed opposing the application or the applicant files a petition contesting the Chief Engineer's recommendation. If a petition opposing the application or contesting the recommendation is filed, then a hearing will be scheduled and the Water Management Board will consider this application. Notice of the hearing will be given to the applicant and any person filing a petition.

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Published once at the total approximate cost of _____.



DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov



FEB 27 2014

Kevin Kannas
45410 186th St
Hayti SD 57241

Dear Mr. Kannas:

Enclosed is Water Permit No. 7928-3 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

Form 10, *Notice of Completion of Works and Application of Water to Beneficial Use*, is enclosed. Please return this completed form after you have finished the system and have put the water to beneficial use. An investigation can then be scheduled so the water license may be issued, thus completing the acquisition of a water right.

An informational sheet *Common Water Right Questions?* is also enclosed. This sheet is intended to answer some of the questions associated with obtaining and keeping a water right.

Sincerely,

Jeanne Goodman, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

7928-3
RECEIVED

SEP 24 2014

WATER RIGHTS
PROGRAMNOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USEDate 9-22-14TO: Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181FROM: Kevin Kannas
(name)
45410 186th ST,
(address)
Hayti South Dakota 57241 605-880-1317
(city, state, zip) (phone)

I have completed the construction of the water use system and I have put the water to beneficial use to the maximum extent it is going to be used.

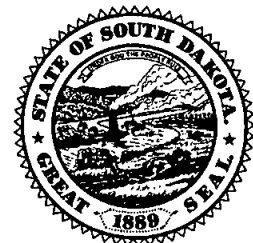
Water Permit No. 7928-3 states that the water use system is to be constructed by
2-17-2019, and water is to be put to beneficial use by 2-17-2023.
(date) (date)

The water use system was completed on 6-25-14.
(date)

Applying the water to beneficial use was completed on 7-2-14.
(date)

You may schedule an investigation so that the water license may be issued.

Kevin Kannas
(signature)





**DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov



September 24, 2014

7928-3

Kevin Kannas
45410 186th St
Hayti SD 57241

Dear Mr. Kannas:

I am writing to acknowledge receipt of the "Notice of Completion of Works" form that you sent in to let us know that you are completed with your irrigation system as authorized under Water Permit No. 7928-3.

The system is now ready for inspection. Inspections are done on a county-by-county basis as staff time permits. You have done everything you need to do and the intervening time between the completion of your project and the staff inspection has no bearing on your water permit.

Someone from our office will contact you prior to the inspection to set up a time that is convenient for you. If you have any questions, please contact me.

Sincerely,

Genny McMath
Water Rights Program
(605) 773-3352
email: genny.mcmath@state.sd.us

7928-3

The System was done on July 12th and was started at that time.

I put on about $\frac{7}{10}$'s of inch of water 3 times in July. The last week of July I put on 28% fertilizer.

The pivot run once in August the 6th and 7th which I put on 28% fertilizer at that time. Rest of the month was rain and fog.

Total hrs on pivot 177 this year

RECEIVED

NOV 04 2014

WATER RIGHTS
PROGRAM

7928-3

SD EForm - 1621LD V1

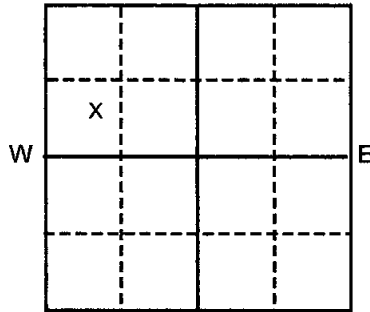
SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW ¼ NW ¼ Sec 24 Twp 114N Rg 52W

County HAMLIN

North

Please mark well
location with an "X"

Well Completion Date

06-17-14

1 Mile

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?
ft. from (identify source)

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test holes
☒ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

ROTARY DRILL

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
40.0 LB/FT	12.00 IN	0.0 FT	45.0 FT	18.00 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Grt Well DF	17	54.0 Lb/gal	0.0 Ft	45.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure

TREMIE

SCREEN:

☐ Perforated pipe ☒ Manufactured

Diameter 12.00 Inches Length 15.0 Feet

Material SS

Slot Size .080 Set From 45.0 Feet to 60.0 Feet

Other information

WAS A PACKER OR SEAL USED?

☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☐ Yes, How?
☐ No, Why Not?
Lab to which water
quality sample sent for analysis

Well Owner: KEVIN KANNAS

Business Name:

Address: 18665 459TH AVE

City, State, Zip: CASTLEWOOD SD 57223

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
TOP SOIL	0	2.5
YELLOW MIXED GRAVEL	2.5	20
YELLOW CLAY	20	23
GRAVEL COURSE-MED	23	34
GRAVEL COURSE	34	50
GRAVEL MED	50	60

STATIC WATER LEVEL 9.4 FEET

If flowing: closed in pressure PSI

GPM flow through Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other

Reduced flow rate GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped Describe: SUBMERSIBLE PUMP
☐ Bailed
☐ Other

Pumping Level Below Land Surface

38.0 Ft. After 9.0 Hrs. pumped 1,000.0 GPM

Ft. After Hrs. pumped GPM

If pump installed, pump rate: GPM

REMARKS

GRUNDFOS 800S500-2 W/ 50 HP FRANKLIN

RECEIVED

JAN 3 2015

WATER RIGHTS
PROGRAM

This well was drilled under license # 689 and this report is true and accurate.

Drilling firm: KAISER WELL DRILLING INC

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date:

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 7928-3

I have this day, April 1, 2015, made a thorough examination of the water use system constructed by Kevin Kannas, 45410 186th St., Hayti SD 57241 holder of Permit No. 7928-3, bearing the priority of December 2, 2013 authorizing the diversion of 1.78 cu. ft. per second of the waters of Big Sioux Brookings aquifer for irrigation purposes, in Hamlin County.

Inspection contact & relationship **Kevin Kannas**
to permit holder, if applicable:

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Kaiser Well Drilling
- 2) No. of Wells 1
- 3) Depth(s) 60 feet
- 4) Well log is available Y

Screen:

- 1) Type Stainless steel
- 2) Length 15 feet
- 3) Static water level 9.4 feet

Casing:

- 1) Diameter 12 inches
- 2) Length 45 feet
- 3) Type Plastic

Motor/Pump:

- 1) Make Grunfos
- 2) Model 800S500-2
- 3) Size 50 hp Franklin
- 4) Capacity 1,000 GPM

B. Works used to transport water to place of use:

- 1) Type PVC
- 2) Size 8 inches
- 3) Length 600 feet

C. Works used to apply water to beneficial use:

Center pivot:

- 1) Make Reinke
- 2) Number of towers 7
- 3) End gun Y
- 4) Capacity 800 GPM

Chemigation Equipment:

- 1) Does chemigate Y
- 2) Main line check valve Y
- 3) Inspection port/air relief Y
- 4) Low pressure drain Y

Chemigation continued

- 5) Discharge is 20' from source not without hose
- 6) Interlock type Electric
- 7) Injection pump type not on site
- 8) Injection check valve not on site
- 9) Injection line check valve or positive displacement pump not on site

Comments: **Assuming the injection pump includes the needed check valve and a hose for the low pressure drain is installed, then the setup should comply with chemigation standards.**

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by Y
- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period Y List any extended period of nonuse: none
- 3) Exceptions to compliance are: none

E. Condition and Location:

1. The system is in good condition with the point(s) of diversion located as follows: Well: 940 feet east and 1,800 feet south from NW corner of section 24-T114N-R52W (SW1/4 NW1/4 – Latitude 44.66899, Longitude – 97.02341).
2. The works are capable of diverting and conveying to the place of use 1.78 cu. ft. per second of water which is to be used for irrigation. Water has been put to beneficial use to the maximum extent as follows:

All in section 24-T114N-R52W

NW1/4 NW1/4 – 34 acres
NE1/4 NW1/4 – 34 acres

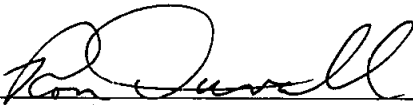
SE1/4 NW1/4 – 34 acres
SW1/4 NW1/4 – 34 acres

comprising a total of 136 acres of land and the license should be issued for 1.78 cfs.

3. All structures, wells and lands on map Y

F. Comments or other permit(s) associated with the project:

Well test pumped at 1,000 gpm but installed pump rate to operate pivot is 800 gpm (1.78 cfs).



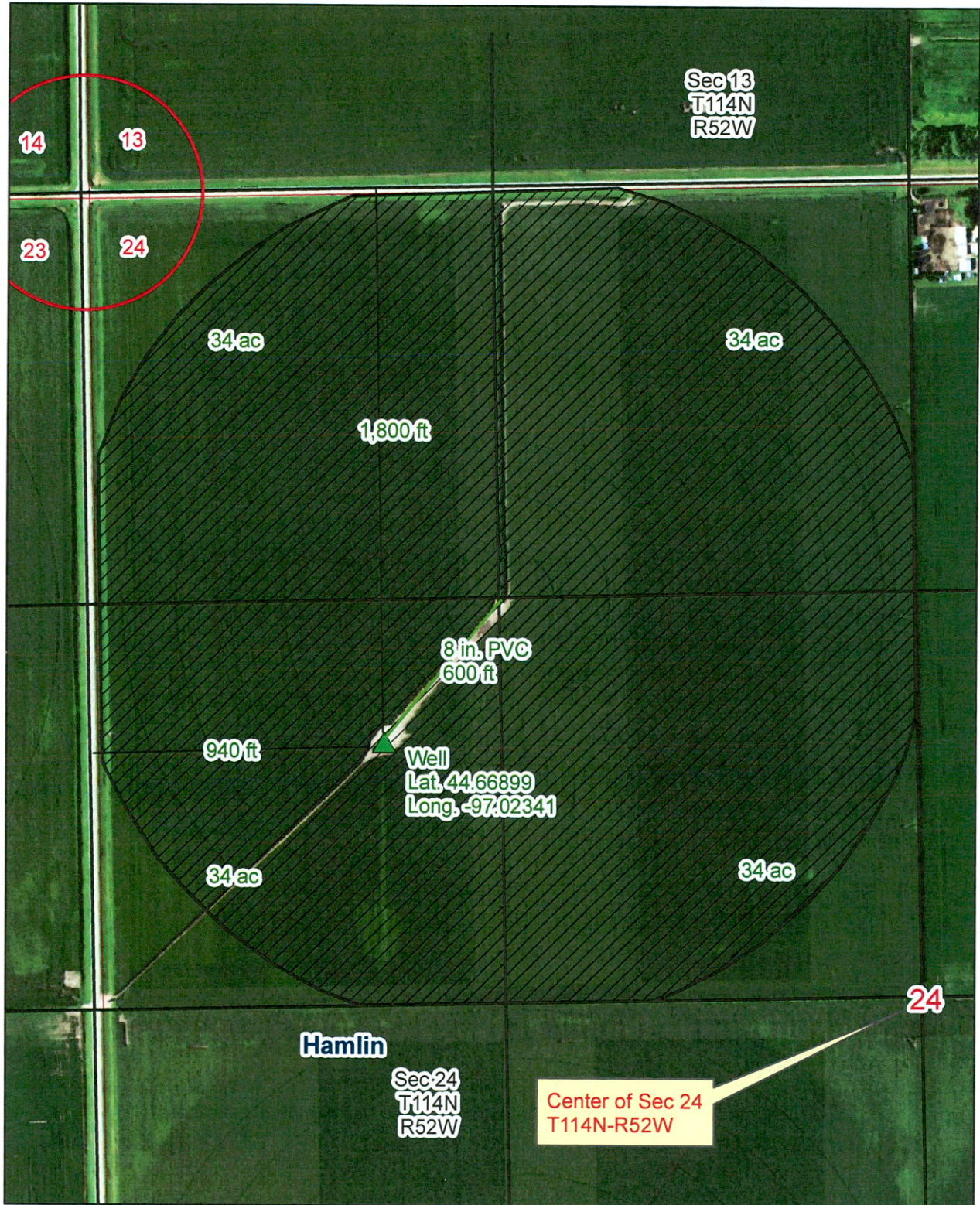
Ron Duvall
Water Rights Permitting Administrator
DENR, Water Rights Program

Date report completed: January 19, 2016

Scale: 1 inch = 480 feet

670

Feet



South Dakota
Department of Environment
& Natural Resources
Water Rights

Completed by:

Ron Duvall
Ron Duvall, WR Permitting Administrator
Water Rights Program

Diversion point(s) located using a Garmin eTrex 10 GPS

Date: Jan. 19, 2016

Water Right No. 7928-3



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
<http://denr.sd.gov>

FEB 01 2016

7928-3

Kevin Kannas
45410 186th St
Hayti SD 57241

Dear Mr. Kannas:

Enclosed is Water License No. 7928-3. This is the final water right document completing your process of obtaining a Water Right. Included with your license is a map prepared by the staff engineer who conducted the field investigation.

For your information SDCL 46-6-27 requires that if the owner of an existing well, such as the well authorized by Water Right No. 7928-3, constructs a replacement well and does not plan to use the old well, the old well is considered abandoned and must be plugged. Also, any well that is being used or is not considered abandoned must be valved and controlled, if flowing, or sealed and capped so that no leaking occurs either underground or at the surface.

As long as you use the water beneficially, as stated in the Water License, the State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Sincerely,

Jeanne Goodman, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 7928-3**

(1) Kevin Kannas, 45410 186th St, Hayti SD 57241 made Application No. 7928-3, December 2, 2013 for a water permit to divert 1.78 cubic feet of water per second from ground water (one well, Big Sioux Brookings Aquifer), Hamlin County, South Dakota for irrigation purposes. Permit No. 7928-3, with a priority date of December 2, 2013 was approved February 17, 2014 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before February 17, 2019 and for the application to beneficial use of said water on or before February 17, 2023.

The Permit holder submitted a "*Notice of Completion of Works and Application of Water to Beneficial Use*" on September 24, 2014. The "*Notice*" stated the water use system was completed on June 25, 2014 and the water placed to beneficial use on July 2, 2014.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 1.78 cubic feet of water per second for beneficial use. The location of the diversion point is:

- 940 feet east and 1,800 feet south of the NW corner of Section 24, T114N, R52W (SW $\frac{1}{4}$ NW $\frac{1}{4}$).

(3) The permit holder has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use to irrigate the following land:

T114N, R52W Section 24	NW $\frac{1}{4}$ NW $\frac{1}{4}$	34 acres
	NE $\frac{1}{4}$ NW $\frac{1}{4}$	34 acres
	SE $\frac{1}{4}$ NW $\frac{1}{4}$	34 acres
	SW $\frac{1}{4}$ NW $\frac{1}{4}$	34 acres
	Total	136 acres

(4) Pursuant to South Dakota Water Law 46-5-30.1 Kevin Kannas, 45410 186th St, Hayti SD 57241 the holder and/or owner of Water Right No. 7928-3 is issued a license to appropriate water, the right to use 1.78 cubic feet of water per second from ground water (one well, Big Sioux Brookings Aquifer) with a priority date of December 2, 2013 from the location specified in (2) of this license for irrigation purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 7928-3 and subject to the following qualifications:

- The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
- The well authorized by Permit No. 7928-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with the Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28. ***The well was completed in June, 2014 by Kaiser Well Drilling Inc. A copy of the well log is on file with the Water Rights Program.***

continued

- This Permit is approved subject to the irrigation water use questionnaire being submitted each year.



Jeanne Goodman, Chief Engineer

Water Rights Program

Department of Environment and Natural Resources

FEB 01 2016

date

