

WATER PERMIT NO. 2009-1

Name of Applicant: Kent P Wilsey

Address: 21705 Wicksville Rd, Owanka SD 57767

Phone: 605 858-3900

Amount of Water Claimed: 0.167 cfs

Total Acres: NA

Source of Water Supply: groundwater (1 well)

Water to be used for: commercial

County: Meade

Type of Waste Disposal System:

Location: 22 miles south of Enning

PRIORITY

Date Received: 10-12-21

Application/License Fee: \$ 700

Corrected Application Received: 11-8-21

Period of Annual Use: Jan 1 – Dec 31

Remarks: for domestic and commercial use in a vegetable garden

Diversion Point: SW 1/4 SW 1/4 Sec 31-T4N-R13E

or NW 1/4 NE 1/4 Sec 1-T3N-R12E

Land to be Irrigated: NA

Depth of Well: 50 feet

Well Driller:

Remarks:

Type of Map: aerial

Prepared by:

Reviewed and the Number Assigned on: 11-8-12

By: Karen Schlaak

Notice of Hearing - date to intervene: _____

			R12E R13E		
		36		31	
	T4N T3N		⊗		T4N T3N
		1		6	

SOUTH DAKOTA
WATER PERMIT NO. 2009-1

Date of first receipt of application October 12, 2021.

Date of return to applicant for corrections, amendments or changes October 13, 2021.

Date of receipt of corrected application November 8, 2021.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 2009-1 to Kent P Wilsey, 21705 Wicksville Rd, Owanka SD 57767 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. 2009-1 appropriates an amount not exceeding 1.1 acre-feet of water annually at a maximum pump rate of 0.167 cubic feet of water per second from up to four wells to be completed into the Quaternary Aged Terrace Deposit Aquifer (approximately 50 feet deep) located in the SW 1/4 SW 1/4 Section 31-T4N-R13E or the NW 1/4 NE 1/4 Section 1-T3N-R12E for commercial use in a vegetable greenhouse and domestic use. This site is located approximately 22 miles south of Enning 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 from which applicant may claim right is October 12, 2021.
5. The date of approval of Permit No. 2009-1 is January 24, 2022.
6. One-fifth of the construction is to be completed on or before July 24, 2024.
7. All construction is to be completed on or before January 24, 2027.
8. Water is to be put to beneficial use on or before January 24, 2031.
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. 2009-1 may be located near domestic wells. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells.
2. The wells authorized by Permit No. 2009-1 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. The permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Quaternary Terrace aquifer.
4. Water Permit No. 2009-1 authorizes a total annual diversion of up to 1.1 acre-feet of water.

WATER MANAGEMENT BOARD

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

MAR 01 2022
date



OCT 12 2021

Mail to: DENR - Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	(office use only)		WATER RIGHTS PROGRAM
	No. <u>2009-1</u>	Hydrologic Unit <u>10120111</u>	
	Basin <u>Upper Cheyenne</u>		
	Newspaper <u>Faith Independent</u> <u>Rapid City Journal</u>		

PAID

OCT 12 2021

Ck# 7214**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 <u>vegetable production</u>	

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.)

Well1. Name to Appear on Water Permit Kent P WilseyMailing Address 21705 Wicksville Rd Owanka sd 57767
(Address) (City) (State) (Zip Code)Phone 605-798-2015 Mobile 605-858-3900 Email elkcreekfoods@goldenwest.net2. Amount of water claimed 0.167 *CFS or 75 **GPM and 1.1 ***AF or 365,000 Gallons/yr
Flow rate and volume are both required. (*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use)3. Source of water supply New well(4) SW 1/4 SW 1/4 Sec 31-T4N-R13E or NW 1/4 NE 1/4 Sec 1-T3N-R13E4. Location of point of diversion 1-4 wells in 4N 12E and/or 13E section 36 County Meade
(example - 3 wells in SW 1/4 NE 1/4 section 12-T104N-R53W)If not a public water supply (e.g. municipal), will water be used outside of the area described above? ☐ Yes ☒ NoIf "Yes," where will water be used? _____
(example - NW 1/4 section 12-T104N-R53W)5. County or counties where water will be used Meade6. Annual period during which water is to be used Continuous, peaking in summer Jan 1 - Dec 31

7. 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)

Making provisions for a new home, and adding water supply for vegetable production in greenhouses.I, Kent Wilsey, 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.

Supplemental Information

(type or print)

1. Well Information (check one or both as applicable) ☒ Drilling new well(s) ☐ Using existing well(s)

a) If new wells, how many 4 Have test holes been drilled ☐ Yes ☒ No Drilled by _____
(if yes, please provide copies of logs)

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

For either Existing or Proposed Wells:

c) Well Depth (required) 50 ft? Depth to Top of Water Bearing Material tbd Depth to Water from Surface tbd

d) Distance to nearest domestic well on applicant's property n/a Property owned by others no

2. Wastewater Disposal System Information

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

b) System Capacity (gallons) _____ Year Constructed _____

c) Connected to the City of _____ Sanitary System

3. Dugout Information

a) Surface Dimensions _____ Depth _____

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

4. Water Storage Dams

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

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

b) Freeboard _____

c) Crest Width _____

Crest Length _____

d) Height _____

e) Primary Outlet Capacity _____

If pipe, diameter _____

f) Secondary Spillway Capacity _____

Spillway Width _____

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

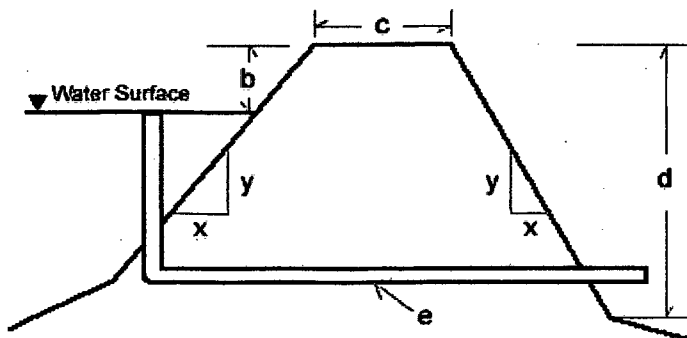
Upstream _____

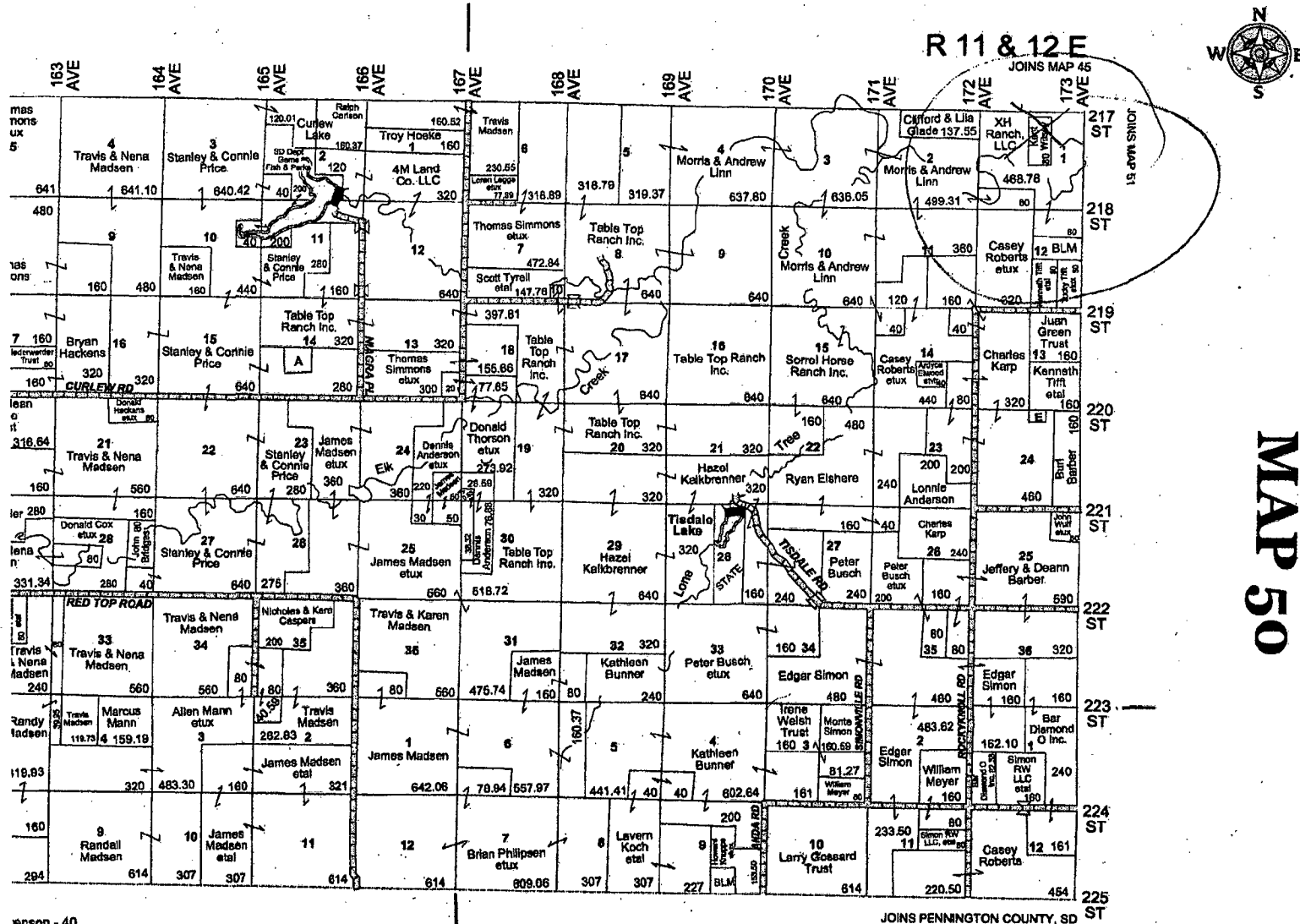
Downstream _____

h) Surface Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres





Jensen - 40
 Reddy - 10.26
 Sharon Karp - 20.05
 Sarah Lepp - 49.68
 Karp - 20
 Karp - 9.38
 Karp - 9.64
 Demer - 9.64
 Karp et ux - 20
 Krogman - 20.77

LAND OWNER MAPS

4N 12E
Section: 35

4N 12E
Section: 36

4N 13E
Section: 31

3N 12E
Section: 02

3N 12E
Section: 01

3N 13E
Section: 06

3N 12E
Section: 11

3N 12E
Section: 12

3N 13E
Section: 07



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

October 13, 2021

Kent P Wilsey
21705 Wicksville Rd
Owanka SD 57767

Dear Mr. Wilsey:

We received the water permit application today. A couple of items need to be clarified.

- Do you agree that one proposed well will be located in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 31-T4N-R13E and the other proposed wells will be located in the NW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 1-T3N-R12E? I have included another aerial photo map.
- Also, the application requests an appropriation of 75 gallons per minute (gpm). In addition to the pump rate, the application needs to include the annual volume in either gallons/year or acre feet/year. In calculating the annual volume, be reasonable but also plan for the maximum annual volume of use from the wells at full development. It is unrealistic that 75 gpm will be pumped continuously during an entire year. Therefore, DANR requests identification of an annual volume to be used. If you need help in determining the amount, please contact Ron Duvall with this office.
- You submitted a check for \$500.00. The application/license fee for your application will be \$700.00. Please submit an additional \$200.00.

If you have any questions, please contact me.

Sincerely,

Karen Schlaak

Karen Schlaak
Water Rights Program
605 773-3352
karen.schlaak@state.sd.us

enclosure

RECEIVED

NOV - 8 2021

WATER RIGHTS
PROGRAM

PAID

NOV 8 2021

Ck# 2274

Nov 3, 2021

Karen

Regarding those items to be clarified in your Oct 13 Letter;

- Yes, those are the two areas where we will be doing test wells and hopefully getting one good well. Sorry my map was not clear.
- Yes, that would be excessive. I expect to pump no more than 1000 gallons per day based on our current usage, so 365,000 gallons per year is a conservative number. More likely usage will be half that or less. Please let the permit show up to 365,000 gal/yr.
- I will include another \$200.

Have a good day, thank you for your help.

Kent P Wilsey

31705 Wicksville Rd

Owanka, SD 57767

Mathiowetz, Adam (DENR)

From: Kent Wilsey <elkcreekfoods@goldenwest.net>
Sent: Tuesday, December 14, 2021 7:39 AM
To: Mathiowetz, Adam (DENR)
Subject: Re: [EXT] Aquifer and general well construction for greenhouse

Adam

To the best of my knowledge, that is correct. We intend to construct the wells approximately 20 ft into the shale.

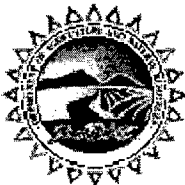
Kent Wilsey

On 12/7/2021 12:49 PM, Mathiowetz, Adam (DENR) wrote:

Kent,

This email is a follow up to our December 7 phone call regarding Water Permit Application No. 2009-1. Based on the provided map and our discussion, you intend to construct wells completed into the Quaternary Terrace deposits, sand and gravel sitting on top of the Pierre Shale, but not the alluvium, primarily sand, along Elk Creek. You intend to have the wells constructed with a "sump" approximately 20 feet deep into the underlying Pierre shale to act as storage within the well casing.

In short, we intend to process your application as withdrawing water from the Quaternary aged Terrace deposit. Please respond to this email if the above statements are correct and that you agree with the aquifer assignment.



Adam Mathiowetz, PE
Engineer, Water Rights Program
Department of Agriculture and Natural Resources
523 E. Capitol Ave. Pierre SD, 57501
605.773.3352
danr.sd.gov

Schlaak, Karen

From: Schlaak, Karen
Sent: Thursday, September 23, 2021 10:22 AM
To: elkcreekfoods@goldenwest.net
Subject: FW: [EXT] Well permit
Attachments: map 50.pdf

Eric forwarded your email to me. Enclosed is an aerial photo map for your location. On this map, please mark the proposed location of the well with an X. Submit both maps with your application. Upon receiving the complete application, I will review it and contact you if something more is required. Let me know if you have questions.

Karen Schlaak
DANR - Water Rights Program
(605) 773-3352
Website: <https://danr.sd.gov>



From: Kent Wilsey <elkcreekfoods@goldenwest.net>
Sent: Wednesday, September 22, 2021 5:19 PM
To: Gronlund, Eric <Eric.Gronlund@state.sd.us>
Subject: Re: [EXT] Well permit

Next question... Is the attached map sufficient?

On 9/14/2021 8:20 PM, Gronlund, Eric wrote:

Kent

The application to appropriate water for non-irrigation is correct.

The application will be public noticed to the quarter-quarter section (40 acres) so anywhere within that you have flexibility to drill the well. If you are outside that quarter-quarter section then it is acceptable to mark more than one spot as the proposed well site.

Eric

-----Original Message-----

From: Kent Wilsey <elkcreekfoods@goldenwest.net>
Sent: Tuesday, September 14, 2021 2:51 PM
To: Gronlund, Eric <Eric.Gronlund@state.sd.us>
Subject: [EXT] Well permit

Eric

I'm looking into drilling a well for a new house on my property. In addition, the well water will be used to water in our (commercial) greenhouses and gardens. I'm assuming that the "non-irrigation" permit is sufficient, is that correct?

Also, would it be acceptable to mark more than one location for a well? We may need to try more than one spot before we get a good well.

Kent Wilsey
21705 Wicksville Rd
Owanka, SD 57767
605-798-2015

RECEIPT

WATER RIGHTS PROGRAM South Dakota Department of Agriculture and Natural Resources

Date October 12, 2021

RECEIVED OF Kent/Jo Wilsey 21705 Wicksville Rd., Owanka SD 57767

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

Fee for Application for Permit No. <u>2009-1</u> to Appropriate Water, to construct and to put water to beneficial use	\$ <u>500.00</u>
Fee for Application for Permit No. _____ to Appropriate Water for Future use	\$ _____
Fee to retain Future Use Permit No. _____ after period of seven years.	\$ _____
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____	\$ _____
Fee for Filing Transfer Form _____	\$ _____
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	\$ <u>500.00</u>

By Eric Gronlund
Chief Engineer

VM

RECEIPT

WATER RIGHTS PROGRAM South Dakota Department of Agriculture and Natural Resources

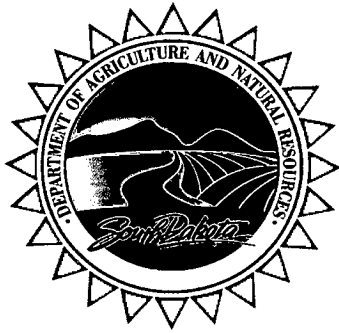
Date November 8, 2021

RECEIVED OF Elk Creek Foods/Kent Wilsey 31705 Wicksville Rd. Owanka SD 57767

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

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use	\$ _____
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>2009-1</u>	<u>\$200.00</u>
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	<u>\$200.00</u>

By Eric Gronlund
Chief Engineer
tm



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 2009-1, Kent P. Wilsey**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Agriculture and Natural Resources concerning Water Permit Application No. 2009-1, Kent P. Wilsey, 21705 Wicksville Rd, Owanka SD 57767.

The Chief Engineer is recommending APPROVAL of Application No. 2009-1 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 domestic water uses and water rights, 3) the proposed use is a beneficial use and 4) it is in the public interest as it pertains to matters of public interest within the regulatory authority of the Water Management Board with the following qualifications:

1. The wells approved under Water Permit No. 2009-1 may be located near domestic wells. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells.
2. The wells authorized by Permit No. 2009-1 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. The permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Quaternary Terrace aquifer.
4. Water Permit No. 2009-1 authorizes a total annual diversion of up to 1.1 acre-feet of water.

See report on application for additional information.

Eric Gronlund, Chief Engineer
January 5, 2022

REPORT TO THE CHIEF ENGINEER
ON
WATER PERMIT APPLICATION NO. 2009-1
KENT P WILSEY
JANUARY 5, 2022

Water Permit Application No. 2009-1 proposes to appropriate an amount of water not exceeding 1.1 acre-feet per year (ac-ft/yr) at a maximum instantaneous diversion rate of 0.167 cubic feet of water per second (cfs) from up to four wells (approximately 50 feet deep) to be completed into the Quaternary Terrace aquifer for commercial use in a vegetable greenhouse and domestic purposes. The wells are to be located in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 31-T4N-R13E or the NW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 1-T3N-R12E. This site is located approximately 22 miles south of Enning and 15 miles northeast of New Underwood, SD.

AQUIFER: Quaternary aged Terrace deposit (Quaternary Terrace) [QT]

HYDROGEOLOGY

Quaternary aged Terrace deposits are clay to boulder sized clasts deposited as pediments (broad gently sloping erosional surface), paleochannels, and terrace fills of former flood plains (Martin et al, 2004). Terrace deposits that are sufficiently saturated and permeable to act as aquifers are frequently near land surface and often directly overlie an aquitard, such as the Pierre shale. Terrace deposits can be up to 75 feet thick (Martin et al, 2004) but are frequently less than 30 feet thick (SDGS, 2021; Water Rights, 2022c). Direction of groundwater flow is generally in a direction toward a surface drainage or stream.

The Quaternary Terrace aquifer in the area of the applicant's proposed diversion points is a deposit lying on top of the Pierre Shale above the flood plain and erosional channel of Elk Creek, its nearby tributaries, and the Cheyenne River (Martin et al, 2004). The deposit the applicant intends to withdraw water from has an approximate total areal extent of 81,420 acres (Martin et al, 2004). It must be recognized any wells the applicant uses will not be capable of withdrawing water from that entire area. The portion of the Quaternary Terrace aquifer that is upgradient of the applicant's proposed well sites is approximately 8,430 acres in extent (Martin et al, 2004). The terrace deposit the applicant proposes to use is the uppermost geologic formation in the area and therefore, it is likely under unconfined conditions.

No test hole or well completion reports were submitted with this application. A well completion report completed into the terrace deposit within one mile to the west of the furthest west proposed well site identified gravel from 4 to 8 feet below land surface, gravel to clay from 8 to 16 feet below grade, and black shale from 16 to 46 feet below land surface. The static water level at the time of completion was 22 feet below grade.

Figure 1 is a map of the terrace deposit from which the applicant plans to withdraw water. The Quaternary Terrace aquifer is likely hydrologically connected to the Quaternary aged Alluvium along Elk Creek which is hydrologically connected to Elk Creek. The nearest Elk Creek water right to the proposed well locations is approximate 1.5 miles east of the easternmost proposed well site.

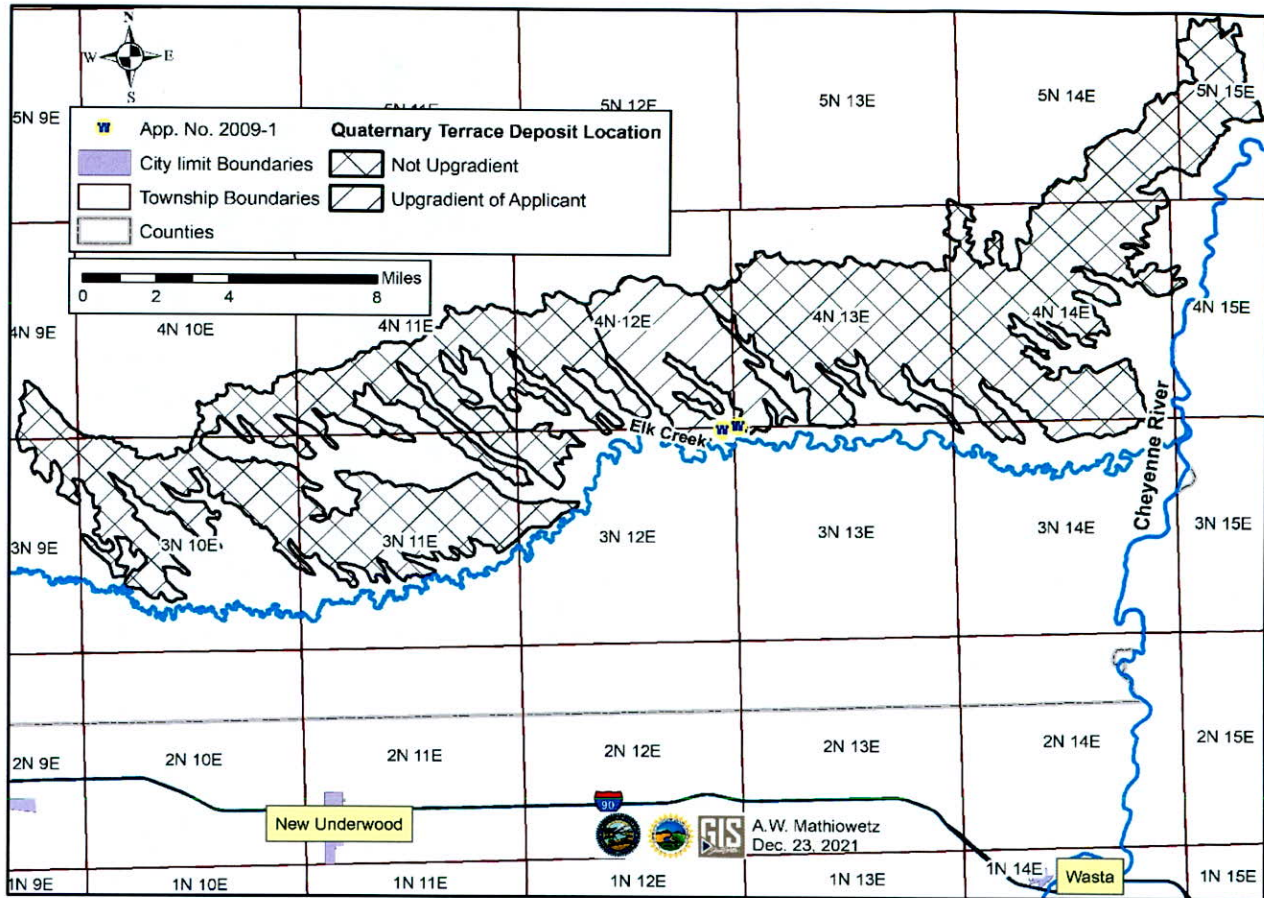


Figure 1- Map of Quaternary Terrace aquifer deposit (Martin et al, 2004) Permit Application No. 2009-1 proposes to use, proposed well locations, and nearby surface water sources

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 this applicant's proposed use, that the proposed diversion can be developed without unlawful impairment of existing domestic water uses and water rights and that the proposed use is a beneficial use and in the public interest as it pertains to matters of public interest within the regulatory authority of the Water Management Board. This report will address the availability of unappropriated water and potential for unlawful impairment of existing water rights from the aquifer that are pertinent to this application.

WATER AVAILABILITY

This application proposes to appropriate water from the Quaternary Terrace aquifer. The probability of unappropriated water being 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 Quaternary Terrace aquifer is not stratigraphically lower/older than the Greenhorn Formation and the applicant is not a water distribution system as defined in SDCL 46-1-6(17). Therefore, it is necessary to consider the relationship between estimated average annual recharge and average annual withdrawals for the Quaternary Terrace aquifer.

Hydrologic Budget

Recharge

Recharge to this Quaternary Terrace aquifer deposit is through infiltration of precipitation because the aquifer is at or near land surface and some lateral inflow of water encountering the Pierre Shale, a relatively impermeable formation, and possibly from adjacent Quaternary aged Alluvium. However, it should be noted that based on surface topography and likely deposition, the recharge received from the Quaternary aged Alluvium will be localized and relatively minor, especially when compared to the infiltration of precipitation. Currently, there are no recharge estimates to the Quaternary Terrace aquifer. Hedges and Burch (1985) estimated recharge to the alluvium in the Black Hills area and alluvium in eastern South Dakota to range from 2 to 5.6 inches per year (in/yr). They went on to state that the alluvium in western South Dakota outside the Black Hills area is likely to receive less recharge primarily due to less precipitation and finer grained materials comprising the deposits. The average annual precipitation in the area of this application is 16 to 18 in/yr (PRISM Climate Group, 2014).

Discharge

Discharge from this deposit of the Quaternary Terrace aquifer is through evapotranspiration, outflow to streams, drainages, and alluvium, particularly the alluvium along Elk Creek, and well withdrawals (Water Rights, 2022c). There are no appropriative permits for any Quaternary Terrace aquifer deposit (Water Rights, 2022b). Furthermore, there are no Quaternary Alluvium aquifer permits from the alluvium along Elk Creek in the vicinity of this deposit of the Quaternary Terrace aquifer (Water Rights, 2022b).

There are domestic wells completed into this portion of the Quaternary Terrace aquifer (Water Rights, 2022c). Some of these wells are on record with the DANR-Water Rights Program. However, it is likely there are a number of wells completed into this portion of the Quaternary Terrace aquifer that are not on file with the DANR-Water Rights Program. For the portion of the aquifer that is directly upgradient of the applicant, there appears to be four rural residences that overlie or partially overlie the approximate areal extent of the aquifer based on 2020 aerial imagery (FSA, 2021). Assuming 2.5 people per rural residence and a per capita use of 70 gallons per day (Carter and Neitzert, 2008), the estimated water use by these four rural residences directly upgradient of the applicant's proposed well locations is approximately 0.78 ac-ft/yr.

Hydrologic Budget

There is very limited use of the Quaternary Terrace aquifer. The best estimate of average annual withdrawals from the portion of the Quaternary Terrace aquifer directly upgradient of the applicant's proposed wells, assuming this application is approved, is less than two ac-ft/yr. Based

on the area of the aquifer directly upgradient of the applicant's proposed well locations, the average annual recharge rate to supply two ac-ft/yr would need to be 0.0028 in/yr. Compared to the average annual precipitation of 16 to 18 in/yr, there is a reasonable probability there is unappropriated water available for this 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 average quantity of water withdrawn annually from the aquifer does not exceed the estimated average annual recharge of the aquifer.

The DANR-Water Rights Program does not monitor any wells completed into the Quaternary Terrace aquifer (Water Rights, 2022a). There are two observation wells that measure the water levels of the alluvium along Elk Creek, MD-58A and MD-58B (Water Rights, 2022a). However, those observation wells are approximately 33 and 25 miles west of the applicant's proposed well locations, respectively. Due to distance and the fact there are a number appropriators, both ground and surface water, along Elk Creek between the observation wells and the applicant's proposed well locations, it is not reasonable to use them for comparison.

POTENTIAL FOR UNLAWFUL IMPAIRMENT OF EXISTING WATER RIGHTS

There are no appropriative users of the Quaternary Terrace aquifer (Water Rights, 2022b). The nearest rural residence based on 2020 aerial imagery is approximately 2 miles northwest of the applicant's (FSA, 2021). There has been very limited development of this portion of the Quaternary Terrace aquifer. Furthermore, there are no complaints regarding well interference in Meade County on file with the Water Rights Program (2022d). In general, drawdown created from pumping a well completed into an unconfined aquifer does not extend far from the pumping well.

The Quaternary Terrace aquifer is a relatively thin aquifer with a limited amount of water in storage. While the average annual withdrawal would not exceed average annual recharge to the aquifer, conditions may occur when the withdrawal exceeds recharge. When this occurs, water will be removed from storage. Consequently, the saturated thickness of the aquifer will be reduced. If the saturated thickness is reduced to the extent that water rights/permits with prior water rights and adequate wells or adequate domestic wells can no longer pump at their developed or "historically established" diversion rates, this may be considered an adverse impact.

The Water Management Board has defined an adequate well in Administrative Rule of South Dakota (ARSD) 74:02:4:20(6) as:

a well constructed or rehabilitated to allow various withdrawal methods to be used, to allow the inlet to the pump to be placed not less than 20 feet into the saturated aquifer or formation material when the well is constructed, or to allow the pump to be placed as near to the bottom of the aquifer as is practical if the aquifer thickness is less than 20 feet.

In the past the Water Management Board has recognized that to place water to maximum beneficial use, a certain amount of drawdown may occur. To protect domestic users, 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.

Based on the distance to the nearest likely well locations and the other above listed factors, there is a reasonable probability this proposed diversion can be developed without unlawfully impairing existing domestic users with adequate wells. However out of an abundance of caution and if approved, the water permit should include a qualification that the well owner should control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells .

CONCLUSIONS:

1. Water Permit Application No. 2009-1 proposes to appropriate up to 1.1 ac-ft/yr at a maximum instantaneous diversion rate of 0.167 cfs (75 gpm) from up to 4 wells to be completed into the Quaternary Terrace aquifer for commercial and domestic use. The site is approximately 22 miles south of Enning and 15 miles northeast of New Underwood, SD
2. Based on the hydrologic budget and observation well data, there is a reasonable probability unappropriated water is available for this proposed appropriation.
3. There is a reasonable probability this proposed diversion will not without unlawfully impair existing users with adequate wells.



Adam Mathiowetz, PE
SD DANR-Water Rights Program

REFERENCES:

- Carter, J.M. and Neitzert, K.M. 2008. Estimated Use of Water in South Dakota, 2005. Scientific Investigations Report 2008-5216. U.S. Geological Survey. Rapid City, South Dakota.
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- Hedges, L.S. and Burch, S.L. 1985. Analysis of Ground-Water and Streamflow Data Western Dakotas Region of South Dakota Task3.D and 4.C: Ground-Water Resources. U.S. Army Corp of Engineers Contract DACW45-82-C-0151. SD DANR-Geological Survey. Vermillion, South Dakota.
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- SDGS, 2021. *Lithologic Logs Database*. <<http://cf.sddenr.net/lithdb/>>. Accessed: December 23, 2021. SD DANR-Geological Survey. Vermillion, South Dakota.
- Water Rights. 2022a. Observation Well Files. SD DANR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2022b. Water Right/Permit Files. SD DANR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2022c. Well Completion Reports. SD DANR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.
- Water Rights. 2022d. Meade County Complaint/Investigation File. SD DANR-Water Rights Program, Joe Foss Bldg., Pierre, South Dakota.

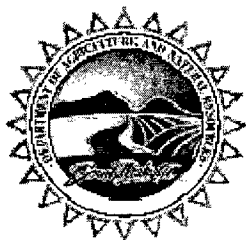
Schlaak, Karen

From: Schlaak, Karen
Sent: Wednesday, January 5, 2022 1:45 PM
To: Kent Wilsey
Subject: Water Permit Application No. 2009-1
Attachments: 2388.pdf

Attached is a copy of the report, chief engineer recommendation and information regarding the public notice for your water permit application. As stated in the letter, please contact the paper(s) as soon as possible to authorize publication and arrange for payment. This information is being mailed to you today.

Karen Schlaak

DANR - Water Rights Program
(605) 773-3352
Website: <https://danr.sd.gov>



*** Proof of Publication ***

STATE OF SOUTH DAKOTA)

County of Pennington)

SS:

S.D. DEPT. OF AGRICULTURE
AGRICULTURAL SERVICES
523 E. CAPITOL AVE.
PIERRE SD 57501

RECEIVED

JAN 14 2022

WATER RIGHTS
PROGRAM

ORDER NUMBER 41205

The undersigned, being duly sworn, upon his/her oath says: That he/she is now and was at all time hereinafter mentioned, a clerk of the RAPID CITY JOURNAL, a corporation of Rapid City, South Dakota, a legal and daily newspaper printed and published in Rapid City, in said County of Pennington, and has full and personal knowledge of all the facts herein stated as follows: that said newspaper is and at all of the times herein mentioned has been a legal and daily newspaper with a bonafide paid circulation of at least Two Hundred copies daily, and has been printed and published for at least one year prior to the first date of the published notice.

This affidavit is a true and corrected copy of notice which appeared

in said newspaper once each day for 1

successive week, the first publication there of being on the

12th day of January, 20 22

Section: Legal

Category: 0072 Public Notices

PUBLISHED ON: 01/12/2022

TOTAL AD COST: 70.83

FILED ON: 1/12/2022

Subscribed and sworn to before me this

12 day of January, 20 22

Karisa Carmichael Notary Public

My commission expires

May 18, 20 27

Jan 12 L41205
NOTICE OF APPLICATION NO.
2009-1 to appropriate Water

Notice is given that Kent P Wilsey, 21705 Wicksville Rd, Owanka SD 57767 has filed an application for a water permit to appropriate an amount not exceeding 1.1 acre-feet of water annually at a maximum pump rate of 0.167 cubic feet of water per second from up to four wells to be completed into the Quaternary Aged Terrace Deposit Aquifer (approximately 50 feet deep) located in the SW 1/4 SW 1/4 Section 31-T4N-R13E or the NW 1/4 NE 1/4 Section 1-T3N-R12E for commercial use in a vegetable greenhouse and domestic use. This site is located approximately 22 miles south of Enning SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends AP-PROVAL of Application No. 2009-1 with qualifications because 1) unappropriated water is available, 2) existing domestic water uses and water rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest as it pertains to matters

within the regulatory authority of the Water Management Board. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <https://danr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

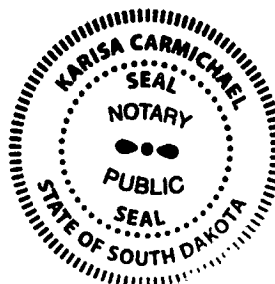
Any person interested in opposing this application or recommendation shall allege that the application, upon approval, will cause injury to the person that is unique from any injury suffered by the public in general. The injury must concern a matter either within the regulatory authority found in SDCL 46-2A-9 for approval or denial of the application, or other matter concerning the application within the regulatory authority of the board to act upon as defined by SDCL 46-2-9 and 46-2-11, or both. Any person meeting the petitioner requirements and wishing to be a party of record in a contested case hearing shall file a written petition to oppose the application with BOTH the applicant and Chief Engineer. A petition opposing the application shall be filed on a form provided by the Chief Engineer. The petition form is available online at <https://danr.sd.gov/public> or by contacting the Chief Engineer. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501" or call (605) 773-3352. The applicant's mailing address is given above. If contesting the Chief Engineer's recommendation, the applicant shall also file a petition. A petition filed by either an interested person or the applicant must be filed by January 24, 2022.

The petition shall include a statement describing the unique injury upon approval of the application on the petitioner, the petitioner's reasons for opposing the application, and the name and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

Any interested person may file a comment on the application with the Chief Engineer. The comment shall be filed on a form provided by the Chief Engineer and is available online at <https://danr.sd.gov/public> or by calling (605) 773-3352 or writing the Chief Engineer at the address provided above. Filing a comment does not make the commenter a party of record or a participant in any hearing that may be held. Any comment must be filed by January 24, 2022.

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 one time at the approximate cost of \$70.83)



PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County of Meade) SS

I, Kris Stocklin - Johnson
certify that the attached printed Notice was taken
from the Faith Independent

printed and published in Faith

County of Meade and
state of South Dakota. The notice was published
in the newspaper on the following date:

01/12/2022

Cost of Printing \$38.10

Kris Stocklin Johnson
(Signature)

Editor
(Title)

01/12/2022
(Date Signed)

NOTICE OF APPLICATION NO. 2009-1 to Appropriate Water

Notice is given that Kent P Witsey, 21705 Wicksville Rd, Owanka SD 57767 has filed an application for a water permit to appropriate an amount not exceeding 1.1 acre-feet of water annually at a maximum pump rate of 0.167 cubic feet of water per second from up to four wells to be completed into the Quaternary Aged Terrace Deposit Aquifer (approximately 50 feet deep) located in the SW 1/4 SW 1/4 Section 31-T4N-R13E or the NW 1/4 NE 1/4 Section 1-T3N-R12E for commercial use in a vegetable greenhouse and domestic use. This site is located approximately 22 miles south of Enning SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2009-1 with qualifications because 1) unappropriated water is available, 2) existing domestic water uses and water rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest as it pertains to matters within the regulatory authority of the Water Management Board. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <https://danr.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 this application or recommendation shall allege that the application, upon approval, will cause injury to the person that is unique from any injury suffered by the public in general. The injury must concern a matter either within the regu-

latory authority found in SDCL 46-2A-9 for approval or denial of the application, or other matter concerning the application within the regulatory authority of the board to act upon as defined by SDCL 46-2-9 and 46-2-11, or both. Any person meeting the petitioner requirements and wishing to be a party of record in a contested case hearing shall file a written petition to oppose the application with BOTH the applicant and Chief Engineer. A petition opposing the application shall be filed on a form provided by the Chief Engineer. The petition form is available online at <https://danr.sd.gov/public> or by contacting the Chief Engineer. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501" or call (605) 773-3352. The applicant's mailing address is given above. If contesting the Chief Engineer's recommendation, the applicant shall also file a petition. A petition filed by either an interested person or the applicant must be filed by January 24, 2022.

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Any interested person may file a comment on the application with the Chief Engineer. The comment shall be filed on a form provided by the Chief Engineer and is available online at <https://danr.sd.gov/public> or by calling (605) 773-3352 or writing the Chief Engineer at the address provided above. Filing a comment does not make the commenter a party of record or a participant in any hearing that may be held. Any comment must be filed by January 24, 2022.

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 January 12, 2022 at the total approximate cost of \$38.10.

Schlaak, Karen

From: Schlaak, Karen
Sent: Wednesday, January 5, 2022 1:38 PM
To: 'faithind@faithsd.com'
Subject: 2009-1, Kent P Wilsey
Attachments: 2009-1public.short_final.docx; FORM8.FRM.doc

Attached is a notice to be published on January 12, 2022.

Ken P Wilsey, 21705 Wicksville Rd, Owanka SD 57767 (605 858-3900) 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.

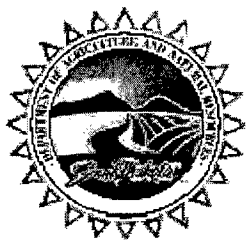
Let me know if you have questions. Please acknowledge receipt of this email.

Karen Schlaak

DANR - Water Rights Program

(605) 773-3352

Website: <https://danr.sd.gov>



Schlaak, Karen

From: Schlaak, Karen
Sent: Wednesday, January 5, 2022 1:39 PM
To: RCY Legals (legals@rapidcityjournal.com)
Subject: FW: 2009-1, Kent P Wilsey
Attachments: 2009-1public.short_final.docx; FORM8.FRM.doc

Attached is a notice to be published on January 12, 2022.

Ken P Wilsey, 21705 Wicksville Rd, Owanka SD 57767 (605 858-3900) has been notified to contact you to authorize publication and arrange for payment.

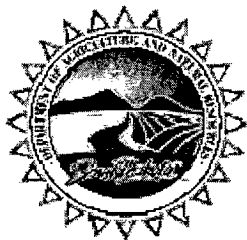
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Karen Schlaak

DANR - Water Rights Program
(605) 773-3352

Website: <https://danr.sd.gov>





**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

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

January 5, 2022

Kent P Wilsey
21705 Wicksville Rd
Owanka SD 57767

Dear Mr. Wilsey:

Water Permit Application No. 2009-1 for commercial and domestic use have been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Faith Independent printed at Faith (Ph # 605 967-2161) and the Rapid City Journal printed at Rapid City (Ph # 605 394-8336). You will need to contact the newspapers 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 newspapers to authorize publication of your Notice and to arrange for payment. Early contact with the papers can eliminate delays. Upon receiving authorization from you, the publishers have been instructed to publish your notice. The newspapers have 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

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. 2009-1 to Appropriate Water

Notice is given that Kent P Wilsey, 21705 Wicksville Rd, Owanka SD 57767 has filed an application for a water permit to appropriate an amount not exceeding 1.1 acre-feet of water annually at a maximum pump rate of 0.167 cubic feet of water per second from up to four wells to be completed into the Quaternary Aged Terrace Deposit Aquifer (approximately 50 feet deep) located in the SW 1/4 SW 1/4 Section 31-T4N-R13E or the NW 1/4 NE 1/4 Section 1-T3N-R12E for commercial use in a vegetable greenhouse and domestic use. This site is located approximately 22 miles south of Enning SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 2009-1 with qualifications because 1) unappropriated water is available, 2) existing domestic water uses and water rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest as it pertains to matters within the regulatory authority of the Water Management Board. The Chief Engineer's recommendation with qualifications, the application, and staff report are available at <https://danr.sd.gov/public> or contact Ron Duvall for this information, or other information, at the Water Rights Program address provided below.

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Published once at the total approximate cost of_



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

MAR 01 2022

Kent P Wilsey
21705 Wicksville Rd
Owanka SD 57767

Dear Mr. Wilsey:

Enclosed is Water Permit No. 2009-1 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,

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

enclosures