

**SOUTH DAKOTA
WATER PERMIT NO. 8425-3**

Date of first receipt of application March 18, 2020.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8425-3 to Orland Ridge Dairy LLC, c/o Brian Bosma, 23932 448th Ave, Winfred SD 57076 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. 8425-3 appropriates 161 acre-feet of water annually at a maximum pump rate of 0.33 cubic feet of water per second from two wells to be completed into the Vermillion East Fork:Montrose Aquifer (52 feet deep) located in the NE 1/4 NW 1/4 Section 24-T105N-R54W for commercial use in a dairy operation located in the NW 1/4 Section 7-T105N-R53W. The well site is located approximately 7 miles south and 6 miles west of Madison SD.
2. The water appropriated shall be used for the purpose of commercial use and may not exceed the amount of water needed for beneficial use.
3. The water is to be used during the following described annual period: January 1 – December 31.
4. The date of approval of Permit No. 8425-3 is May 4, 2020.
5. The date from which applicant may claim right is March 18, 2020.
6. One-fifth of the construction is to be completed on or before November 4, 2022.
7. All construction is to be completed on or before May 4, 2025.
8. Water is to be put to beneficial use on or before May 4, 2029.
9. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The wells approved under Water Permit No. 8425-3 will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner, under these Permits shall control withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The wells authorized by Permit No. 8425-3 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. Water Permit No. 8425-3 is subject to compliance with requirements of the Department's Water Pollution Control Permit issued pursuant to SDCL 34A-2-36 or 34A-2-36.2 or 34A-2-112 or 34A-2-124 for concentrated animal feeding operations.

(continued)

4. Water Permit No. 8425-3 is subject to compliance with all existing and applicable Water Management Board Rules including but not limited to:
 - a) Chapter 74:54:01 Ground Water Quality Standards,
 - b) Chapter 74:54:02 Ground Water Discharge Permit,
 - c) Chapter 74:51:01 Surface Water Quality Standards,
 - d) Chapter 74:51:02 Uses Assigned to Lakes,
 - e) Chapter 74:51:03 Uses Assigned to Streams, and
 - f) Chapter 74:52:01 through 74:52:11 Surface Water Discharge Provisions
5. The Permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Vermillion East Fork:Montrose aquifer.
6. Water Permit No. 8425-3 authorizes a total annual diversion of 161 acre feet of water from the Vermillion East Fork:Montrose aquifer.

WATER MANAGEMENT BOARD

By: *Eric Gronlund*
Eric Gronlund, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

MAY 12 2020

date



PAID

MAR 18 2020

Ck# 19714

Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8425-3</u>	(office use only) Hydrologic Unit <u>10170103</u>
	Basin <u>Vermillion River</u>	
	Newspaper <u>Madison Daily Leader</u>	

Application For Permit To Appropriate Water Within The State Of South Dakota

Check use(s) of water:

☐ Municipal	☐ Water Distribution System	☐ Recreational	☐ Institutional
☐ Rural Water System	☐ Commercial	☐ Fish & Wildlife	☐ Geothermal
☒ Domestic (over 18 gpm)	☐ Industrial	☐ Other _____	

Type of Application: (check one)

☒ New	☐ Vested Right (Use predates Mar 2, 1955)	☐ Future Use Reservation
☐ Place to Beneficial Use Water Reserved by Future Use Permit No. _____		
☐ Amendment/Correction to Permit No. _____		

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

- Name to Appear on Water Permit Orland Ridge Dairy, L.L.C.
Mailing Address 23932 448th Ave. Winfred SD 57076
(Address) (City) (State) (Zip Code)
Phone _____ Mobile (509)391-1100 Email maplegrave@bentonrea.com
- Amount of water claimed 0.33 *CFS or 150 **GPM and 161 ***AF or 52.6 million Gallons
Flow rate and volume are both required. (*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use)
- Source of water supply 2 new Wells
- Location of point of diversion Lot 1, Orland Ridge Addition, NE 1/4 of NW 1/4, S24-T105N-R54W County Lake
(example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)
If not a public water supply (e.g. municipal), will water be used outside of the area described above? ☒ Yes ☐ No
If "Yes," where will water be used? NW 1/4 of S7, T105N, R53W
(example - NW1/4 section 12-T104N-R53W)
- County or counties where water will be used Lake County
- Annual period during which water is to be used Daily Jan 1 - Dec 31
- Give a description of the project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed)
Water will be used to supply a new dairy being built on the NW 1/4 of S7, T105N, R53W. See attached well log and maps for additional information.

I, Bosma
[Signature] _____, the applicant, certify under
Name of Person Title (if applicable)

penalty of perjury that I have read this application, examined the attached map, and that the matters stated are true. I further certify, if acting on behalf of an entity or individual other than myself, that I am authorized to submit this application.

EXHIBIT A



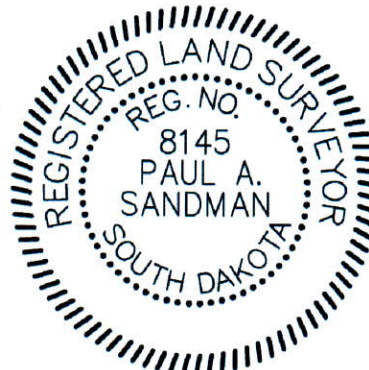
Certificate:

I hereby certify that this land surveying document was prepared and the related survey work was performed by me or under my direct personal supervision and that I am a duly licensed Land Surveyor under the laws of the State of South Dakota.

Paul A. Sandman
License number 8145

Date

Pages or sheets covered by this seal: 1



SCALE: 1"=100'

LEGAL DESCRIPTION:

THE NORTH 495' OF THE WEST 264' OF THE NE 1/4 OF THE NW 1/4 SEC. 24-T105N-R54W
5TH P.M., LAKE COUNTY, SOUTH DAKOTA. (IN PROCESS OF BEING PLATTED)

LEGEND:

- FD. MONUMENT
- R/W RIGHT-OF-WAY
- PREVIOUSLY PLATTED LINE
- EASEMENT LINE

PREPARED BY:

Midwest
Land Surveying, Inc.
Land Surveying and GPS Consulting
211 E. 14th Street Suite 100
Sioux Falls, South Dakota 57104
Phone: (605) 339-8901 FAX: (605) 274-8951

DRAWN BY:
JEB

APPROVED BY:
PAS

DATE:
12/18/19

PROJECT NO.
19-926

SHEET
1 OF 1



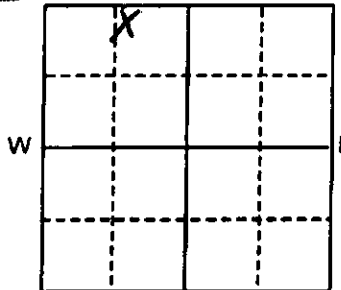
		EXHIBIT A – SITE PLAN BOSMA DAIRY AWMS DAKOTA ENVIRONMENTAL CONSULTANTS INCORPORATED		REV. DATE DESCRIPTION 10/25/18 TB	BY CHKD BF
JOB NO: 1814 SCALE: 1" = 1000' DWG: 1		P.O. BOX 636 HURON, SD 57350 605-352-5610			

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location NE 1/4 NW 1/4 Sec 24 Twp 105 Rg 54County LAKE

North

Please mark well
location with an "X"

Well Completion Date

December 19, 2018

1 Mile

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?
1500+ ft. from SEPTIC (Identify source)

PROPOSED USE:

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

METHOD OF DRILLING:

MUD ROTARY

CASING DATA:

If other describe

☐ Steel ☒ Plastic ☐ Other

PIPEWEIGHT DIAMETER FROM TO HOLE DIAMETER

SOR 21 LB/FT 6.00 IN 0.0 FT 36.0 FT 8.75 IN

LB/FT IN FT FT IN

LB/FT IN FT FT IN

GROUTING DATA:

Grout Type No. of Sacks Grout Weight From To

BENTONITE 4 Lb/gal 0.0 Ft 26.0 Ft

Lb/gal Ft Ft

Describe grouting procedure

TREMIE PIPED

SCREEN:

☐ Perforated pipe ☒ Manufactured
 Diameter 6.00 Inches Length 16.0 Feet
Material PVCSlot Size .025 Set From 36.0 Feet to 52.0 Feet

Other information

WAS A PACKER OR SEAL USED? ☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? CHLORINATED☐ No, Why Not?Lab to which water
quality sample sent for analysisWell Owner: Jeff BosmaBusiness Name: Bosma DairyAddress: 3620 Independence RdCity, State, Zip: Sunnyside WA 98944

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
TOP SOIL	0	1
BLUE CLAY	1	36
COARSE SAND AND GRAVEL	36	52

STATIC WATER LEVEL 5.0 FEETIf flowing: closed in pressure PSIGPM flow through Inch pipeControlled by ☐ Valve ☐ Reducers ☐ OtherReduced flow rate GPM

Can well be completely shut in?

WELL TEST DATA:

☒ Pumped Describe:☐ Bailed☐ Other

Pumping Level Below Land Surface

30.0 Ft. After Hrs. pumped 50.0 GPMFt. After Hrs. pumped GPMIf pump installed, pump rate: GPM

REMARKS

6" Well

GPS N 43 53.485 W 97 15.840

This well was drilled under license # 475 and this
report is true and accurate.Drilling firm: THEIN WELL COMPANY, INC

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date:

RECEIPT

WATER RIGHTS PROGRAM South Dakota Department of Environment and Natural Resources

Date March 19, 2020

RECEIVED OF Orland Ridge Dairy LLC 3620 Independence Rd Sunnyside WA 98944

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

Fee for Application for Permit No. <u>8425-3</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>8425-3</u>	\$200.00
Fee for Filing Transfer Form _____	\$
Fee for _____	\$
Fee for Issuing New Well Driller's License No. _____	\$
Fee for Renewal of Well Driller's License No. _____	\$
Fee for Issuing Well Pump Installer's License No. _____	\$
Fee for Renewal of Well Pump Installer's License No. _____	\$
(Any Other Work Provided by Law)	
TOTAL	\$950.00

By *Eric Bronlund*
Chief Engineer

DM



DL173129

ARTICLES OF ORGANIZATION

DOMESTIC LIMITED LIABILITY COMPANY
SDCL 47-34A-203, 212

Secretary of State
500 E. Capitol Ave
Pierre, SD 57501-5070
(605) 773-4845

Filing Fee: \$150

Total Fee: \$150

Please Type or Print Clearly in Ink
Please submit one Original
Make payable to the SECRETARY OF STATE

Article I

The name of the Company: **Orland Ridge Dairy, LLC**

Article II

The address of the initial designated office in or out of the State of South Dakota where the company conducts its business:

Actual Street Address

**3620 INDEPENDENCE ROAD
SUNNYSIDE, WA 98944**

Mailing Address

**3620 INDEPENDENCE ROAD
SUNNYSIDE, WA 98944**

Article III

SDCL 59-11-6

The South Dakota Registered Agent's Name:

South Dakota law permits the registered agent to be either (a) a noncommercial registered agent or (b) a commercial registered agent.

(a) The South Dakota Noncommercial Registered Agent's name

Name **WOODS, FULLER, SHULTZ & SMITH P.C.**

Actual Street Address in this State

**ATTN CRAIG KROGSTAD
300 S PHILLIPS AVE SUITE 300
SIOUX FALLS, SD 57104-6322**

Mailing Address in this State

**ATTN CRAIG KROGSTAD
PO BOX 5027
SIOUX FALLS, SD 57117-5027**

Article IV

The name and address of each organizer

Name

Address

Craig J. Krogstad**300 S. Phillips Avenue, Suite 300, Sioux Falls, SD 57104**

Article V

The duration of the company if other than perpetual is: **Perpetual**

If the document is not to be effective upon filing by the Secretary of State, the delayed effective date is: _____

B0119-7566 11/18/2019 10:35AM Rec'd by SD SOS



B0119-7567 11/18/2019 10:35AM Rec'd by SD SOS

Article VI

☐ Member-Managed ☒ Manager-Managed

Name	Address
Jeffrey J. Bosma	3620 Independence Road, Sunnyside, WA 98944
Brian S. Bosma	3620 Independence Road, Sunnyside, WA 98944

Article VII

Whether one or more of the members of the company are to be liable for its debts and obligations as set forth under SDCL 47-34A-303(c).

☐ Yes ☒ No

Article VIII

Beneficial Owners (optional): A beneficial owner is a person who has or in some manner controls an equity security. Please consult an attorney for legal advice if you have any questions concerning this entry. Any question under this heading is considered a request for legal advice and the secretary of state's office is, by statute, not permitted, to provide legal advice.

Signature/Authorization

The Articles of Organization must be executed by the organizers.

No person may execute this report knowing it is false in any material respect. Any violation may be subject to a criminal penalty (SDCL 22-39-36).

Craig J. Krogstad	<i>Craig J. Krogstad</i>	Organizer	11/18/2019
PRINTED NAME	SIGNATURE	TITLE	DATED

Schlaak, Karen

From: Schlaak, Karen
Sent: Thursday, March 12, 2020 11:38 AM
To: Ty Eschenbaum
Cc: Gronlund, Eric; Duvall, Ron
Subject: RE: [EXT] Water Rights Permit

Ty,

I have reviewed the revised application & maps and it appears that everything required has been addressed. The application/license fee will be \$950.00. Please submit the signed application and fee. If the staff engineer assigned to prepare the report on this application has any questions, they will contact you at that time.

Karen

From: Ty Eschenbaum <ty@a1developmentsolutions.com>
Sent: Thursday, March 12, 2020 10:51 AM
To: Schlaak, Karen <Karen.Schlaak@state.sd.us>
Cc: Gronlund, Eric <Eric.Gronlund@state.sd.us>; Duvall, Ron <Ron.Duvall@state.sd.us>
Subject: RE: [EXT] Water Rights Permit

Karen,

Per our conversations, I have attached a map/site plan with location/legal description of the dairy site itself. We have addressed the correct amount of peak usage and annual total usage figures. If you will confirm that we have provided everything needed and the correct payment amount, I will have the owners of this project mail in the application and check directly.

Thank You!

Ty

Ty Eschenbaum
Partner
A1 Development Solutions
605.203.1082 - Mobile
A1DevelopmentSolutions.com

From: Schlaak, Karen <Karen.Schlaak@state.sd.us>
Sent: Wednesday, March 11, 2020 4:44 PM
To: Ty Eschenbaum <ty@a1developmentsolutions.com>
Cc: Gronlund, Eric <Eric.Gronlund@state.sd.us>; Duvall, Ron <Ron.Duvall@state.sd.us>
Subject: FW: Water Rights Permit

Eric forwarded your email to me. I have reviewed the application and the following items need to be addressed:

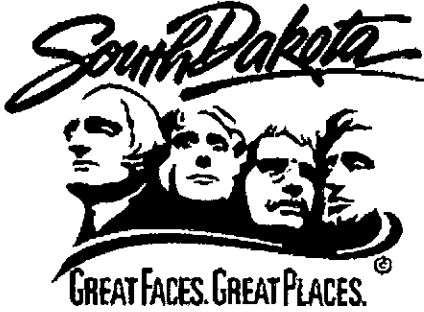
- A review of the Secretary of State's corporation website finds Orland Ridge Dairy LLC listed. DENR will need the application to be signed by a listed partner or a statement of authority from a listed partner stating that the person signing the application has the authority to act on behalf of Orland Ridge Dairy LLC on all matters involving the water permit application.
- The map showing the well locations needs to reference a government section corner or quarter corner. Also, please include a map outlining the area of the proposed facility location also referencing a government section corner or quarter corner.
- During the phone conversation with Eric, you indicated you will readdress the annual volume of water required for the facility as well as the peak pump rate. Once those amounts are verified, the fee can be determined.

If you have further questions, please let us know.

Karen Schlaak

SD DENR, Water Rights Program
(605) 773-3352





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 8425-3, Orland Ridge Dairy LLC**

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. 8425-3, Orland Ridge Dairy LLC, c/o Brian Bosma, 23932 448th Avenue, Winfred SD 57076.

The Chief Engineer is recommending APPROVAL of Application No. 8425-3 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use and, 4) it is in the public interest with the following qualifications:

1. The wells approved under Water Permit No. 8425-3 will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner, under these Permits shall control withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The wells authorized by Permit No. 8425-3 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. Water Permit No. 8425-3 is subject to compliance with requirements of the Department's Water Pollution Control Permit issued pursuant to SDCL 34A-2-36 or 34A-2-36.2 or 34A-2-112 or 34A-2-124 for concentrated animal feeding operations.
4. Water Permit No. 8425-3 is subject to compliance with all existing and applicable Water Management Board Rules including but not limited to:
 - a) Chapter 74:54:01 Ground Water Quality Standards,
 - b) Chapter 74:54:02 Ground Water Discharge Permit,
 - c) Chapter 74:51:01 Surface Water Quality Standards,
 - d) Chapter 74:51:02 Uses Assigned to Lakes,
 - e) Chapter 74:51:03 Uses Assigned to Streams, and
 - f) Chapter 74:52:01 through 74:52:11 Surface Water Discharge Provisions

(continued)

5. The Permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Vermillion East Fork:Montrose aquifer.
6. Water Permit No. 8425-3 authorizes a total annual diversion of 161 acre feet of water from the Vermillion East Fork:Montrose aquifer

See report on application for additional information.

A handwritten signature in cursive script, reading "Eric S. Gronlund", written in dark ink.

Eric Gronlund, Chief Engineer

April 15, 2020

Report to the Chief Engineer
On Water Permit Application No. 8425-3
Orland Ridge Dairy LLC

March 23, 2020

Water Permit Application No. 8425-3 proposes to appropriate 161 acre-feet of water annually at a maximum instantaneous diversion rate of 0.33 cubic feet of water per second (cfs) from two wells (52 feet deep) to be completed into the Montrose management unit of the Vermillion East Fork aquifer. The wells are to be located in the NE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 24-T105N-R54W for commercial use in a dairy operation located in the NW $\frac{1}{4}$ of Section 7-T105N-R53W. The well site is located approximately 7 miles south and 6 miles west of Madison, South Dakota, in Lake County.

AQUIFER: Vermillion East Fork: Montrose (VEF:M)

HYDROGEOLOGY:

The Vermillion East Fork aquifer is a surficial aquifer associated with the East Fork Vermillion River valley and extends from Clark County to Turner County (Hedges et al., 1982). It is a glacial meltwater deposit that ranges from a fine to medium sand to a well-sorted coarse sand and fine gravel (Hansen, 1986). Hedges and others (1982 and 1985) delineated the aquifer's different management units based on hydrologic conditions such as, groundwater flow divides, aquifer constrictions, and surface water connections amongst other criteria. In the "Findings of Fact, Conclusions of Law, and Final Decision" for Water Permit No. 8226-3, the Water Management Board concluded the Vermillion East Fork aquifer is properly separated into management units and recognizes the following divisions: the Reid Lake management unit (VEF: RL), the Antelope Lake management unit (VEF: AL), the Willow Lake management unit (VEF: WL), the Spirit Lake management unit (VEF: SL), the Montrose management unit (VEF: M), and an unnamed management unit (Water Rights, 2017). Figure 1 displays the estimated extent of the Vermillion East Fork aquifer with the management unit subdivisions.

The Vermillion East Fork: Montrose aquifer underlies portions of McCook, Miner, Lake and Turner Counties (Hedges et al., 1982). The Montrose management unit, as shown in Figure 1, has an areal extent of approximately 34,800 acres (Mathiowetz, 2017). Groundwater movement in the Vermillion East Fork: Montrose aquifer is generally to the southeast and towards the East Fork Vermillion River (Hansen, 1986).

In Lake County, the Montrose management unit for the Vermillion East Fork aquifer underlies approximately nine square miles, which is the equivalent of 5,760 acres (Hansen, 1986). Additionally, the Montrose management unit has a documented maximum thickness of 65 feet with an average thickness of 15 feet and contains approximately 15,000 acre-feet of recoverable water in storage (Hansen, 1986).

The test well completion report submitted with Water Permit Application No. 8425-3 indicated coarse sand and gravel from 36 to 52 feet below ground surface in the NE ¼ NW ¼ of Section 24-T105N-R54W (Water Rights, 2020d). The available geologic information indicates the aquifer in the vicinity of Water Permit Application No. 8425-3 has an approximate static water level between five to fifteen feet below the ground surface (Water Rights, 2020b and 2020d). The Vermillion East Fork: Montrose aquifer is generally under unconfined aquifer conditions, but it is expected to be confined at the proposed diversion points (Hamilton, 1989; Water Rights 2020b and 2020d).

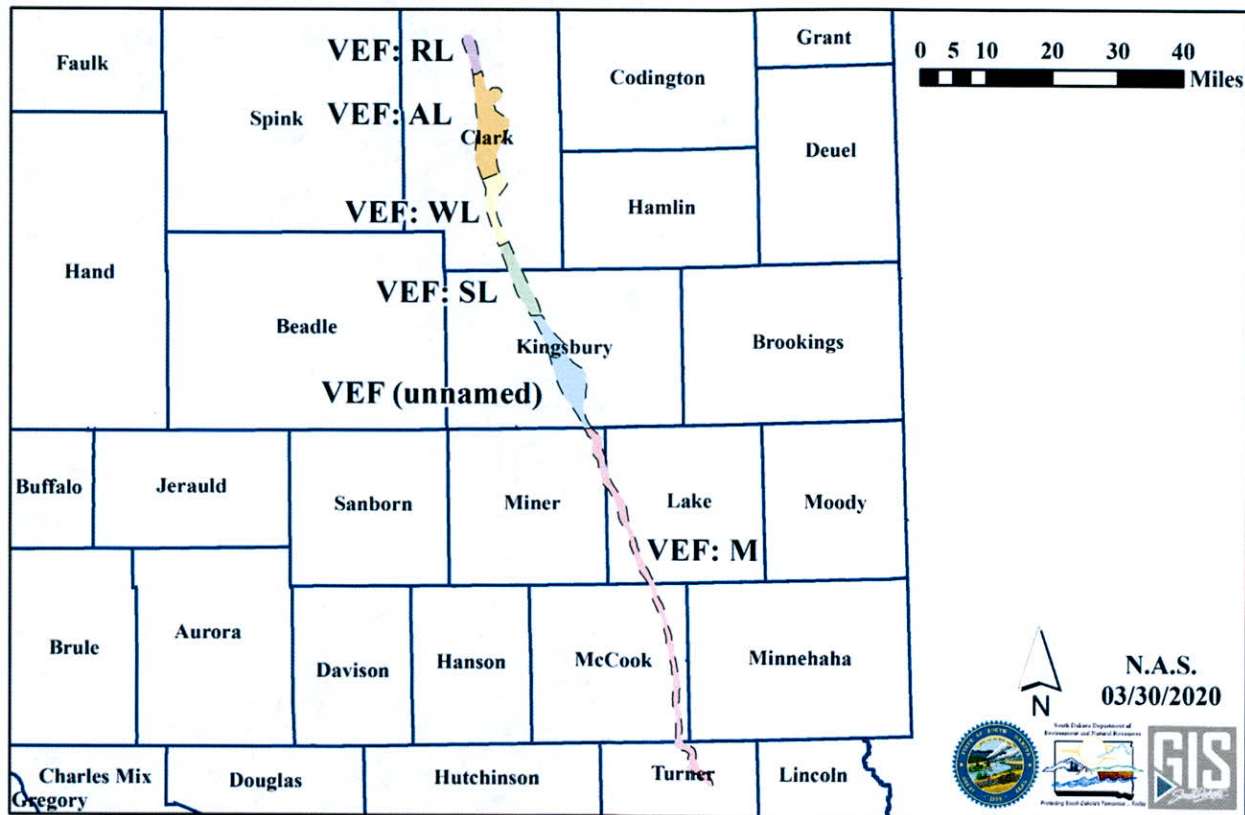


Figure 1. Estimated extent of Vermillion East Fork aquifer with management unit subdivisions (Modified from Stonesifer, 2013; Water Rights, 2017)

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

Pursuant to SDCL 46-2A-9, “A permit to appropriate water may be issued only if there is a reasonable probability that there is unappropriated water available for the applicant’s proposed use, that the diversion point can be developed without unlawful impairment of existing rights, and that the proposed use is a beneficial use and in the public interest.” This report will address the availability of unappropriated water and the potential for unlawful impairment of existing water rights within the Vermillion East Fork: Montrose aquifer.

WATER AVAILABILITY:

Water Permit Application No. 8425-3 proposes to appropriate water from the Vermillion East Fork: Montrose aquifer. The probability of unappropriated water available from the aquifer can be evaluated by considering SDCL 46-6-3.1, which requires “No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source. An application may be approved, however, for withdrawals of groundwater from any groundwater formation older than or stratigraphically lower than the greenhorn formation in excess of the average estimated annual recharge for use by water distribution systems.” The Vermillion East Fork: Montrose aquifer is not older or lower than the Greenhorn Formation, and the applicant is not a water distribution system. Therefore, average annual recharge and average annual withdrawal must be considered.

HYDROLOGIC BUDGET:

Recharge

Recharge to the Vermillion East Fork: Montrose aquifer is by infiltration of precipitation and leakage from adjacent and underlying till (Hansen, 1986; Hamilton, 1989). Hedges and others (1985) used observation well analysis to estimate a recharge rate of 3.4 inches per year for the Montrose management unit. The Montrose management unit, as shown in Figure 1, has an areal extent of approximately 34,800 acres (Mathiowetz, 2017). Therefore, the estimated average annual recharge of the Montrose management unit is 9,860 acre-feet.

Discharge

Discharge from the Vermillion East Fork: Montrose aquifer is through well withdrawals, evapotranspiration, seepage to the East Fork Vermillion River when the potentiometric surface of the aquifer is at a higher elevation than the stage of the river, and groundwater outflow to the Parker Centerville aquifer (Lindgren and Hansen, 1990). Currently, there are 14 active water rights/permits appropriating water from the Vermillion East Fork: Montrose aquifer (Table 1) (Water Rights, 2020c).

Table 1. Water rights/permits appropriating water from the Vermillion East Fork: Montrose aquifer (Water Rights, 2020c)

Permit No.	Name	County	Status	Use	Rate (cfs)	Acres
1009-3	City of Montrose	MC	LC	MUN	0.44	
2989A-3	Palmer Reinicke	LK	LC	IRR	0.3	21
4680-3	Gracevale Htrm Brth	LK	LC	IRR	1.78	132
5389-3	Ken Plucker Jr.	TU	LC	IRR	2	160
5914-3	MDP Properties	TU	LC	IRR	1.71	120
6075-3	Weeg Family Farms LLP	TU	LC	IRR	1.56	132
6401-3	Michael J Johnson	LK	LC	COM	5.56	
6434-3	Jo's Family Farms LLC	TU	LC	IRR	1.32	83
6491-3	Joseph Plucker	TU	LC	IRR	1.11	92
7594-3	Joseph Plucker	TU	PE	IRR	0.67	50
7596-3	Joseph Plucker	TU	PE	IRR	0.44	20
7597-3	Joseph Plucker	TU	PE	IRR	0.44	
8245-3	Gracevale Htrm Brth	LK	PE	IRR		132
8278-3	Sonstegard Food Co	TU	PE	COM	1.11	
MC: McCook, LK: Lake, TU: Turner, LC: Licensed Water Right						
PE: Water Permit, MUN: Municipal IRR: Irrigation, COM: Commercial						

Appropriations from the Vermillion East Fork: Montrose aquifer for non-irrigation uses include: one municipal water right and two commercial water rights/permits. The City of Montrose is supplied by Kingbrook Rural Water System and Water Right No. 1009-3 is only used as a back-up water supply (Water Rights, 2020e); therefore, the withdrawals under Water Right No. 1009-3 are assumed to be negligible. Water Right No. 6401-3 for Michael J Johnson is for a non-consumptive use of water in a commercial gravel washing operation (Water Rights, 2020c); therefore, the withdrawals under Water Right No. 6401-3 are assumed to be negligible. Sonstegard Food Company holds three different water permits appropriating water from three different aquifers for one facility. The three water permits have a combined annual volume limitation of 222.2 acre-feet (Water Rights, 2020c). Since these water permits are still within their five-year construction period, the distribution of the average annual water use across the three aquifers is unknown, so the possibility of the entire 222.2 acre-feet volume to be obtained from the Vermillion East Fork: Montrose will be accounted for in the budget. Therefore, it is estimated that Water Permit No. 8278-3 will have an average annual use of 222.2 acre-feet of water.

Currently, there are 11 irrigation water rights/permits appropriating water from the Vermillion East Fork: Montrose aquifer (Water Rights, 2020c). Irrigation water rights/permits have been required to report their annual usage since 1979. The estimated average annual withdrawal rate for irrigation appropriations over the period of record is 349.26 acre-feet (Table 2) (Water Rights, 2020a).

There are many domestic wells completed into the Vermillion East Fork: Montrose aquifer that do not require a water right/permit, so the withdrawal amount is unknown (Water Rights, 2020d). Due to their relatively low diversion rates, withdrawals from domestic wells are not considered to be a significant portion of the hydrologic budget. Additionally, with the development of rural water systems in areas where the Vermillion East Fork: Montrose aquifer is

the uppermost aquifer available, domestic users may have transitioned to rural water. Therefore, the annual quantity of water withdrawn by domestic wells is estimated to be negligible to the hydrologic budget of the Vermillion East Fork: Montrose aquifer.

Table 2. Reported historic irrigation use from the Vermillion East Fork: Montrose aquifer (Water Rights, 2020a).

Year	No. of Permits	Annual Appropriation (ac-ft)	Reported Pumpage (ac-ft)
1979	7	4440	145.71
1980	7	4440	299.72
1981	7	4440	261.41
1982	4	2448	106.33
1983	4	2448	125.25
1984	5	3888	42
1985	4	2448	102
1986	4	2448	63
1987	4	2448	85
1988	4	2448	252.3
1989	5	2928	314
1990	5	2768	199
1991	5	2768	262
1992	4	2216	17.3
1993	4	1229	16
1994	4	1389	212.61
1995	4	1389	189.8
1996	5	1629	185.06
1997	5	1629	192
1998	6	1893	180.52
1999	5	1575	321.13
2000	5	1575	346.03
2001	5	1575	410.88
2002	5	1575	634.6
2003	5	1575	621.09
2004	7	1943	753.46
2005	7	1925	978.19
2006	7	1925	818.29
2007	7	1925	804.95
2008	7	1925	558.65
2009	7	1925	213.59
2010	7	1925	0
2011	7	1925	487.3
2012	7	1925	686.94
2013	10	2065	625.27
2014	10	2065	542.93
2015	10	2065	542.5
2016	10	1933	432.41
2017	11	2197	506.17
2018	11	2197	434.95
Min	4	1229	0
Max	11	4440	978.19
Avg	6.18	2236.85	349.26

Hydrologic Budget Summary

The average annual recharge of the Montrose management unit is approximately 9,860 acre-feet (Hedges et al., 1985; Mathiowetz, 2017). The average annual discharge of the Montrose management unit plus the appropriation proposed by this application is approximately 733 acre-feet (non-irrigation: 222.2 acre-feet, irrigation: 349.26 acre-feet, and Water Permit Application No. 8425-3 (if approved): 161 acre-feet). Based on the hydrologic budget, there is a reasonable probability unappropriated water is available from the Vermillion East Fork: Montrose aquifer for the proposed appropriation.

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 in addition to other data to determine that the quantity of water withdrawn annually from the aquifer does not exceed the estimated average annual recharge of the aquifer.

The DENR-Water Rights Program monitors three observation wells completed into the Vermillion East Fork: Montrose aquifer (Water Rights, 2020b). The observation wells are LK-67A, (approximately 1.6 miles southeast of the proposed diversion points), LK-67B (approximately 8.5 miles northwest of the proposed diversion points), and TU-77O (approximately 33.5 miles southeast of the proposed diversion points) (Figures 2, 3 and 4) (Water Rights, 2020b). The data points utilized to construct the hydrographs are measurements of the static water level in the observation wells.

The three hydrographs display stable (TU-77O) or rising (LK-67A and LK-67B) water levels over their respective period of record. The effects of climatic conditions are clear in the hydrographs for LK-67A and LK-67B because water levels are rising during wetter periods (early spring snowmelt and precipitation) and slowly declining to a stable water level during drier periods. The rising and stable water level in the observation wells indicates the aquifer is not being stressed by pumping from wells. The effects of climatic conditions are more subtle in the hydrograph for TU-77O which displays a water level that seasonally fluctuates less than five feet per year. All three hydrographs show the aquifer consistently recovers after an irrigation season is finished. Aquifer recovery indicates that climatic conditions dominate changes in water level to the Vermillion East Fork: Montrose aquifer rather than pumping. That means recharge to and natural discharge from the aquifer greatly exceeds withdrawals. By recognizing that both recharge to and natural discharge from an aquifer can be captured for pumping, the observation well hydrographs demonstrate unappropriated water is available for the proposed appropriation.

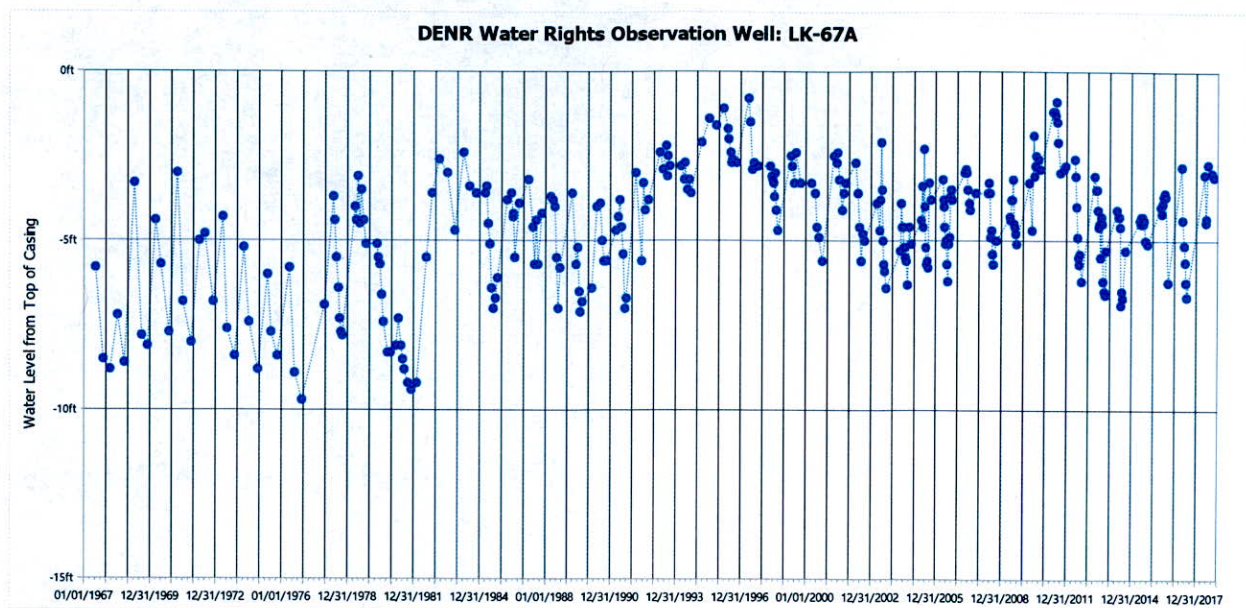


Figure 2. Hydrograph for observation well LK-67A, located approximately 1.6 miles southeast of the proposed diversion points, in Lake County (Water Rights, 2020b).

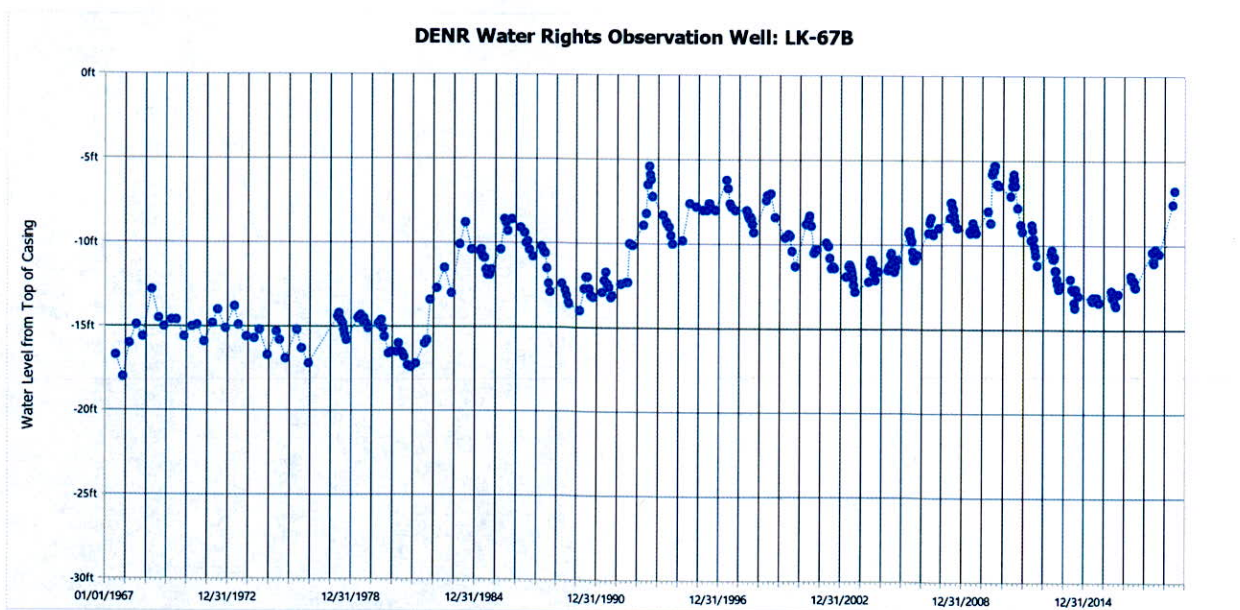


Figure 3. Hydrograph for observation well LK-67B, located approximately 8.5 miles northwest of the proposed diversion points, in Lake County (Water Rights, 2020b).

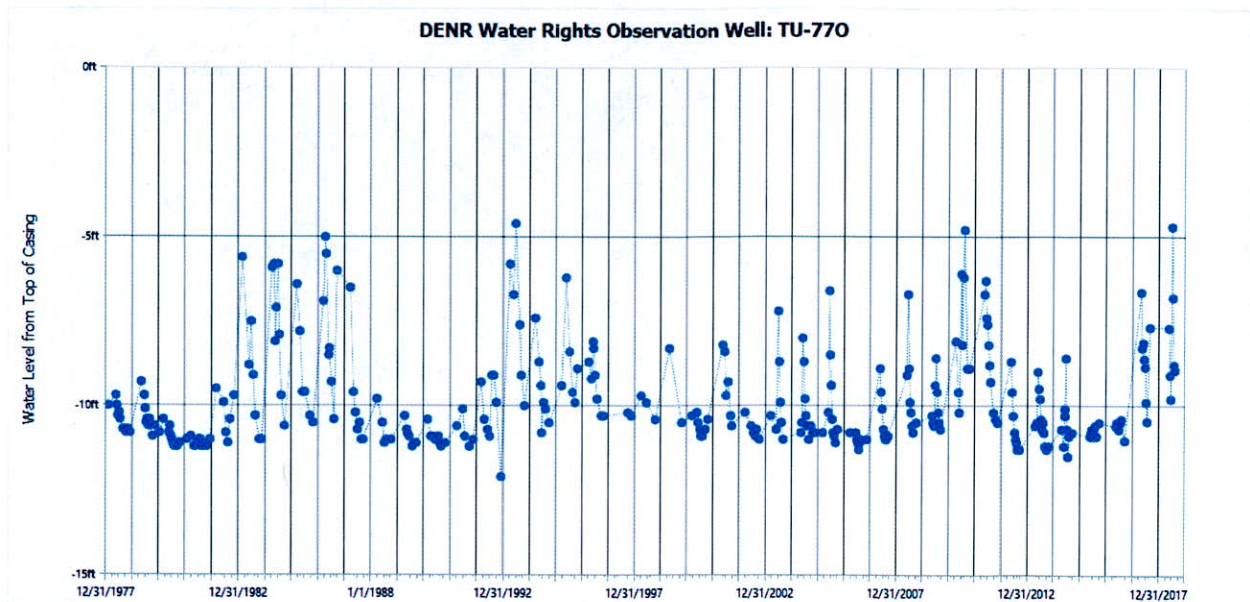


Figure 4. Hydrograph for observation well TU-770, located approximately 33.5 miles southeast of the proposed diversion points, in Turner County (Water Rights, 2020b).

POTENTIAL FOR UNLAWFUL IMPAIRMENT OF EXISTING WATER RIGHTS:

Currently, there are 14 active water rights/permits appropriating water from the Vermillion East Fork: Montrose aquifer (Water Rights, 2020c). The closest water right/permit to the diversion points proposed by this application is Water Permit No. 8245-3, held by Gracevale Hutterian Brethren, and it is located approximately 1.8 miles to the northwest (Water Rights, 2020c).

There are many domestic wells on file with the DENR-Water Rights Program completed into the Vermillion East Fork: Montrose aquifer, with the closest domestic well on file (not held by the applicant) approximately 1.2 miles away from the proposed diversion points (Water Rights, 2020d). There are likely other domestic wells completed into the Vermillion East Fork: Montrose aquifer near to the proposed diversion points that are not on file with the DENR-Water Rights Program.

The Vermillion East Fork: Montrose aquifer is generally under unconfined aquifer conditions, but it is expected to be confined at the proposed diversion points (Hamilton, 1989; Water Rights 2020b and 2020d). Drawdown created by pumping a well completed into an unconfined aquifer generally does not extend far from the diversion points. However, since the Vermillion East Fork: Montrose aquifer is expected to be confined at the proposed diversion points, drawdown can extend some distance but the exact drawdown behavior of a well cannot be known without an aquifer pumping test. Any drawdown as a result of the proposed diversion is not expected to unlawfully impair nearby adequate wells. Additionally, there has been a history of large capacity wells from Vermillion East Fork: Montrose aquifer without well interference complaints (Mathiowetz, 2017). Figure 5 displays the active water rights/permits and observation wells completed into the Vermillion East Fork: Montrose aquifer with the location of the dairy operation and the diversion points proposed by Water Permit Application No. 8425-3.

The Water Management Board recognizes that putting water to beneficial use requires a certain amount of drawdown to occur. The Board has developed rules to allow water to be placed to maximum beneficial use without the necessity of maintaining artesian head pressure for domestic use. The Water Management Board 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”.

The Water Management Board considered the delivery of water by artesian head pressure versus maximum beneficial use during the issuance of Water Right 2313-2 for Coca-Cola Bottling Company of the Black Hills. The Board adopted Findings of Facts and Conclusions of Law that noted the reservation of artesian head pressure for delivery of water would be inconsistent with SDCL 46-1-4 which states, “general welfare requires that the water resources of the state be put to beneficial use to the fullest extent of which they are capable...” (Water Rights, 1995). Furthermore, the Water Management Board found if increased cost or decreased production as a result of impacts on artesian head pressure by legitimate users is to be considered as an unlawful impairment, it would also conflict with SDCL 46-1-4 (Water Rights, 1995). With that in mind, some existing well owners may need to install or lower pumps depending on the specific characteristics of the Vermillion East Fork: Montrose aquifer at their location. However, when considering the statutes (SDCL 46-1-4 and 46-6-6.1) and ARSD 74:02:04:20 (7), any drawdown created from the proposed diversion is not expected to cause an unlawful impairment on existing water rights/permits or domestic users with adequate wells. Therefore, there is a reasonable probability that any interference from the proposed appropriation will not impose unlawful impairments.

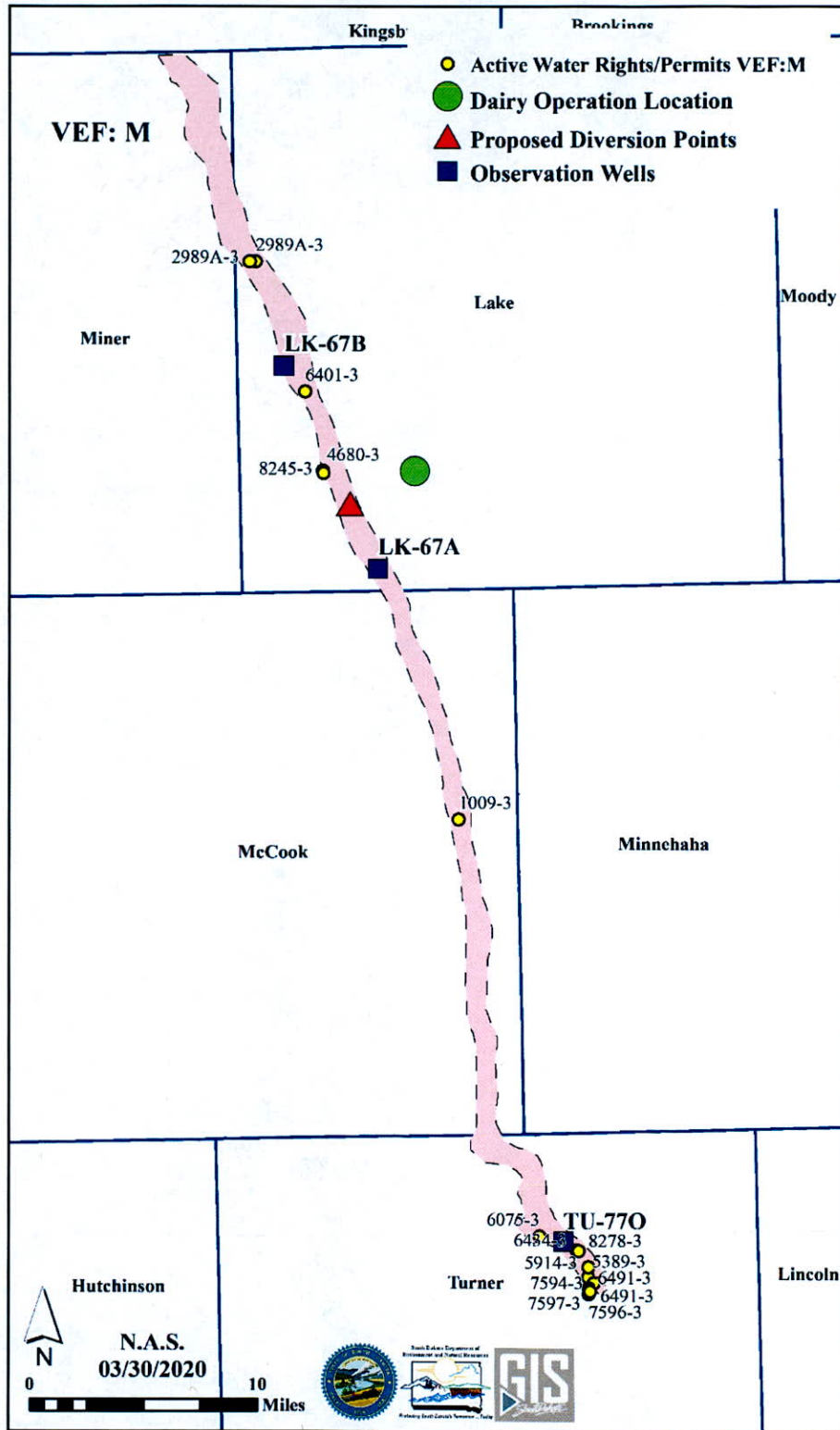


Figure 5. Montrose management unit of Vermillion East Fork aquifer with active water rights/permits, observation wells and the applicant's proposed diversion points and dairy operation (Water Rights, 2020b and 2020c).

CONCLUSIONS:

1. Water Permit Application No. 8425-3 proposes to authorize the appropriation of 161 acre-feet of water annually at a maximum instantaneous diversion rate of 0.33 cubic feet of water per second from two wells to be completed into the Vermillion East Fork: Montrose aquifer for commercial use in a dairy operation.
2. The dairy operation is to be located in the NW ¼ of Section 7-T105N-R53W in Lake County. The two wells are to be located in the NE ¼ NW ¼ of Section 24-T105N-R54W. The water is to be piped underground from the wells to the dairy operation.
3. Based on observation well data and a hydrologic budget, there is a reasonable probability unappropriated water from the Vermillion East Fork: Montrose aquifer is available to supply the proposed appropriation requested by Water Permit Application No. 8425-3.
4. There is a reasonable probability that the diversion proposed by Water Permit Application No. 8425-3 will not unlawfully impair adequate wells for existing water rights/permits and domestic users.

Nakaila Steen

Nakaila Steen

Natural Resources Engineer I

SD DENR – Water Rights Program

Reviewed by:

Adam Mathiowetz

Adam Mathiowetz PE

Natural Resources Engineer III

SD DENR -Water Rights Program

References

- Hamilton, L.J., 1989. Water Resources of Brookings and Kingsbury Counties, South Dakota: U.S. Geological Survey Water-Resources Investigations Report 88-4185.
- Hansen, D.S., 1986. Water Resources of Lake and Moody Counties, South Dakota: US Geological Survey Water-Resources Investigations Report 84-4209, 51p.

- 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; United States Army Corps of Engineers Contract DACW 45-80-C-0185
- Mathiowetz, A., 2017. Report to the Chief Engineer, Water Permit Application No. 8278-3, Sonstegard Food Company, June 26, 2017. SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Lindgren, R.J. and Hansen, D.S., 1990. Water Resources of Hutchison and Turner Counties, South Dakota. Water-Resources Investigations Report 90-4093. U.S. Geological Survey. Huron, SD.
- Stonesifer, J.R., 2013. Report to the Chief Engineer, Water Permit Application No. 7855-3, William Poppen, August 2, 2013. SD DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 1995. Findings of Fact, Conclusions of Law, and Final Decision in the Matter of Water Permit Application No. 2313-2, Coca-Cola Bottling Company of the Black Hills. DENR-Water Rights Program file for Water Right No. 2313-2. Pierre, SD.
- Water Rights, 2017, Findings of Fact, Conclusions of Law, and Final Decision in the Matter of Water Permit Application No. 8226-3, Jeffery Albrecht, SD DENR-Water Rights Program for Water Permit No. 8226-3, Joe Foss Building, Pierre, SD.
- Water Rights, 2020a. "1979-2018 Irrigation Summaries by Aquifer", SD DENR-Water Rights Program, Joe Foss Building, Pierre, South Dakota.
- Water Rights, 2020b. Observation Well Data, SD-DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2020c. Water Right/Permit Files, SD-DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2020d. Well Completion Reports, SD-DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.
- Water Rights, 2020e. Drinking Water System Information, SD-DENR-Water Rights Program, Joe Foss Bldg, Pierre, SD.

Schlaak, Karen

From: Schlaak, Karen
Sent: Thursday, April 16, 2020 10:33 AM
To: maplegrove@bentonrea.com
Subject: Water Permit Application No. 8425-3
Attachments: Application No. 8425-3.pdf

Attached is the report, recommendation and information regarding the public notice for your Water Permit Application No. 8425-3. As stated in the letter it is important that you contact the paper to authorize publication and arrange for payment ASAP. This same information is being mailed to you today.

Karen Schlaak

SD DENR, Water Rights Program
(605) 773-3352



APR 30 2020

Friday, April 24

AFFIDAVIT OF PUBLICATION

WATER RIGHTS
PROGRAM

STATE OF SOUTH DAKOTA }
County of Lake } ss.

Joanne Wheeler

..... of the City of Madison, County of Lake,
State of South Dakota, being first duly sworn on oath, deposes and says:

The Madison Daily Leader is a daily legal newspaper of general circulation, printed and published in the City of Madison, in said County of Lake, by Hunter Publishing, Inc., Jon M. Hunter, publisher, and has been such legal newspaper during the times hereinafter mentioned; that the said Madison Daily Leader has been in existence as such legal newspaper for more than one year prior to the publication of the notice hereunto attached, and has during all of said time had, and how has, more than 200 bona fide subscribers; that the undersigned, the affiant, is the Secretary of the said newspaper, in charge of the advertising department thereof and has personal knowledge of all the facts stated in this affidavit and the advertisement headed

Orland Ridge Dairy, LLC

Application for water permit to appropriate 161-acre-ft-of water

printed copy of which hereunto attached, was printed and published in the said newspaper for One successive weeks, once each week and on the same day of the week, on the following dates, to-wit:

On Friday , the 24th day of April , 20 19 ;
On , the day of , 20 ;
On , the day of , 20 ;
On , the day of , 20 ;
On , the day of , 20 ;
On , the day of , 20 ;
On , the day of , 20 ;
On , the day of , 20 ;

That \$ 28.22 being the full amount of the fees for publication of the attached notice inures solely for the benefit of the publisher of the said newspaper; that no arrangement or understanding for a 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.

Joanne Wheeler

Subscribed and sworn to before me this 27th day of
April , 20 20

ANN L. KOCH

NOTARY PUBLIC
SOUTH DAKOTA

Ann L. Koch
Notary Public, Lake County, South Dakota
Exp. 11-14-25

NOTICE OF APPLICATION
NO. 8425-3

TO APPROPRIATE WATER

Notice is given that Orland Ridge Dairy LLC, c/o Brian Bosma, 23932 448th Ave, Winfred SD 57076 has filed an application for a water permit to appropriate 161 acre-feet of water annually at a maximum pump rate of 0.33 cubic feet of water per second from two wells to be completed into the Vermillion East Fork: Montrose Aquifer (52 feet deep) located in the NE 1/4 NW 1/4 Section 24-T105N-R54W for commercial use in a dairy operation located in the NW 1/4 Section 7-T105N-R53W. The well site is located approximately 7 miles south and 6 miles west of Madison SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8425-3 with qualifications 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. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <http://denr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by May 4, 2020.

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.

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. 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.

Published once at the total approximate cost of \$28.22

Pub

Not

Recd

Schlaak, Karen

From: Schlaak, Karen
Sent: Thursday, April 16, 2020 10:17 AM
To: 'ads@madisondailyleader.com'
Subject: 8425-3, Orland Ridge Dairy LLC
Attachments: 8425-3public.short.docx; FORM8.FRM.doc

Attached is a notice to be published on April 24, 2020.

Orland Ridge Dairy LLC, c/o Brian Bosma, 23932 448th Ave, Winifred SD 57076 (509 391-1100) has been notified to contact you to authorize publication and arrange for payment.

Please send the affidavit or return the attached Proof of Publication form ASAP to the Water Rights Program, 523 E Capitol, Pierre SD 57501.

Let me know if you have questions. Please acknowledge receipt of this email.

Karen Schlaak

SD DENR, Water Rights Program
(605) 773-3352





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

denr.sd.gov

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

April 16, 2020

Orland Ridge Dairy LLC
c/o Brian Bosma
23932 448th Ave
Winifred SD 57076

Dear Mr. Bosma:

Water Permit Application No. 8425-3 for commercial use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Daily Leader printed at Madison SD (Ph #605 256-4555). 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 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 to authorize publication of your Notice and to arrange for payment. Early contact with the paper 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,

Karen Schlaak
Water Rights Program
(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.

NOTICE OF APPLICATION NO. 8425-3 to Appropriate Water

Notice is given that Orland Ridge Dairy LLC, c/o Brian Bosma, 23932 448th Ave, Winifred SD 57076 has filed an application for a water permit to appropriate 161 acre-feet of water annually at a maximum pump rate of 0.33 cubic feet of water per second from two wells to be completed into the Vermillion East Fork:Montrose Aquifer (52 feet deep) located in the NE 1/4 NW 1/4 Section 24-T105N-R54W for commercial use in a dairy operation located in the NW 1/4 Section 7-T105N-R53W. The well site is located approximately 7 miles south and 6 miles west of Madison SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8425-3 with qualifications 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. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <http://denr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

Any person interested in opposing or supporting this application or recommendation must file a written petition with BOTH the applicant and Chief Engineer. The applicant must file a petition if contesting the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by May 4, 2020.

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.

If the applicant does not contest the recommendation of the Chief Engineer and no petition to oppose the application is received, the Chief Engineer shall act on the application pursuant to the recommendation with no hearing held before the Water Management Board. 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.

Published once at the total approximate cost of _____.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

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

MAY 12 2020

Orland Ridge Dairy LLC
c/o Brian Bosma
23932 448th Ave
Winfred SD 57076

Dear Mr. Bosma:

Enclosed is Water Permit No. 8425-3 authorizing construction of the 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,

A handwritten signature in cursive script that reads "Eric Gronlund".

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

enclosures



SENT VIA REGULAR MAIL

June 10, 2020

State of South Dakota
Department of Environment & Natural Resources
Water Management Board
Joe Foss Building
523 E. Capitol
Pierre, SD 57501
ATTN: Mr. Eric Gronlund, Chief Engineer

Re: Water Permit No. 8425-3 (Orland Ridge Dairy LLC) (the "Permit") – Assignment in favor of Northwest Farm Credit Services, FLCA ("Northwest FCS")

Dear Mr. Gronlund:

I represent Northwest Farm Credit Services with respect to the water permit described above. Enclosed please find an executed original Assignment of Permit for Security Purposes (the "Assignment"). This Assignment will be additional security for certain financing made to or for the benefit of the permit holder.

Northwest FCS is filing this Assignment with your office to perfect its security interest in the Permit according to the provisions of SDCL 46-5-32. We would kindly request that sign and return the bottom of a duplicate original of this letter reflecting that your office has received this Assignment. We have enclosed a self-addressed and stamped envelope for that purpose. Please advise if any fees are owing for recording this Assignment with your office.

Thank you for your assistance. Feel free to contact me with any questions.

Cordially,

151 Terry L. Schmidt
Terry L. Schmidt
SVP-General Counsel
Direct phone: 509.340.5874
Email: terry.schmidt@northwestfcs.com

cc: Branch Office

Receipt of the above Assignment is acknowledged this ____ day of June, 2020.

State of South Dakota Water Management Board

BY: *Eric Gronlund*
Its: *Chief Engineer*

**STATE OF SOUTH DAKOTA
WATER MANAGEMENT BOARD
ASSIGNMENT OF PERMIT FOR SECURITY PURPOSES**

THIS ASSIGNMENT AND PLEDGE AGREEMENT (this "Assignment") dated June 2, 2020, is made by Orland Ridge Dairy, LLC, a Limited Liability Company ("Assignor"), with a mailing address of 3620 Independence Road, Sunnyside, WA 98944, to Northwest Farm Credit Services, FLCA ("Secured Party"), with a mailing address of 2001 South Flint Road, Spokane, WA 99224-9198.

WHEREAS, Secured Party is making or has made certain loan(s) (the "Loan(s)") to Orland Ridge LLC and East Fork Land LLC (collectively, the "Borrower") pursuant to the note(s), loan agreement, security documents and any other document or instrument signed in connection with the note(s), loan agreement and security documents and any amendments thereto (collectively, the "Loan Documents"). Capitalized terms used herein, but not otherwise defined, shall have the meanings ascribed to such terms in the Loan Documents.

WHEREAS, as a condition precedent to making or continuing the Loan(s), Secured Party has required Assignor to (i) assign and pledge to Secured Party a security interest in the property described herein to secure payment and performance of Borrower's present and future debts, liabilities and obligations to Secured Party, and (ii) take all steps necessary or appropriate to perfect that security interest and to protect the priority of that security interest vis-à-vis the claims of all other persons.

NOW, THEREFORE, for value, the current receipt and reasonable equivalence of which are hereby acknowledged, Assignor hereby agrees as follows:

1. Assignment and Pledge. Assignor does hereby assign, pledge, transfer and convey to Secured Party a security interest in the following described property (the "Collateral"):

All right, title, and interest in and to Water Permit No(s). 8425-3 dated May 12, 2020 issued by the Water Management Board of the Department of Environmental and Natural Resources of the State of South Dakota to authorize the construction of a water use system and for the beneficial use thereof on the real estate described therein.

2. Secured Obligations. The Collateral secures the payment and performance, promptly when due, of all present and future debts, liabilities and obligations of Borrower to Secured Party of any kind or nature whatsoever and whether now existing or hereafter arise, fixed or contingent, liquidated or not liquidated, regardless of how they arise or by what agreement or instrument they may be evidenced, including without limitation all notes and Loan Documents, and as they may be modified, renewed or extended, except those Loan Documents that expressly state they are not secured by the Collateral described herein (the "Secured Obligations"). The Secured Obligations include, by way of illustration and not limitation: (a) payment in accordance with the terms of the notes evidencing the Loans, and all extensions and renewals thereof, and all costs and expenses payable under the terms of the Loan Documents, (b) repayment of any other loans or credit extensions now or hereafter provided by Secured Party to Borrower, (c) reimbursement on Secured Party's demand of all advances that Secured Party may advance or spend for the maintenance and preservation of the Collateral, or any part or item thereof, or to protect Secured Party's security interest therein, (d) performance of the obligations of Borrower under the Loan Documents, (e) performance of the obligations of Assignor under the terms of this Assignment, and (f) any of the foregoing that arises after the filing of a petition by or against Borrower or Assignor under the Bankruptcy Code, even if the obligations do not accrue because of the automatic stay under Bankruptcy Code §362 or otherwise.

3. Assignor's Representations and Warranties. Assignor has good and legal right to assign, pledge, transfer and convey the Collateral and represents that as of the date of this Assignment, the Collateral is transferable, has not been previously assigned, and is free from prior encumbrances of any kind. Assignor further agrees to keep the Collateral free from all liens, encumbrances, and security interests (other than created herein) and defend it against all claims and legal proceedings by persons other than Secured Party. Assignor agrees to take any action requested by Secured Party to perfect or continue the lien and priority of the Collateral. The execution and delivery by Assignor of this Assignment and the performance of its obligations thereunder are within Assignor's authority and capacity and do not contravene any law, regulation, order or contractual restriction binding on or affecting Assignor. Assignor has represented and warranted to Secured Party the location of Assignor's state of formation and Assignor's exact legal name as is set forth herein.

4. Secured Party May Perform. In its discretion and without notice to Assignor or Borrower, Secured Party may take any one or more of the following actions, without liability except to account for property actually received by it: (a) transfer to or register in its name, or in the name of its nominee, any of the Collateral, with or without indication of the security interest herein created, (b) exercise or cause to be exercised all voting and corporate powers with respect to any of the Collateral so registered or transferred to, including all rights of conversion, exchange, subscription or any other rights, privileges or options pertaining to such Collateral, as if the absolute owner thereof; (c) insure any of the Collateral; (d) exchange any of the Collateral for other property upon a reorganization, recapitalization or other readjustment and, in connection therewith, deposit any of the Collateral with a committee or depository upon such terms as Secured Party may determine; (e) in its name or in the name of Assignor, demand, sue for, collect or receive any money or property at any time payable or receivable on account of or in exchange for any of the Collateral and, in connection therewith, endorse notes, checks, drafts, money orders, documents of title, or other evidence of payment, shipment or storage in the name of Assignor; (f) make any compromise or settlement deemed advisable with respect to any of the Collateral; (g) renew, extend, or otherwise change the terms and conditions of any of the Collateral or the obligations; (h) take or release any other Collateral, security for any of the Collateral or the obligations; and (i) add or release any guarantor, endorser, surety or other party to any of the Collateral or the obligations.

5. Secured Party's Duties. Secured Party shall be under no duty to exercise or to withhold the exercise of any of the rights, powers, privileges and options expressly or implicitly granted to Secured Party in this Assignment and shall not be responsible for any failure to do so or to delay in so doing. Secured Party shall be deemed to have exercised reasonable care in the custody and preservation of the Collateral in its possession if the Collateral is accorded treatment substantially equal to that which Secured Party accords its own property, it being understood that Secured Party shall not have any responsibility for taking any necessary steps to preserve rights against any parties with respect to any Collateral.

6. Remedies Upon Default. Time is of the essence in the performance of this Assignment. If any Event of Default shall have occurred and be continuing, Secured Party may exercise from time to time, any rights and remedies available to it under the applicable Uniform Commercial Code and any rights and remedies granted to Secured Party by the provisions of the Loan Documents.

7. Expenses. Assignor will, upon demand, pay to Secured Party the amount of any and all reasonable expenses, including the reasonable fees and expenses of Secured Party's counsel and of any experts and agents, which Secured Party may incur in connection with (i) the administration of this Assignment, (ii) the custody or preservation of, or the sale of, collection from, or other realization upon, any of the Collateral, (iii) the exercise or enforcement of any of the rights of Secured Party hereunder, or (iv) the failure by Assignor or Borrower to perform or observe any of the provisions hereof. Any payment made and any sum received by Secured Party through collection of or realization on the Collateral may be applied as Secured Party shall elect to any of the Secured Obligations, whether matured or unmatured.

8. Waiver and Authorization. Any delay or failure by Secured Party in the exercise of any right or remedy described herein or in any Loan Agreements between Assignor, Borrower and/or Borrower and Secured Party shall not constitute a waiver thereof, and no exercise by Secured Party of any right or remedy shall preclude other or further

exercises thereof, or the exercise of any other right or remedy. Assignor authorizes Secured Party to file an appropriate UCC-1 with respect to this Assignment and to file an original of this Assignment with the Chief Engineer or the Water Management Board.

Dated this 2nd day of June, 2020.

ASSIGNOR:

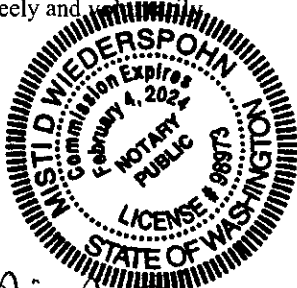
Orland Ridge Dairy, LLC, a Limited Liability Company

By: *Jeffrey J. Bosma*
Jeffrey J. Bosma, Manager

By: *Brian S. Bosma*
Brian S. Bosma, Manager

STATE OF Washington)
County of Yakima) ss.

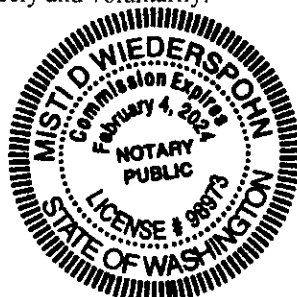
On this 10 day of June, 2020, before me personally appeared Jeffrey J. Bosma, known to me to be a Manager in Orland Ridge Dairy, LLC, the limited liability company which executed the within instrument, and acknowledged that he/she executed the same as such Manager and in the limited liability company's name freely and voluntarily.



Misti D. Wiederspohn
Printed name Misti D. Wiederspohn
Notary Public for the State of Washington
Residing at Prosser
My commission expires 2/04/2024

STATE OF Washington)
County of Yakima) ss.

On this 10 day of June, 2020, before me personally appeared Brian S. Bosma, known to me to be a Manager in Orland Ridge Dairy, LLC, the limited liability company which executed the within instrument, and acknowledged that he/she executed the same as such Manager and in the limited liability company's name freely and voluntarily.



Misti D. Wiederspohn
Printed name Misti D. Wiederspohn
Notary Public for the State of Washington
Residing at Prosser
My commission expires 2/04/2024



DENR
SOUTH DAKOTA

**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

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

July 16, 2020

Terry L. Schmidt
Northwest Farm Credit Services
9915 St Thomas Drive
Pasco WA 99301

Dear Mr. Schmidt,

I am writing to inform you of the receipt of the Assignment Agreement between Northwest Farm Credit Services, FLCA and Orland Ridge Dairy, LLC regarding Water Permit No. 8425-3. Pursuant to SDCL § 46-5-32, this agreement shall be placed in the administrative file.

I would, however, like to point out that pursuant to this same statute, the assignment is not binding except upon the parties. The permit is under the name of Orland Ridge Dairy, LLC and the submission of your assignment agreement does not alter that without the completion of the transfer form. Transfer of ownership form can be downloaded from the Water Rights Program's website at <https://denr.sd.gov/des/wr/watrightsapps.aspx>. Thus, actions may be taken regarding Water Permit No. 8425-3 without notice to Northwest Farm Credit Services as it is not listed as the permit holder. Please feel free to contact Ann Mines Bailey, Assistant Attorney General, (605)773-3215 or ann.mines@state.sd.us with any questions.

Sincerely,

A handwritten signature in black ink that reads "Eric Gronlund". The signature is written in a cursive style with a large, stylized "E" and "G".

Eric Gronlund, Chief Engineer
Water Rights Program, DENR
605 773-3352
Eric.gronlund@state.sd.us

enclosure

Schlaak, Karen

From: Ty Eschenbaum <ty@a1developmentsolutions.com>
Sent: Monday, August 3, 2020 10:37 AM
To: Schlaak, Karen
Subject: RE: [EXT] Orland Ridge Dairy LLC

Hey Karen,

That is the address to the actual dairy, they must not have a mailbox setup there just yet. Please mail to their main office at:

Brian Bosma
3620 Independence
Sunnyside, WA 98944

Thank you!

Ty

From: Schlaak, Karen <Karen.Schlaak@state.sd.us>
Sent: Monday, August 3, 2020 10:16 AM
To: Ty Eschenbaum <ty@a1developmentsolutions.com>
Subject: Orland Ridge Dairy LLC

I sent Water Permit No. 8425-3 to the address on the application: c/o Brian Bosma, 23932 448th Ave, Winfred SD 57076. It came back marked "unclaimed" "unable to forward". Do you have a current mailing address for this facility or its representative?

Karen Schlaak
Water Rights Program
(605) 773-3352



Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 8425-3

I have this day, November 2, 2023, made a thorough examination of the water use system constructed by Orland Ridge Dairy LLC, 23932 448th Ave, Winfred, SD 57076 of Permit No. 8425-3, bearing the priority of March 18, 2020 authorizing the diversion of 0.33 cu. ft. per second of the waters of the Vermillion East Fork:Montrose Aquifer for commercial dairy purposes, in Lake County.

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Thein Well Co
- 2) No. of Wells 2
- 3) Depth(s) 52 feet
- 4) Well log is available Y If no, explain in comments

Comments: Two (2) identical wells 100 ft apart

Casing:

- 1) Diameter 6 inches
- 2) Length 36 feet
- 3) Type Plastic

Screen:

- 1) Type PVC
- 2) Length 16 feet
- 3) Static water level 5 feet

Pump:

- 1) Make Submersibles
- 2) Model Unknown
- 3) Size Unknown
- 4) Capacity 150 each GPM

Motor:

- 1) Make Unknown
- 2) Model No. Unknown
- 3) Horsepower rating 15 hp

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

- 1) Type PVC 2) Size 6 inches 3) Length 10,000 feet

C. D. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by Y/N

If no, describe: **xx**

- 2) Exceptions to compliance are: None

E. Condition and Location:

1. The system is in good condition with the point(s) of diversion located as follows: **WELL LOCATIONS**
Two (2) Wells 100 ft apart - From the NE corner Sec 24 T105N R54W, 50 ft S & 3970 ft W, Lat
43.89125 Long -97.26389 (NW ¼ NW ¼).
2. The works are capable of diverting and conveying to the place of use 0.67 cu. ft. per second of water which is to be used for commercial dairy use.

the license should be issued for 0.33 cfs.
3. All structures, wells and lands on map Y

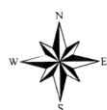
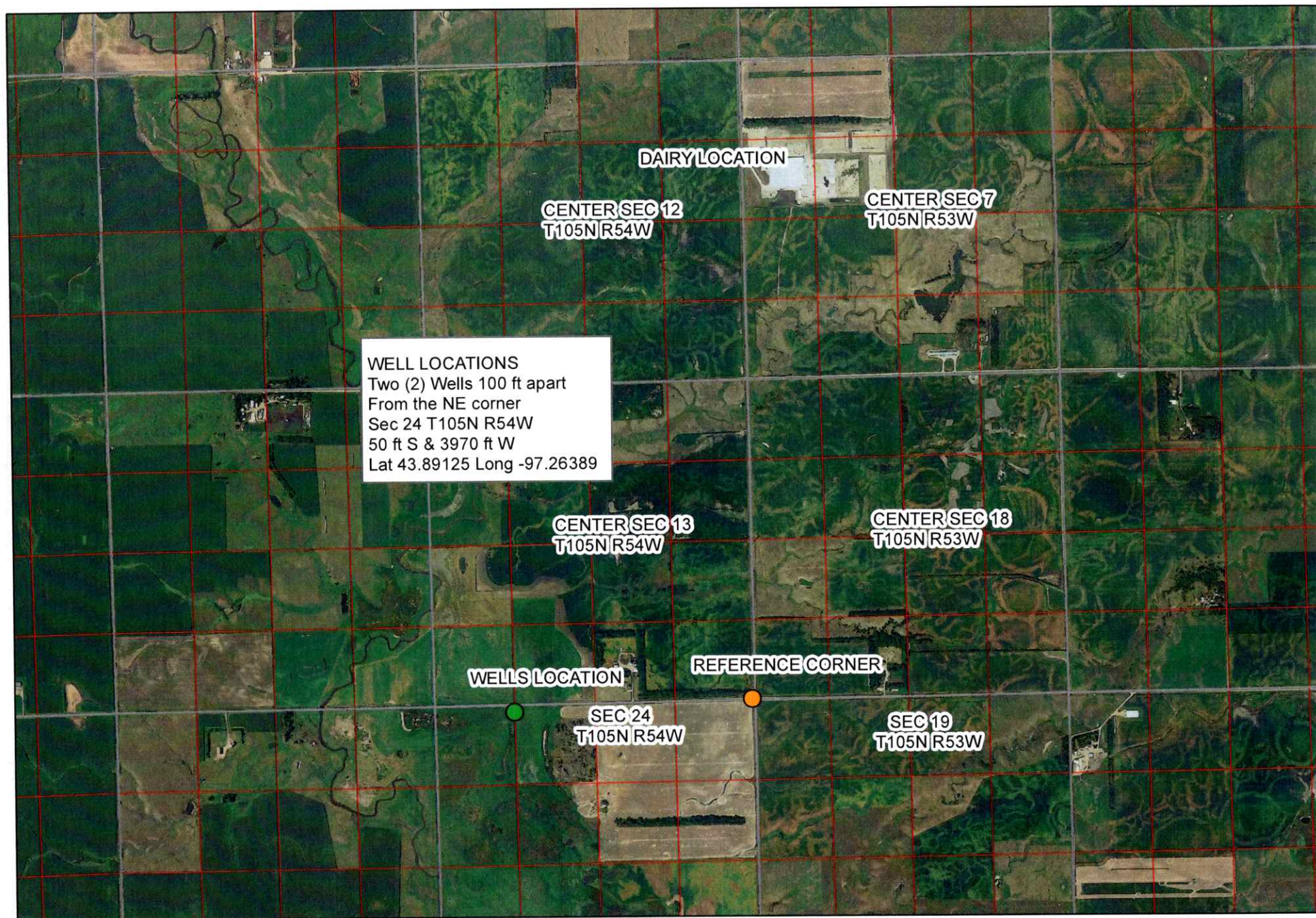
F. Comments or other permit(s) associated with the project:

**** See email to Amanda Dewell dated 08/20/2024**



Darrell W DeBoer
Water Rights Inspector
DANR, Water Rights Program

Date report completed: November 21, 2023



0 0.3 0.6 1.2 1.8 2.4 Miles



Darrell DeBoer
Water Right Inspector
DANR-Water Rights Program

Dewell, Amanda

From: DeBoer, Darrell
Sent: Tuesday, August 20, 2024 11:02 AM
To: Dewell, Amanda
Subject: Permit 8425-3 (Orland Ridge Dairy - Lake)

Follow Up Flag: Follow up
Flag Status: Flagged

Amanda

Good morning

I have some information for you to complete the licensing of Permit 8425-3 that I obtained from Mr. Brad Rip, Farm Manager, (509/391-2723) yesterday.

There are two wells in Section 24 with 15 hp motors capable of pumping 150 gpm each.

Water is transported from the wells to the dairy via about 10,000 ft of 6-inch PVC pipe. There is a problem with the water quality as the cows do not like to drink it which is being addressed by a consulting engineer.

You should have the map and an incomplete report that I submitted late 2023 to Genny.

Let me know if you need more from me.

Darrell DeBoer

Dewell, Amanda

From: Dewell, Amanda
Sent: Thursday, September 5, 2024 9:54 AM
To: maplegrove@bentonrea.com
Subject: Attn: Brad Rip/Brian Bosma

Gentlemen,

I am emailing you today regarding Water Permit No. 8425-3, held by Orland Ridge Dairy LLC, authorizing the appropriation of 161 acre-feet annually, at a rate of 0.33cfs (150 GPM), from two wells located in the NE ¼ NW ¼ Section 24, T105N, R54W, for commercial use in the dairy.

Recently a program staff engineer had contacted you to obtain pump and water transport information, as well as flow rates from the wells. He indicated that the wells were each capable of producing 150 GPM. Are the wells operated on a rotation or pumped simultaneously?

He also noted that you are experiencing water quality issues. Should you decide to have new wells drilled, construction authorized under Permit No. 8425-3 is to be completed by May 4, 2025, with the water placed to beneficial use by May 4, 2029. If needed, we will arrange for a new inspection to be conducted at a later date.

Please respond to this email at your earliest convenience and we will determine the best course of action. Thank you.

Amanda Dewell

DANR - Water Rights Program
Permitting Administrator
Main Phone: 605 773-3352
Website: danr.sd.gov

