The Minnesota DNR has received a permit application for agricultural crop irrigation in Wadena County. More details are provided below. If you would like to review the application and provide comments, please click on the link below to navigate to our online permitting system. Comments are due by 06/02/2018.

#### Project Details:

Project Name: North Germany #3

Activity: Agricultural Crop Irrigation

Landowner: R D Offutt Company - Park Rapids

Agent: Minnesota Valley Irrigation, LLC, Tim Nolte

County: Wadena

Legal Description: T136N-R34W-S10 SESE Water Resource: Groundwater: QBAA

The applicant (Mr. Tim Nolte) seeks authorization for appropriation of 45.0 MGY of wa ter for agricultural irrigation on 138 acres for crop production at a maximum pumping rate of 800 gpm. The proposed appropriation source is confined aquifer well# 805422 w ith a screen set between 135 and 155 feet depths. The requested volume of water equat es to an application rate of 12.01 inches per acre per year. Within 1.5 miles of the location of this well there are numerous wetlands (Types 1, 3, 5, 6, 7, and 8), a pub lic watercourse (Redeye River), two public water basins (unnamed), a native plant community, a rare animal species (Greater Prairie Chicken), and a state wildlife management area (North Germany WMA). The combined thickness of the two overlaying confining layers at this well location is 66 feet, which should limit the interaction between p umping of the production well (confined aquifer) and water levels in surface water fe atures (water table aquifer). There are 9 domestic well locations with an additional 8 likely domestic well locations within one mile surrounding this well. The potential for impacts to these features and likely domestic wells will be evaluated. Elle Fielding - May 3, 2018

https://webapps11.dnr.state.mn.us/mpars/request\_for\_comment/reviewer\_comments?reviewer\_key=b6ed93de23c90097b6fb8253e9e57c31acfdb3de

If you have questions about this application or how to enter comments via the online system, please contact Robert Guthrie at robert.guthrie@state.mn.us, 218-732-8960.

\*\*\* DO NOT REPLY TO THIS EMAIL \*\*\*

From: NOREPLY.MPARS.dnr@state.mn.us

Subject: [MPARS] DNR Request for Comments - Agricultural Crop Irrigation - Wadena County - Application 2017-

4237

Date: May 3, 2018 04:45:11 PM CDT

To: deana.malone@co.wadena.mn.us

CC:

The Minnesota DNR has received a permit application for agricultural crop irrigation in Wadena County. More details are provided below. If you would like to review the application and provide comments, please click on the link below to navigate to our online permitting system. Comments are due by 06/30/2018.

#### Project Details:

Project Name: North Germany #2

Activity: Agricultural Crop Irrigation

Landowner: R D Offutt Company - Park Rapids

Agent: Minnesota Valley Irrigation, LLC, Tim Nolte

County: Wadena

Legal Description: T136N-R34W-S10 SWSW

Water Resource: Groundwater: QBAA

The applicant (Mr. Tim Nolte) seeks authorization for appropriation of 32.6 MGY of wa ter for agricultural irrigation on 100 acres for crop production at a maximum pumping rate of 700 gpm. The proposed appropriation source is confined aquifer well# 805421 w ith a screen set between 137 and 157 feet depths. The requested volume of water equat es to an application rate of 12.01 inches per acre per year. Within 1.5 miles of the location of this well there are numerous wetlands (Types 1, 2, 3, 5, 6, 7, and 8), a public watercourse (Redeye River), two public water basins (unnamed), and a state wil dlife management area (North Germany WMA). The combined thickness of the two overlaying confining layers at this well location is 53 feet with an additional 4 feet of clay not within a confining layer. These clay layers should limit the interaction between pumping of the production well (confined aquifer) and water levels in surface water features (water table aquifer). There are 14 likely domestic well locations in the on e mile surrounding this well. The potential for impacts to these features and likely domestic wells will be evaluated.

Elle Fielding - May 31, 2018

https://webapps11.dnr.state.mn.us/mpars/request\_for\_comment/reviewer\_comments?reviewer\_key=4a3cc85571ac0065c842e5b6ba0692fba5cf5799

If you have questions about this application or how to enter comments via the online system, please contact Robert Guthrie at robert.guthrie@state.mn.us, 218-732-8960.

\*\*\* DO NOT REPLY TO THIS EMAIL \*\*\*

From: NOREPLY.MPARS.dnr@state.mn.us

Subject: [MPARS] DNR Request for Comments - Agricultural Crop Irrigation - Wadena County - Application 2017-

4236

Date: May 31, 2018 09:15:12 AM CDT
To: deana.malone@co.wadena.mn.us

CC:

The Minnesota DNR has received a permit application for agricultural crop irrigation in Wadena County. More details are provided below. If you would like to review the ap plication and provide comments, please click on the link below to navigate to our onl ine permitting system. Comments are due by 06/02/2018.

#### Project Details:

Project Name: North Germany #1

Activity: Agricultural Crop Irrigation

Landowner: R D Offutt Company - Park Rapids

Agent: Minnesota Valley Irrigation, LLC, Tim Nolte

County: Wadena

Legal Description: T136N-R34W-S4 NESW Water Resource: Groundwater: QBAA

The applicant (Mr. Tim Nolte) seeks authorization for appropriation of 21.2 MGY for a gricultural irrigation on 65 acres for crop production at a maximum pumping rate of 4 50 gpm. The proposed appropriation source is confined aquifer well# 805420 with a scr een set between 105 and 140 feet depths. The requested volume of water equates to an application rate of 12.01 inches per acre per year. Within 1.5 miles of the location of this well there is an unnamed public waters basin, two public watercourses (Redeye River and Cat River), and numerous wetlands (Types 1, 2, 3, 4, 5, 6, 7, and 8). The c ombined thickness of the two overlaying confining layers at this well location is 39 feet, which should limit the interaction between pumping of the well (confined aquife r) and water levels in surface water features (water table aquifer). There are twelve likely domestic well locations in the one mile surrounding this well. The potential f or impacts to these features and likely domestic wells will be evaluated. Elle Fielding - May 3, 2018

https://webapps11.dnr.state.mn.us/mpars/request\_for\_comment/reviewer\_comments?reviewe r\_key=b3f209433f93a62bd677b0c0ea3ca3004eedc9c5

If you have questions about this application or how to enter comments via the online system, please contact Robert Guthrie at robert.guthrie@state.mn.us, 218-732-8960.

\*\*\* DO NOT REPLY TO THIS EMAIL \*\*\*

From: NOREPLY.MPARS.dnr@state.mn.us

Subject: [MPARS] DNR Request for Comments - Agricultural Crop Irrigation - Wadena County - Application 2017-

4235

Date: May 3, 2018 11:15:12 AM CDT

To: darren.newville@eot.mnswcd.org

CC:



# Minnesota Department of Natural Resources Division of Ecological & Water Resources

MNDNR PERMITTING AND REPORTING SYSTEM



Reference Number: 2017-4235

**REVISION** 04132015

APP ID 13553

#### **Water Appropriation Permit Application**

Date Submitted to DNR: December 11, 2017 at 10:09 AM

DNR Lead Hydrologist: Robert Guthrie

Area: Park Rapids

Email: robert.guthrie@state.mn.us

Phone: 218-732-8960

THE PROPERTY OF THE PARTY OF THE PROPERTY OF THE PARTY OF

Application Reference Name: North Germany #1

DNR Region: Northwest Region 1

Address: Minnesota Department of Natural Resources

110 7th St. W, Suite 301 Park Rapids, MN, 56470

## Parties (Individuals and Organizations associated with the permit application)

Tim Nolte - Landowner or Government Unit

Address: 26914 181st Avenue, Sebeka, MN 56477

Phone: 218-837-5598

Email: noltelivestock@wcta.net

Jennifer VanOrsdel - Contact (representing Minnesota Valley

Irrigation, LLC)

(submitted application)

Address: PO Box 509, Wadena, MN 56482

Phone: 218-631-9271

Email: rkempenich@minnvalley.com

Minnesota Valley Irrigation, LLC - Agent

Address: 602 Ash Ave NE, PO Box 509, Wadena, MN 56482

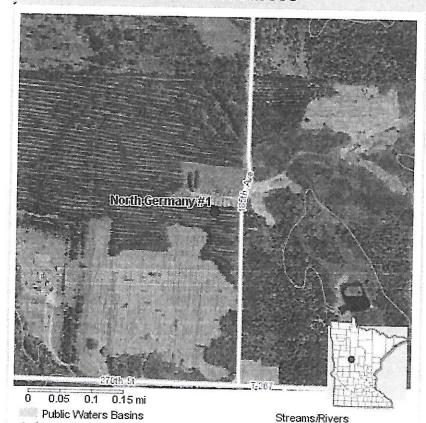
Phone: 218-631-9271

## **Proposed Activity**

Agricultural Crop Irrigation (Volume requested: 21.18 mgy)

Page 1 North Germany

# **Location and Water Resources**



Installation Name: North Germany #1

Counties: Wadena

Watersheds: Redeye River

PLS: T136N-R34W-S4 NESW, T136N-R34W-S4 SESW

UTM: X:348401 Y:5164815 Water Resources: Groundwater

# **Appropriation Overview**

Public Ditches / Altered Natural Watercourses

Public Waters Watercourses

- 1 Please assign a reference/project name to this application.
- 2 What is the main type of work you are proposing to do?
- 3 What is the major category of water use?
- Will you use more than 10,000 gallons of water on any one day and/or 1 million gallons of water in a year?
- 5 What is the initial means by which the water will be obtained (select one)? Note: subsequent questions will determine whether water will also be pumped to and from a temporary storage site.
- Do you intend to pump the water to a temporary storage site before the intended use (e.g., to a pit, pond, wetland)? Do NOT mark yes for water trucks.
- 7 When did you or will you begin withdrawing water?
- 8 Is this a one-time water appropriation expected to last 1 year or less (i.e., temporary but not seasonal)?
- 9 What alternative sources of water and withdrawal methods did you consider and why was the proposed action selected?
- 10 What conservation practices will you employ? (check all that apply)

North Germany #1

Pump water for irrigation, water supply, manufacturing, dewatering, etc.

Irrigation

Yes

National Wetlands Inventory

One (1) single well

No

05/01/2018

No

most economical and lowest impact

Low Flow Irrigation System

# Appropriation Overview (Continued) 11 Your local SWCD can assist with identifying conservation measures (see <a href="https://www.maswcd.org">www.maswcd.org</a>). Has a conservation plan, approved by your SWCD, been developed for the acreage you plan to irrigate? 12 Do you have any other comments about the proposed water withdrawal? (optional)

# **Activity Detail**

Activity: Agricultural Crop Irrigation

How much water are you requesting to use annually for this purpose in millions of gallons per year? (For example, enter 2,500,000 gallons as 2.5) 21.18 million gallons per year

I don't know how much water I need N/A

How many total acres will be irrigated? 65 acres

What type of crops will be irrigated (check all that apply)? Alfalfa, Corn, Soybeans

#### Installation

Ins	stallation Name: North Germany #1 (Well)			
1	What is the Minnesota unique well # for this well?	805420		
2	What is the maximum casing diameter of this well (in inches)? Provide an estimate if the well has not yet been drilled.	12 inches		
3	What is the completed depth of this well (in feet)? Provide an estimate if the well has not yet been drilled.	140 feet		
4	What is the maximum pumping rate for this well (in gpm)?	450 gallons per minute		
5	What is the requested pumping rate for this well (in gpm)?	450 gallons per minute		
6	A method to measure water use within 10% accuracy is required for every well. What method will be used to measure water use at this well? For more details on this requirement, refer to <a href="http://files.dnr.state.mn.us/waters/watermgmt_section/appropriations/flowmeter.pdf">http://files.dnr.state.mn.us/waters/watermgmt_section/appropriations/flowmeter.pdf</a> .	Timing Device		
7	Upload the well and boring construction record for this well.	OffuttPark_Rapids_North_Germany1_Drilling_Record .pdf		
8	Upload the <u>pumping test data</u> for this well.	OffuttPark_Rapids_North_Germany1_Pumping_Test.pdf		
9	Counties	Wadena		
10	Watersheds	Redeye River		
11	PLS	T136N-R34W-S4 NESW, T136N-R34W-S4 SESW		
12	UTMXY	X:348401 Y:5164815		
13	Water resources	Groundwater		
	Installation Attachment(s): OffuttPark_Rapids_North_German OffuttPark_Rapids_North_German			

# Acknowledgment (By the party who submitted the permit application)

# Acknowledgement (Continued)



I attest that:

- ·I own or control (by lease, license, or other permission) the land from which groundwater or surface water will be appropriated, AND
- ·There are no easements or other restrictions on the land that would prohibit the proposed activities from being authorized under a permit, AND
  - ·I possess the authority to undertake the work described, or I am acting as a duly authorized agent, AND
- •The information submitted and the statements made concerning this application are true and correct to the best of my knowledge.

PRINTED: 12/11/2017 at 10:09 AM

MINNESOTA DEPARTMENT OF HEALTH WELL OR BORING LOCATION **WELL AND BORING RECORD** 805420 County Name Minnesota Statutes, Chapter 1031 Wadena DATE WORK COMPLETED WELL/BORING DEPTH (completed) ownship No. Range No. Section No. Fraction HORSI DRILLING METHOD minutes seconds Cable Tool
Auger
Other Driven LOCATION: minutes seconds Longitude degrees House Number, Street Name. City, and ZIP Code of Wall Location WELL HYDROFRACTURED? Yes No DRILLING FLUID Sketch map of well/boring location. Showing property lines, roads, buildings, and direction. ft. To USE ☐ Heating/Cooling ☐ Monitoring Domestic ☐ Industry/Commercial Environ. Sore Hole Noncommunity PWS irrigation
Dewatering Community PWS ☐ Remedial П ☐ Elevator HOLE DIAM. Drive Shoe? Yes No CASING MATERIAL Stool ☐ Welded Threaded Plastic CASING Diameter Weight Specifications DEFITY OWNER'S NAME/COMPANY NAME is. To Туре Slot/Gauze Staples, MN 56479 ft. FITTINGS Set between ft. and\_ STATIC WATER LEVEL ft. Below Above land surface Date measured WELL OWNER'S NAME/COMPANY NAME PUMPING LEVEL (below land surface) WELLHEAD COMPLETION Well-boring owner's mailing address if different than property owner's address indicated above. Pitless/adapter manufacturer 12 ln. above grade Casing protection At-grade Well House Hand Pump GROUTING INFORMATION (specify bentonite, cement-sand, neat-corrept, concrete, cuttings, or other) Yds. Bags Yds. Bags HARDNESS OF FROM COLOR GEOLOGICAL MATERIALS Driven casing seal From MATERIAL NEAREST KNOWN SOURCE OF CONTAMINATION 2 Well disinfected upon completion? Yes No vianufacturer's name ft. Capacity Type: Submersible L.S. Turbine Reciprocating Jet . ABANDONED WELLS Does property have any not in use and not sealed well(s)? Yes No Was a variance granted from the MDH for this well? Yes Yes TN# WELL CONTRACTOR CERTIFICATION This well was drilled under my supervision and in accordance with Minnecota Rules, Chapter 4725. The information contained in this report is true to the best of my knowledge. d sheet, if naedea REMARKS, ELEVATION, SOURCE OF DATA, etc. two Rocard 805420 MINN, DEPT OF HEALTH COPY

IC 140-0020

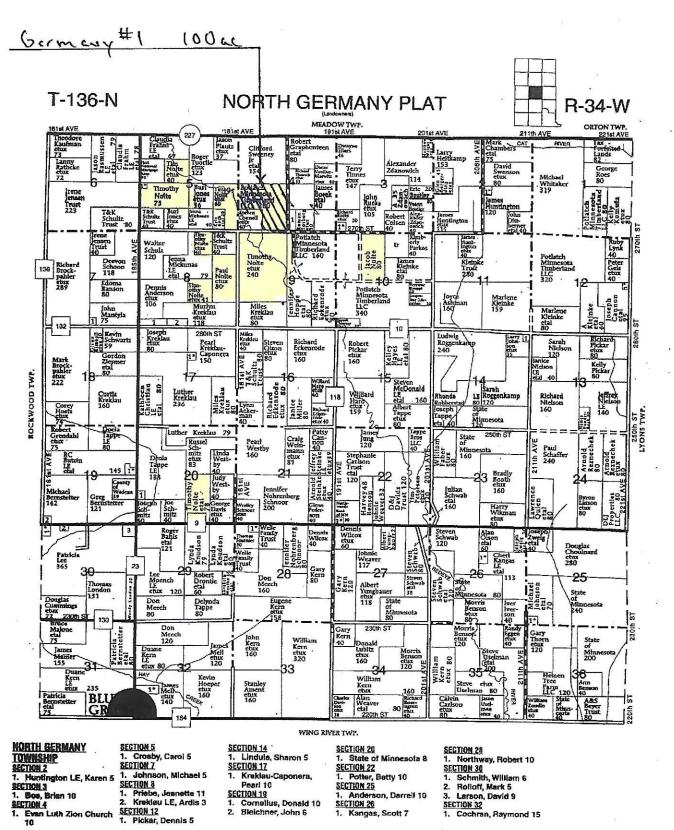
# Want a "free" extra book?

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800-685-7432-ext. 2605 or

email: amanda.engebretson@farmandhomepublishers.com



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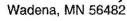
#### #805420

RD Offutt Company/Park Rapids	Date: 9-23-14`	Well Number: North Germany #1	
Casing Diameter: 12"	Casing Above GL: 14"	Well Depth: 140'	
Static (TOC): 2'	Operator: Buck	Test Pump Setting: 105'	

Time	PWL FT.	Inches	Inch Head	GPM	Yield GPF
10:00	18	2	-	600	
10:15	20			600	
10:30	21	4		600	
10:45	22	2		600	
11:.00	22	9		600	
11:15	23	3		600	
11:30	23	6	9	600	
11:45	23	8		600	
12:00	24			600	
12:15	24	2		600	
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2:15	24	7		600	



218-631-9271





2:30	24	8	600
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3:00	24	9	600
3:15	25		600
3:30	25		600
3:45	25		600
4:00	25	1	600
4:15	25	1	600
4:30	25	1	600
4:45	25	1	600
5:00PM	25	2	600
9-24-14 9:00AM	28	3	- 600
10:00	28	3	600
11:00	28	3	600
12:00	28	4	600
1:00	28	4	600
2:00	28	4	600
3:00	28	4	600
4:00	28	5	600
5:00PM	28	5	600
9-25-14 8:00AM	29	1	600
9:00	29	1	600



218-631-9271



10:00	29	1	9
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218-631-9271



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12:00	8	4		
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# Minnesota Department of Natural Resources Division of Ecological & Water Resources

MNDNR PERMITTING AND REPORTING SYSTEM



**REVISION** 04132015

**APP ID** 13556

# **Water Appropriation Permit Application**

Date Submitted to DNR: December 11, 2017 at 10:22 AM

DNR Lead Hydrologist: Robert Guthrie

Area: Park Rapids

Email: robert.guthrie@state.mn.us

Phone: 218-732-8960

Reference Number: 2017-4237

Application Reference Name: North Germany #3

DNR Region: Northwest Region 1

Address: Minnesota Department of Natural Resources

110 7th St. W, Suite 301 Park Rapids, MN, 56470

# Parties (Individuals and Organizations associated with the permit application)

Tim Nolte - Landowner or Government Unit

Address: 26914 181st Avenue, Sebeka, MN 56477

Phone: 218-837-5598

Email: noltelivestock@wcta.net

Jennifer VanOrsdel - Contact (representing Minnesota Valley

Irrigation, LLC)

(submitted application)

Minnesota Valley Irrigation, LLC - Agent

Address: 602 Ash Ave NE D

Address: PO Box 509, Wadena, MN 56482

-Phone: 218-631-9271

Email: rkempenich@minnvalley.com

Address: 602 Ash Ave NE, PO Box 509, Wadena, MN 56482

Phone: 218-631-9271

# **Proposed Activity**

Agricultural Crop Irrigation (Volume requested: 44.96 mgy)

## Lecation and Water Resources



Installation Name: North Germany #3

Counties: Wadena

Watersheds: Redeye River

PLS: T136N-R34W-S10 NESE, T136N-R34W-S10

NWSE, T136N-R34W-S10 SWSE,

T136N-R34W-S10 SESE UTM: X:350509 Y:5163110 Water Resources: Groundwater

# **Appropriation Overview**

Public Ditches / Altered Natural Watercourses

Public Waters Watercourses

- 1 Please assign a reference/project name to this application.
- 2 What is the main type of work you are proposing to do?
- 3 What is the major category of water use?
- Will you use more than 10,000 gallons of water on any one day and/or 1 million gallons of water in a year?
- 5 What is the initial means by which the water will be obtained (select one)? Note: subsequent questions will determine whether water will also be pumped to and from a temporary storage site.
- 6 Do you intend to pump the water to a temporary storage site before the intended use (e.g., to a pit, pond, wetland)? Do NOT mark yes for water trucks.
- 7 When did you or will you begin withdrawing water?
- 8 Is this a one-time water appropriation expected to last 1 year or less (i.e., temporary but not seasonal)?
- 9 What alternative sources of water and withdrawal methods did you consider and why was the proposed action selected?
- 10 What conservation practices will you employ? (check all that apply)

North Germany #3

Pump water for irrigation, water supply, manufacturing, dewatering, etc.

Irrigation

Yes

National Wetlands Inventory

One (1) single well

No

05/01/2017

No

most economical / lowest impact

Low Flow Irrigation System

#### Appropriation Overview (Continued) 11 Your local SWCD can assist with identifying conservation 2017-4237 No measures (see www.maswcd.org). Has a conservation plan, approved by your SWCD, been developed for the acreage you plan to irrigate? 12 Do you have any other comments about the proposed water 2014-2104 withdrawal? (optional) **Activity Detail** Activity: Agricultural Crop Irrigation How much water are you requesting to use annually for this urpose in millions of gallons per year? (For example, enter 2,500,000 gallons as 2.5) 44,96 million gallons per year I don't know how much water I need N/A How many total acres will be irrigated? 138 acres What type of crops will be irrigated (check all that apply)? Alf Ifa, Corn, Soybeans Installation Installation Name: North Germany #3 (Well) What is the Minnesota unique well # for this well? 805422 What is the maximum casing diameter of this well (in inches) 12 Inches Provide an estimate if the well has not yet been drilled. What is the completed depth of this well (in feet)? Provide an 155 feet estimate if the well has not yet been drilled. What is the maximum pumping rate for this well (in gpm)? 800 gallons per minute What is the requested pumping rate for this well (in gpm)? 800 gallons per minute A method to measure water use within 10% accuracy is requi **Timing Device** for every well. What method will be used to measure water use at this well? For more details on this requirement, refer to http://files.dnr.state.mn.us/waters/watermgmt\_section/appropriatio ns/flowmeter.pdf. Upload the well and boring construction record for this well. RDO\_PR\_North\_Germany\_\_7\_Drilling\_Record.pdf Upload the pumping test data for this well. RDO\_PR\_North\_Germany\_ 7 Pumping Test.pdf Counties Wadena

10 Watersheds

11 PLS

12 UTMXY

Water resources

Redeye River

T136N-R34W-S10 NESE, T136N-R34W-S10 NWSE. T136N-R34W-S10 SWSE, T136N-R34W-S10 SESE

X:350509 Y:5163110

Groundwater

Installation Attachment(s):

RDO\_PR\_North\_Germany\_\_7\_Drilling Record.pdf RDO\_PR\_North\_Germany 7 Pumping Test.pdf

Acknowledgment (By the party who submitted the permit application)

### Acknowledgement (Continued)



I attest that:

- ·I own or control (by lease, license, or other permission) the land from which groundwater or surface water will be appropriated, AND
- ·There are no easements or other restrictions on the land that would prohibit the proposed activities from being authorized under a permit, AND
  - ·I possess the authority to undertake the work described, or I am acting as a duly authorized agent, AND
- ·The information submitted and the statements made concerning this application are true and correct to the best of my knowledge.

PRINTED: 12/11/2017 at 10:22 AM



# Minnesota Department of Natural Resources Division of Ecological & Water Resources

MNDNR PERMITTING AND REPORTING SYSTEM



**REVISION** 04132015

**APP ID 13555** 

# Water Appropriation Permit Application

Date Submitted to DNR: December 11, 2017 at 10:16 AM

**DNR Lead Hydrologist: Robert Guthrie** 

Area: Park Rapids

Email: robert.guthrie@state.mn.us

Phone: 218-732-8960

Reference Number: 2017-4236

Application Reference Name: North Germany #2

**DNR Region:** Northwest Region 1

Address: Minnesota Department of Natural Resources

110 7th St. W, Suite 301 Park Rapids, MN, 56470

# Parties (Individuals and Organizations associated with the permit application)

Tim Nolte - Landowner or Government Unit

Address: 26914 181st Avenue, Sebeka, MN 56477

Phone: 218-837-5598

Email: noltelivestock@wcta.net

Jennifer VanOrsdel - Contact (representing Minnesota Valley

Irrigation, LLC)

(submitted application)

Minnesota Valley Irrigation, LLC - Agent

Address: PO Box 509, Wadena, MN 56482

Phone: 218-631-9271

Email: rkempenich@minnvalley.com

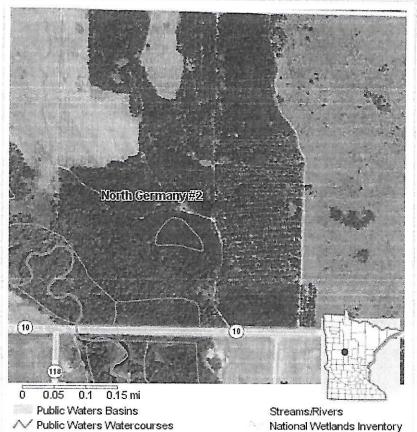
Address: 602 Ash Ave NE, PO Box 509, Wadena, MN 56482

Phone: 218-631-9271

# **Proposed Activity**

Agricultural Crop Irrigation (Volume requested: 32.58 mgy)

## **Location and Water Resources**



Installation Name: North Germany #2

Counties: Wadena

Watersheds: Redeye River

PLS: T136N-R34W-S10 SWSW, T136N-R34W-S10

SESW

UTM: X:349649 Y:5163050 Water Resources: Groundwater

# **Appropriation Overview**

\* Public Ditches / Altered Natural Watercourses

- 1 Please assign a reference/project name to this application.
- What is the main type of work you are proposing to do?
- 3 What is the major category of water use?
- Will you use more than 10,000 gallons of water on any one day and/or 1 million gallons of water in a year?
- What is the initial means by which the water will be obtained (select one)? Note: subsequent questions will determine whether water will also be pumped to and from a temporary storage site.
- 6 Do you intend to pump the water to a temporary storage site before the intended use (e.g., to a pit, pond, wetland)? Do NOT mark yes for water trucks.
- 7 When did you or will you begin withdrawing water?
- 8 Is this a one-time water appropriation expected to last 1 year or less (i.e., temporary but not seasonal)?
- 9 What alternative sources of water and withdrawal methods did you consider and why was the proposed action selected?
- 10 What conservation practices will you employ? (check all that apply)

North Germany #2

Pump water for irrigation, water supply, manufacturing, dewatering, etc.

Irrigation

Yes

One (1) single well

No

05/01/2017

No

most economical / low impact

Low Flow Irrigation System

# Appropriation Overview (Continued)

2017-4236

Your local SWCD can assist with identifying conservation measures (see <a href="www.maswcd.org">www.maswcd.org</a>). Has a conservation plan, approved by your SWCD, been developed for the acreage you plan to irrigate? No

12 Do you have any other comments about the proposed water withdrawal? (optional)

2014-2098

# **Activity Detail**

Activity: Agricultural Crop Irrigation

How much water are you requesting to use annually for this purpose in millions of gallons per year? (For example, enter 2,500,000 gallons as 2.5) 32.58 million gallons per year

I don't know how much water I need N/A

How many total acres will be irrigated? 100 acres

What type of crops will be irrigated (check all that apply)? Alfalfa, Corn, Soybeans

#### Installation

Installation Name: North Germany #2 (Well)

1 What is the Minnesota unique well # for this well? 805421

What is the maximum casing diameter of this well (in inches)?Provide an estimate if the well has not yet been drilled.

What is the completed depth of this well (in feet)? Provide an estimate if the well has not yet been drilled.

4 What is the maximum pumping rate for this well (in gpm)? 700 gallons per minute

5 What is the requested pumping rate for this well (in gpm)? 700 gallons per minute

6 A method to measure water use within 10% accuracy is required for every well. What method will be used to measure water use at this well? For more details on this requirement, refer to <a href="http://files.dnr.state.mn.us/waters/watermgmt\_section/appropriations/flowmeter.pdf">http://files.dnr.state.mn.us/waters/watermgmt\_section/appropriations/flowmeter.pdf</a>.

Upload the well and boring construction record for this well.

RDO\_PR\_North\_Germany\_\_6\_Drilling\_Record.pdf

Upload the <u>pumping test data</u> for this well. RDO\_PR\_North\_Germany\_\_6\_PumpingTest.pdf

9 Counties Wadena

10 Watersheds Redeye River

11 PLS T136N-R34W-S10 SWSW, T136N-R34W-S10 SESW

**12** UTMXY X:349649 Y:5163050

13 Water resources Groundwater

Installation Attachment(s): RDO\_PR\_North\_Germany\_\_6\_Drilling\_Record.pdf RDO\_PR\_North\_Germany\_\_6\_PumpingTest.pdf

# Acknowledgment (By the party who submitted the permit application)

# Acknowledgement (Continued)



✓ I attest that:

- ·I own or control (by lease, license, or other permission) the land from which groundwater or surface water will be appropriated, AND
- ·There are no easements or other restrictions on the land that would prohibit the proposed activities from being authorized under a permit, AND
  - ·I possess the authority to undertake the work described, or I am acting as a duly authorized agent, AND
- ·The information submitted and the statements made concerning this application are true and correct to the best of my knowledge.

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