

WATER PERMIT NO. 7975-3

Name of Applicant: **Dennis K Flemming**

Address: **16246 447th Ave, Florence SD 57235**

Phone: **605 881-4656**

Amount of Water Claimed: **1.89 cfs**

Total Acres: **148.8**

Source of Water Supply: **groundwater (2 wells)**

Water to be used for: **irrigation**

County: **Codington**

Type of Waste Disposal System:

Location: **3 miles north of South Shore**

PRIORITY

Date Received: **2-12-14**

Application/License Fee: **\$ 1050**

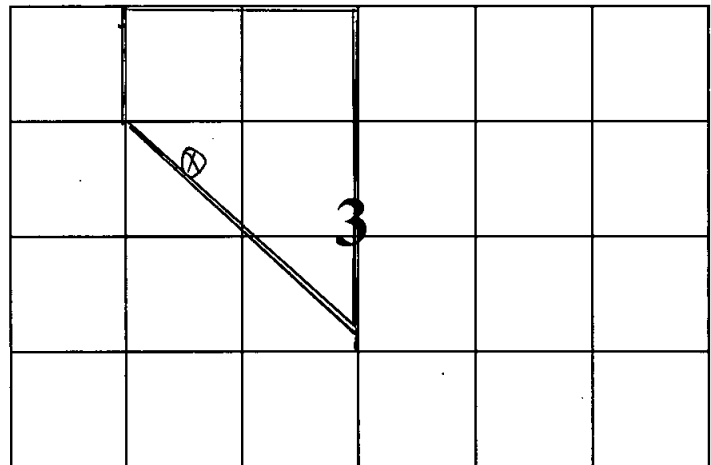
Corrected Application Received: **2-26-14**

Period of Annual Use: **May 1 – Sept 30**

Remarks:

Diversion Point: **SW 1/4 NW 1/4 Sec 3-T119N-R51W**

Land to be Irrigated: **NW 1/4, NE 1/4 SW 1/4 Sec 3-T119N-R51W**



Depth of Well: **75 – 50 feet deep**

Well Driller: **Thein Well**

Remarks:

Type of Map: **aerial**

Prepared by:

Reviewed and the Number Assigned on: **2-26-14**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

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

No. 7975-3 (office use only)
Hydrologic Unit 10170202
Basin Sioux River
Newspaper Public Opinion P.O. Box 10
Watertown 57201-605-886-6901

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.)

Dennis K Flemming or Mary R Flemming

1. Name to Appear on Irrigation Permit Dennis K Flemming
(check one) ☒ Owner ☐ Tenant/lessee ☐ Owner's Legal Agent _____
(name and complete address if different than above name)

Mailing Address 16246 447th Ave Florence SD 57235
(Address) (City) (State) (Zip Code)

Home Phone _____ Cell 605 881-4656 Email M D Flemming @ Hot Mail . Com

2. Amount of water claimed 1.89 *CFS or 850 **GPM 850 ***AF Total Acreage 148.8
(*Cubic Feet per Second) (**Gallons per Minute) (***) Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply 2 wells (SW 1/4 NW 1/4)

4. Location of point of diversion _____
(example - 3 wells in SW 1/4 NE 1/4 section 12-T104N-R53W)

Sec 3 NW County Codington

5. County or counties where water will be used Codington

6. Annual period during which water is to be used May thru Sept.

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
<u>NW 1/4 NW 1/4</u>	<u>39.0</u>	<u>E 1/2 NE 1/4 SW 1/4</u>	<u>18.0</u>
<u>SW 1/4 NW 1/4</u>	<u>14.3</u>		
<u>NE 1/4 NW 1/4</u>	<u>39.0</u>	<u>all in Sec 3 - T104N-R51W</u>	
<u>SE 1/4 NW 1/4</u>	<u>38 1/2</u>		

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

I, Dennis K Flemming, 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. 7975-3**

Date of first receipt of application February 12, 2014.

Date of return to applicant for corrections, amendments or changes February 12, 2014.

Date of receipt of corrected application February 26, 2014.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7975-3 to Dennis K Flemming, 16246 447th Ave, Florence SD 57235 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. 7975-3 appropriates 1.89 cubic feet of water per second from two wells to be completed into the Antelope Valley Aquifer (50-75 feet deep) located in the SW 1/4 NW 1/4 Section 3 for irrigation of 148.8 acres located in the NW 1/4, NE 1/4 SW 1/4 Section 3; all in T119N-R51W.
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: May 1 – September 30.
3. The date from which applicant may claim right is February 12, 2014.
4. The date of approval of Permit No. 7975-3 is May 19, 2014.
5. One-fifth of the construction is to be completed on or before November 19, 2016.
6. All construction is to be completed on or before May 19, 2019.
7. Water is to be put to beneficial use on or before May 19, 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 wells 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 wells authorized by Permit No. 7975-3 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

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

MAY 30 2014

date



FEB 26 2014

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Form 2A

(Complete applicable portions only)

Supplemental Information

(type or print)

1. Well Information (check one or both as applicable) ☒ Drilling new well(s) ☐ Using existing well(s)a) If new wells, how many _____ Have test holes been drilled ☒ Yes ☐ No Drilled by _____
(if yes, please provide copies of logs)

b) If existing wells, how many _____ Provide copy of log(s), if available. Drilled by _____

* c) Well Depth 75 or 50 ft Depth to Top of Water Bearing Material _____ Depth to Water from Surface _____

d) Distance to nearest existing domestic well:

On applicant's property _____ On property owned by others Approx 1 mile

2. Wastewater Disposal System Information

a) Type of System (i.e. septic tank, drain field) _____

b) System Capacity (gallons) _____ Year Constructed _____

c) Connected to the City of _____ Sanitary System

3. Dugout Information

a) Surface Dimensions _____ Depth _____

b) Depth to water (ground surface to water level) _____

4. Water Storage Dams

If the proposed water use system contains one or more storage dams, please furnish the information requested below for each dam. The locations of the dams need to be shown on the map submitted with the application.

a) If a private engineering firm or government agency was involved in the design of this dam, please give their name and address:

b) Freeboard _____

c) Crest Width _____

Crest Length _____

d) Height _____

e) Primary Outlet Capacity _____

If pipe, diameter _____

f) Secondary Spillway Capacity _____

Spillway Width _____

g) X & Y Slope (e.g. 3 to 1 is a typical slope)

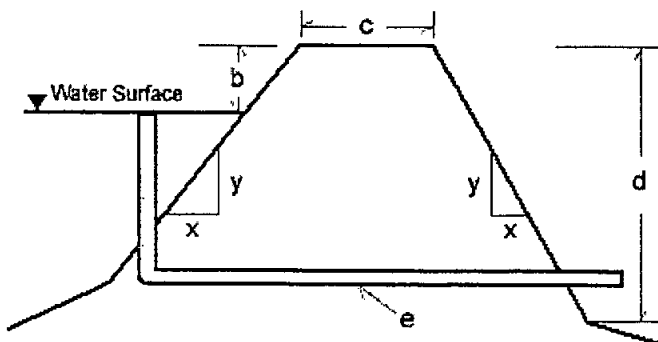
Upstream _____

Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres





United States Department of Agriculture
Farm Service Agency

PLSS: 3_119N_51W
Farm: 1017

Codington County

1:8,868



June 07, 2012

Disclaimer: Wetland identifiers 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.

Wetland Determination Identifiers

- Restricted Use
- ▽ Limited Restrictions
- Exempt from Conservation Compliance Provisions

Common Land

Non Cropland

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2010 Ortho-Photography - Not to Scale



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#1

THEIN WELL CO. - WELL LOG

Customer:

J. Thayer

Location:

GPS:

N 45 08.574
W 096 56.375

Elev:

Hole Size:

6

Date:

10-22-13

Well Size:

TEST HOLE

Well Depth:

100 ft

Screen Data:

Type:

Cist:

S.W.L.:

P.L.:

GPM:

Driller:

Rae

Helper:

Nathan

Grout: from

100

to

0

ft

6

bags

FORMATION LOG	FROM	TO
Topsoil	0	6
Course sand & pebbles	6	40
Fine to med sand	40	60
Fine med & coarse	60	77
Blue clay	77	91
Pebbles	91	92
Blue clay w/ trace	92	100
#1		
APR N 45 08.574		
W 096 56.375		

2 THEIN WELL CO. - WELL LOG

Customer:

Thyem

Location:

GPS:

N 45 08.719
W 096 56.513

Elev:

Hole Size:

6

Date:

10-22-13

Well Size:

TEST HOLE

Well Depth:

40 ft

Screen Data:

Type:

Slot:

S.W.I.

P.L.

GPM.

Operator:

Helper:

Grout: from

60

to

0

ft

4

bags

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WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 2/12, 20 14

RECEIVED OF Dennis K Flemming 16246 447th Ave Florence SD 57235

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

Fee for Application for Permit No. <u>7975-3</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. <u>7975-3</u>	200	00
Fee for Filing Transfer Form _____		
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. **06746**

By Jeanne Goodman
Chief Engineer



DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

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February 12, 2014

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WATER RIGHTS
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Dennis K Flemming
16246 447th Ave
Florence SD 57235

Dear Mr. Flemming:

Thank you for submitting the *Application for a Permit to Appropriate Water* for irrigation in Codington County. In order to complete the application, the following is required.

- Enclosed is the Form 2A, Supplemental Information. On Item No. 1 regarding the Well Information, please complete c) Well Depth with the proposed well depth. Also, you indicate test holes have been drilled. If available, please send us a copy of the test hole log(s).

If you have any questions, please contact me.

Sincerely,

Karen Schlaak

Karen Schlaak
Water Rights Program
605 773-3352

Test hole # 1 75 ft.
Test hole # 2 50 ft.

enclosure



THEIN WELL

P.O. BOX 778, 11355 HWY. 71 NE (ACROSS FROM RINGO LAKE)
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www.theinwell.com • E-mail: theinwell@tds.net

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November 8, 2013

Jim Thyen
46220 165th St.
Watertown, SD 57201

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Dear Jim,

After the sieve analysis was performed from the sample formation obtained by our drillers for two test holes on October 22, 2013 at GPS locations N 45 08.574 W 096 56.375 (1st), and N 45 08.719 W 096 56.513 (2nd). It is not likely that 750 gallons per minute would be obtained at either of these locations.

However, it is possible that you might be able to get 300 plus gallons per minute at each location. What you could do is drill multiple wells and tie them together to deliver adequate water to the irrigator.

However, we at Thein Well Co. feel that the most cost effective option would be to put a 6" PVC test well in at the first test hole location at a depth of 75'. The advantage of the test well is that you can get the well to pump 200-300 gallons per minute, which would give you a good understanding as to how much water is available to pump. Keep in mind that there's still no guarantee that there is even 200-300 gallons per minute in either location.

If you choose to not drill the 6" test well, and put the production well in and it turns out to not be very productive, we would try to pull the materials (casing and screen out) but you would still be charged a rate of ½ the price of the well.

The following are estimates for a 6" test well and 12" irrigation well:

ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
Mobilization	LS	1	1,500	\$ 1,500.00
Bore Hole w/6" PVC Casing	FT	75	36	\$ 2,700.00
6" Slotted PVC well screen	FT	20	55	\$ 1,100.00
Grout	Cu/Ft	17	24	\$ 408.00
Gravel Pack	Cu/Ft	6	24	\$ 144.00
Development	HR	6	195	\$ 1,170.00
Grand Total				\$ 7,022.00

ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
Mobilization	LS	1	1,500	\$ 1,500.00
Bore Hole w/12" Steel Casing	FT	75	140	\$ 10,500.00
12" Stainless Steel Well Screen	FT	20	240	\$ 4,800.00
Grout	Cu/Ft	30	24	\$ 720.00
Gravel Pack	Cu/Ft	12	24	\$ 288.00
Development	HR	12	195	\$ 2,340.00
Grand Total				\$ 20,148.00

CLARA CITY, MN 56222 (320) 847-3207 • MONTICELLO, MN 55362 (763) 271-4200 • ROCHESTER, MN 55906 (507) 288-5554

MEMBER
NGWA

CERTIFIED MASTER WATER WELL CONTRACTOR
Equal Opportunity Employer

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**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 7975-3, Dennis K Flemming**

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. 7975-3, Dennis K Flemming, 16246 447th Avenue, Florence SD 57235.

The Chief Engineer is recommending APPROVAL of Application No. 7975-3 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 wells 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 wells authorized by Permit No. 7975-3 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
April 25, 2014

**REPORT TO THE CHIEF ENGINEER
WATER PERMIT APPLICATION NO. 7975-3
DENNIS K FLEMMING
APRIL 10, 2014**

Water Permit Application No. 7975-3 proposes to divert water at a maximum rate of 1.89 cubic feet per second (cfs) from two wells completed into the Antelope Valley aquifer at a depth of approximately 50-75 feet below ground surface. The wells will be located in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 3, T119N-R51W and will be used to irrigate 148.8 acres located in the NW $\frac{1}{4}$ NW $\frac{1}{4}$ (39 acres), SW $\frac{1}{4}$ NW $\frac{1}{4}$ (14.3 acres), NE $\frac{1}{4}$ NW $\frac{1}{4}$ (39 acres), SE $\frac{1}{4}$ NW $\frac{1}{4}$ (38.5 acres), and the E $\frac{1}{2}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ (18 acres) of Section 3, T119N-R51W in Codington County.

AQUIFER: Antelope Valley aquifer (AV)

GEOLOGY AND AQUIFER CHARACTERISTICS:

The Antelope Valley aquifer is a glacial outwash formation consisting of brown coarse sand and gravel that lies at or near ground surface and is generally under water table conditions. The aquifer lies in the drainage divide between the Big Sioux and Minnesota Rivers located in western Grant, northeastern Codington, and a small portion of Deuel County. Groundwater movement in the aquifer is generally from northwest to southeast and toward the numerous hydraulically connected lakes and sloughs (Hansen, 1990). In total, the Antelope Valley aquifer is estimated to underlie 28,700 acres and contain 64,580 acre-feet (ac-ft) of recoverable water in storage (Hedges et al., 1982).

In Grant and Codington Counties, the depth to the top of the aquifer ranges from one to 57 feet below ground surface with an average thickness of 34 feet (Hansen, 1990). Lithological records in the area of interest show aquifer material at a depth of approximately five feet below ground surface to 70 feet below ground surface with intermittent layers of clay (SDGS, 2014). Test hole logs were not submitted with the application.

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 the 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 existing rights from the aquifer that are pertinent to this application.

WATER AVAILABILITY:

This application proposes to appropriate 1.89 cfs from the Antelope Valley aquifer in order to irrigate 148.8 acres. If this application is approved, the actual water use will likely be less than 150 ac-ft/yr. The probability of unappropriated water being available from an 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 the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of the water to the groundwater source." If the source of 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 instance, a public water system is not involved and the aquifer is not older or lower than the Greenhorn Formation. Therefore, the issue of recharge/withdrawal must be addressed.

Hydrologic Budget:

Recharge:

Recharge to the Antelope Valley aquifer is by direct infiltration and subsequent percolation of rainfall and snowmelt through the overlying topsoil (Hansen, 1990). Hedges and others (1985) estimated a recharge rate of 2.3 in/yr using observation well data. Given the recharge rate and the size of the aquifer, the annual volume of recharge was calculated to be approximately 5,501 ac-ft/yr (Hedges et al., 1982).

Discharge:

Discharge from the Antelope Valley aquifer is by evapotranspiration where the aquifer is at or near the ground surface, outflow to local lakes, including Punished Woman's, Round, and Crooked lakes, and a series of small lakes and sloughs in T120N-R51W near the eastern edge of the aquifer, and well withdrawals (Hansen, 1990).

Currently, there are 17 appropriations from the Antelope Valley aquifer: 12 water rights/permits authorized for irrigation, two for municipal use in South Shore, and three for Grant Roberts Rural Water System. In addition, Future Use Permit No. 4053B-3 is in place reserving water for future development by the Town of South Shore (Water Rights, 2014b). The water pumped under the three water rights which belong to Grant Roberts County Rural Water System is shown in Table 1.

Year	Appropriation (ac-ft)	Pumpage (ac-ft)
2013	1074	920
2012	1074	887
2011	1074	844
2010	1074	881
2009	1074	874
2008	1074	890
2007	1074	875
2006	1074	835
2005	1074	645
2004	1074	792
2003	1074	761
Average	1074	836.7

Table 1: Water Use by the Grant Roberts Rural Water System (Water Rights, 2003-2013)

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 that the rights/permits limited by an annual volume will pump the entire volume appropriated (1,074 ac-ft/yr), water rights/permits limited by diversion rate will pump at

that rate 60 percent of the time (643 ac-ft/yr) and future use permits can be fully developed (192 ac-ft/yr).

Water pumped from the Antelope Valley aquifer for irrigation use is listed in Table 2. Although there are domestic wells completed into the Antelope Valley aquifer, domestic withdrawals are assumed to be a negligible component of the water balance.

The total average amount of water from the Antelope Valley aquifer used by permits/rights which are limited by diversion rate, future use permits, Grant Roberts Rural Water System, and irrigation is estimated to be 2,944.7 ac-ft/yr. This number was estimated to have been 4,072.5 ac-ft in 2012 due to dry conditions that year. However, the amount of water pumped annually by the Grant Roberts Rural Water System (shown in Table 1) has been consistently less than the amount appropriated on their various water rights, so the amounts listed are likely larger than reality. Both the average amount of water used and the maximum amount used in 2012 are less than the expected recharge volume of 5,501 ac-ft/yr. Therefore, unappropriated water is available from the Antelope Valley aquifer for the proposed application.

Year	No. of Permits Reporting	Appropriation (ac-ft)	Pumpage (ac-ft)
2012	10	5257	2163.54
2011	10	5257	886.68
2010	10	5257	1419.22
2009	9	5147	1281.3
2008	9	4727	989.29
2007	9	5425	1299.29
2006	9	5425	1937.34
2005	9	5425	1740.32
2004	9	5425	1595.86
2003	9	5425	2000.65
2002	9	5425	1533.72
2001	9	5425	1808.88
2000	9	5425	1608.24
1999	9	5425	1378.77
1998	9	5425	1136.25
1997	8	3925	932
1996	8	4198	1029.32
1995	10	5698	469.31
1994	10	5698	699.46
1993	11	5917	310
1992	11	5917	650
1991	12	5927	988
1990	10	4466	1606
1989	7	4096	1427
1988	7	4914	1826.8
1987	6	4866.1	645
1986	6	5106.1	41
1985	6	5106.1	49
1984	6	5106.1	136
1983	6	5276.1	542.79
1982	5	4194	60.75
1981	7	4881	513
1980	8	4881	435
1979	7	4735	73
Min	5	3925	41
Max	12	5927	2163.54
Avg	8.45	5137.74	1035.67

Table 2: Irrigation use from Antelope Valley aquifer (Water Rights, 1979-2012).

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 four observation wells completed into the Antelope Valley aquifer. The closest of these wells (GT-77G) is located approximately 2,000 feet to the northwest of the proposed well sites. Historic water levels in Observation Well GT-77G are shown in Figure 1.

Water levels in Observation well GT-77G reflect climatic conditions. Levels rise as the aquifer recharges during wet years and drop during dry years. Although the effects of pumping are visible, they are not significant.

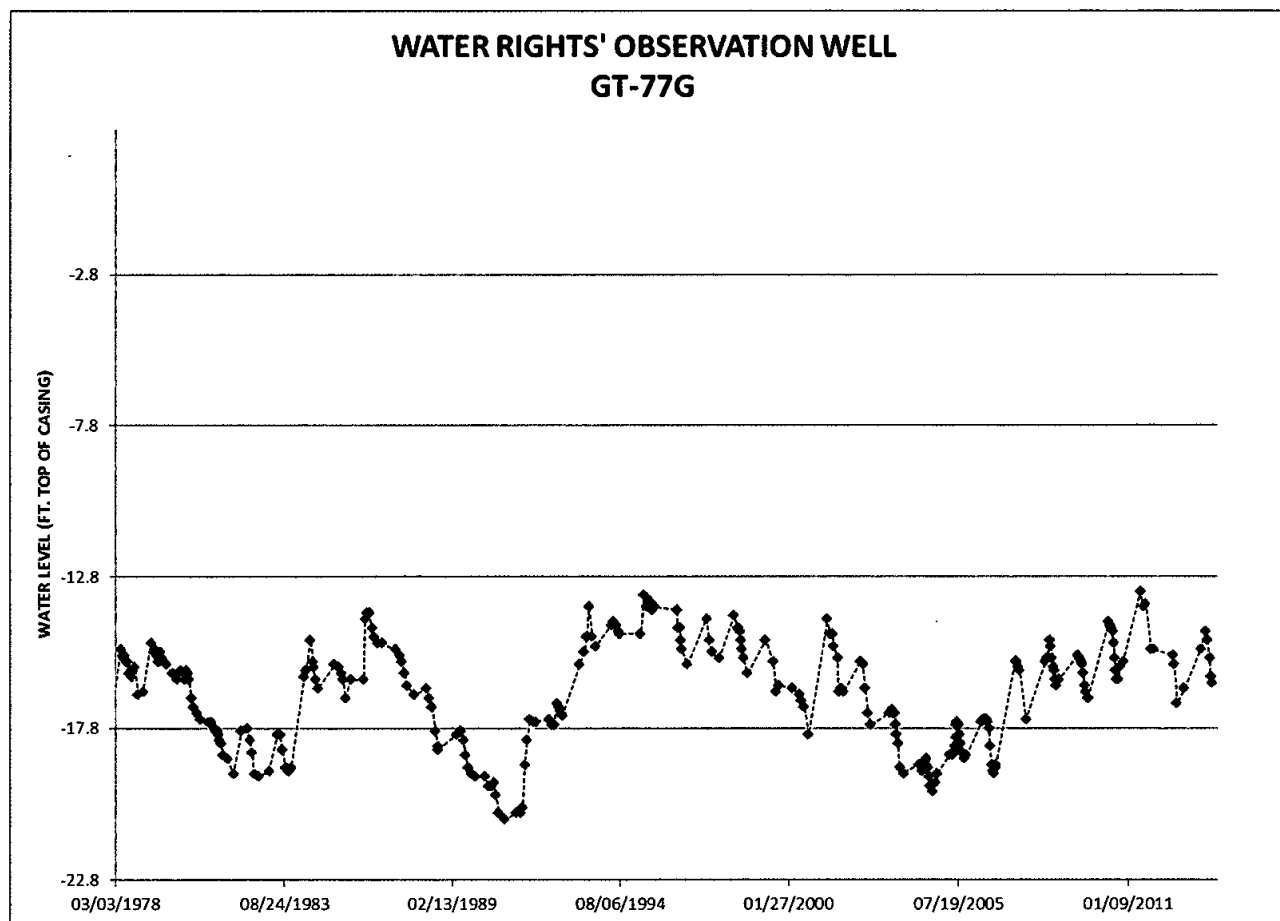


Figure 1: Historic water levels in Observation Well GT-77G (Water Rights, 2014a).

EXISTING WATER RIGHTS:

There are several wells associated with existing water rights/permits in the area of this application. The closest of these is wells withdraws water under Water Permit No. 5382-3 and is located approximately 3,000 feet north of the well site in this application. Given the distance between then the wells, interference of this existing water right is not expected to occur as a

result of pumping from the new wells. Similarly, at 2,000 feet to the southwest the nearest domestic well is not expected to experience interference as a result of pumping from the new wells.

CONCLUSIONS:

1. Water Permit Application No. 7975-3 proposes to appropriate up to 297.6 ac-ft/yr at a maximum diversion rate of 1.89 cfs for the irrigation of 148.8 acres from two wells to be completed into the Antelope Valley aquifer.
2. There is a reasonable probability that unappropriated water is available from the Antelope Valley aquifer to supply this proposed diversion.
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.



Bracken Capen
SD DENR-Water Rights Program

Approved by:



Ken Buhler
SD DENR-Water Rights Program

REFERENCES

- Geological Survey. 2014. Lithologic Logs Database, South Dakota Department of Environment & Natural Resources Geological Survey, Vermillion, South Dakota.
- Hansen, D.S. 1990. Water Resources of Codington and Grant Counties, South Dakota: U.S. Geological Survey Water-supply Paper 2254, 263 p.
- 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.
- Hedges, L.S. J. Allen, and D.E. Holly. 1985. Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, Task 7: Ground Water Recharge. South Dakota DENR-Geological Survey, Vermillion, SD.
- Water Rights. 1979-2012. "1979-2011 Irrigation Summaries by Aquifer and County": SD DENR-Water Rights Program. Joe Foss Bldg., Pierre, SD.
- Water Rights. 2003-2012. "2003-2012 Non-Irrigation Yearly Reports". SD DENR- Water Rights Program. Joe Foss Bldg., Pierre, SD.
- Water Rights. 2013a. Observation Well Files. SD DENR-Water Rights Program. Joe Foss Bldg., Pierre, SD.
- Water Rights. 2013b. Water Right/Permit Files. SD DENR-Water Rights Program. Joe Foss Bldg., Pierre, SD.
- Water Rights. 2013c. Well Completion Reports. SD DENR-Water Rights Program. Joe Foss Bldg., Pierre, SD.

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Form 8

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STATE OF SOUTH DAKOTA)
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County of Codington)

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:

May 7th, 2014

Cost of Printing 54.38

Monica K Saathoff
(Signature)

Bookkeeper

(Title)

May 7th, 2014

(Date Signed)

DENR

NOTICE OF APPLICATION NO. 7975-3 to Appropriate Water

Notice is given that Dennis K Flemming, 16246 447th Ave, Florence SD 57235, has filed an application for a water permit to appropriate 1.89 cubic feet of water per second from two wells to be completed into the Antelope Valley Aquifer (50-75 feet deep) located in the SW 1/4 NW 1/4 Section 3 for irrigation of 148.8 acres located in the NW 1/4, NE 1/4 SW 1/4 Section 3; all in T119N-R51W in Codington County.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7975-3 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 May 19, 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. Pirner, Secretary, Department of Environment and Natural Resources.

Published once at the approximate cost of \$49.38.

5438 May 7, 2014)

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



DEPARTMENT OF ENVIRONMENT
and NATURAL RESOURCES

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



April 28, 2014

Public Opinion
PO Box 10
Watertown SD 57201

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 7975-3 to Appropriate Water. Please publish the notice once on May 7, 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 Dennis K Flemming, 16246 447th Ave, Florence SD 57235 (Ph # 605-881-4656).

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



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

April 28, 2014

Dennis K Flemming
16246 447th Ave
Florence SD 57235

Dear Mr. Flemming:

Water Permit Application No. 7975-3 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 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 May 7, 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. 7975-3 to Appropriate Water

Notice is given that Dennis K Flemming, 16246 447th Ave, Florence SD 57235 has filed an application for a water permit to appropriate 1.89 cubic feet of water per second from two wells to be completed into the Antelope Valley Aquifer (50-75 feet deep) located in the SW 1/4 NW 1/4 Section 3 for irrigation of 148.8 acres located in the NW 1/4, NE 1/4 SW 1/4 Section 3; all in T119N-R51W in Codington County.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7975-3 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 May 19, 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. Pirner, Secretary, Department of Environment and Natural Resources.

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



MAY 30 2014

Dennis K Flemming
16246 447th Ave
Florence SD 57235

Dear Mr. Flemming:

Enclosed is Water Permit No. 7975-3 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

RECEIVED
FEB 08 2016
WATER RIGHTS
PROGRAM

NOTICE OF TRANSFER OF OWNERSHIP

To: Chief Engineer
Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181

No. 7975-3

Date: 2/1/16

I/We request that Water Right/Permit No. 7975-3

formerly owned by: Dennis K Flemming, 16246 447th Avenue, Florence SD 57235

be transferred to: (name & address) Jim Thyen, 46220 165th Street, Watertown SD 57201

+ Dan Thyen

Telephone No. 605 520-8159

Title to the following described land(s)/property has been transferred as described above:

Portion of the NW ¼ and NE ¼ SW ¼ Section 3, T119N, R51W, Codington County

I/We understand that the validity of Water Right/Permit No. 7975-3 has not been determined by this transfer action. If I/We have any questions on validity, I/We understand that only the Water Management Board has the authority to determine if a water permit/right is valid (see note).

You are requested to file this "Notice of Transfer" in the appropriate file with the Water Rights Program, as evidence of the change of ownership.

A fee of Fifty Dollars (\$50.00) is required to cover the filing fees as required under SDCL 46-2-13. This form must be signed by the new owner.

I/We Jim Thyen, Dan Thyen, the new owner, certify that the above information is true and correct.

Jim Thyen + Dan Thyen
(Signed by new owner)

NOTE: Water permits may be cancelled for nonconstruction after the five year construction period has expired. Once a water permit is developed and the water used, the permit becomes a right. A water right may be lost for three reasons:

1. Abandonment - no intent to use water and use is abandoned.
2. Forfeiture - no use of water for three year period without legal excuse.
3. For a third violation of a condition of a water permit/right.

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 2/8, 20 16

RECEIVED OF Thyen Farms 46220 165th St Watertown SD 57201

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

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use	50	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. _____		
Fee for Filing Transfer Form _____ 7975-3		
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. _____	50	00
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	
	50	00

No. **07748**

By *James Goodman*
Chief Engineer



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

February 8, 2016

7975-3

Jim & Dan Thyen
46220 165th St
Watertown SD 57201

Dear Sirs:

I am writing to acknowledge receipt of the transfer form and filing fee you submitted for changing ownership on Water Permit No. 7975-3.

The ownership change has been completed. Water Permit No. 7975-3 formerly held by Dennis Flemming is now listed in your names.

Enclosed for your records is Receipt No. 07748 in the amount of \$50. If I can answer any questions for you, please let me know.

Sincerely,

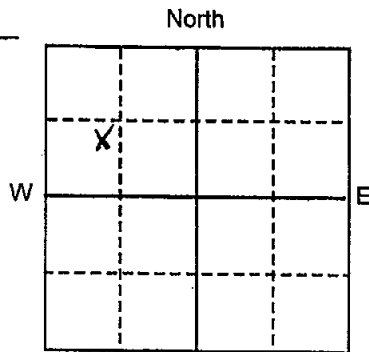
Genny McMath
Water Rights Program
(605) 773-3352
email: genny.mcmath@state.sd.us

enclosure

7975-3

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW 1/4 NW 1/4 Sec 3 Twp 119N Rg 51WCounty CodingtonPlease mark well
location with an "X"

Well Completion Date

April 14, 2015

1 Mile

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

PROPOSED USE:

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

METHOD OF DRILLING:

Rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	<u>12.00</u> IN	<u>0.0</u> FT	<u>32.0</u> FT	<u>17.50</u> IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Volclay</u>	<u>12</u>	<u>50.0</u> Lb/gal	<u>0.0</u> Ft	<u>30.0</u> Ft
		Lb/gal	Ft	Ft

Describe grouting procedure
Tremie piped

SCREEN:

☒ Perforated pipe ☐ Manufactured
 Diameter 12.00 Inches Length 20.0 Feet
Material PVCSlot Size 50 Set From 32.0 Feet to 52.0 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? Chlorinated
☐ No, Why Not?
Lab to which water
quality sample sent for analysis
N/AWell Owner: Dennis Flemming

Business Name:

Address: 46220 165th StCity, State, Zip: Watertown SD 57201

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top soil	0	2
Gravel - Med to coarse	2	38
Gravel - Med to fine	38	54
Clay - Gray	54	

STATIC WATER LEVEL

10.0 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:☐ Bailed☐ Other

Pumping Level Below Land Surface

29.0 Ft. After 8.0 Hrs. pumped 450.0 GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

GPS N 45 08 42.67, W096 56 29.60

RECEIVED

MAR 11 2016

WATER RIGHTS
PROGRAM*Antelope Valley*This well was drilled under license # 475 and this
report is true and accurate.Drilling firm: Thein Well Co., Inc.

Signature of License Representative:

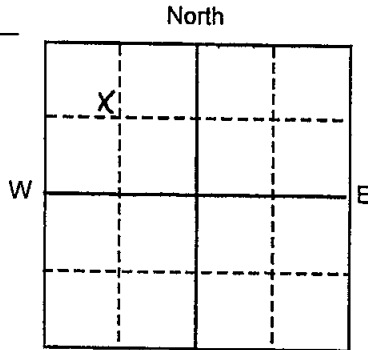
Signature of Well Owner or Equitable Property Holder:

Date:

7975-3

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location NW ¼ NW ¼ Sec 3 Twp 119N Rg 51WCounty CodingtonPlease mark well
location with an "X"

Well Completion Date

May 20, 2015

1 Mile

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

PROPOSED USE:

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

METHOD OF DRILLING:

Rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	12.00 IN	0.0 FT	34.0 FT	17.50 IN
LB/FT	IN	FT	FT	IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Volclay	12	50.0 Lb/gal	0.0 Ft	32.0 Ft
		Lb/gal	Ft	Ft

Describe grouting procedure
Tremie piped

SCREEN:

☒ Perforated pipe ☐ Manufactured
 Diameter 12.00 Inches Length 20.0 Feet
Material PVCSlot Size 50 Set From 32.0 Feet to 52.0 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? Chlorinated
☐ No, Why Not?
Lab to which water
quality sample sent for analysis

N/A

Well Owner: Dennis Flemming

Business Name:

Address: 46220 165th StCity, State, Zip: Watertown SD 57201

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Top soil	0	1.5
Gravel	1.5	35
Sand - Med to fine	35	55
Clay - gray	55	

STATIC WATER LEVEL 10.0 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:☐ Bailed☐ Other

Pumping Level Below Land Surface

39.7 Ft. After 8.0 Hrs. pumped 250.0 GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

GPS N 45.08.740, W 096.56.454

RECEIVED

MAR 11 2016

WATER RIGHTS
PROGRAMThis well was drilled under license # 475 and this
report is true and accurate.Drilling firm: Thein Well Co., Inc.

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date:



7975-3
DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
PMB 2020
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

January 25, 2019

NOTICE

TO: JIM & DAN THYEN, 46220 165TH ST, WATERTOWN, SD 57201
FROM: Ron Duvall, Natural Resources Engineer
for Jeanne Goodman, Chief Engineer
Water Rights Program

SUBJECT: Reporting Requirement for 2018 Irrigation Questionnaire(s)

Our records indicate your 2018 Irrigation Questionnaire(s) has not been submitted for Permit No(s) 7975-3. The request for the Questionnaire was dated October 30, 2018. The Water Management Board has directed that owners of water permits who have not submitted the 2018 Irrigation Questionnaire(s) be given notice of permit violation and a hearing to be held by the Board. The hearing is to determine what action is to be taken for violation of Water Permit No(s) 7975-3 qualification:

"This permit is approved subject to the Irrigation Water Use Questionnaire being submitted each year."

The hearing will be held at **Wednesday, March 6, 2019 at 10:30 am (Central Time)** in the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Avenue, Pierre, SD and will be conducted pursuant to SDCL 46-1-12, 46-1-14, 46-2-9, 46-2-11 and 46-2-17. These are contested case hearings pursuant to Chapter 1-26. According to SDCL 46-1-12, the Board may suspend a permit for a period of up to one year for the first violation of a permit qualification or up to three years for a second violation, or cancel a permit for a third violation. Following the hearing, the Water Management Board can:

1. Suspend or cancel Permit No(s) 7975-3 in accordance with applicable provisions of SDCL 46-1-12;
2. Postpone any action; or
3. Take no action.

The hearing is an adversary proceeding. The permit owner has the right to be present or to be represented by a lawyer. These and other due process rights will be forfeited if they are not exercised. Decisions of the Board may be appealed to the Circuit Court and the State Supreme Court as provided by law.

If the questionnaire(s) is (are) received in this office before the **March 6, 2019** hearing you will no longer be in violation of your permit and your name will be removed from the Board agenda. Enclosed are additional questionnaire(s) for your use. If you have questions or need assistance, please contact Genny McMath at (605) 773-3352 or email at genny.mcmath@state.sd.us. If you prefer, you can complete the questionnaire online at the following link: <http://denr.sd.gov/iq.aspx>

NOTE: Please contact the Water Rights Program, Joe Foss Building, 523 E Capitol, Pierre, SD (605-773-3352) to assure access to the meeting room for the handicapped or to obtain an interpreter for the hearing impaired.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

January 29, 2019

7975-3

Jim & Dan Thyen
46220 165th St
Watertown SD 57201

Dear Sirs:

I am writing to acknowledge receipt of your 2018 irrigation questionnaire. I completed a form for you based on our phone conversation.

You may disregard the January 25, 2019, "Notice" concerning reporting requirements for Water Permit No. 7975-3. The information was received in our office prior to the Water Management Board meeting and your name has been deleted from the agenda.

If you have any questions, please contact me:

Sincerely,

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



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

July 22, 2021

7975-3

Jim Thyen
46220 165th St
Watertown SD 57201

Dear Mr. Thyen:

I am writing in follow-up to our conversation concerning adding acreage to your existing permit. Enclosed is a copy of the map and permit to show you what is currently covered.

I have included an application form and instructions for you to apply for additional land if needed. The application fee will be based on acreage. Since it is in addition to your existing permit, no license fee is needed.

You mentioned you are renting land you may want to irrigate. The application for that should be in the owner's name. I can send you more application forms or they are available on our website if you want to print them off. The website link is:

<https://danr.sd.gov/OfficeOfWater/WaterRights/PermitForms>

The form you will need is titled: "Application for a Water Right Permit for Irrigation water use"

For planning purposes, it normally takes at the minimum 3 months to get an application through the process. If you have any questions or want me to send additional forms, please let me know.

Sincerely,

Genny McMath
Water Rights Program
605 773-3352
Genny.mcmath@state.sd.us

enclosures

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 7975-3

I have this day, May 2, 2023, made a thorough examination of the water use system constructed by Dennis K Flemming, Florence, SD 57235 of Permit No. 7975-3, bearing the priority of February 12, 2014 authorizing the diversion of 1.89 cu. ft. per second of the waters of the Antelope Valley Aquifer for irrigation purposes, in Codington County. (ownership changed in February 2016 to Jim & Dan Thyen)

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Thein Well Co (wells drilled in April & May, 2015)
- 2) No. of Wells 2
- 3) Depth(s) 52 & 54 feet
- 4) Well log is available Y

Casing:

- 1) Diameter 12 inches
- 2) Length 32 & 34 feet
- 3) Type Plastic

Screen:

- 1) Type PVC
- 2) Length 20 feet
- 3) Static water level 10 feet

Pump:

Make Submersibles (model & size unknown)

Motor: (unknown)

- 1) Capacity 750 total GPM

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

- 1) Type Buried and above ground pipe
- 2) Size 6 inches
- 3) Length 175 & 45 feet

C. Works used to apply water to beneficial use:

Center pivot:

- 1) Make Reinke
- 2) Overall length 1750 feet
- 3) Number of towers 10
- 4) End gun Y
- 5) Capacity 750 GPM

D. Compliance with Permit Requirements:

- Page 2 of 2



0 0.075 0.15 0.3 0.45 0.6 Miles



Darrell DeBoer
Water Right Inspector
DANR-Water Rights Program



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

MAY 22 2023

7975-3

Jim & Dan Thyen
46220 165th St
Watertown SD 57201

Dear Sirs:

Enclosed is Water License No. 7975-3. 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 in the future, the owner of an existing well, 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, State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Sincerely,

Eric Gronlund, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 7975-3

(1) Dennis K Flemming, Florence SD made Application No. 7975-3, February 12, 2014 for a water permit to divert 1.889 cubic feet of water per second from ground water, two wells (Antelope Valley Aquifer), Codington County, South Dakota for irrigation purposes. Permit No. 7975-3, with a priority date of February 12, 2014 was approved May 19, 2014 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before May 19, 2019 and for the application to beneficial use of water on or before May 19, 2023.

On February 8, 2016, Water Permit No. 7975-3 was transferred to Jim & Dan Thyen, 46220 165th St., Watertown SD 57201.

(2) It is certified that the permit holders have complied with the provisions of South Dakota State Law relating to completion of the water supply system and are entitled to divert 1.67 cubic feet of water per second for beneficial use. The diversion points are located as follows:

- Well #1: 1,800'S & 880'E of the NW corner of Section 3, T119N, R51W (SW ¼ NW ¼)
Latitude 45.14530, Longitude -96.94164
- Well #2: 1,650'S & 1,030'E of the NW corner of Section 3, T119N, R51W (SW ¼ NW ¼)
Latitude 45.14566, Longitude -96.94092

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

Section 3, T119N, R51W	NW ¼ NW ¼	32.2 acres	NE ¼ SW ¼	7.0 acres
	NE ¼ NW ¼	28.1 acres		
	SE ¼ NW ¼	39.5 acres		
	SW ¼ NW ¼	10.2 acres	Total	117.0 acres

(4) Pursuant to South Dakota Water Law 46-5-30.1 Jim & Dan Thyen, 46220 165th St., Watertown SD 57201 the holders and/or owners of Water Right No. 7975-3 are issued a license to appropriate water, the right to use 1.67 cubic feet of water per second from ground water, two wells (Antelope Valley Aquifer) with a priority date of February 12, 2014, from the locations 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. 7975-3 and subject to the following qualifications:

- The wells approved under this water right will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this water right 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.

continued

- The wells authorized by Permit No. 7975-3 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 wells were drilled in 2015 by Thein Well Company Inc. Copies of the well completion reports are on file with the Water Rights Program.*
- This Water Right is approved subject to the irrigation water use questionnaire being submitted each year.

Eric Gronlund

Eric Gronlund, Chief Engineer
Water Rights Program
Department of Agriculture and Natural Resources

MAY 22 2023

date





**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

March 10, 2025

7975-3

Jim & Dan Thyen
46220 165th St
Watertown SD 57201

Dear Mr. Thyen:

I write to you today in response to the 2024 Irrigation Questionnaire information submitted for Water Right No. 7975-3.

Water Right No. 7975-3 (copy enclosed) authorized diversion of 1.67 cubic feet of water per second (750 gpm) from one well completed into the Antelope Valley Aquifer for irrigation of 117 acres located within the SW ¼ Section 3-T119N-R51W.

On this year's questionnaire you reported the irrigation of 130 acres under 7975-3. If additional acres have been developed for irrigation, additional permitting would be required.

Please contact me to either revise your 2024 Irrigation Questionnaire or discuss additional permitting.

Sincerely,

Amanda Dewell
Permitting Administrator
Water Rights Program
Amanda.Dewell@state.sd.us
(605) 773-3352

enclosure

Jim called 3/17/25
to confirm that
reporting should
only be 117 acres.

AD



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and NATURAL RESOURCES**

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PIERRE SD 57501-3182
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March 31, 2025

7975-3

Jim & Dan Thyen
46220 165th St
Watertown SD 57201

Dear Mr, Thyen:

This letter is intended to follow up on a conversation we'd had earlier in March regarding your desire to install a cornering system onto the irrigation system authorized under Water Right No. 7975-3.

Water Right No. 7975-3 authorizes the diversion of 1.67 cfs (750 gpm) from 2 wells located in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 3, for the irrigation of 117 acres located in the NW $\frac{1}{4}$ & NE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 3; all in T119N, R51W.

The installation of a cornering system would result in the irrigation of additional acres, requiring additional permitting. Please find enclosed a partially completed application for this project, as well as a map of the current system for you to mark up, indicating the new acres to be irrigated.

The application and map may be returned in the pre-paid envelope with payment in the form of a check (payable to SD Water Rights). The fees for the application are based on the number of acres to be irrigated, plus the \$200 licensing and inspection fee.

If you have any questions regarding completion of the application or the required fees, please contact me.

Sincerely,

Amanda Dewell
Water Rights Program
605 773-3352
Amanda.Dewell@state.sd.us

enclosures