

WATER PERMIT NO. 8781-3

Name of Applicant: City of Harrisburg

Address: 301 E Willow Street, Harrisburg SD 57032

Phone: 605-743-5872

Amount of Water Claimed: 0.22 cfs

Total Acres: 45.5

Source of Water Supply: Groundwater

Water to be used for: Irrigation

County: Lincoln

Type of Waste Disposal System:

Location: Center of Harrisburg SD

PRIORITY

Date Received: 7-21-23

Application/License Fee: \$700.00

Corrected Application Received:

Period of Annual Use: April 1 – October 31

Remarks: Project will irrigate the lawn at Central Park. Irrigation pump will be installed to pull water from an existing stormwater pond.

Diversion Point: SE 1/4 SW 1/4 Section 36 -
T100N-50W

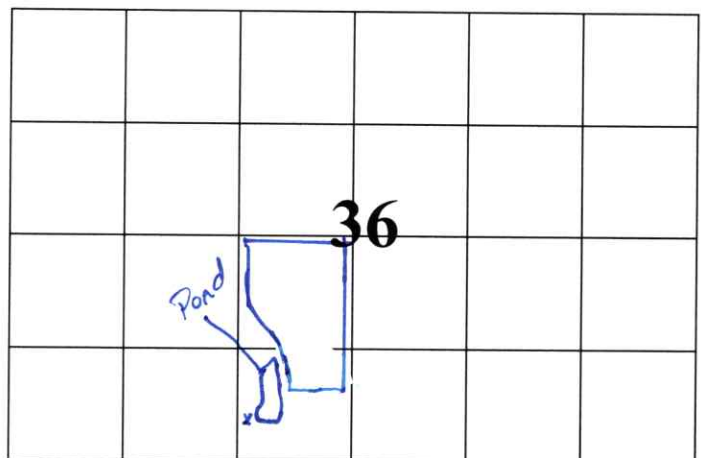
Land to be Irrigated: E 1/2 SW 1/4 Section 36 -
T100N-R50W

Depth of Well: 330

Well Driller:

Remarks:

Type of Map: aerial



Reviewed and the Number Assigned on: 7-21-23

By: **Rachel Rodriguez**

Notice of Hearing - date to intervene: _____

**SOUTH DAKOTA
WATER PERMIT NO. 8781-3**

Date of first receipt of application July 21, 2023.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8781-3 to City of Harrisburg, 301 E Willow Street, Harrisburg SD 57032 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. 8781-3 appropriates 0.22 cubic feet of water per second (cfs) from one well to be completed into the Dakota Aquifer (approximately 330 feet deep) located in the SE 1/4 SW 1/4 Section 36 for irrigation of 45.5 acres located in the E 1/2 SW 1/4 Section 36; all in T100N-R50W. Water will be diverted from the well to a retention pond located near the well and then be diverted from the retention pond at a rate of 0.53 cfs to the irrigated acreage. This site is located in Harrisburg SD.
2. The amount of the appropriation may not exceed 2 acre feet annually for each acre of land to which water is actually and beneficially applied for irrigation. The water is to be used during the following described annual period: April 1 – October 31.
3. The date from which applicant may claim right is July 21, 2023.
4. The date of approval of Permit No. 8781-3 is November 6, 2023.
5. One-fifth of the construction is to be completed on or before May 6, 2026.
6. All construction is to be completed on or before November 6, 2028.
7. Water is to be put to beneficial use on or before November 6, 2032.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The well approved under Water Permit No. 8781-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals shall be controlled so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 8781-3 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. No pumping from the well into the stormwater retention pond is authorized when the pond is overflowing.
4. This Permit is approved subject to the irrigation water use questionnaire being submitted each year. The reported use should represent the amount of water pumped from the Dakota aquifer into the stormwater retention pond.

WATER MANAGEMENT BOARD

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

JAN 02 2024
date



JUL 21 2023

Mail to: SD DANR, Water Rights 523 E Capitol Ave Pierre, SD 57501-3182 ph. (605) 773-3352	No. <u>8781-3</u> Hydrologic Unit <u>10170203</u> Basin <u>Lower Big Sioux</u> Newspaper <u>Lennox Independent</u> <u>Sioux Falls Argus Leader</u> (office use only)	OFFICE OF WATER PAID JUL 21 2023 Ck# <u>021731</u> Rec't# <u>7/21/23</u>
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Application for Permit to Appropriate Water for Irrigation

Type of Application: ☒ New ☐ Vested Right ☐ Amendment/Correction to Permit No. _____
(Use predates Mar 2, 1955)

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

1. Name to Appear on Irrigation Permit City of Harrisburg

Note: The "Name to Appear on Irrigation Permit" must be the name in which the property to be irrigated is held in.

Mailing Address 301 E Willow Street Harrisburg SD 57032
(Address) (City) (State) (Zip Code)

Phone 605-743-5872 Mobile _____ Email _____

2. Amount of water claimed 0.22*CFS or 100**GPM _____***AF Total Acreage 45.5
(*Cubic Feet per Second) (**Gallons per Minute) (***)Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply Stormwater retention pond and well

4. Location of point of diversion retention pond is in SE 1/4 SW 1/4 S36-100N-50W
SE 1/4 (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W)
well is in E 1/2 SW 1/4 S36-100N-50W County Lincoln

5. County or counties where water will be used Lincoln

6. Annual period during which water is to be used April through October³¹

7. List below each forty-acre division, or lot, or fraction thereof and show number of acres to be irrigated in each.
(Attach sheet if more space is needed)

Land Description	Acres	Land Description	Acres
<u>Central Park</u>	<u>45.5</u>	<u>- E 1/2 SW 1/4 Sec 36-T100N-R50W</u>	

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

The project will irrigate the lawn at Central Park. An irrigation pump will be installed to pull water from an existing stormwater retention pond. A well will be drilled into the Dakota Aquifer to supplement the pond. The well is anticipated to pump between 40 to 100 gpm.

I, ANDREW PIETRUS Pietrus CITY ADMINISTRATOR, 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 1 Have test holes been drilled? ☐ Yes ☒ No Drilled by _____
(if yes, please provide copies of logs)

b) If existing wells, how many 0 Provide copy of log(s), if available. Drilled by _____

For either existing or proposed wells:

c) Well Depth (required) est. 330' Depth to Top of Water Bearing Material est. 300' Depth to Water from Surface est. 80'

d) Distance to nearest domestic well on applicant's property unknown Property owned by others unknown

2. Wastewater Disposal System Information N/A

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

b) System Capacity (gallons) _____ Year Constructed _____

c) Connected to the City of _____ Sanitary System

3. Dugout Information N/A

a) Surface Dimensions _____ Depth _____

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

4. Water Storage Dams N/A

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)

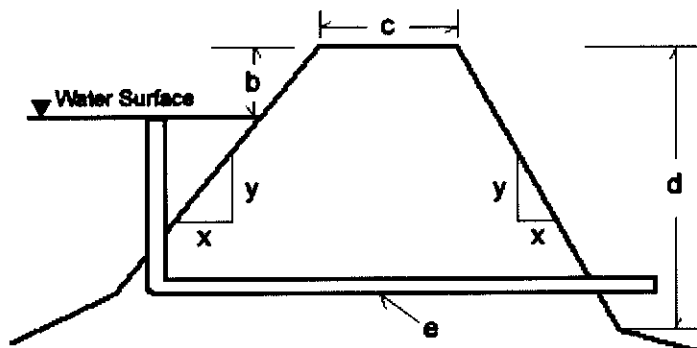
Upstream _____

Downstream _____

h) Area of Impoundment _____

i) Storage _____ Acre Feet

j) Drainage Area Above Dam _____ Acres





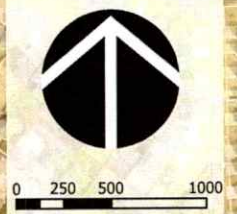
(1 of 2)

harrisburg_basins

fid_1 2

BASIN DEVITT FARMS

[Zoom to](#)



IRRIGATED AREA, 45.5 ACRES

IRRIGATION PUMP

IRRIGATION POND

PROPOSED WELL LOCATION

Columbia Street

S35 T100N R50W

S36 T100N R50W

S2 T99N R50W

S1 T99N R50W

File Location: S:\Project\2023\23156 - Central Park Well & Irrigation (Harrisburg)\Exhibits\Working Files\CAD Files\23156 - Water Rights.dwg, Plot Date: 7/7/2023 4:04 PM

CENTRAL PARK IRRIGATION HARRISBURG, SD



7/7/2023 SEI#23156





Finally the application fee for the first 60 acres, or any portion thereof, is \$500.00 and the license fee is an additional \$200.00.

That should do it, please let me know if you have any questions.

Thank you,

Ron Duvall
 Dept. of Agriculture & Natural Resources
 Office of Water, Water Rights Program
 605.773.3352
danr.sd.gov



DANR
 SOUTH DAKOTA



RECEIPT

WATER RIGHTS PROGRAM South Dakota Department of Agriculture and Natural Resources

Date July 21, 2023

RECEIVED OF City of Harrisburg 301 E willow Street, Harriburg SD 57032

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

Fee for Application for Permit No. <u>8781-3</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. <u>8781-3</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>700.00</u>

By Eric Ironlund
Chief Engineer
vm

Duvall, Ron

From: Ryan Truax <rtruax@stockwellengineers.com>
Sent: Monday, September 11, 2023 9:22 AM
To: Duvall, Ron
Cc: Rodriguez, Rachel
Subject: RE: [EXT] Harrisburg Water Rights Draft

Our design for pumping out of the pond is 240 gpm. Let me know if you have any other questions.

Thanks,



Ryan Truax
Professional Engineer
Stockwell Engineers, Inc.

From: Duvall, Ron <Ron.Duvall@state.sd.us>
Sent: Monday, September 11, 2023 8:52 AM
To: Ryan Truax <rtruax@stockwellengineers.com>
Cc: Rodriguez, Rachel <Rachel.Rodriguez@state.sd.us>
Subject: RE: Harrisburg Water Rights Draft

Ryan,

The report on this application is nearly completed so this will be going to public notice soon. In reviewing the draft public notice I noticed that we don't have a pump rate from the retention pond to the irrigated area. Do you know what that gallons per minute figure is or at least an estimate of what the maximum pump rate may be?

Thank you,

Ron

From: Duvall, Ron
Sent: Tuesday, July 11, 2023 4:33 PM
To: Ryan Truax <rtruax@stockwellengineers.com>
Cc: Rodriguez, Rachel <Rachel.Rodriguez@state.sd.us>
Subject: RE: [EXT] Harrisburg Water Rights Draft

If the application ends up being denied you get back 75% of the application fee and get back all of the \$200.00 license fee. The entire fee is submitted with the application.

From: Ryan Truax <rtruax@stockwellengineers.com>
Sent: Tuesday, July 11, 2023 3:26 PM
To: Duvall, Ron <Ron.Duvall@state.sd.us>
Cc: Rodriguez, Rachel <Rachel.Rodriguez@state.sd.us>
Subject: RE: [EXT] Harrisburg Water Rights Draft



**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. 8781-3, City of Harrisburg**

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. 8781-3, City of Harrisburg, c/o Andrew Pietizus, City Administrator, 301 E Willow Street, Harrisburg, SD 57032.

The Chief Engineer is recommending APPROVAL of Application No. 8781-3 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 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 well approved under Water Permit No. 8781-3 is located near domestic wells and other wells which may obtain water from the same aquifer. Water withdrawals shall be controlled so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The well authorized by Permit No. 8781-3 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. No pumping from the well into the stormwater retention pond is authorized when the pond is overflowing.
4. This Permit is approved subject to the irrigation water use questionnaire being submitted each year. The reported use should represent the amount of water pumped from the Dakota aquifer into the stormwater retention pond.

See report on application for additional information.

Eric Gronlund, Chief Engineer
September 12, 2023

NOTE: Any well constructed for this project must meet the adequate well definition as set forth in ARSD 74:02:04:20(6) and cannot use the alternative well construction standard ARSD 74:02:04:35.

Report to the Chief Engineer
Water Permit Application No. 8781-3
City of Harrisburg
September 12, 2023

Water Permit Application No. 8781-3 by the City of Harrisburg (c/o Andrew Pietizus, City Administrator) proposes to appropriate water at a maximum instantaneous diversion rate of 0.22 cubic feet per second (cfs) from one well to be completed into the Dakota aquifer (approximately 330 feet deep) located in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 36 for the irrigation of 45.5 acres located in the E $\frac{1}{2}$ SW $\frac{1}{4}$ Section 36; all in T100N-R50W. Water will be diverted from the well to a stormwater retention pond located near the well and then be diverted from the pond at a rate of 0.53 cfs to the irrigated acreage. The site is located in the city limits of Harrisburg, SD in Lincoln County.

Aquifer: Dakota

Hydrogeology

The Dakota Formation is a large regional formation that underlies portions of several states including South Dakota, North Dakota, Colorado, Nebraska, Kansas, Montana, Wyoming, Minnesota, and Iowa. The Dakota Formation is a Cretaceous age formation that underlies approximately 66,500 square miles of the 77,047 square miles that make up of the state of South Dakota (Schoon, 1971). The Dakota Formation consists of yellowish, reddish, and sometimes whitish sandstone with local occurrences of shales and lignite beds, with lithology that can vary both vertically and laterally (Schoon, 1971). Over much of the eastern part of the state the Dakota Formation can be subdivided into three units: 1) an upper layer of fine- to medium grained, light to reddish brown, quartz sandstone interbedded with minor gray to dark gray shale layers; 2) a middle unit of a silty gray clay interbedded with minor sandstone layers; and 3) a lower unit of medium to coarse grained quartz sandstone (Schoon, 1971). The Dakota Formation is stratigraphically equivalent to the Newcastle Formation that outcrops around the Black Hills and provides recharge to the Dakota aquifer (Schoon, 1971).

The Dakota aquifer exists within the saturated and permeable portions of the Dakota Formation and is a bedrock aquifer typically under artesian conditions. Schoon (1971) estimated the volume of water stored in the South Dakota portion of the Dakota aquifer at 1.1 billion acre-feet. Hedges et al. (1982) estimated that in the Eastern portion of the state the Dakota aquifer contains 381,104,000 acre-feet of recoverable water. Wells in the Dakota aquifer can be screened into the either the upper or lower sand units of the formation or both, and in some locations wells in close proximity can demonstrate a difference in water level between the upper or lower sand units (Water Rights, 2023c).

In northern Lincoln County, there is a high ridge in the Sioux Quartzite basement rock (lower most bedrock layer) where the Dakota Formation is not present (Iles, 1984). The approximate location of where the Dakota Formation is absent in Lincoln County is shown in Figure 1. Groundwater movement in the Dakota aquifer in Lincoln County is from north to south (Iles, 1984). Iles (1984) indicated that locally the Dakota aquifer is likely receiving recharge in

Lincoln County in the from the Schindler and Lennox aquifers (overlying glacial aquifers) and from the Sioux Quartzite from the north.

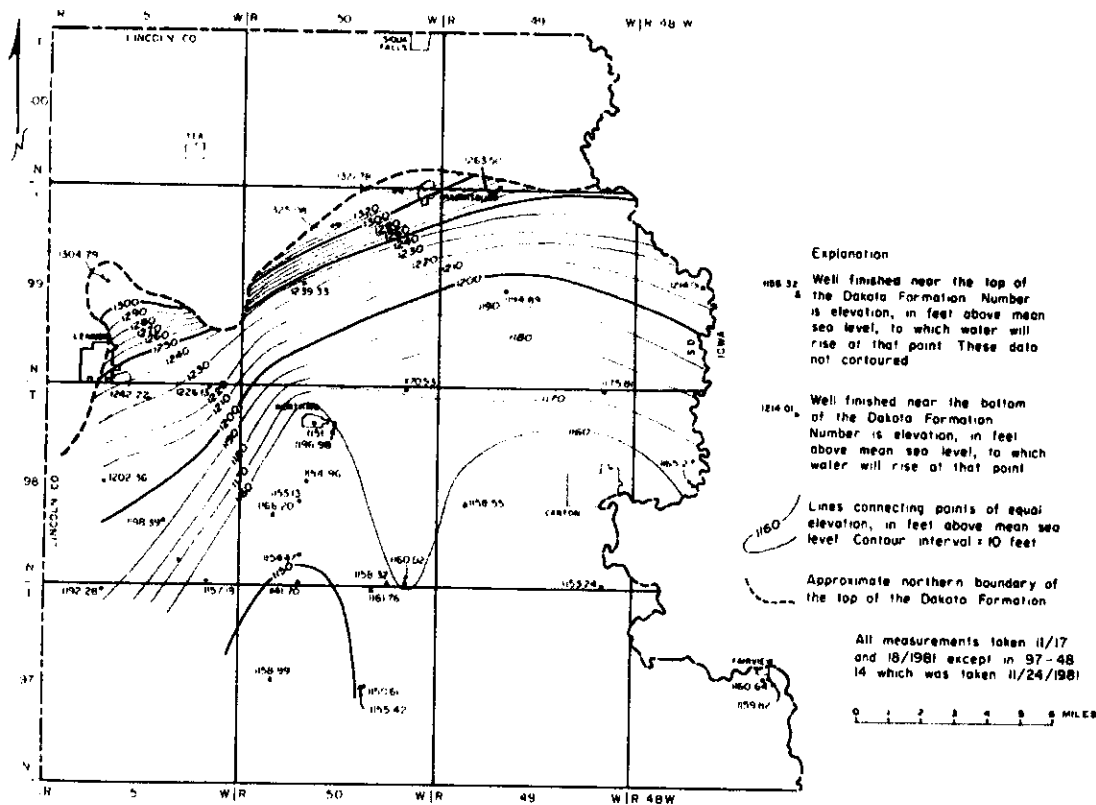


Figure 1: 1981 Potentiometric surface (water level elevation) of the Dakota Aquifer (Iles, 1984)

No well completion or test holes reports were submitted with this application. However, there is sufficient well and geology information in the vicinity of the well site for this application to offer insight to expected aquifer conditions at the well site for this application. Observation well LN-79I is located approximately 0.42 miles to the west-southwest of the well site for this application. The well completion report for LN-79I indicates that the Dakota Formation was encountered from 309 to 351 feet below grade (1,110 to 1,068 ft NGVD29) (Water Rights, 2023c). The static water level was measured 73.46 feet below grade (measurement corrected for well stickup) at LN-79I on August 9, 2023, indicating the Dakota aquifer is under confined condition in the general area of the well site for this application with approximately 235 feet of artesian head pressure (Water Rights, 2023c).

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 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 as defined by SDCL 46-2-9 and 46-2-11." This report will address the availability of

unappropriated water and the potential for unlawful impairment of existing domestic water uses and water rights within the Dakota aquifer in South Dakota.

Water Availability

Water Permit Application No. 8781-3 proposes to appropriate water from the Dakota aquifer for irrigation use. The probability of unappropriated water being available from an 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." If the source of the water is older or lower than the Greenhorn Formation and the application is for a water distribution system defined in SDCL 46-1-6 (17), the Board need not consider the recharge/withdrawal issue. The Dakota Formation is older and stratigraphically lower than the Greenhorn Formation. However, this application is not for a water distribution system as defined in SDCL 46-1-6 (17); therefore, the withdrawal/recharge issue must be considered.

Dakota Aquifer Declining Artesian Head Pressure

The decline of artesian head pressure in the Dakota aquifer over large portions of South Dakota has been a standing point of concern since the early 1900's. Some investigators of the Dakota aquifer have concluded that this decrease in artesian head pressure is an indication of withdrawals exceeding recharge in the Dakota aquifer. The issue of declining artesian head pressure in the Dakota aquifer has been considered by the Water Management Board several times. The Water Management Board has found that declines in artesian head pressure do not automatically indicate that withdrawals have exceeded recharge in the Dakota aquifer (Water Rights, 2010). The Board has concluded that whether withdrawals have exceeded recharge cannot be determined based solely on a decline in artesian head pressure, and in theory head pressure in the Dakota aquifer is stabilizing in relation to discharges and withdrawals (Water Rights, 1987). In the Finding of Facts and Conclusions of Law of Application No. 5136-3, the Water Management Board concluded that: "The primary reason for declines in the Dakota Formation head pressure is due to water being discharged without beneficial use through uncontrolled flowing wells" (Water Rights, 1987). The Board further concluded that:

"When defining withdrawal for the purpose of interpreting the meaning of withdrawal pursuant to SDCL 46-6-3.1, there is a difference between withdrawal of water for beneficial use and water discharged without beneficial use through uncontrolled flowing wells. Water discharged from uncontrolled flowing wells does not constitute withdrawal (appropriation) pursuant to SDCL 46-6-3.1."

The position of the Water Management Board has ultimately been to optimize development of the Dakota aquifer for beneficial use.

Observation Well Data

In determining the availability of unappropriated water for a permit application, Administrative Rule 74:02:05:07 requires the Water Management Board to rely on 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 annual recharge.

The Water Rights Program currently monitors 46 observation wells completed into the Dakota aquifer, 33 of which are located in Lincoln County (Water Rights, 2023c). The measurements from 13 of those observation wells has been temporarily suspended due to either maintenance needs or access issues. The nearest observation wells to the proposed well site for this application are observation well LN-79I located approximately 0.42 miles to the west south west and observation well LN-81K approximately 2.7 miles to the east. The hydrographs for these observation wells are shown in Figures 2 and 3.

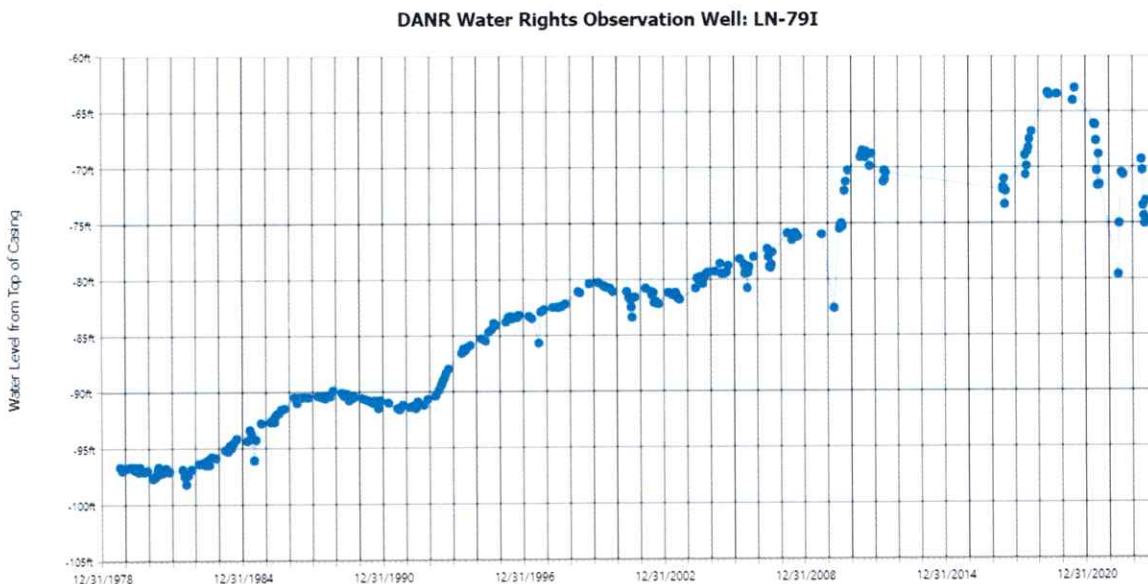


Figure 2: Hydrograph of Observation Well LN-79I (Water Rights, 2023c)

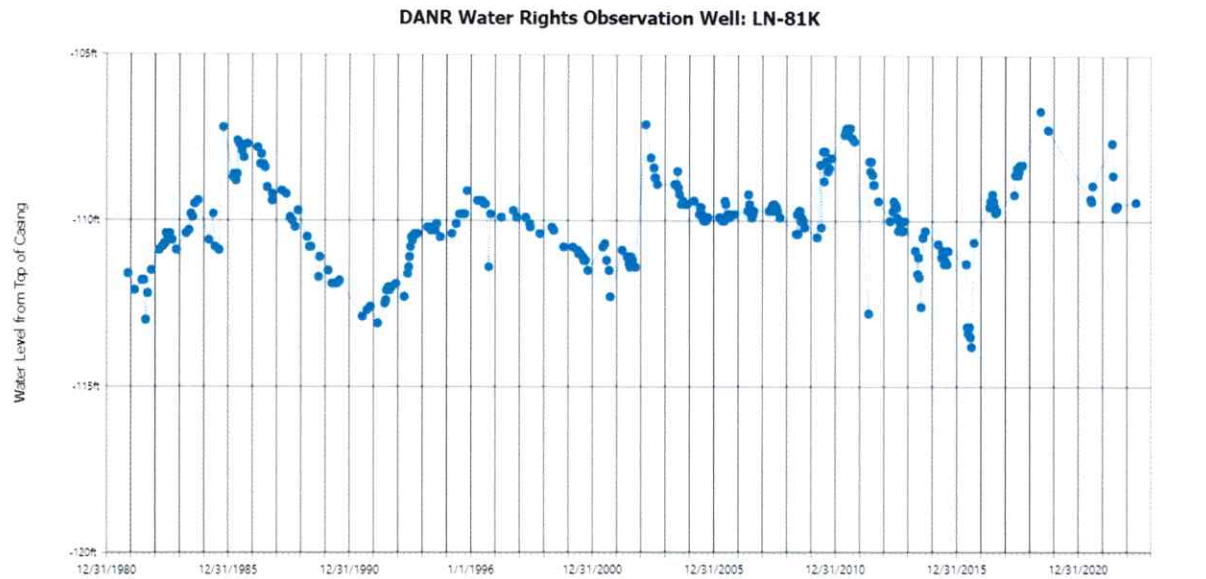


Figure 3: Hydrograph of Observation Wells LN-81I (Water Rights, 2023c)

The nearest observation wells (Figures 2 and 3) to the wellsite for this application show stable to increasing water level trends over their period of record. In Lincoln County overall, water levels trends over the record of measurements for observation wells monitored by the Water Rights Program in the Dakota aquifer observation wells vary from increasing to stable to decreasing throughout. In confined aquifers, a decline in observation well water levels do not necessarily indicate a significant decrease in water stored in the confined aquifer, since measured water levels are reflecting artesian head pressure. In Lincoln County, observation wells with decreasing trends tend to be in close proximity to high-capacity appropriative wells completed into the Dakota aquifer. These wells are likely still equilibrating to the effects of nearby pumping on artesian head pressure. Differences in water level trends can also occur between the upper and lower portions of the Dakota aquifer. Nested observation wells LN-77B and LN-79H (Figure 4) both located 11.5 miles to the south southwest of the wellsite for this application are examples of this. LN-79H is screened into upper portion of the Dakota aquifer with a maximum depth of 383 feet (1,036ft NVGD29) and LN-77B is screened into lower portion of the Dakota aquifer with a maximum depth of 635 feet (784ft NVGD29). Figure 4 also indicates that at the location of the observation wells there is a possible downward vertical water movement within the Dakota aquifer. LN-77B and LN-79H are within approximately 1.5 miles of several of the Dakota aquifer wells for the South Lincoln Rural Water System (Water Rights, 2023b). The pumping of wells for the Lincoln Rural Water System in the area of LN-77B and LN-79H started in the early 1980's (Water Rights, 2023b). In the hydrographs for LN-77B and LN-79H are examples of artesian head pressure equilibrating to pumping (an initial decrease in water level with the start of pumping then the water level eventually stabilizes). Ultimately, these observation wells (especially LN-79I and LN-81I) indicate that water is available from the Dakota aquifer for the appropriation proposed by this application.

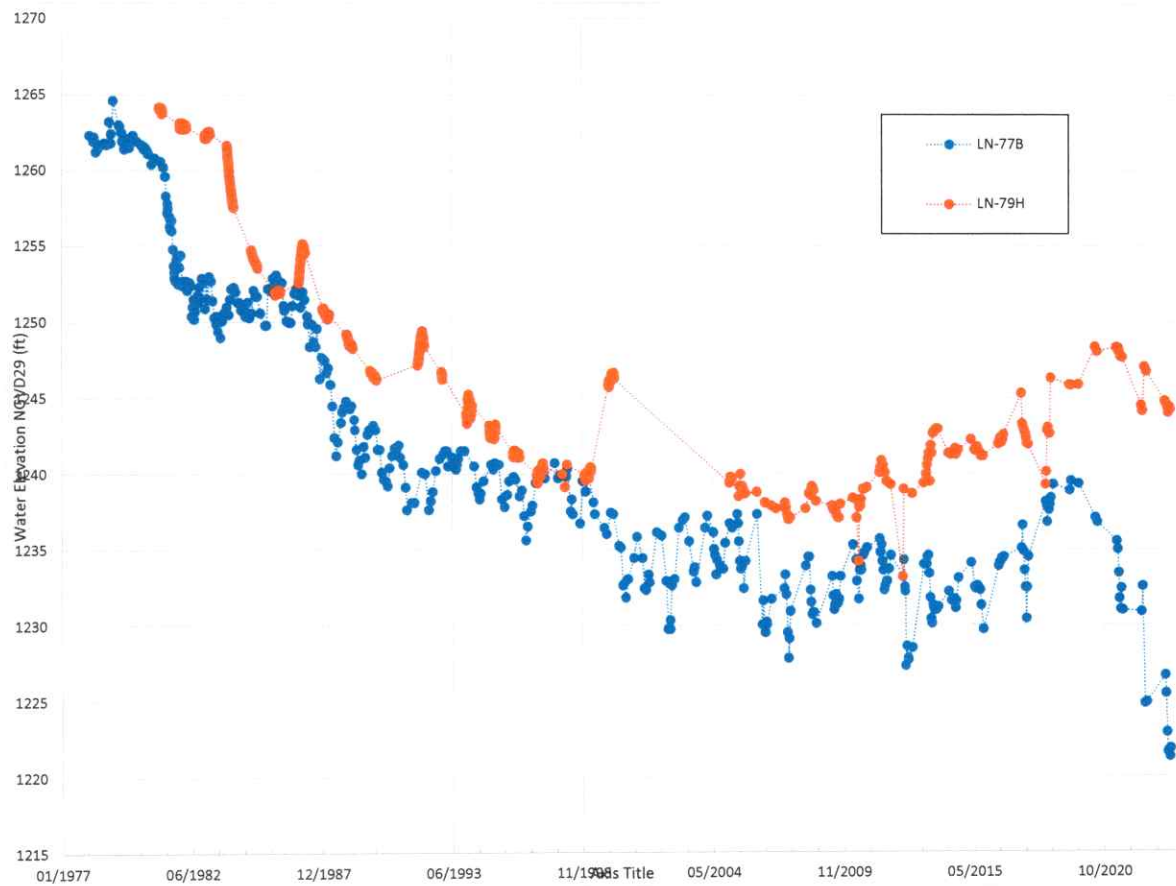


Figure 4: Hydrographs of Observation Wells LN-77B and LN-79H (Water Rights, 2023c)

Potentiometric (water level elevation) data for the Dakota aquifer from different time periods was utilized to estimate the potentiometric surface of the Dakota aquifer in the vicinity of the well locations for this application to examine changes in the Dakota aquifer over a longer period of time. The approximate elevations of the potentiometric surface in the vicinity of the well site that this application proposes to use are shown in Table 1. Estimates were based on the statewide potentiometric surface maps of Schoon (1971) and area well completion reports (Water Rights, 2023a).

Table 1: Approximate Historic and Current Potentiometric Surface Elevations for the Dakota Aquifer Near the Proposed Diversion Point for this Application

Date	Approximate Potentiometric Surface (feet mean sea level)	Source
1909	1,000*	Schoon, 1971
1914-1915	1,000*	Schoon, 1971
1936-1953	1,200	Schoon, 1971
1981	1,310	Iles, 1984
2009	1,357	Water Rights, 2023a
2023	1,345	Water Rights, 2023c
*Map had limited information in the area of the well site		

Hydrologic Budget

Recharge

Recharge to the Dakota aquifer in South Dakota occurs through upward leakage from underlying aquifers with higher artesian pressure than the Dakota aquifer, downward seepage through overlying confining layers, and through infiltration of precipitation on Newcastle Formation outcrops in the Black Hills (Bredehoeft, et al., 1983). Bredehoeft, et al. (1983) attempted to match Darton's (1909) potentiometric surface map of the Dakota aquifer using computer modeling and estimated approximately 79.4 cfs (57,500 acre-feet per year) of recharge to the Dakota aquifer prior to the beginning of extensive development of the aquifer in South Dakota. However, assumptions used in Bredehoeft, et al.'s (1983) recharge estimate are now outdated. For example, the recharge estimates used for the Madison and Inyan Kara aquifers in Bredehoeft, et al.'s (1983) analysis are much lower than estimates calculated by the more recent research of Carter, et al. (2002). While outdated the Bredehoeft, et al.'s (1983) estimate is provided as best information available to give a sense of scale of the recharge to the Dakota aquifer in South Dakota, it is unknown whether the true recharge rate of the Dakota aquifer is higher or lower than Bredehoeft et al.'s (1983) estimate. Locally in Lincoln County, the Dakota aquifer is also receiving an unquantified amount of recharge from the Lennox and Schindler aquifers and the Sioux Quartzite (Iles, 1984).

Discharge

Discharge from the Dakota aquifer in South Dakota occurs through domestic and appropriative well withdrawals, uncontrolled flowing wells, outflow through corroded well casings, and outflow to overlying or adjacent aquifers because of higher artesian pressure in the Dakota aquifer (Bredehoeft, et al., 1983; Water Rights, 2023a and 2023c). Locally the Dakota aquifer likely discharges to the Lower Vermillion Missouri, Missouri: Elk Point, and Sioux Quartzite aquifers (depending on location and water level elevation) (Niehus, 1994). Appropriative withdrawal from the Dakota aquifer in South Dakota is by 21 irrigation water rights/permits, 238 non-irrigation water rights/permits, seven future use permits, one permit application that is pending a contested case hearing (Application No. 8756-3 for a well to be located in Spink County), and

Water Permit Application No. 8781-3

one vested water right claim (Application No. 8783-3 for a well located in Spink County) (Water Rights, 2023b). If Application No. 8783-3 is validated as a vested water right, it will have a priority date in 1953 which is senior to this application.

There are currently 21 water rights/permits primarily for irrigation authorized to appropriate water from the Dakota aquifer (Water Rights, 2023b). Irrigation water rights/permits have been typically required to report their annual usage on an irrigation questionnaire since 1979, average reported usage by reporting water right/permit is provided in Table 2. Several of the irrigation water right/permits from the Dakota aquifer are authorized to irrigate acres from other water sources and reported irrigation represents total irrigation across all water sources. Water Right Nos. 394-3 and 762-3 are not required to submit an irrigation questionnaire (Water Rights, 2023b). Water use under these water rights was estimated to be less than one acre-foot per acre per year. Construction was only completed on Water Permit No. 8043-3 for irrigation in 2022, given only one year of pumping data and since this permit is for crop irrigation, water use is estimated to be less than one acre-foot per acre per year. Water Permit Nos. 8423-3, 8510-3, 8560-3, and 8727-3 are for turf irrigation and have either not been constructed or only have one year of reporting data. Due to the longer irrigation season and higher water needs for turf irrigation compared to row crop irrigation, water use for Water Permit Nos. 8423-3, 8510-3, 8560-3, and 8727-3 will be estimated to be less than two acre-foot per acre per year. Therefore, total estimated appropriative irrigation use from the Dakota aquifer in South Dakota is less than 997.9 acre-feet per year.

Permit No	Status	Name/Business	County	Priority Date	Permitted Acres	Average Reported Use (acre-ft)	Estimated Use for Non-developed, Non-reporting, or Limit Data Permits (acre-ft)	Remarks
394-3	LICENSE	KORY STANDY	CHARLES MIX	01/01/1912	3.2	does not report	3.2	also for domestic use
762-3	LICENSE	O L BUSSMUS FARMS INC	DAVISON	01/10/1961	28	does not report	28	also for fish and wildlife use
1054-3	LICENSE	ROLLING HILLS GOLF DEV	BROWN	01/01/1951	43.84	30.9	n/a	also uses water from surface water
2328-2	LICENSE	MICHAEL KIRWAN	GREGORY	02/21/1995	31	2.6	n/a	last irrigated in 2008
2566A-2	LICENSE	CHAMBERLAIN COUNTRY CLUB	LYMAN	08/29/2005	63	9.6	n/a	
4769-3	LICENSE	JAMES LEHESKA	BRULE	06/01/1981	130	23.5	n/a	last irrigated in 1993
5703-3	LICENSE	CHARLES A LONG	UNION	07/20/1992	2	0.5	n/a	
5905-3	LICENSE	CITY OF GROTON	BROWN	12/14/1995	30	66.9	n/a	also permits water from surface water- total water use across all sources
5947-3	LICENSE	FISH LAKE COUNTRY CLUB	AURORA	09/23/1974	33	17.2	n/a	also permits water from surface water- total water use across all sources
5994-3	LICENSE	ROBERT L PETERSON	UNION	04/17/1997	3	6.2	n/a	
6110-3	LICENSE	DAKOTA DUNES COMM IMPROVEMENT DISTRICT	UNION	10/06/1998	11	49.8	n/a	
6527-3	LICENSE	CITY OF BERESFORD	UNION	07/22/2004	37	23.2	n/a	
6575-3	PERMIT	DAKOTA ALLIANCE SOCCER CLUB	LINCOLN	01/19/2005	15	6.2	n/a	
6734-3	LICENSE	AVERA SACRED HEART HEALTH SERVICES	YANKTON	06/14/2006	11.9	5.6	n/a	
7123-3	PERMIT	HARRISBURG SCHOOL DISTRICT	LINCOLN	04/02/2009	30	7.7	n/a	
7916-3	PERMIT	JOHN H THOMPSON	UNION	10/18/2013	150	30.9	n/a	
8043-3	PERMIT	ROBERT P WALSH	CLAY	08/27/2014	391.9	limited data	391.9	constructed in 2022-reported 158.4 acre-ft of use in 2022
8423-3	PERMIT	CITY OF PLATTE	CHARLES MIX	02/10/2020	42	not constructed	84	not constructed-turf irrigation
8510-3	PERMIT	TR GOLF LLC	UNION	03/26/2021	30	limited data	60	turf irrigation- 143.3 acre-ft reported in 2022 for 8510-3 and 8560-3 combined; also include irrigation from the Missouri: Elk Point
8560-3	PERMIT	TR GOLF LLC	TR GOLF LLC	10/25/2021	65	limited data	130	
8727-3	PERMIT	TR GOLF LLC	TR GOLF LLC	02/27/2023	10	not yet reporting	20	turf irrigation
Total					1160.84		997.9	

The seven future use permits are summarized in Table 3. For the purposes of developing a hydrologic budget the water reserved by future use are assumed to be fully developable. The total amount of water reserved by future use permits is 4,287 acre-feet per year.

Water Permit Application No. 8781-3

Table 3: Dakota Aquifer Future Use Permits (Water Rights, 2023b)		
Permit No.	Holder	Amount Reserved
1262C-3, 5219-3	City of Canton	1,849
8400-3	City of Harrisburg	550
5101-3, 5101A-3	City of Lennox	0*
5155-3	Lincoln RWS	440
4817-3	South Lincoln RWS	1,448
*City of Lennox has developed all reserved water under these permits.		

Average estimated annual water use for the 238 non-irrigation water rights/permits and two pending applications are summarized in Table 4. The average annual use for these non-irrigation permits was estimated by either annual use limit or diversion rate. Historically, average water use by non-irrigation appropriations limited solely by instantaneous diversion rate have been less than 60% of full time pumping at the maximum permitted diversion rate. For water rights/permits limited to an annual volume, full use of that volume is assumed for estimation of average annual withdrawal. A number of municipalities with Dakota water rights/permits have connected to rural water and maintain their wells for standby and fire suppression purposes (Drinking Water, 2023; Water Rights, 2023b). The estimated average annual use associated with these water rights/permits is estimated to be zero acre-feet per year. Therefore, average annual appropriative non-irrigation use from the Dakota aquifer in South Dakota (including this application) is estimated at 22,803.2 acre-feet per year.

Table 4: Summary and Estimate of Non-irrigation Appropriative Use from the Dakota Aquifer in South Dakota (Water Rights, 2023b)					
Main Use Type	Number of Permits/Rights	Diversion Rate Limited (cfs)	Diversion Rate Limited- 60% Pumping (acre-ft per year)	Volume Limited Rights/Permits (acre-ft per year)	Total Estimated Use (acre-ft per year)
Application No. 8756-3-industrial	0 (Application)			64.5	64.5
Application No. 8783-3-commercial	0 (Application)			2.3	2.3
Commercial	108	11.475	4,990.0	2,289.6	7,279.6
Domestic	11	1.753	762.3		762.3
Fish & Wildlife Production	4	2.733	1,188.5		1,188.5
Geothermal	2	2.33	1,013.2		1,013.2
Industrial	6	0.884	384.4	160	544.4
Institutional	2	1.34	582.7		582.7
Municipal	89	8.01	3,483.2	3,274	6,757.2
Recreational	3	0.45	195.7	3.1	198.8
Rural Water System	6	2.2	956.7	2,005	2,961.7
Suburban Housing Development	7	3.33	1,448.1		1,448.1
Total	238	34.5	15,004.8	7,798.5	22,803.2

There are a large number of water well completion reports completed into the Dakota aquifer for use types and rates that do not require a water permit that are on file with the Water Rights Program (Water Rights, 2023c). The current status of these domestic wells is unknown and could range anywhere from controlled and in use to uncontrolled with some beneficial use. There are also a number of uncontrolled flowing Dakota wells that flow to waste. The volume of water flowing to waste from the Dakota aquifer has not and will likely never be quantified. The volume of water flowing to waste from the Dakota aquifer is likely a significant component of discharge from the aquifer. In the 1960's, it was reported 46 uncontrolled flowing wells (no specific water source was mentioned) had a rate of 16 million gallons per day (approximately 17,900 acre-feet

per year) (Davis et al., 1961). The uncontrolled flowing wells had a rate approximately equivalent to 3,054 controlled flowing wells that were presumed completed into the Dakota aquifer (Davis et al., 1961). However, as previously noted, water being discharged without beneficial use from uncontrolled flowing wells is not considered by the Water Management Board to be an appropriation pursuant to SDCL 46-6-3.1. Therefore, water flowing from uncontrolled flowing wells should be available for capture and use by appropriative users.

Balance

Although outdated, the Bredehoeft, et al. (1983) estimate of approximately 79.4 cfs (57,500 acre-feet per year) of recharge to the Dakota aquifer per year in South Dakota provides a sense of scale to the recharge this aquifer receives. Water use for this application is estimated to be less than two acre-feet per acre per year, so less than 91 acre-feet per year. Estimated total appropriative withdrawals and reservations from the Dakota aquifer in South Dakota is less than 28,245.9 acre-feet per year (future use: 4,287 acre-feet per year, non-irrigation: 22,803.2 acre-feet per year, irrigation: 997.9 acre-feet per year, Application No. 8756-3: 64.5 acre-feet per year, Application No. 8783-3: 2.3 acre-feet per year, and this application: 91 acre-feet). Therefore, based on the analysis of the hydrologic budget of the Dakota aquifer in South Dakota, there is a reasonable probability that water is available for the diversion proposed by this application.

Potential for Unlawful Impairment

Area water rights/permits currently authorized to appropriate water from the Dakota aquifer are shown in Figure 5 and summarized in Table 5. The nearest water right/permit to the proposed well site for this application is Water Right No. 7123-3 located approximately one mile to the west held by Harrisburg School District for irrigation use. The well site for this application is also located 0.06 miles north of the future use area for Future Use Permit No. 8400-3 held by the City of Harrisburg. Since the proposed well site for this application is located within the city limits of Harrisburg, SD the closest domestic users are likely to be connected to municipal water rather than maintaining a private well. The nearest well completion report on file is for Sanford Health Harrisburg Primary Care Clinic located approximately 0.3 miles west (based on the location provided by the well driller on the completion report) of the proposed well site for this application (Water Rights, 2023a). The well driller indicated that the Sanford well was for irrigation use, since this is an irrigation well for a business/commercial site this well is likely subject to needing a water permit and would likely not be considered to be domestic use for household lawn/garden watering.

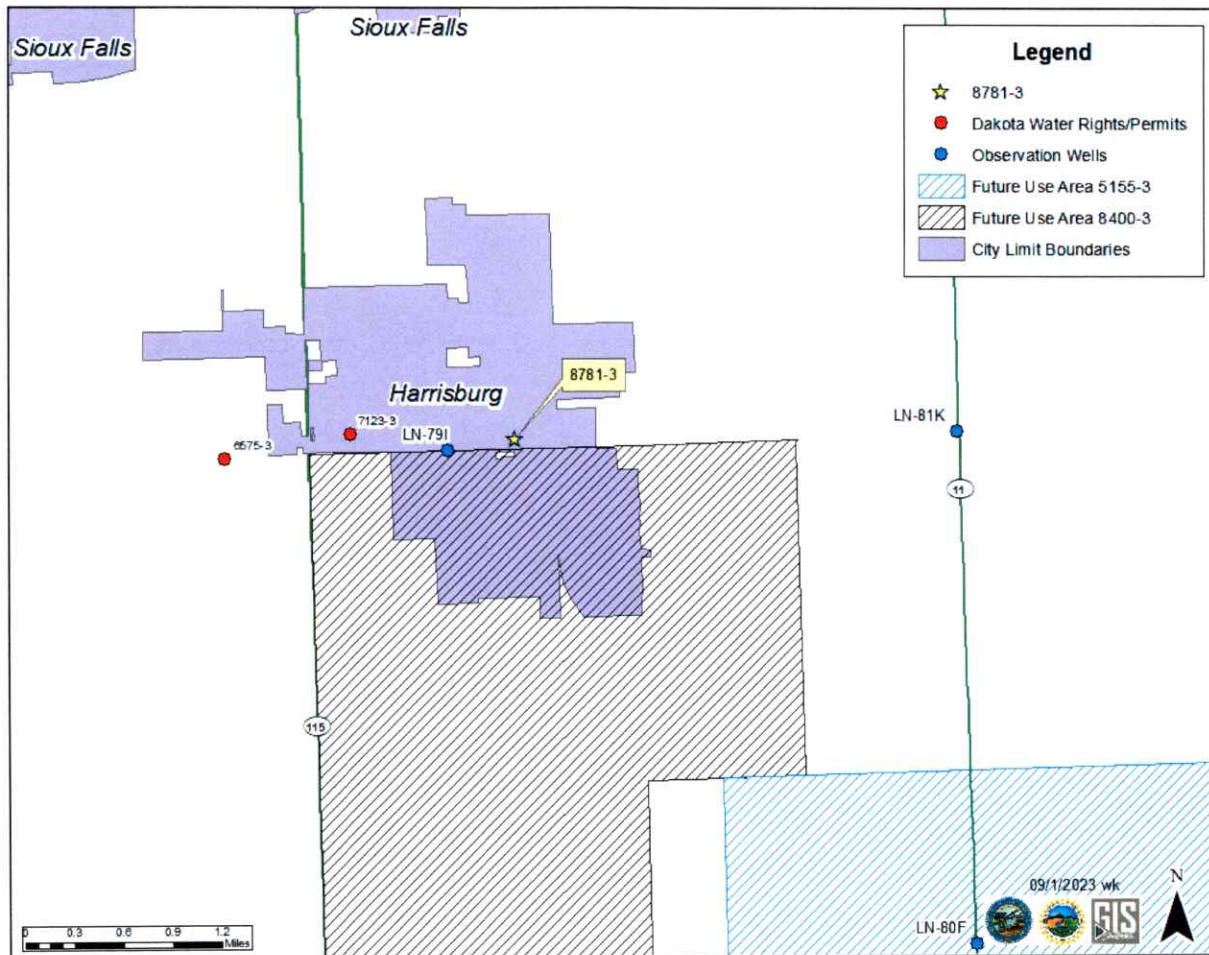


Figure 5: Dakota aquifer water rights/permits, future use permit areas, and Dakota aquifer observation wells in the vicinity of the well site for Application No. 8781-3 (Water Rights, 2023b & 2023c)

Table 5: Summary of Water Rights/Permits in Figure 5

Permit No.	Name	Status	Use	Rate (cfs)	Volume (acre-feet)	Acres
5155-3	LINCOLN COUNTY RWS	FU	RWS	n/a	440	n/a
6575-3	DAKOTA ALLIANCE SOCCER CLUB	LC	IRR	0.016	n/a	15
7123-3	HARRISBURG SCHOOL DISTRICT	LC	IRR	0.14	n/a	30
8400-3	CITY OF HARRISBURG	FU	MUN	n/a	500	n/a

FU-future use, LC- license, RWS-rural water system, IRR- irrigation, MUN-municipal

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 No. 2313-2 for Coca-Cola Bottling Company of the Black Hills. The Board adopted the 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 Dakota aquifer at their location. A review of the complaints on file with the Water Rights Program indicate that there is not a history of unlawful impairment occurring with Dakota aquifer wells in Lincoln County (Water Rights, 2023d). When considering the statutes (SDCL 46-1-4 and 46-6-6.1), rule (ARSD 74:02:04:20(7)), the amount of artesian head pressure at the well site for this application, and the lack of well interference complaints from the Dakota aquifer in the area, any drawdown created from the proposed diversion is not expected to cause an unlawful impairment on existing water right/permit holders or domestic users with adequate wells. Therefore, there is a reasonable probability that any interference from the proposed appropriation will not impose unlawful impairments on existing users with adequate wells.

Special Consideration: Water Quality (Sweet Pocket Area)

In the Dakota aquifer in central and southern Lincoln County there is an area of a notably better water quality compared to other areas of the Dakota aquifer ; this area is commonly referred to as the "sweet pocket". While the quantity of higher quality water is unknown, it is believed to be limited, since the water locally recharging the Dakota aquifer is of poorer quality than the water leaving the aquifer (Iles, 1984). In the past the development of irrigation out of the "sweet pocket" area has been contentious (Water Rights, 2023b). The approximate area of the "sweet pocket" is indicated by the presence of lower total dissolved solid concentrations, shown in Figure 6 (Iles, 1984). In looking at Figure 6, while the proposed well site for this application is in the general area of the "sweet pocket," in the immediate vicinity of the well site, the Dakota aquifer appears to have been recharged by lower quality water. Given the direction of groundwater movement in the aquifer in Lincoln County (north to south, Figure 1), and that Dakota aquifer appears to have been recharged by lower quality water in the immediate vicinity of the well site, therefore this application, if approved, is likely to have little to no impact on the "sweet pocket".

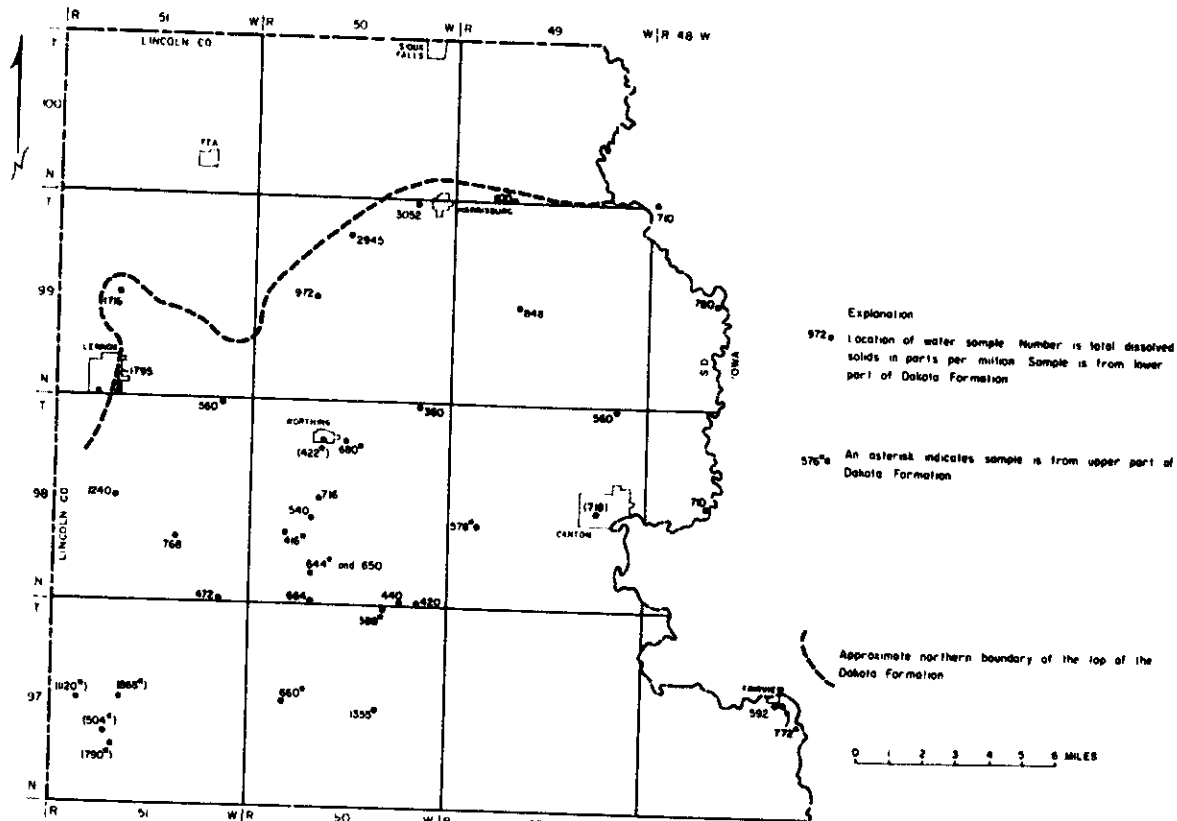


Figure 6: Distributions of total dissolved solids in the Dakota aquifer (modified from Iles, 1984). (Note parentheses only relevant to original publication).

Special Consideration: Well Construction

The proposed diversion point must meet adequate well construction standards as defined in ARSD 74:02:04:20. An adequate well has been defined in ARSD 74:02:04:20(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.”

The alternative well construction requirements for certain Dakota aquifer wells (ARSD 74:02:04:35) are not permitted uses requiring a water permit. The well for this application and any replacement or additional wells may not be constructed using the alternative construction requirements that are allowed for domestic use wells outlined in ARSD 74:02:04:35.

Conclusions

1. Water Permit Application No. 8781-3 by the City of Harrisburg proposes to appropriate water at a maximum instantaneous diversion rate of 0.22 cfs from one well to be completed into the Dakota Aquifer located in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 36 for the irrigation of 45.5 acres located in the E $\frac{1}{2}$ SW $\frac{1}{4}$ Section 36; all in T100N-R50W. Water will be diverted from the well to a stormwater retention pond located near the well and then be diverted from the pond at a rate of 0.53 cfs to the irrigated acreage.
2. Based on the analysis of the hydrologic budget for the Dakota aquifer in South Dakota, there is a reasonable probability that water is available for the amount proposed by Water Permit Application No. 8781-3.
3. There is a reasonable probability that pumping under Water Permit Application No. 8781-3, if approved, will not unlawfully impair existing water right/permit holders and domestic users with adequate wells.
4. The well for this permit, if approved, and any additional or replacement Dakota wells for the permit, if approved, may not be constructed using the alternative well construction method of ARSD 74:02:04:35.



Whitney Kilts
Natural Resources Engineer III
SDDANR-Water Rights Program

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**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.**

September 12, 2023

City of Harrisburg
c/o Andrew Pietizus, City Administrator
301 E Willow Street
Harrisburg SD 57032

Dear Mr. Pietizus:

Water Permit Application No. 8781-3 for irrigation use have been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice has been sent to the Lennox Independent printed in Lennox SD (Ph # 605 647-2284) and the Argus Leader printed in Sioux Falls SD (see attachment for contact number). 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,

Rachel Rodriguez

Rachel Rodriguez
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.

Instruction to Newspaper - Publish the Notice on September 21, 2023. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 8781-3 to Appropriate Water

Notice is given that the City of Harrisburg, c/o Andrew Pietizus, City Administrator, 301 E Willow Street, Harrisburg SD 57032 has filed an application for a water permit to appropriate 0.22 cubic feet of water per second (cfs) from one well to be completed into the Dakota Aquifer (approximately 330 feet deep) located in the SE 1/4 SW 1/4 Section 36 for irrigation of 45.5 acres located in the E 1/2 SW 1/4 Section 36; all in T100N-R50W. Water will be diverted from the well to a retention pond located near the well and then be diverted from the retention pond at a rate of 0.53 cfs to the irrigated acreage. This site is located in Harrisburg SD.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8781-3 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 October 2, 2023.

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 October 2, 2023.

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 AGRICULTURE
and NATURAL RESOURCES**

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523 E CAPITOL AVE
PIERRE SD 57501-3182
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**NOTE: TO BE SURE OF PUBLICATION ON
THE CORRECT DATES, CONTACT
THE NEWSPAPER RIGHT AWAY.**

October 17, 2023

City of Harrisburg
c/o Andrew Pietrus
301 E Willow Street
Harrisburg SD 57032

Dear Mr. Pietrus:

Water Permit Application No. 8781-3 is still missing one affidavit from the Lennox newspaper. Apparently, you did not contact them to authorize publication and pay. As a result, the notice was not published. I have sent your notice again to the Lennox Independent (Ph # 605 647-2284). Be sure to contact the newspaper to authorize publication of your Notice and to arrange for payment. 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.**

Should you have any questions, please call me.

Sincerely,

Rachel Rodriguez

Rachel Rodriguez
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.

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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 November 6, 2023.

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 November 6, 2023.

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Published once at the total approximate cost of_

Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Tuesday, September 12, 2023 10:52 AM
To: publisher@lennoxnews.com
Subject: 8781-3 City of Harrisburg - Public Notice
Attachments: 8781-3 public.short_final.docx; FORM8.FRM.doc

Attached is a notice to be published on September 21, 2023.

City of Harrisburg, c/o Andrew Pietizus, City Administrator, 301 E Willow Street, Harrisburg SD 57032, (605 743-5872) 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 Ave, Pierre SD 57501.

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

Thank you,

Rachel Rodriguez
DANR | Program Assistant
Rachel.Rodriguez@state.sd.us



Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Tuesday, September 12, 2023 10:53 AM
To: legals@argusleader.com
Subject: 8781-3 City of Harrisburg - Public Notice
Attachments: 8781-3 public.short_final.docx; FORM8.FRM.doc

Attached is a notice to be published on September 21, 2023.

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

Thank you,

Rachel Rodriguez
DANR | Program Assistant
Rachel.Rodriguez@state.sd.us



Rodriguez, Rachel

From: Newspaper Notices <notices@lennoxnews.com>
Sent: Tuesday, October 17, 2023 10:22 AM
To: Rodriguez, Rachel
Subject: Re: [EXT] 8781-3 City of Harrisburg - Public Notice

Sorry about that, yes we can get it published on that date. I'll get it on the schedule.

Julia Eng
notices@lennoxnews.com

On Oct 17, 2023, at 10:13 AM, Rodriguez, Rachel <Rachel.Rodriguez@state.sd.us> wrote:

Hello Julie,

I want the notice published next week on October 26, 2023. Not this week. So, I'm a bit confused. Please advise.

Thank you,

Rachel Rodriguez
DANR | Program Assistant
Rachel.Rodriguez@state.sd.us
<image001.png>

From: Newspaper Notices <notices@lennoxnews.com>
Sent: Tuesday, October 17, 2023 10:09 AM
To: Rodriguez, Rachel <Rachel.Rodriguez@state.sd.us>
Subject: Re: [EXT] 8781-3 City of Harrisburg - Public Notice

Hi Rachel,
Thank you for reaching out. I found out we are able to publish this notice, however we are not the official paper for Harrisburg. The Lennox deadline was Monday at 12pm, but we could get this in the Tea paper this week. It would be published Friday October 20.

Thank you!

Julia Eng
notices@lennoxnews.com

On Oct 17, 2023, at 8:47 AM, Rodriguez, Rachel <Rachel.Rodriguez@state.sd.us> wrote:

Attached is a notice to be published on October 26, 2023.

City of Harrisburg, c/o Andrew Pietrus, City Administrator, 301 E Willow Street, Harrisburg SD 57032, (605-743-5872) has been notified to contact you to authorize publication and arrange for payment.

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

Thank you,

Rachel Rodriguez
DANR | Program Assistant
Rachel.Rodriguez@state.sd.us
<image001.png>

<8781-3 Redo public.short_final.docx><FORM8.FRM.doc>

Argus Leader

P.O. Box 677349, Dallas, TX 75267-7349

Account No.: SFA-0000001260

Ad No.: 0005824470

PO #: 8781-3

Lines : 155

Ad Total: \$50.19

CITY OF HARRISBURG
301 E WILLOW ST
HARRISBURG, SD 57032

This is not an invoice

of Affidavits 1

Account No.: SFA-0000001260

Ad No.: 0005824470

Argus Leader AFFIDAVIT OF PUBLICATION

**State of Wisconsin
County of Brown**

I being duly sworn, says: That The Argus Leader is, and during all the times hereinafter mentioned was, a daily legal newspaper published at Sioux Falls, Minnehaha County, South Dakota; that affiant is and during all of said times, was an employee of the publisher of such newspaper and has personal knowledge of the facts stated in this affidavit; that the notice, order or advertisement, a printed copy of which is hereto attached, was published in said newspaper issue(s) :

Thursday, September 21, 2023

Sworn to and subscribed before me this 21 day of September, 2023.

Legal Clerk

Notary Public, State of Wisconsin, County of Brown

My Commission expires

DENISE ROBERTS
Notary Public
State of Wisconsin

NOTICE OF
APPLICATION NO. 8781-3
to Appropriate Water

Notice is given that the City of Harrisburg, via Andrew Pietz, City Administrator, 301 E. Willow Street, Harrisburg SD 57032 has filed an application for a water permit to appropriate 0.22 cubic feet of water per second (cfs) from one well to be completed into the Dakota Aquifer (approximately 330 feet deep) located in the SE 1/4 SW 1/4 Section 36 for irrigation of 45.5 acres located in the E 1/2 SW 1/4 Section 36; all in T100N-R50W. Water will be diverted from the well to a retention pond located near the well and then be diverted from the retention pond at a rate of 0.33 cfs to the irrigated acreage. This site is located in Harrisburg SD. Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 8781-3 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://dnr.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://dnr.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 October 2, 2023.

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://dwr.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 October 2, 2023.

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AFFIDAVIT OF PUBLICATION

STATE OF SOUTH DAKOTA

:SS

COUNTY OF LINCOLN

Julia Eng

being first duly sworn, disposes and says: That (he/she) is a resident of the County of Lincoln and State of South Dakota; that THE LENNOX INDEPENDENT is a weekly legal newspaper of general circulation, printed and published in Lennox, in said County and State, and is now, and has been such newspaper continuously, during all the times hereinafter mentioned; that the affiant is affiliated with said newspaper as employer or employee and has personal knowledge of all the facts stated in this affidavit, and the notice and advertisement headed

Notice of Application
No. 8781-3 to Appropriate Water

a printed copy of which is hereonto attached and made a part hereof, was printed and published in the said newspaper 1 successive issues. That the first publication of said notice in said newspaper aforesaid was on Thursday the 26 day of October A.D., 2023 and that the succeeding publication was severally

on Thursday the	_____ day of _____	A.D., 20 _____
on Thursday the	_____ day of _____	A.D., 20 _____
on Thursday the	_____ day of _____	A.D., 20 _____
on Thursday the	_____ day of _____	A.D., 20 _____
on Thursday the	_____ day of _____	A.D., 20 _____
on Thursday the	_____ day of _____	A.D., 20 _____

that the fees charged for the printing and publication of said notice and advertisement in said newspaper as aforesaid were 37 Dollars and 12 Cents, and that said fees for the printing and publishing of said notice and advertisement, and for the affidavit as aforesaid, have been fully paid; that the full amount of the fee charged for the publishing of the said attached and annexed notice and advertisement inures to the benefit of the publishers of the said Lennox Independent, that no agreement or understanding for the division thereof has been made with any other person, and that no part thereof has been agreed to be paid to any person, whomsoever.

Julia M. Eng

Subscribed and sworn to before me this 30 day of Oct., 2023.

Anne Hansen

Notary Public
Lincoln County, South Dakota

My Commission expires Oct 26, 2024.

RECEIVED

NOV 01 2023

OFFICE OF
WATER

NOTICE OF APPLICATION NO. 8781-3 to Appropriate Water

Notice is given that the City of Harrisburg, c/o Andrew Pietrus, City Administrator, 301 E Willow Street, Harrisburg SD 57032 has filed an application for a water permit to appropriate 0.22 cubic feet of water per second (cfs) from one well to be completed into the Dakota Aquifer (approximately 330 feet deep) located in the SE 1/4 SW 1/4 Section 36 for irrigation of 45.5 acres located in the E 1/2 SW 1/4 Section 36; all in T100N-R50W. Water will be diverted from the well to a retention pond located near the well and then be diverted from the retention pond at a rate of 0.53 cfs to the irrigated acreage. This site is located in Harrisburg SD.

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STATE OF SOUTH DAKOTA
County of Lincoln

IN THE CIRCUIT COURT
JUDICIAL CIRCUIT

vs.

Affidavit of Publication

The within Affidavit of Publication of

was filed in my office this _____

day of _____, 20____.

Clerk of Circuit Court of the _____
Judicial Circuit of the State of South
Dakota within and for Lincoln County.

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 November 6, 2023. 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 November 6, 2023. 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 \$37.12 and can be viewed free of charge at www.sdpublicnotices.com. (10-26)

Rodriguez, Rachel

From: Rodriguez, Rachel
Sent: Tuesday, October 17, 2023 8:48 AM
To: 'notices@lennoxnews.com'
Subject: 8781-3 City of Harrisburg - Public Notice
Attachments: 8781-3 Redo public.short_final.docx; FORM8.FRM.doc

Attached is a notice to be published on October 26, 2023.

City of Harrisburg, c/o Andrew Pietrus, City Administrator, 301 E Willow Street, Harrisburg SD 57032, (605-743-5872) has been notified to contact you to authorize publication and arrange for payment.

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

Thank you,

Rachel Rodriguez
DANR | Program Assistant
Rachel.Rodriguez@state.sd.us





**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

JAN 02 2024

City of Harrisburg
Andrew Pietrus, City Admin.
301 E Willow Street
Harrisburg SD 57032

Dear Mr. Pietrus:

Enclosed is Water Permit No. 8781-3 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,

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

enclosures



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

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

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

**Affidavit of Public Notice
Posting on DANR Website**

Pursuant to SDCL § 46-2A-4, public notice of the following application was posted on the DANR web site at <https://danr.sd.gov/public>. The posted public notice is the same notice as published in the pertinent newspaper(s) and a copy of the public notice is maintained in the application file. If the application is contested, the posting is moved to the DANR contested case website at <https://danr.sd.gov/public/ContestedCase.aspx> until final action is taken on the application pursuant to SDCL § 46-2A-4.

Application No.: 8781-3

Name of Applicant: City of Harrisburg, Andrew Pietrus

Date of Posting: 9/18/2023

Date of Removal: 1/2/2024



Ron Duvall, Engineer III

1/2/2024

Date

Subscribed and sworn to before me, a notary public, this 2nd day of January, 2024.



Notary Public - South Dakota
My commission expires:
Rachel Rodriguez
My Commission Expires
May 16, 2029

(SEAL)

