

WATER PERMIT NO. 7627-3

Name of Applicant: Troy Walraven

Address: 45306 313th St, Meckling SD 57069 Phone: 605 670-2061

Amount of Water Claimed: 1.78 cfs Total Acres: 67 acres

Source of Water Supply: groundwater (one well)

Water to be used for: irrigation County: Clay

Type of Waste Disposal System:

Location: 3 miles west of Meckling

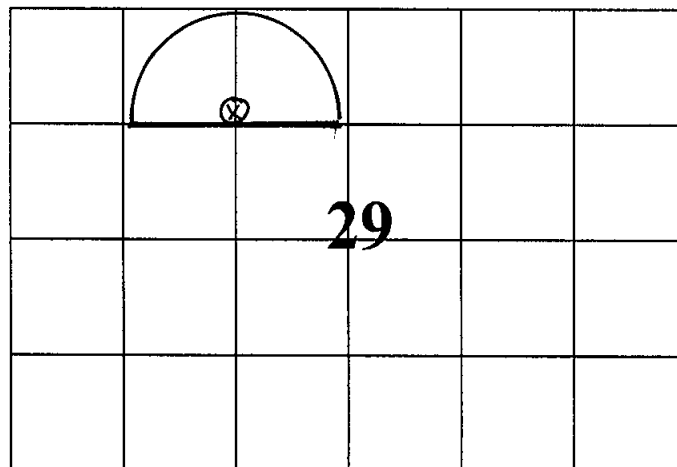
PRIORITY Date Received: 1-9-13 Application/License Fee: \$ 950

Corrected Application Received: Period of Annual Use: May 1 – Sept 30

Remarks: Requesting diversion rate greater than statutory limit

Diversion Point: center of the NW 1/4 Sec 29-T93N-R53W

Land to be Irrigated: N 1/2 NW 1/4 Sec 29-T93N-R53W



Depth of Well: 100 feet deep

Well Driller:

Remarks:

Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 1-10-13

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	No. <u>7627-3</u> (office use only) Hydrologic Unit <u>10170102</u>
	Basin <u>Vermillion River</u> <u>605-624-2685</u>
	Newspaper <u>Plaintalk 201 W Cherry St. Vermillion 57069</u> <u>605-665-7811</u>
	<u>Press & Dakotan 319 Walnut Yorkton 57028</u>

RECEIVED

JAN - 9 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 TROY Walraven
(check one) ☒ Owner ☐ Tenant/lessee ☐ Owner's Legal Agent _____
(name and complete address if different than above name)
- Mailing Address 45306 313th ST Meckling S.D. 57069
(Address) (City) (State) (Zip Code)
- Home Phone 605-670-2061 670-2061 Email _____
2. Amount of water claimed 1.78 *CFS or 800 **GPM ***AF Total Acreage 67
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)
3. Source of water supply Under Ground
4. Location of point of diversion 1 Well in N 1/2 NW 1/4 Section 29 T-93-N
R-53-W (example - 3 wells in SW 1/4 NE 1/4 section 12 T104N-R53W) County CLAY
5. County or counties where water will be used CLAY
6. Annual period during which water is to be used Summer May 1 - Sept. 30
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>N 1/2 NW 1/4 Sec 29-093-53</u>	<u>67</u>		

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

1 Well on the South End on the center of
N 1/2 NW 1/4 Sec 29-093-53 covering 67 ac of land
requesting diversion rate greater than statutory limit

I, TROY Walraven, 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. 7627-3**

Date of first receipt of application January 9, 2013.

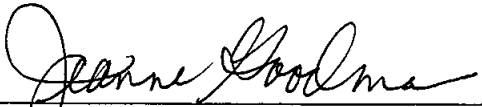
The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7627-3 to Troy Walraven, 45306 313th St, Meckling SD 57069 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 7627-3 appropriates 1.78 cubic feet of water per second (cfs) from one well to be completed into the Missouri:Elk Point Aquifer (100 feet deep) located in the approximate center of the NW 1/4 Section 29 for irrigation of 67 acres located in the N 1/2 NW 1/4 Section 29; all in T93N-R53W.
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 January 9, 2013.
4. The date of approval of Permit No. 7627-3 is March 18, 2013.
5. One-fifth of the construction is to be completed on or before September 18, 2015.
6. All construction is to be completed on or before March 18, 2018.
7. Water is to be put to beneficial use on or before March 18, 2022.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation:

QUALIFICATIONS

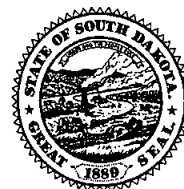
1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 7627-3 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. Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so requires, Permit No. 7627-3 authorizes a maximum diversion rate of 1.78 cfs for the irrigation of 67 acres with an annual volume not to exceed 2 acre feet of water per acre per year.
4. 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

APR 26 2013

date



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 1 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 100' Depth to Top of Water Bearing Material 25' Depth to Water from Surface 25'

d) Distance to nearest existing domestic well:

On applicant's property _____ On property owned by others 2 miles

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

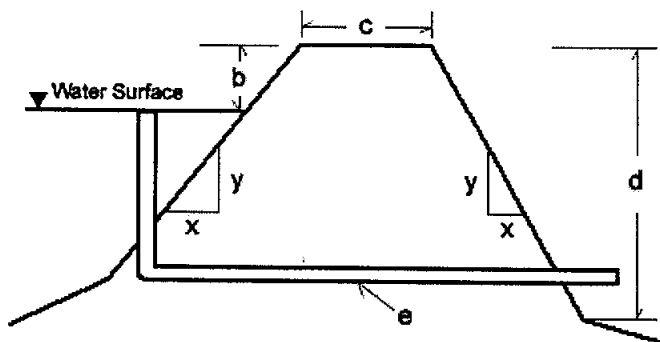
a) Surface Dimensions _____ Depth _____

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)

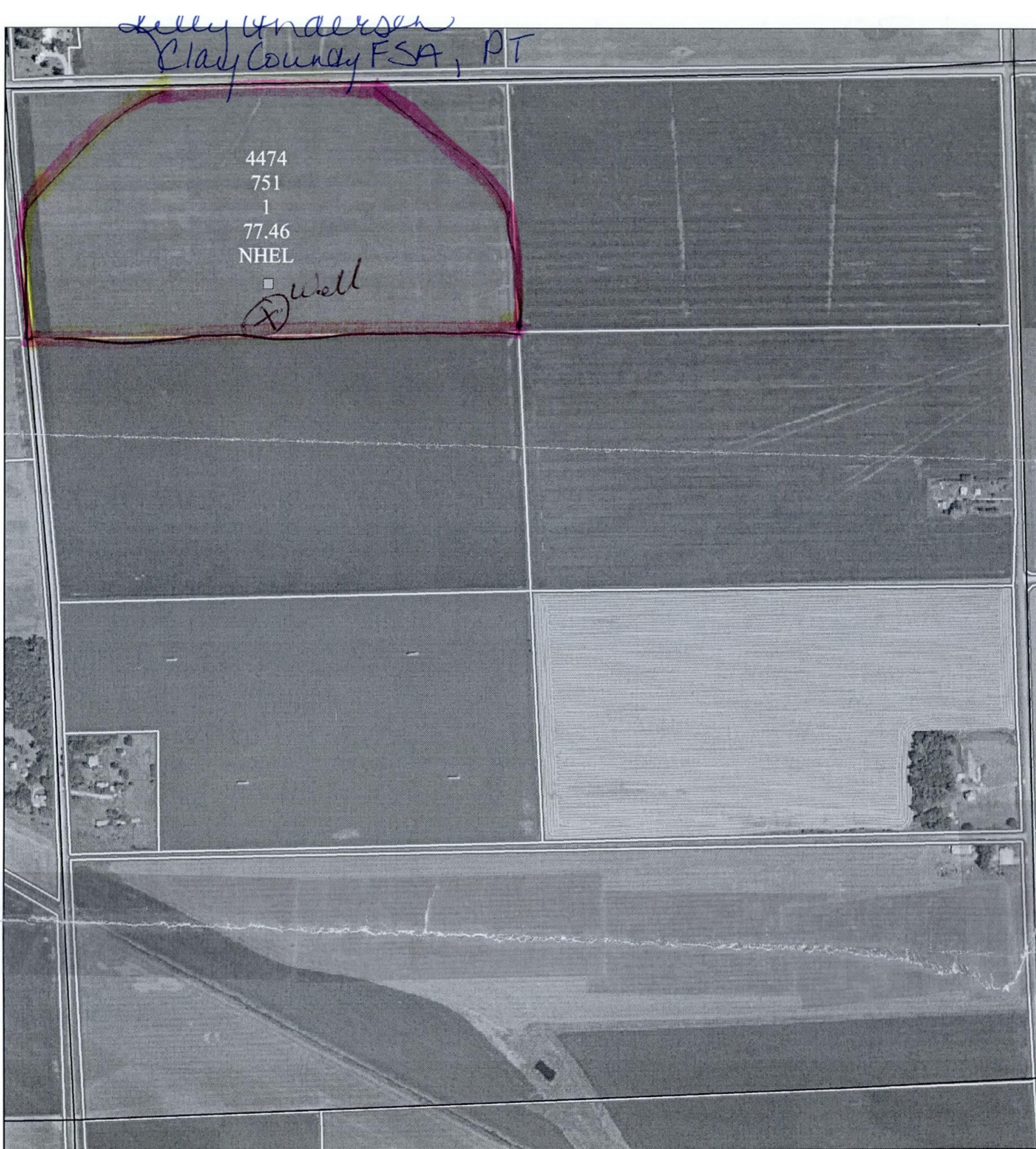
Upstream _____

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: 29_93_53
Farm: 4474

Clay County, SD
1:8,430

RECEIVED
JAN - 9 2013
WATER RIGHTS
PROGRAM

March 25, 2010

Wetland Determination Identifiers

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

□ Common Land Units

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.

2008 Ortho-Photography - Not to Scale

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 1/10, 20 13

RECEIVED OF Troy L Walraven 45306 313th St Meckling SD 57069

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

Fee for Application for Permit No. <u>7627-3</u> to Appropriate Water, to construct and to put water to beneficial use	750	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>7627-3</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	950 00

No. 05930

By

[Signature]
Chief Engineer



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 7627-3, Troy Walraven**

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. 7627-3, Troy Walraven, 45306 313th Street, Meckling SD 57069.

The Chief Engineer is recommending APPROVAL of Application No. 7627-3 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. 7627-3 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. Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so requires, Permit No. 7627-3 authorizes a maximum diversion rate of 1.78 cfs for the irrigation of 67 acres with an annual volume not to exceed 2 acre feet of water per acre per year.
4. This Permit is approved subject to the irrigation water use questionnaire being submitted each year.

See report on application for additional information.

A handwritten signature in dark ink, appearing to read "Garland Erbele".

Garland Erbele, Chief Engineer
February 21, 2013

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 7627-3
TROY WALRAVEN
February 14, 2013

Water Permit Application No. 7627-3 proposes to appropriate up to 134 acre-feet annually (ac-ft/yr) at a maximum diversion rate of 1.78 cubic feet of water per second (cfs) from one well to be completed into the Missouri: Elk Point aquifer. The well will be located in the approximate center of the NW ¼ of Section 29, T93N-R53W and is expected to be approximately 100 feet deep. This application proposes to irrigate 67 acres located in the N ½ NW ¼ of Section 29, T93N-R53W in Clay County. The applicant is requesting a diversion rate greater than the statutory limit.

AQUIFER: Elk Point management unit of the Missouri aquifer (M: EP)

GEOLOGY AND AQUIFER CHARACTERISTICS:

The Elk Point management unit of the Missouri aquifer is an alluvium mantled outwash composed of sand and gravel material (Stephens, 1967). The aquifer is under both unconfined and confined conditions, but appears that it may be confined in the area of this application. The Elk Point management unit of the Missouri aquifer encompasses regions of Clay, Union, and Yankton Counties. The proposed well site is located in southwestern Clay County less than one and one quarter miles from the Clay and Yankton county line and less than four miles north of the Missouri River. The Missouri: Elk Point aquifer underlies approximately 119,500 acres of Clay and Yankton Counties combined and contains an estimated 1,792,500 acre-feet of recoverable water in storage between the two counties (Hedges and others, 1982). The aquifer is hydraulically connected to the Dakota, Lower James Missouri and the Lower Vermillion Missouri aquifers as well as the Missouri and Vermillion Rivers. The ground water in this aquifer generally moves from northwest to southeast in the area of this application (Stephens, 1967). There was not a well log completion report submitted with this application. The average saturated thickness reported for nearby well sites is approximately 41 feet as shown in Table 1 (Water Rights, 2013a). There may be approximately 44 feet of artesian head pressure available.

Well Log Identification	Saturated Thickness (ft)
Well Log for Water Right No. 3611-3	50
Well Log for Water Right No. 7075-3	30
Well Log for Water Right No. 6642-3	33
Well Log ID No. 65388	44
Well Log ID No. 44218	50

Table 1. Reported saturated thickness for nearby wells (Water Rights, 2013a).

SDCL 46-2A-9

In accordance with SDCL 46-2A-9, a permit may be issued to appropriate water only if there is 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 review

the availability of unappropriated water and existing rights within the Missouri: Elk Point aquifer.

WATER AVAILABILITY:

This application proposes to appropriate up to 134 ac-ft/yr from the Missouri: Elk Point aquifer. If this application is approved, it is likely that the actual water use will be less than the appropriated amount. The probability of unappropriated water available from the aquifer can be evaluated using 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."

Recharge versus Discharge:

Recharge:

Recharge to the Missouri: Elk Point aquifer occurs through infiltration and percolation of precipitation falling in areas where the aquifer is near land surface. Recharge is also provided to the aquifer from the Big Sioux, Lower Vermillion-Missouri, and Dakota aquifers as well as during times of high flow and stage from the Missouri River. The average annual recharge rate to the Missouri: Elk Point aquifer is estimated to be 3.8 in/yr based on observation well analysis (Hedges and others, 1985). Given the area of the management unit in Clay and Yankton Counties of 119,500 acres, average annual recharge to the aquifer in Clay and Yankton Counties alone is estimated to be 37,842 ac-ft/yr.

Discharge:

Discharge from the Missouri: Elk Point aquifer is by evapotranspiration, discharge to the Big Sioux and Missouri Rivers during low flow and to the underlying Dakota aquifer, and withdrawal from wells. There are a number of completion reports on file with the SD DENR-Water Rights Program for domestic use wells completed into the Missouri: Elk Point aquifer (Water Rights, 2013b) and there are currently 507 water rights/permits appropriating water from the Missouri: Elk Point aquifer (Water Rights, 2013c). In addition, there are five future use permits reserving water from the aquifer. There are 212 water rights/permits appropriating water from this aquifer in Clay and Yankton Counties (Water Rights, 2013c). All five of the future use permits reserving water from the aquifer are from Clay County. The distribution of these appropriations and their types are shown in Table 2.

Water Rights/Permits	Number
Commercial	4
Domestic	1
Fish & Wildlife Propagation	4
Industrial	3
Irrigation	190
Municipal	6
Rural Water System	2
Suburban Housing Development	2
Future Use Permits	Number
Lewis & Clark Rural Water System	4
City of Vermillion	1

Table 2. Water rights/permits from the Missouri: Elk Point aquifer in Clay and Yankton Counties (Water Rights, 2013c).

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.
3. Future use permits can be fully developed.

The expected water use for non-irrigation purposes, including that reserved for future use, from the Missouri: Elk Point aquifer in Clay and Yankton Counties is less than 55,500 ac-ft/yr based on current water appropriations.

The annual reported water use from the Missouri: Elk Point aquifer for irrigation purposes is displayed in Table 3.

YEAR	NO. OF PERMITS	APPROPRIATION (AC-FT/YR)	PUMPAGE REPORTED (AC-FT/YR)
2011	159	59580.2	4817.85
2010	152	56802.8	1205.86
2009	146	56330.8	2906.15
2008	135	53899.8	10120.26
2007	109	43852	11665.06
2006	97	41239	9825.11
2005	84	35725	6642.1
2004	78	34383.8	7311.97
2003	74	33687.8	7081.67
2002	74	33209.8	8193.25
2001	71	32471.8	6787.26
2000	69	31531.8	6271.02
1999	68	31351.8	4006.87
1998	69	31660.8	3867.62
1997	68	31875.2	5778
1996	67	31725.2	4291.2
1995	66	31080.8	4521.29
1994	69	32259.6	2499.98
1993	68	31794	330
1992	67	31218.8	871.35
1991	70	31302.8	7197
1990	67	32596.8	6694.5
1989	66	32506.8	6993.7
1988	64	31537.8	5989.25
1987	65	32021.8	4081.7
1986	71	34581.1	3060.8
1985	67	32217.8	3631.2
1984	70	33132.7	3448
1983	62	30963.8	4313.13
1982	60	30456	3392.5
1981	70	34049	4674
1980	52	29670	4523
1979	53	29670	2793
MIN	52	29670.00	330.00
MAX	159	59580.20	11665.06
AVE	79.61	35769.31	5145.02

Table 3. Irrigation from the Missouri: Elk Point aquifer in Clay and Yankton Counties (Water Rights, 1979-2011)

Lewis and Clark Rural Water System currently reserves 13,000 ac-ft/yr for future use and has permits appropriating 32,165 ac-ft/yr (Water Rights, 2013b). This accounts for a significant portion of the annual water usage in Clay County, and most of the water from these wells will be induced from the Missouri River. More recharge can be induced with more pumping in particular from the Missouri River because it is hydraulically connected to the aquifer. In 2011, the reported pumping for irrigation was 4,818 ac-ft/yr in Clay and Yankton Counties (Water Rights, 1979-2011).

There are a number of new permits and pending applications from the Missouri: Elk Point aquifer. Once they are developed, the average pumping for irrigation purposes is expected to increase significantly. Since January 1, 2012, there have been 45 permits issued from the Missouri: Elk Point aquifer authorizing irrigation for a total of 5,546.1 acres. The average annual withdrawal is still expected to be significantly less than the average annual recharge. The pending permits for appropriation of water from the Missouri: Elk Point aquifer are shown in Table 4.

Permit No.	Diversion Rate (cfs)	Acres
7447-3	1.78	160
7460-3	3.11	264
7454-3	1.78	171
7527-3	1.11	117.5
7553-3	1.55	136
7563-3	2.22	95
7554-3	1.89	136

Table 4. List of pending permits and their appropriations from the Missouri: Elk Point aquifer (Water Rights, 2013a).

Recognizing that Lewis and Clark RWS withdraw water from the Missouri: Elk Point aquifer that is induced from the Missouri River and considering the remaining hydrologic budget, there is reasonable probability that unappropriated water is available for the 134 ac-ft/yr appropriation proposed by this application.

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 to the aquifer”.

The SD DENR-Water Rights Program monitors 37 observation wells completed into the Missouri: Elk Point aquifer with three of these observation wells located within five and one half miles of the well site proposed by this application (Water Rights, 2013b). Hydrographs for these wells are shown in Figures 1, 2 and 3.

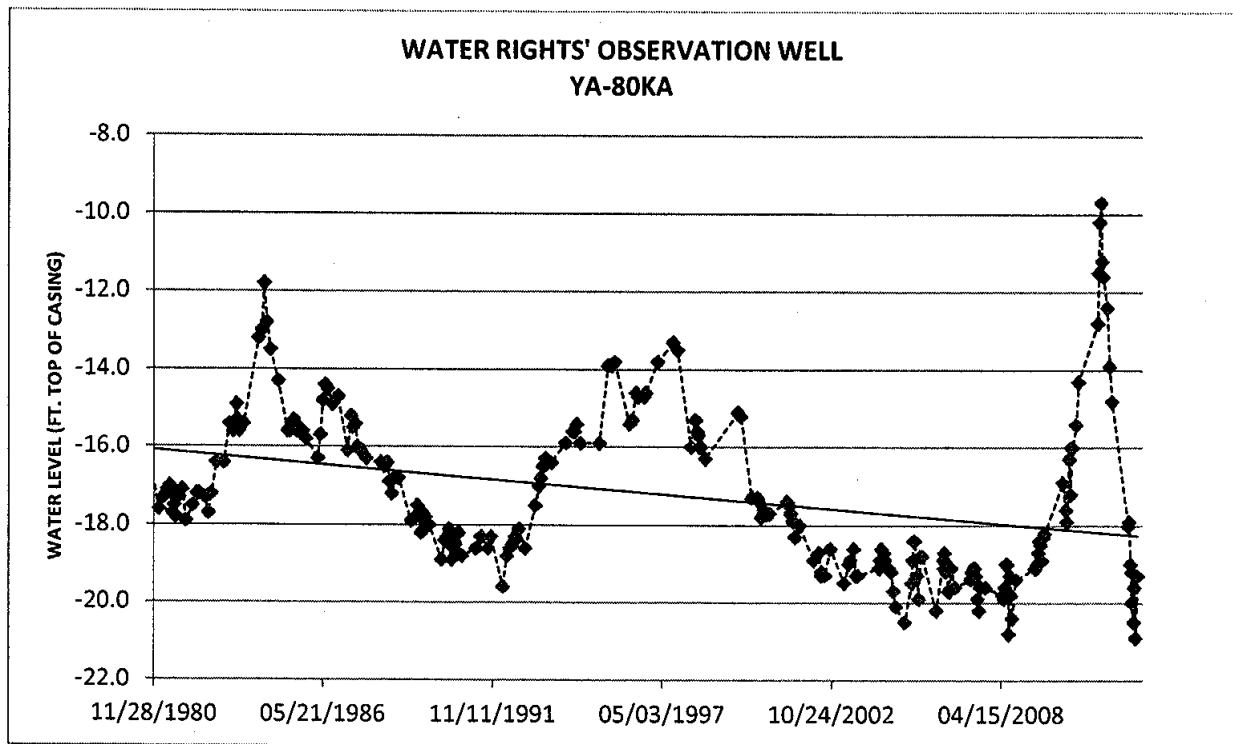


Figure 1. Hydrograph with linear trend line for SD DENR-Water Rights Observation Well YA-80KA completed into the Missouri: Elk Point aquifer less than three miles southwest of the well site proposed by Application No. 7627-3 (Water Rights, 2013a).

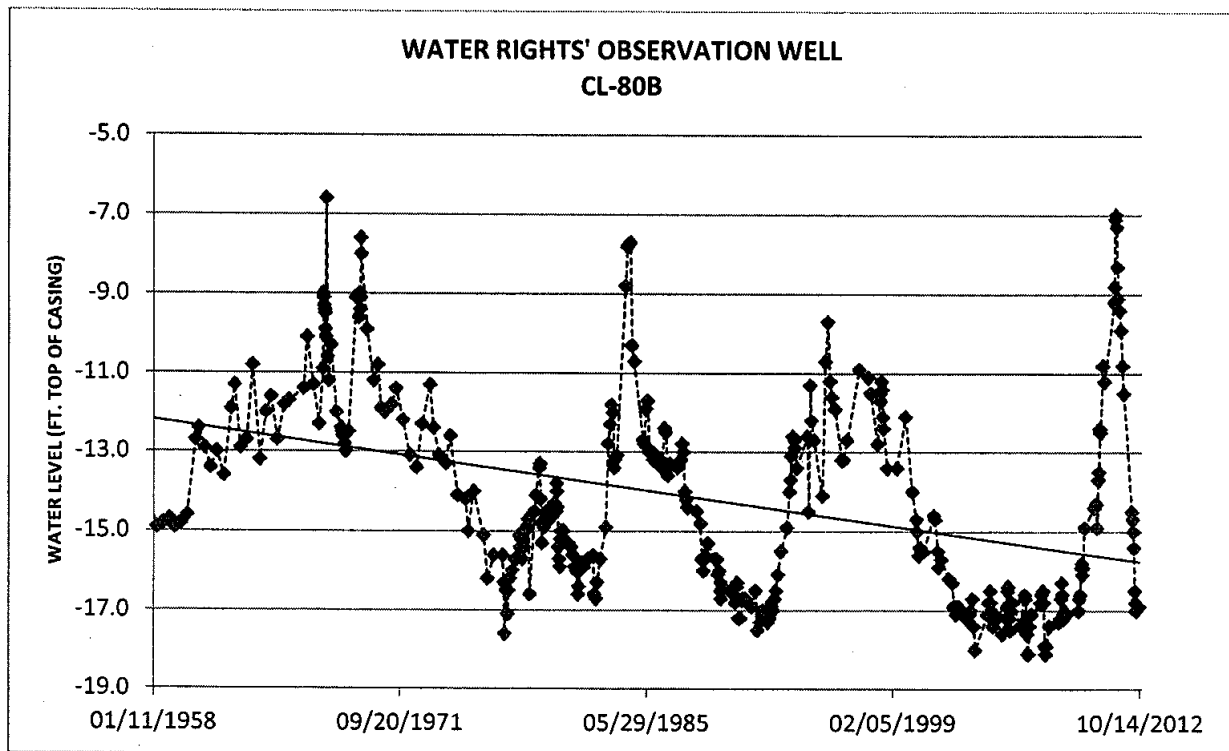


Figure 2. Hydrograph with linear trend line for SD DENR-Water Rights Observation Well CL-80B completed into the Missouri: Elk Point aquifer approximately four and one quarter miles southeast of the well site proposed by Application No. 7627-3 (Water Rights, 2013a).

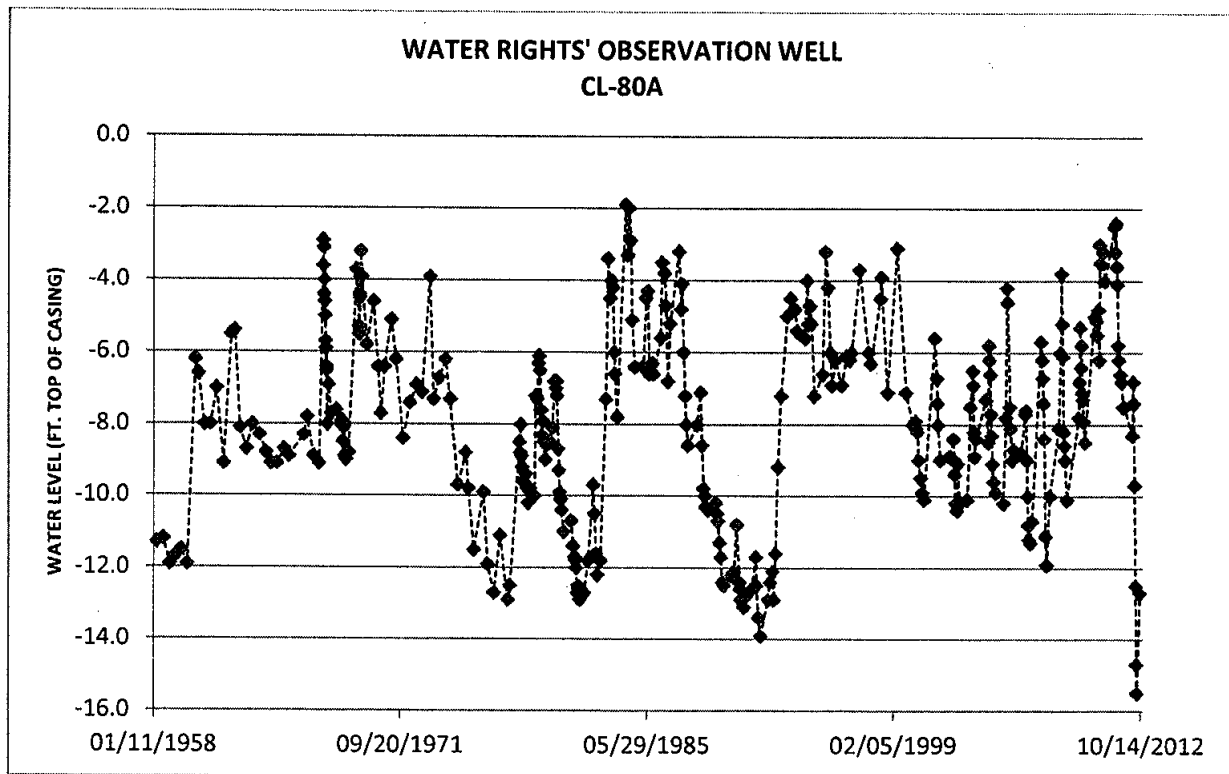


Figure 3. Hydrograph for SD DENR-Water Rights Observation Well CL-80A completed into the Missouri: Elk Point aquifer less than five and one half miles northeast of the well site proposed by Application No. 7627-3 (Water Rights, 2013a).

The observation well data shows the aquifer responds well to climatic conditions with rising water levels during wet years and gradually declining water levels during dry years. The observation well data shows that at the current level of development, climatic conditions mask the temporal effects of well withdrawals. The observation well data documents the hydraulic connection between the Missouri: Elk Point aquifer and the Missouri River (e.g. in particular, record high groundwater levels associated with flooding in 2011). Linear trend lines for the hydrographs do show a general gradual decline. This gradual decline may be attributed to either entrenching the Missouri River (Goodman, 2007) or controlling the flow of the Missouri River by the Gavins Point Dam, which no longer allows inundating of the floodplain (Stephens, 1967).

Because of this obvious hydraulic connection between Missouri: Elk Point aquifer and the Missouri River and the availability of water in the Missouri River, there is a reasonable probability that additional recharge to the Missouri: Elk Point will be induced with additional pumping. Recognizing that natural discharge from the aquifer can be captured for pumping. Additional pumping from the Missouri: Elk Point aquifer can also induce recharge from the underlying Dakota aquifer. Therefore, there is reasonable probability that unappropriated water is available from the aquifer to support this appropriation.

EXISTING WATER RIGHTS:

The proposed well site is located in southwestern Clay County less than one and one quarter miles from the Clay and Yankton county line and less than four miles north of the Missouri River. There are six water rights/permits that have diversion points within a one mile radius

from the proposed well site. The nearest water right/permit is Water Permit No. 7175-3, for the same applicant, Troy Walraven, located approximately one half mile north and up-gradient from the proposed well site (Water Rights, 2013c).

Based on the observation well data and the distance between wells, drawdown is not expected to be significant nor likely to cause adverse impacts to existing water rights. The precise drawdown cannot be quantified without aquifer testing. With that in mind, a standard permit qualification to most groundwater permits/rights states that:

“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”.

SDCL 46-6-6.1 does not protect artesian head pressure as a means of delivery and the Water Management Board has consistently recognized that to place water to maximum beneficial use a certain amount of drawdown may occur. To balance interests between irrigation use and delivery of water by artesian pressure, the Water Management Board has defined an “adversely impacted domestic well” in ARSD 74:02:04:20(7) as:

“a well in which the pump intake was set at least 20 feet below the top of the aquifer at the time of construction or, if the aquifer is less than 20 feet thick, is as near to the bottom of the aquifer as is practical and the water level of the aquifer has declined to a level that the pump will no longer deliver sufficient water for the well owner's needs”

In reality, the assurance of reasonable domestic use provided by SDCL 46-6-6.1 and ARSD 74:02:04:20(7) generally ensures not only that interference will not be adverse to domestic well users but also in existing appropriative rights (i.e. in most cases, the protection afforded to adequate domestic wells by water law, would lead to enforcement of the “standard permit qualification” before there is a reduction of needed water supplies to appropriative rights). Although drawdown is expected to be minimal, as shown by the observation well hydrographs, some drawdown will occur. Depending on the extent of drawdown, some existing well owners may need to lower their pumps to accommodate for deeper water levels. However, when considering the statute and rule, there is a reasonable probability that any well interference from these proposed applications will not be adverse to adequate domestic wells.

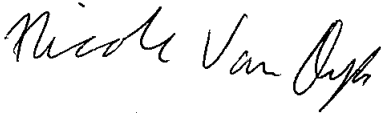
SDCL 46-5-6

Pursuant to SDCL 46-5-6, the diversion rate for an irrigation appropriation cannot be in excess of one cubic foot of water per second for every seventy acres, or “the equivalent thereof”. The statute provides that the Water Management Board may allow a greater diversion if the method of irrigation so requires. Water Permit Application No. 7627-3 proposes to divert at a rate of 1.78 cfs to irrigate 67 acres, or the equivalent of 1.86 cfs per 70 acres. The applicant does not provide a justification for the request for a diversion rate of 1.78 cfs.

CONCLUSIONS:

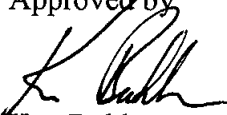
1. This application proposes to appropriate up to 134 acre-feet annually for irrigation from the Missouri: Elk Point aquifer.

2. There is a reasonable probability that unappropriated water is available from the Missouri: Elk Point aquifer to supply this proposed appropriation.
3. The Missouri: Elk Point aquifer may be confined in this area, and drawdown from pumping is not expected to be significant very far from a production well.
4. There is a reasonable probability that the well proposed by this application will not adversely impact existing water rights.



Nicole Van Dyk
SD DENR-Water Rights Program

Approved by



Ken Buhler
SD DENR-Water Rights Program

REFERENCES:

- Goodman, J.A. 2007. Report on Water Permit Application No. 6869-3 for Lewis and Clark RWS: SD DENR-Water Rights Program, Joe Foss Bldg., Pierre, SD.
- Hedges, L.S., Burch, S.L., Iles, D.L., Barari, R.A., Schoon, R.A., 1982, Evaluation of Ground-Water Resources 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., 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
- Stephens, J.C., 1967, Geology and Hydrology of Clay County, South Dakota, Part II: Water Resources, SD DENR- Geological Survey Bulletin 19, 62 p.
- Water Rights, 1979-2011, Irrigation Questionnaire Summaries 1979-2011, 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 Well Completion Reports, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2013c, Water Right/Permit Files, SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

RECEIVED

MAR 18 2013

WATER RIGHTS
PROGRAM

AFFIDAVIT OF PUBLICATION

PLAIN TALK

DENR

Division of Environmental Services

Air Quality Program

Joe Foss Building, 523 East Capitol

Pierre, SD 57501

STATE OF SOUTH DAKOTA

COUNTY OF CLAY

TERA SCHMIDT BEING FIRST DULY SWORN ON OATH DEPOSES
AND SAYS THAT SHE IS THE CLASSIFIED MANAGER OF YANKTON
MEDIA INC., A CORPORATION, THE PRINTER AND THE PUBLISHER OF THE
PLAIN TALK, A LEGAL WEEKLY NEWSPAPER PUBLISHED AND CIRCULATED
IN THE CITY OF VERMILLION, SAID COUNTY AND STATE, AND ONE OF THE
OFFICIAL NEWSPAPERS OF THE SAID COUNTY OF FACTS STATED IN THIS
AFFIDAVIT, THAT THE ANNEXED
NOTICE OF APPLICATION FOR AIR QUALITY CONSTRUCTION PERMIT

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE
NEWSPAPER ON THE 8 DAY OF MARCH 2013
THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION
OF SAID NOTICE TO WIT \$27.98 ENSURES TO THE
BENEFITS OF THE PUBLISHER OF SAID NEWSPAPER AND THAT NO
AGREEMENT AND UNDERSTANDING FOR THE DIVISION THEREOF HAS
BEEN MADE WITH ANY OTHER PERSON, AND THAT NO PART THEREOF
HAS BEEN AGREED TO BE PAID TO ANY PERSON WHOMSOEVER.

PUBLISHED ON: 3/8/13

FILED ON: 3/8/13

Tera A. Schmidt

SUBSCRIBED AND SWORN TO BEFORE ME THIS

12th

DAY OF

March

[Signature]
NOTARY PUBLIC, SOUTH DAKOTA

MY COMMISSION EXPIRES

8/19/2015

NO. 7627-3 to Appropriate
Water

Notice is given that Troy Walraven, 45306 313th St., Meckling SD 57069 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 Missouri Elk Point Aquifer (100 feet deep) located in the approximate center of the NW 1/4 Section 29 for irrigation of 67 acres located in the N 1/2 NW 1/4 Section 29, all in T93N-R53W. Applicant is requesting a diversion rate greater than the statutory limit.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7627-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a benefit to the

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 March 18, 2013.

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 \$27.98.

Published: March 8, 2013

RECEIVED

MAR 13 2013

WATER RIGHTS
PROGRAM

AFFIDAVIT OF PUBLICATION

YANKTON DAILY PRESS AND DAKOTAN

3+8

NOTICE OF APPLICATION
NO. 7627-3 to Appropriate Water

Notice is given that Troy Walraven, 45306 313th St, Meckling SD 57069 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 Missouri Elk Point Aquifer (100 feet deep) located in the approximate center of the NW 1/4 Section 29 for irrigation of 67 acres located in the N 1/2 NW 1/4 Section 29; all in T93N-R53W. Applicant is requesting a diversion rate greater than the statutory limit.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7627-3 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 March 18, 2013.

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 once at the total approximate cost of \$26.48.

Department of Environment and Natural Resources
PMB 2020
Joe Foss Building
523 East Capitol
Pierre, SD 57501-3182

STATE OF SOUTH DAKOTA
COUNTY OF YANKTON

KELLY HERTZ BEING FIRST DULY SWORN ON OATH DEPOSES AND SAYS THAT HE IS THE MANAGING EDITOR OF, YANKTON MEDIA INC, A CORPORATION, THE PRINTER AND THE PUBLISHER OF THE YANKTON DAILY PRESS AND DAKOTAN, A LEGAL DAILY NEWSPAPER PUBLISHED AND CIRCULATED IN THE CITY OF YANKTON, SAID COUNTY AND STATE, AND ONE OF THE OFFICIAL NEWSPAPERS OF THE SAID COUNTY OF FACTS STATED IN THIS AFFIDAVIT; THAT THE ANNEXED

Notice of Application No. 7627-3

TAKEN FROM THE PAPER, IN WHICH IT WAS LAST PUBLISHED IN THE NEWSPAPER ON THE 8th DAY OF March 2013 THAT THE FULL AMOUNT OF THE FEE CHARGED FOR THE PUBLICATION OF SAID NOTICE TO WIT \$26.48 ENSURES TO THE BENEFITS OF THE PUBLISHER OF SAID NEWSPAPER AND THAT NO AGREEMENT AND UNDERSTANDING FOR THE DIVISION THEREOF HAS BEEN MADE WITH ANY OTHER PERSON, AND THAT NO PART THEREOF HAS BEEN AGREED TO BE PAID TO ANY PERSON WHOMSOEVER.

PUBLISHED ON: 3/8/2013

FILED ON: 3/8/2013

SUBSCRIBED AND SWORN TO BEFORE ME THIS 8th DAY OF March

2013

NOTARY PUBLIC, SOUTH DAKOTA

MY COMMISSION EXPIRES 8/19/2015



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

February 27, 2013

Plain Talk
201 W Cherry St
Vermillion SD 57069

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 7627-3 to Appropriate Water. Please publish the notice once on March 8, 2013. 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 Troy Walraven, 45306 313th St, Meckling SD 57069 (Ph # 605-670-2061).

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

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

February 27, 2013

Press & Dakotan
319 Walnut
Yankton SD 57078

ATTENTION: Legal Public Notice

Enclosed is a Notice on Application No. 7627-3 to Appropriate Water. Please publish the notice once on March 8, 2013. 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 Troy Walraven, 45306 313th St, Meckling SD 57069 (Ph # 605-670-2061).

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**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

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

February 27, 2013

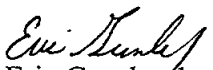
Troy Walraven
45306 313th St
Meckling SD 57069

Dear Mr. Walraven:

Water Permit Application No. 7627-3 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 Plain Talk printed at Vermillion SD (Ph # 605-624-2695) and the Press & Dakotan printed at Yankton SD (Ph # 605-665-7811). 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 March 8, 2013. 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. 7627-3 to Appropriate Water

Notice is given that Troy Walraven, 45306 313th St, Meckling SD 57069 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 Missouri:Elk Point Aquifer (100 feet deep) located in the approximate center of the NW 1/4 Section 29 for irrigation of 67 acres located in the N 1/2 NW 1/4 Section 29; all in T93N-R53W. Applicant is requesting a diversion rate greater than the statutory limit.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 7627-3 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 March 18, 2013.

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**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

APR 26 2013

Troy Walraven
45306 313th St
Meckling SD 57069

Dear Mr. Walraven:

Enclosed is Water Permit No. 7627-3 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

11-02

SOUTH DAKOTA WATER WELL COMPLETION REPORT

Location <u>N 1/2 NW 1/4</u> Sec <u>29</u> Twp <u>93N</u> Rg <u>53E</u>		Well Owner: <u>Tracy Walraven</u>	
County <u>Clay</u>		Business Name: _____	
Please mark well location with an "X" North 1 Mile		Address 1: _____	
		Address 2: <u>4530 1/2 313 ST</u>	
		City, State, Zip: <u>Marshall AR 72704</u>	
Well completion Date <u>7-18-13</u>		WELL LOG:	
Distance from nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.) <u>2000</u> ft. from <u>Septic</u> (identify source)		DEPTH	
PROPOSED USE:		FORMATION	
☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes		FROM	
☒ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well		TO	
METHOD OF DRILLING: <u>Reverse Rotary</u>		<u>top of silty clay</u> 0 7	
CASING DATA: ☐ Steel ☒ Plastic ☐ Other		<u>sandy brown clay</u> 7 40	
If other describe _____		<u>med brown sand</u> 40 70	
PIPEWEIGHT DIAMETER FROM TO HOLE DIAMETER		<u>med sand + gravel</u> 70 100	
<u>116</u> LB/FT <u>116</u> IN <u>0</u> FT <u>40</u> FT <u>28</u> IN			
<u> </u> LB/FT <u> </u> IN <u> </u> FT <u> </u> FT <u> </u> IN			
<u> </u> LB/FT <u> </u> IN <u> </u> FT <u> </u> FT <u> </u> IN			
GROUTING DATA:		STATIC WATER LEVEL <u>18</u> FEET	
Grout Type <u>Cement</u> No. of Sacks <u>30</u> Grout Weight <u> </u> Lb/gal From <u>0</u> Ft To <u>40</u> Ft		If flowing: closed in pressure _____ PSI	
Describe grouting procedure <u>pumped down w/ grouter</u>		GPM flow _____ through _____ Inch pipe	
SCREEN: ☒ Perforated pipe ☐ Manufactured		Controlled by ☐ Valve ☐ Reducers ☐ Other _____	
Diameter <u>116</u> Inches Length <u>60</u> Feet		Reduced flow rate _____ GPM	
Material <u>PSC</u>		Can well be completely shut in? _____	
Slot Size <u>.085</u> Set From <u>40</u> Feet to <u>100</u> Feet		WELL TEST DATA:	
Other information _____		☒ Pumped Describe: <u>pumped w/ turbid pump</u>	
WAS A PACKER OR SEAL USED? ☐ Yes ☒ No		☐ Bailed	
If so, what material? _____		☐ Other _____	
Describe packer(s) and location _____		Pumping Level Below Land Surface	
DISINFECTION: Was well disinfected upon completion?		<u>26</u> Ft. After <u>2</u> Hrs. pumped <u>800</u> GPM	
☒ Yes, How? <u>Chlorine</u>		<u>30</u> Ft. After <u>4</u> Hrs. pumped <u>900</u> GPM	
☐ No, Why Not? _____		If pump installed, pump rate: <u>650</u> GPM	
Lab sample sent to for water quality analysis _____		REMARKS <u>RECEIVED</u>	
		<u>OCT 10 2013</u>	
		WATER RIGHTS PROGRAM	
		This well was drilled under license # <u>444</u>	
		And this report is true and accurate.	
		Drilling firm: <u>Chattanooga Well & Foundation</u>	
		Signature of License Representative: <u>Colt W. Cisler</u>	
		Signature of Well Owner or Equitable Property Holder: _____	
		Date: <u>10-4-13</u>	

Please return White Copy to DENR Water Rights

523 E. Capitol Ave., Pierre SD 57501



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

September 27, 2013

7627-3

Daniel Langfeldt
4217 Oakridge Dr.
Midland, MI 48640

Dear Mr. Langfeldt:

Enclosed is a partially completed application to add 67 additional acres to be irrigated onto Water Permit No. 7627-3. This will bring the total area irrigated to 134 acres in the NW ¼ of Sec 29, T93N-R53W. As you can see in the enclosed information, the fee to accompany this application will be \$950.00 (\$500.00 for the first 60 acres, \$250.00 for the additional acres, and \$200.00 for in inspection fee). As we understand it, no additional diversion authority of water is being requested as 1.78 cubic feet per second (800 gallons per minute) is considered adequate to irrigate the entire 134 acres.

Please review the partially completed application as well as the enclosed map to ensure that it accurately reflects your intentions.

If you have any questions, please contact Bracken Capen at (605) 773-3352.

Sincerely,

A handwritten signature in black ink, appearing to read "Bracken Capen", written over a horizontal line.

Bracken Capen
Natural Resources Engineer
Water Rights Program

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 7627-3

I have this day, February 1, 2016, made a thorough examination of the water use system constructed by Troy Walraven, 45306 313th St, Meckling SD 57069 of Permit No. 7627-3, bearing the priority of January 9, 2013 authorizing the diversion of 1.78 cu. ft. per second of the waters of Missouri:Elk Point Aquifer for irrigation purposes, in Clay County.

Inspection contact & relationship **Troy Walraven, permit holder**
to permit holder, if applicable:

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Christensen Well & Irrigation
- 2) No. of Wells 1
- 3) Depth(s) 100 feet
- 4) Well log is available Yes

Casing:

- 1) Diameter 16 inches
- 2) Length 40 feet
- 3) Type PVC

Screen:

- 1) Type PVC Perforated
- 2) Length 60 feet
- 3) Static water level 18 feet

Pump:

- 1) Make Submersible
- 2) Model _____
- 3) Capacity 800 GPM

Motor:

- 1) Make Submersible
- 2) Model No. _____
- 3) Horsepower rating 40 hp

C. Works used to apply water to beneficial use:

Center pivot:

- 1) Make T-L Irrigation Systems
- 2) Overall length 1265 feet
- 3) Number of towers 8
- 4) End gun Yes
- 5) Capacity 800 GPM

Comments: T-L Irrigation uses a hydraulic drive system.

Chemigation Equipment:

- 1) Does chemigate Yes
- 2) Main line check valve Yes
- 3) Inspection port/air relief Yes
- 4) Low pressure drain Yes
- 5) Discharge is 20' from source Yes
- 6) Interlock type electrical
- 7) Injection pump type piston
- 8) Injection check valve Yes
- 9) Injection line check valve or positive displacement pump Yes

Comments: Permit holder was not chemigating at time of inspection, but provided the above answers to questions asked. Permit holder indicated he uses chemigation primarily to apply liquid nitrogen to corn crop. A copy of the chemigation rules and Appendix A were reviewed and provided to the permit holder.

D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by Yes
- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period Yes, began irrigating in 2013.

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: East 1330', South 1330' from NW Corner of Sec 29-T93N-R53W; Lat 42.84820/Long -97.13646; approximate center of NW 1/4 Sec 29-T93N-R53W.
2. The works are capable of diverting and conveying to the place of use 1.78 cfs or 800 gpm of water which is to be used for irrigation. Water has been put to beneficial use to the maximum extent as follows:
All land is located in Sec 29-T93N-R53W.
NW 1/4 NW 1/4 - 31 ac NE 1/4 NW 1/4 - 34 ac
comprising a total of 65 acres of land and the license should be issued for 1.78 cfs or 800 gpm.
3. All structures, wells and lands on map Yes

Harold Holoch

Harold Holoch, PE
Engineer Water Rights Inspector
DENR, Water Rights Program

Date report completed: March 15, 2016

**NOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USE**

MAIL TO: PMB 2020

DENR - Water Rights Program
523 E Capitol Ave
Pierre, SD 57501-3182

ph. (605) 773-3352

Date

2-1-16

FROM:

TROY Walraven
(name)45306 313th ST
(address)Meckling S.D. 57069
(city) (state) (zip)605-624-5431
(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. 7627-3 states that the water use system is to be constructed by

March 18, 2018, and water is to be put to beneficial use by March 18, 2022
(date) (date)

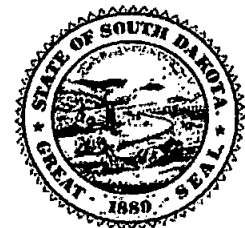
The water use system was completed on

July 2013
(date)

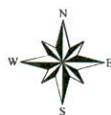
Applying the water to beneficial use was completed on

July 2013
(date)

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

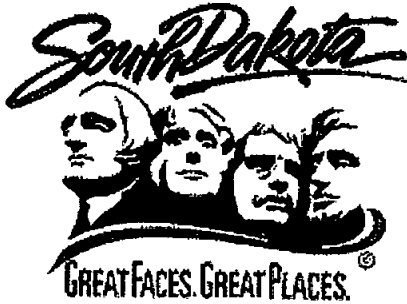


7627-3



Harold Holoch

Harold Holoch, PE
Water Rights Inspector
February 29, 2016



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

MAR 23 2016.

6966-3
7175-3
7627-3

Troy Walraven
45306 313th St
Meckling SD 57069

Dear Mr. Walraven:

Enclosed are Water License Nos. 6966-3, 7175-3 and 7627-3. They are the final water right documents completing your process of obtaining Water Rights. Included with each 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 wells authorized by Water Right Nos. 6966-3, 7175-3 and 7627-3, 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 Licenses, State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Sincerely,

A handwritten signature in black ink that reads "Jeanne Goodman". The signature is fluid and cursive, with a long horizontal line extending from the end.

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

enclosures

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 7627-3

(1) Troy Walraven, 45306 313th St, Meckling SD 57069 made Application No. 7627-3, January 9, 2013 for a water permit to divert 1.78 cubic feet of water per second from ground water, one well (Missouri Elk Point Aquifer), Clay County, South Dakota for irrigation purposes. Permit No. 7627-3, with a priority date of January 9, 2013 was approved March 18, 2013 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before March 18, 2018 and for the application to beneficial use of said water on or before March 18, 2022.

The Permit holder submitted a "*Notice of Completion of Works and Application of Water to Beneficial Use*" on February 1, 2016. The "*Notice*" stated the water use system was completed and water placed to beneficial use in July, 2013.

(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 1,330 feet east and 1,330 feet south of the NW corner of Section 29, T93N, R53W (approximate center of the NW ¼).

(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:

T93N, R53W Section 29	NW ¼ NW ¼	31 acres
	NE ¼ NW ¼	34 acres
	Total	65 acres

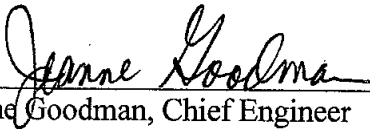
(4) Pursuant to South Dakota Water Law 46-5-30.1 Troy Walraven, 45306 313th St, Meckling SD 57069 the holder and/or owner of Water Right No. 7627-3 is issued a license to appropriate water, the right to use 1.78 cubic feet of water per second from ground water, one well (Missouri Elk Point Aquifer) with a priority date of January 9, 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. 7627-3 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. 7627-3 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 July, 2013 by Christensen Well & Irrigation Company. A copy of the well log is on file with the Water Rights Program.***

continued

- Pursuant to SDCL 46-5-6 which allows a greater diversion rate if the method of irrigation, time constraints, or type of soils so requires, Permit No. 7627-3 authorizes a maximum diversion rate of 1.78 cfs for the irrigation of 67 acres with an annual volume not to exceed 2 acre feet of water per acre per year.
- 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

MAR 23 2016

date

