

WATER PERMIT NO. 7175-3

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: **133 acres**

Source of Water Supply: **groundwater**

Water to be used for: **irrigation** County: **Clay**

Type of Waste Disposal System: **NA**

Location: **3 miles northwest of Meckling**

PRIORITY

Date Received: **1-4-10**

Application/License Fee: **\$1050.00**

Corrected Application Received:

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

Remarks:

Diversion Point: **center of SW ¼ Sec 20-T93N-R53W**

Land to be Irrigated: **SW ¼ Sec 20-T93N-R53W**

Depth of Well: **100 feet**

Well Driller:

Remarks:

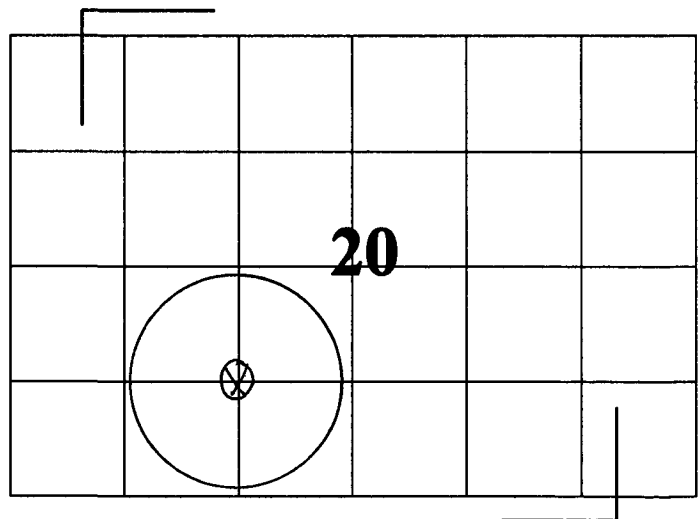
Type of Map: **aerial**

Prepared by: **Kelly Andersen, Clay Co FSA**

Reviewed and the Number Assigned on: **1-4-10**

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____



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

Mail to: Water Rights Program Joe Foss Building 523 E. Capitol Pierre, SD 57501-3181 (605) 773-3352	No. <u>7175-3</u> (office use only)	Hydrologic Unit <u>10170102</u>
	Basin <u>Vermillion River</u>	
	Newspaper <u>Plain Talk 201 W Cherry St.</u>	
	<u>605-624-2695 Vermillion 57069</u>	

RECEIVED
JAN -4 2009
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.)

- Name of Applicant TROY Walraven Phone 605-670-2061
(check one) ☒ Owner ☐ Tenant/lessee
Mailing Address 45306 313th St Meckling State S.D. 57069
(Street, RR, or Box and City) (Zip Code)
- Amount of water claimed 1.78*CFS or 800 **GPM ***AF Total Acreage 133
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)
- Source of water supply Under Ground
- Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) County CLAY
1 Well in SW 1/4 Section 20-93N-53W
- County or counties where water will be used CLAY
- Annual period during which water is to be used Summer May 1 - Sept. 30
- 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>SW 1/4 Sec 20-93N-53W</u>	<u>133 ac.</u>		

8. Give a description of the project. (Attach sheet if more space is needed)
- 1 Well in the center of SW 1/4 Sec 20-93N-53W covering 133 ac of land.

STATE OF SOUTH DAKOTA) SS
County of Yankton

Attachments: Attach Form 2A if diversion is from a well or dugout, or if storage of water is proposed. Attach map and any other technical information. (see instructions)

I, Troy Walraven, the applicant, certify that I have read this application, have examined the attached map and that the matters stated are true and that I intend, and am able to complete the necessary construction.

Applicant's signature Troy Walraven

Subscribed and sworn to before me this 28th day of December 20 09

[Signature]
Notary Public signature

My commission expires 11-21-12

**SOUTH DAKOTA
WATER PERMIT NO. 7175-3**

Date of first receipt of application January 4, 2010.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 7175-3 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. 7175-3 appropriates 1.78 cubic feet of water per second from one well to be completed into the Missouri:Elk Point Aquifer (approximately 100 feet deep) located in the center of the SW 1/4 Section 20 to irrigate 133 acres located in the SW 1/4 Section 20; 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 4, 2010.
4. The date of approval of Permit No. 7175-3 is March 15, 2010.
5. One-fifth of the construction is to be completed on or before September 15, 2012.
6. All construction is to be completed on or before March 15, 2015.
7. Water is to be put to beneficial use on or before March 15, 2019.
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. 7175-3 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: Garland Erbele

Garland Erbele, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

APR 06 2010
date



Supplemental Information

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 28" Depth 100'
- b) Casing Type PVC Diameter 16" Thickness .616
- c) Screen Type PVC Diameter 16" Thickness .616
- d) Gravel Pack Good Length of Gravel Pack 20' to 100'
- e) Depth to Top of Water Bearing Material 25'
- f) Depth to Water (ground surface to water level) 25'
- g) Distance to nearest existing domestic well:
- On applicants 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

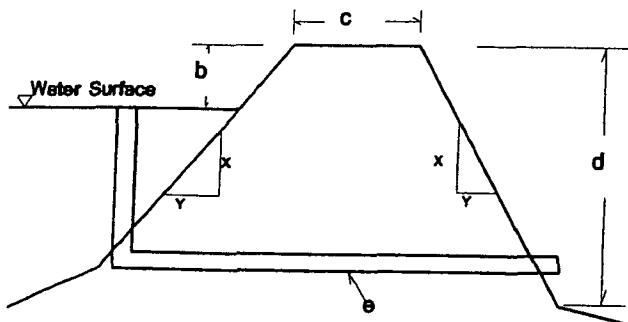
- a) Surface Dimensions — Depth —
- b) Depth to water (ground surface to water level) —

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 —
Upstream —
Downstream —
- h) Surface Area of Impoundment —
- i) Storage — Acre Feet
- j) Drainage Area Above Dam — Acres

Kelly Andersen Clay County FSA PT 5-22-09



United States Department of Agriculture Farm Service Agency



South Dakota
Clay County

RECEIVED

JAN - 4 2009

WATER RIGHTS
PROGRAM

Farm Number
4474

Township-Range-Section
3N53W20

Legend

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



1:8,421

USDA FSA maps are for FSA Program administration only. This map does not represent a legal survey or reflect actual ownership, rather it depicts the information provided directly from the producer and/or the 2008 ortho rectified imagery for South Dakota. The producer accepts the data "as is" and assumes all risks associated with its use. The USDA Farm Service Agency assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside of FSA Programs.

Wetland identifies 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.

Apr 06, 2009

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 1/4, 20 10

RECEIVED OF Troy 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>7175-3</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>7175-3</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. 04328

By

Laurel Erbe
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. 7175-3, 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. 7175-3, Troy Walraven, 45306 313th Street, Meckling SD 57069.

The Chief Engineer is recommending APPROVAL of Application No. 7175-3 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. 7175-3 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.

Garland Erbele, Chief Engineer
February 10, 2010

**Report on Water Permit Application No. 7175-3
for Troy Walraven
January 8, 2010**

Application No. 7175-3 proposes to appropriate 800 gallons per minute (1.78 cfs) from one well approximately 100 feet deep located in the center of the SW ¼ of Section 20, T93N R53W in Clay County. The water is to be used to irrigate approximately 133 acres located in the SW ¼ Section 20; all in T93N R53W. The annual period during which water will be used is May 1 through September 30.

AQUIFER: Missouri Elk Point

This report will address the availability of unappropriated water from the Elk Point management unit of the Missouri aquifer.

WATER AVAILABILITY

Aquifer Characteristics:

The Missouri Elk Point is a buried outwash (sand and gravel) that is under water table conditions in the area of this application. The aquifer underlies 74,500 acres and contains an estimated 1.1 million acre feet of recoverable water in storage in Clay County (Hedges, 1982).

No test well information was provided with this application. However, there is sufficient information available from nearby wells completed in the aquifer to evaluate this application.

Observation Well Data:

The Water Rights Program monitors two observation wells, CL-80A and YA-80KA, located within five and a half miles of this application location. Water levels for these wells show good response to climatic conditions, that is, rising water levels during wet years (recharge) and gradually declining water levels during dry years due to natural discharge and to pumping. The water level record indicates that the aquifer is capable of sustaining additional withdrawals (Water Rights, 2009).

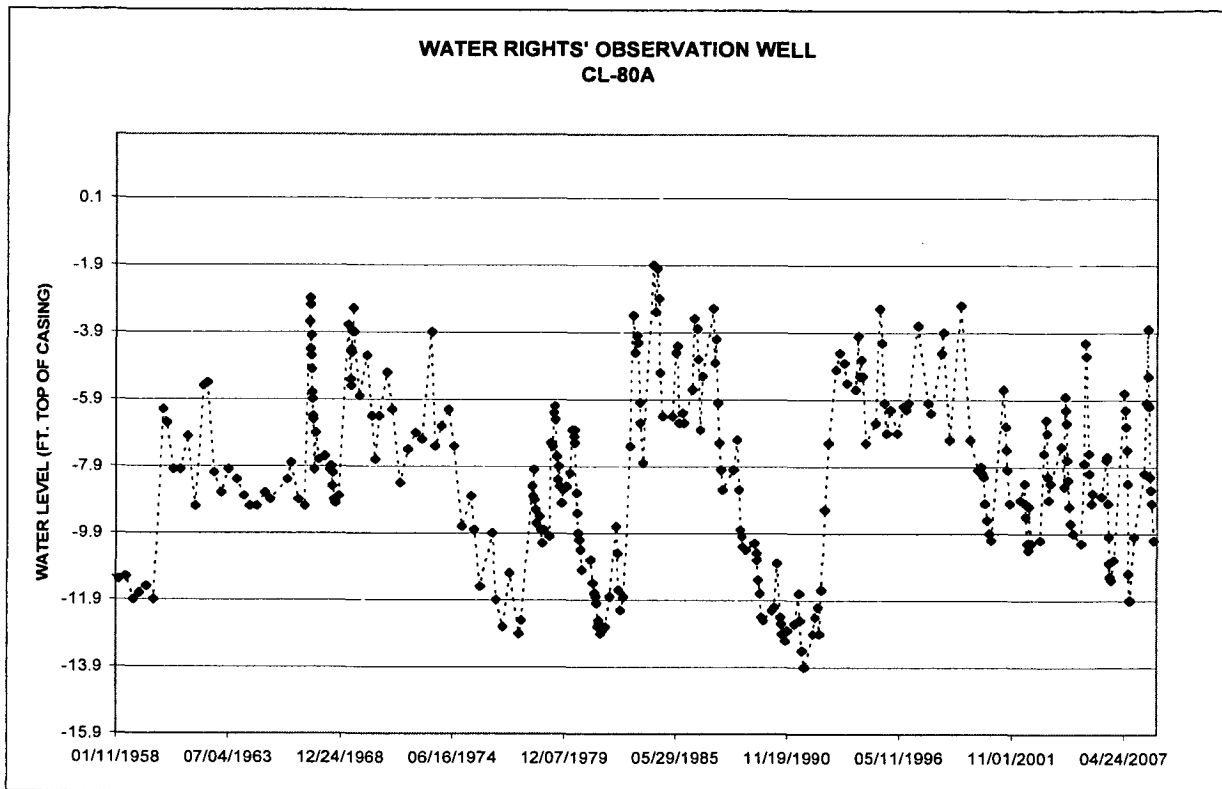


Figure 1. Hydrograph for Water Rights Observation Well CL-80A, completed into the Elk Point management unit of the Missouri Aquifer within four miles of 7175-3

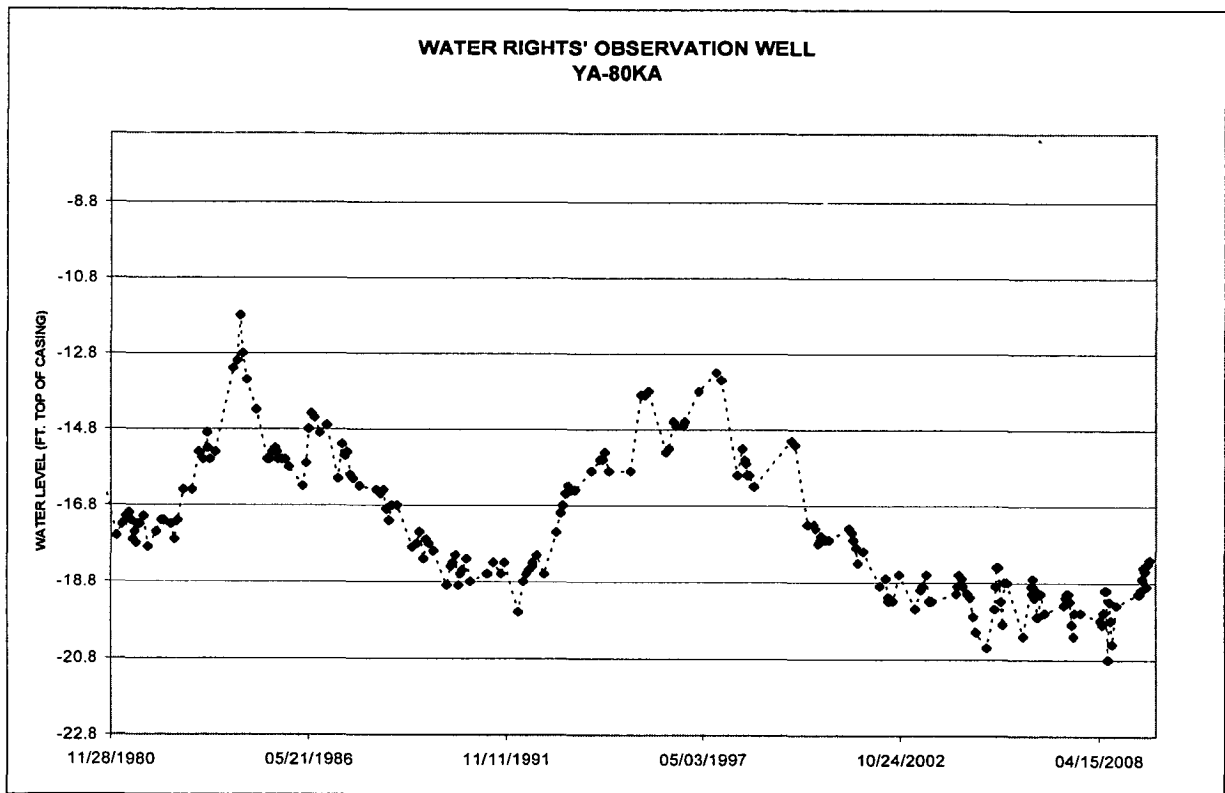


Figure 2. Hydrograph for Water Rights Observation Well YA-80KA, completed into the Elk Point management unit of the Missouri Aquifer within five miles of 7175-3

In general, the hydrographs shows that over the period of record, withdrawals have not exceeded recharge.

Review of Existing Water Permits/Rights/Water Use:

Records of irrigation use from the Missouri aquifer, which includes the Peoria management unit, the Pierre management unit, the Greenwood management unit and the Elk Point management unit date back to 1979. The Elk Point management unit typically includes the majority of irrigators; irrigators in the other management units typically total less than ten.

Table 1 shows the number of appropriations, the total amount of water appropriated, and the reported amount of water pumped for each year. The average number of appropriations is just over 301, with the average appropriation being nearly 127,000 acre-feet and the average pumpage reported at over 17,000 acre-feet.

IRRIGATION USE (ac-ft/yr) M			
Year	Number of Appropriations	Appropriation (ac-ft/yr)	Pumpage Reported (ac-ft/yr)
2007	368	140746.6	31052.03
2006	355	137411.6	28874.29
2005	337	130966.6	24176.62
2004	323	127635.8	24515.85
2003	315	126059.8	27161.56
2002	316	126235.8	24105.36
2001	314	126217.4	19451.93
2000	310	125532.2	27070.99
1999	308	125225.6	14748.02
1998	313	127862.6	11127.24
1997	305	126518.2	17182
1996	296	124606.2	9412.78
1995	292	121644.25	18320.24
1994	297	123656.75	10323.94
1993	299	125656.3	1475.2
1992	296	125336.68	1881.95
1991	301	126551.68	18798.6
1990	299	128458.33	19694.5
1989	294	126847.33	25941.9
1988	283	124014.13	28756.35
1987	282	124104.33	13439.7
1986	288	125842.47	6451.6
1985	284	125068.47	13983.5
1984	283	126743.35	9194.3
1983	274	121895.73	10834.04
1982	272	123559.28	18822.35
1981	302	136318	14233
1980	267	126362	15205
1979	265	124828	10377
AVERAGE	301.31	126962.26	17124.55
MAXIMUM	368	140746.6	31052.03
MINIMUM	265	121644.25	1475.2

Table 1. Irrigation usage from the Missouri aquifer (Water Rights, 1979-2007).

There are ten existing water permits/rights for irrigation located within two miles of this application. The nearest permit, No. 6642-3, is in the SE quarter of the same section (Sec. 20) approximately one half mile away. Water levels do fluctuate as a result of area pumping but this does not affect the availability of water from the aquifer.

Recharge:

The Missouri aquifer is recharged from several sources. Recharge to the Missouri aquifer occurs through infiltration and subsequent percolation of precipitation in areas where the aquifer is near land surface (Niehus, 1994). Normal precipitation in Clay County is estimated to be 500,000 acre-feet (Christensen, 1967), a portion of which also contributes to aquifer recharge. The aquifer is also recharged from the underlying Dakota aquifer and some recharge also is from the Missouri River during periods of high flow and stage (Niehus, 1994).

Conclusions:

1. Water is available from the Elk Point management unit of the Missouri aquifer.
2. The aquifer is under water table conditions at this location. Drawdown will result from pumping. Interference is not expected to be a problem.
3. If the well covered by this Permit depletes the domestic supplies or interferes with prior water rights, restrictions or other arrangements may be required to protect these water supplies.
4. This well must be constructed in accordance with SD Well Construction Standards.



Hayes Haas
Natural Resources Engineer

Bibliography:

Christensen, C.M., J.C. Stephens, 1967, Geology and Water Resources of Clay County, South Dakota, Bulletin 19, Part II Water Resources, South Dakota Geological Survey, Vermillion, SD 57069

Hedges, L.S. et al, 1982, Evaluation of Ground-Water Resources Eastern South Dakota and Upper Big Sioux River, South Dakota and Iowa, for the U.S. Army Corps of Engineers, SD DENR, SDGS, Vermillion, SD 57069

Niehus, C.A., 1994, Water Resources of Lincoln and Union Counties, South Dakota, USGS WRI Report 93-44195, United States Geological Survey, Rapid City, SD 57702

Water Rights, 2009, Unpublished Observation Well Records for Clay County, SD DENR, Division of Water Rights, Pierre, SD, 57501

AFFIDAVIT OF PUBLICATION

State of South Dakota, County of Clay, ss.

Penny Tucker

Being first duly sworn, deposes and says: That he/she is a resident of the County of Clay and State of South Dakota; that

THE PLAIN TALK

is a legal newspaper of general circulation, printed and published in Vermillion, in said County and State, by Yankton Media, Inc., and is now and has been such newspaper continuously during all the times hereinafter mentioned; that affiant is and was during all the time hereinafter mentioned in charge of the advertising department thereof, and has personal knowledge of all the facts stated in this affidavit: and that the notice and advertisement headed:

NOTICE OF APPLICATION NO. 7175-3

to Appropriate Water

a printed copy of which is hereunto attached and made a part hereof, was printed and published in the said newspaper at least once in each week

for 2 successive weeks; that said newspaper at the time of the first publication of said notice hereinafter stated, had, and still has, a bona fide circulation of over two-hundred paid copies weekly, and had been published in the said county of Clay for more than one year immediately prior to the date of the said publication of said notice, and that said newspaper during said times, was, and is, printed in part in an office maintained at said city of Vermillion, the said place of publication; that the first publication of said notice in said newspaper as aforesaid

was on Friday, the 26th day of February 20 10, and that the succeeding publications were severally

on Friday, the 5th day of March, 20 10,

on Friday, the _____ day of _____, 20 _____,

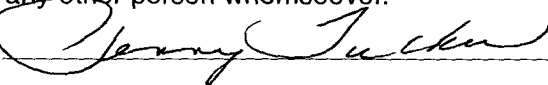
on Friday, the _____ day of _____, 20 _____,

on Friday, the _____ day of _____, 20 _____,

that the fees charged for the printing and publication of the said notice and advertisement in said newspaper as aforesaid were

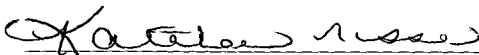
Forty-two dollars and 30 cents

and that said fees for the printing and publishing of said notice and advertisement have been fully paid; that the full amount of the fee charged for the publishing of the said attached annexed notice and advertisement inures to the benefit of the publisher of the said newspaper, that no agreement or 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 other person whomsoever.



Subscribed and sworn to before me

this 9th day of March, 20 10



Notary Public

My Commission Expires 8-27-2011

RECEIVED

MAR 12 2010

WATER RIGHTS
PROGRAM

NOTICE OF APPLICATION NO. 7175-3 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 (approximately 100 feet deep) located in the center of the SW 1/4 Section 20 to irrigate 133 acres located in the SW 1/4 Section 20; all in T93N-R53W.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends **APPROVAL** of Application No. ~~7175-3 to Appropriate Water~~ 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 15, 2010.

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 twice at the total approximate cost of \$42.30

Estimated publishing cost per circulated copy: \$.01
Publish: February 26 & March 5, 2010



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

February 17, 2010

Plain Talk
201 W Cherry St
Vermillion SD 57069

ATTENTION: Legal Public Notice

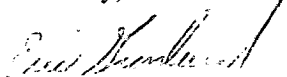
Enclosed is a Notice on Application No. 7175-3 to Appropriate Water to be published twice. Please publish the first notice on February 26, 2010 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

The applicant must verify to you that the notice is to be published, before you make the first publication. **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 the first publication immediately. The publication is checked for accuracy so any corrections can be made in the second publication. You may use the form below or fax a copy of the first publication. Any fax should be sent to the attention of Karen Schlaak at (605) 773-4068. Publication errors can invalidate the public notice.

After the second publication, **please send us an affidavit or use the enclosed Proof of Publication form.** 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

-----CUT HERE-----

No. 7175-3

TO: Eric Gronlund
Water Rights Program
Joe Foss Building
Pierre SD 57501-3181

Date _____

We are in receipt of your letter of February 17, 2010 enclosing Notice to Appropriate Water by Application No. 7175-3 which was first published in our issue of _____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

Name _____

Newspaper _____



**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 DATES, CONTACT
THE NEWSPAPER RIGHT AWAY.

February 17, 2010

Troy Walraven
45306 313th St
Meckling SD 57069

Dear Mr. Walraven:

Water Permit Application No. 7175-3 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 Publisher of the Plain Talk printed at Vermillion SD (Ph # 605-624-2695). You will need to contact the newspaper and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and report on the applications 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 to authorize publication of your Notice and to arrange for payment. Early contact with the paper can eliminate delays. Upon receiving authorization, the publisher has been instructed to publish your notice once each week for two consecutive weeks. 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 applications.

Sincerely,

Eric Gronlund
Natural Resources Engineer
(605) 773-3352
eric.gronlund@state.sd.us

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 first Notice on February 26, 2010 with the second publication 7 days later. 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. 7175-3 to Appropriate Water

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Published twice 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 06 1996

Troy Walraven
45306 313th St
Meckling SD 57069

Dear Mr. Walraven:

Enclosed is Water Permit No. 7175-3 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,

Garland Erbele, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 7175-3

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. **7175-3**, bearing the priority of **January 4, 2010** 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) **110** feet
- 4) Well log is available **Yes**

Casing:

- 1) Diameter **16** inches
- 2) Length **70** feet
- 3) Type **PVC**

Screen:

- 1) Type **PVC Perforated**
- 2) Length **40** feet
- 3) Static water level **6** feet

Pump:

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

Motor:

- 1) Make **Submersible**
- 2) Model No.
- 3) Horsepower rating **30** hp

C. Works used to apply water to beneficial use:

Center pivot:

- 1) Make T-L Irrigation Systems
- 2) Overall length 1295 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 2011.

List any extended period of nonuse: None

- 3) Exceptions to compliance are: None

Report of Examination of Works

Permit No. 7175-3

E. Condition and Location:

1. The system is in good condition with the point(s) of diversion located as follows: East 1360', North 1350' from SW Corner of Sec 20-T93N-R53W; Lat 42.85555/Long -97.13682; approximate center of SW ¼ Sec 20-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 20-T93N-R53W.

NW ¼ SW ¼ - 34 ac

NE ¼ SW ¼ - 34 ac

SW ¼ SW ¼ - 32 ac

SE ¼ SW ¼ - 33 ac

comprising a total of 133 acres of land and the license should be issued for 1.78 cfs or 800 gpm.

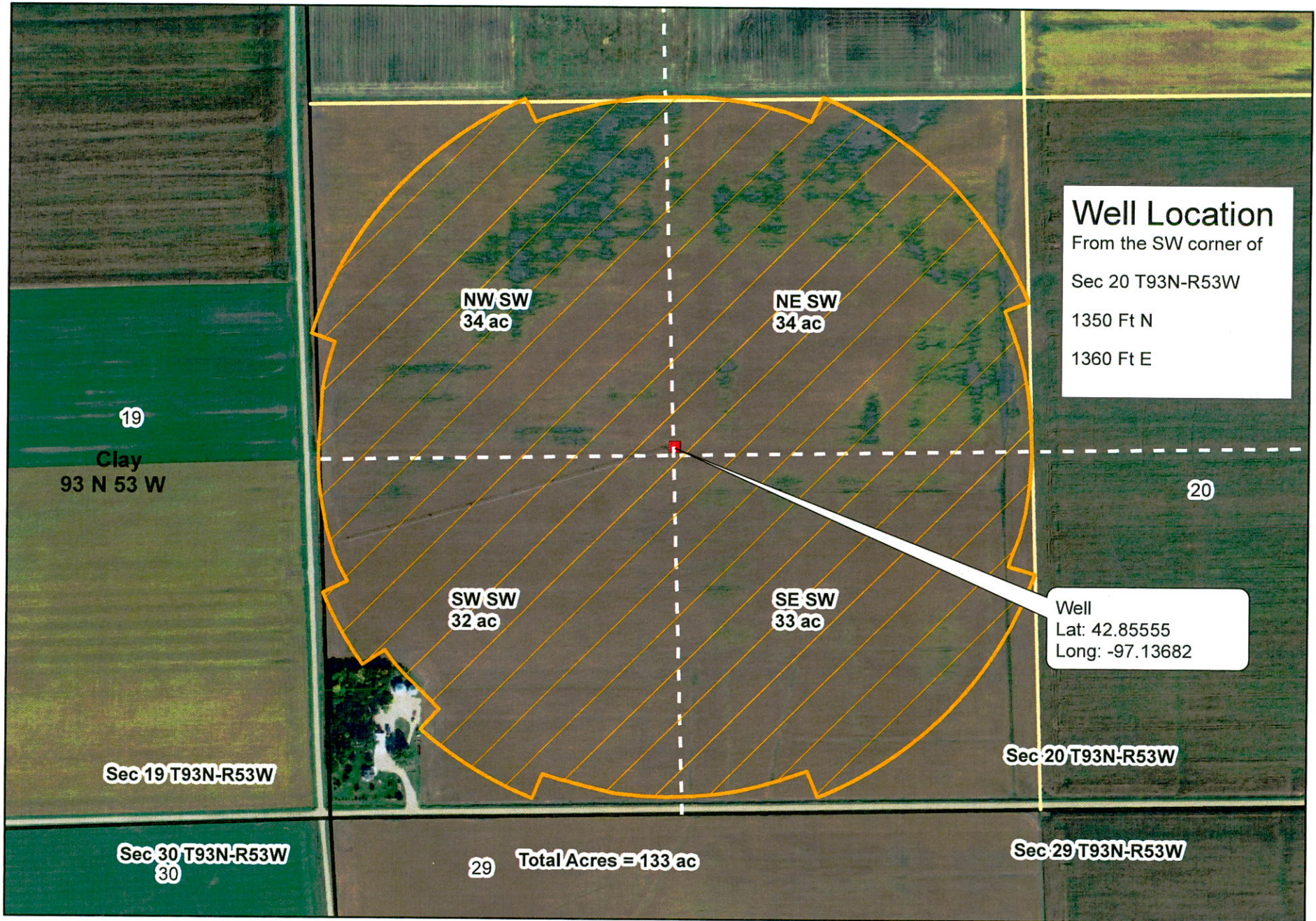
3. All structures, wells and lands on map Yes

Harold Holoch

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

Date report completed: March 15, 2016

7175-3



Harold Holoch
Harold Holoch, PE
Water Rights Inspector
February 29, 2016

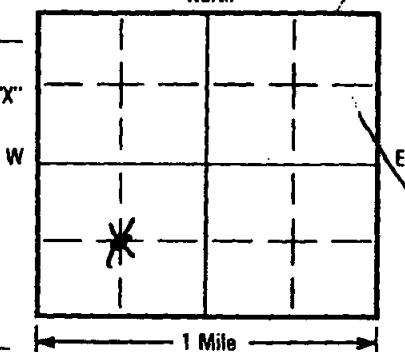
7175-3

SOUTH DAKOTA WATER WELL COMPLETION REPORT

07-92

 Location SW 1/4 SW 1/4 Sec 20 Twp 93N Rg 53W
 County Arapahoe North

Please mark well location with an "X"



Well-Completion Date

10-19-10

LOCATION:

 Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 800 ft. from septic tank (identify source).

PROPOSED USE:

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

METHOD OF DRILLING:

Reverse Rotary

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe _____

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
<u>160</u> LB/FT	<u>16</u> IN	<u>0</u> FT	<u>70</u> FT	<u>28</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>Cement</u>	<u>11</u>	_____ lb./gal	<u>0</u> ft.	<u>10</u> ft.
_____	_____	_____ lb./gal	_____ ft.	_____ ft.

 Describe grouting procedure: Pump w/ pressure grouter
SCREEN: ☒ Perforated pipe ☐ ManufacturedDiameter 16 IN Length 40 FEETMaterial ARCSlot Size 085 Set From 70 Feet to 110 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:chlorine

_____ NO, Why Not? _____

Laboratory sent to for water quality analysis _____

Well Owner: Troy Walraven

Business Name: _____

Address: 45306 313 st
Meckling, SD 57044

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>top soil</u>	<u>0</u>	<u>15</u>
<u>coarse sand</u>	<u>15</u>	<u>36</u>
<u>grey clay</u>	<u>36</u>	<u>66</u>
<u>med sand</u>	<u>66</u>	<u>76</u>
<u>coarse gravel</u>	<u>76</u>	<u>90</u>
<u>gravel + rocks</u>	<u>90</u>	<u>96</u>
<u>fine sand</u>	<u>96</u>	<u>110</u>

STATIC WATER LEVEL 6 Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☒ PumpedDescribe: pump w/ turbine☐ Bailed☐ Other

Pumping Level Below Land Surface

16 ft. After 2 Hrs. pumped 1000 GPM

_____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate 625 GPM

REMARKS

RECEIVED

DEC 15 2010

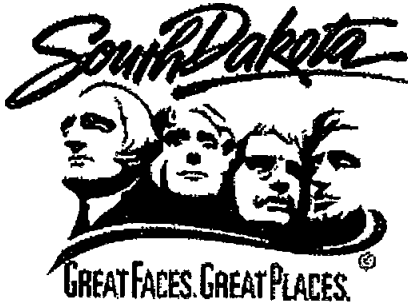
WATER RIGHTS
PROGRAMThis well was drilled under license # 444

And this report is true and accurate.

Drilling firm Chalson Well & DrillingSignature of License Representative: Chalson

Signature of Well Owner or Equitable Property Holder: _____

Date: 12-15-10



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,

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

enclosures

**STATE OF SOUTH DAKOTA
WATER LICENSE NO. 7175-3**

(1) Troy Walraven, 45306 313th St, Meckling SD 57069 made Application No. 7175-3, January 4, 2010 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. 7175-3, with a priority date of January 4, 2010 was approved March 15, 2010 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before March 15, 2015 and for the application to beneficial use of said water on or before March 15, 2019.

(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 1,360 feet east and 1,350 feet north of the SW corner of Section 20, T93N, R53W (approximate center of the SW 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 20	NW ¼ SW ¼	34 acres
	SW ¼ SW ¼	32 acres
	NE ¼ SW ¼	34 acres
	SE ¼ SW ¼	33 acres
	Total	133 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. 7175-3 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 4, 2010 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. 7175-3 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. 7175-3 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 October, 2010 by Christensen Well & Irrigation Company. A copy of the well log is on file with the Water Rights Program.*
- 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

