

**STATE OF NEBRASKA**  
**DEPARTMENT OF NATURAL RESOURCES**  
**APPLICATION FOR A PERMIT TO APPROPRIATE WATER**

Complete items 1 through 10 by printing in ink or typing the appropriate information and by placing an X in the appropriate box.

**For Department Use Only**

1. Name and address of owner of land under proposed project. Names must be exactly as described on the deed or document transferring ownership of property. Landowner must sign the application.

Nebraska Public Power District  
PO Box 499  
Columbus, NE 68602

Filed in the office of the Department of  
Natural Resources at 10:35 a.m. ~~p.m.~~  
on August 28, 2019

Application No. A-19672

Map No. \_\_\_\_\_

Water Division 1-A

Receipt No. A-5225 Amount \$10

Right ID 13610

E-mail address: jtshafe@nppd.com Telephone No. (402) 362-7360

2. Name, address, and telephone number of applicant if different than landowner.

E-mail address: \_\_\_\_\_ Telephone No. ( ) \_\_\_\_\_

- 3a. A permit is sought to:

☒ Use natural flow ☐ Use impounded water\*

- 3b. A permit is sought for the purpose of:

☐ Irrigation ☐ Manufacturing ☐ Domestic  
☐ Other \_\_\_\_\_  
☒ Temporary\*\* Baseflow enhancement through groundwater recharge

- 4a. Identify the source of water (name of stream or reservoir).

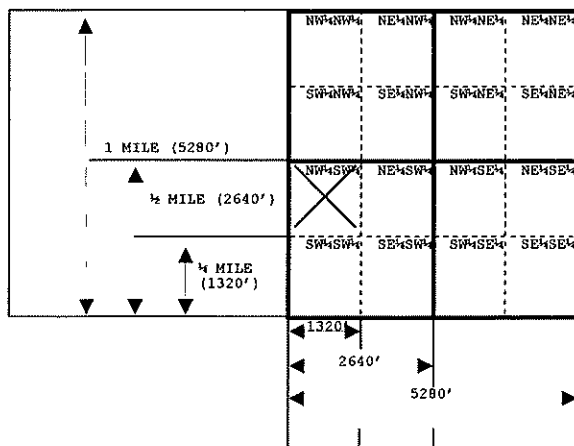
Platte River

- 4b. If applicable, identify the facility name for transporting water from the source (portable pump, name of canal or pipeline).

Gothenburg Canal

5. Identify the location of the ☒ Headgate ☐ Pump

Section 19, Township 12 North, Range 26 E ☐ W ☒ County Lincoln



The box at left represents one square mile (section). Place an X within each appropriate 40-acre tract to indicate the location(s) of each headgate or pump.

If applicable, indicate the height, in feet, of any diversion or check dams on the line below.

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\* A separate permit to impound water must be obtained.

\*\* A temporary permit may be granted for a maximum of one year.

6. If applicable, identify the location of lands by 40-acre subdivisions that will be irrigated.

LEGAL SUBDIVISIONS	Sec.	Twp.	Rge.	No. of Acres	LEGAL SUBDIVISIONS	Sec.	Twp.	Rge.	No. of Acres
					TOTAL NUMBER OF ACRES TO BE IRRIGATED: 0.0				

☐ Enclosed is an aerial photograph that I have marked to show the approximate location of land to be irrigated as described above.

7. State the approximate quantity of water desired for

appropriation. 100 cfs - see supplemental information

- ☐ Gallons per minute  
☒ Cubic feet per second  
☐ Acre-feet (impounded water)

8a. State the estimated time required for completion of all water diversion facilities.

All facilities completed

8b. State the earliest date when water will have been used for beneficial purposes.

As soon as application is approved and water is available

9. Will this project be constructed under a federal program, receive federal funding, or have federal planning assistance?

☒ No ☐ Yes If yes, explain: \_\_\_\_\_

10. I certify that am familiar with the information contained in this application, and that to the best of my knowledge and belief such information is true, complete and accurate.

Date

8-28-19

Signature of owner or owner's authorized agent (with proper documentation)

*[Handwritten Signature]*

A final project map may accompany this application or must be filed within six months following departmental approval of this application, drawn in accordance with NAC Title 457 – Rules for Surface Water, Chapter 10, ([http://dnr.ne.gov/SurfaceWater/Title\\_457\\_0608.pdf](http://dnr.ne.gov/SurfaceWater/Title_457_0608.pdf)). At the request of the applicant, the Department will assist with preparation of the project map.

This form must be completed in full. An incomplete or defective application will be returned with 90 days being allowed for resubmission. Failure to resubmit a corrected application within this period shall cause dismissal of the application and consequent loss of priority and fees.

A non-refundable filing fee, payable to the Department of Natural Resources, computed from the table below must accompany this application. Forward this application and applicable fees to:

State of Nebraska  
Department of Natural Resources  
301 Centennial Mall South / P.O. Box 94676  
Lincoln, Nebraska 68509-4676  
(402) 471-2363

Nature of Use	Cost	Nature of Use	Cost
Domestic.....	\$10	Manufacturing	
Agricultural		General.....	\$10
Irrigation from Stream		Power Generation for each theoretical 50 horsepower.....	\$5
0-1,000 acres.....	\$200	Other.....	\$10
Each additional 1,000 acre unit.....	\$100		
or portion thereof in excess of the first 1,000 acre unit			
Irrigation from Storage Reservoir			
0-1,000 acres.....	\$50		
or portion thereof in excess of the first 1,000 acre unit			
Each additional 1,000 acre unit.....	\$25		
or portion thereof in excess of the first 1,000 acre unit			

## **Supplemental Information for Application for a Permit to Appropriate Water**

It is Nebraska Public Power District's (NPPD) desire to acquire a temporary appropriation to divert Platte River waters into the Gothenburg Canal for the beneficial purpose of Platte River baseflow enhancement from ground water recharge. The Nebraska Department of Natural Resources (DNR) on December 12, 2014 granted NPPD leave to file an application for a permanent recharge appropriation, which NPPD did on December 15, 2014. As the DNR has not acted on that application, NPPD is pursuing a temporary appropriation to take advantage of potential upcoming excess flows.

### **Background**

Based on the successful groundwater recharge operations in recent years, it is NPPD's desire to obtain a temporary appropriation for ground water recharge for the Gothenburg Canal.

### **Project Description**

The Gothenburg Canal is owned and operated by NPPD. This project was constructed in the 1890's to provide irrigation water to producers in Lincoln and Dawson County. The project consists of the diversion dam, supply canal and many laterals.

Recharge operations in recent years have showed that ground water recharge can occur when excess water is available.

### **Project Operations**

The water appropriation application proposes to divert water in excess to Platte River Recovery Implementation Program (Program) targets before and after the irrigation season into the Gothenburg Canal for the beneficial purpose of Platte River baseflow enhancement from ground water recharge. A maximum of 100 cfs would be diverted into the Gothenburg Canal and its laterals during periods when unappropriated water is available and target flows are exceeded. The diverted water would be allowed to seep into the aquifer as ground water recharge, and then return to the Platte River to increase baseflow. The project envisions keeping returns minimized to those necessary for canal operation. NPPD will maintain communication with the Bridgeport field office as to when irrigation operations are occurring under existing appropriations and when recharge operations are occurring under the proposed appropriations.

Diversions will be monitored and recorded using the existing continuous stage recorder and 20-foot Parshall flume located in section 28, T12N-R26W near Brady. Recharge operation returns will be monitored and recorded daily by gages at the Gothenburg Canal river return locations.

The water diverted in the main canal before and after the 2011 irrigation season under temporary appropriation A-18775 provides a portion of the basis for requesting 100 cfs. NPPD was able to divert 87 cfs using only the main canal for recharge [Reference: Page 133 of DNR's 2011 Hydrographic Report]. NPPD proposes that an additional 13 cfs will be used to recharge water in laterals.

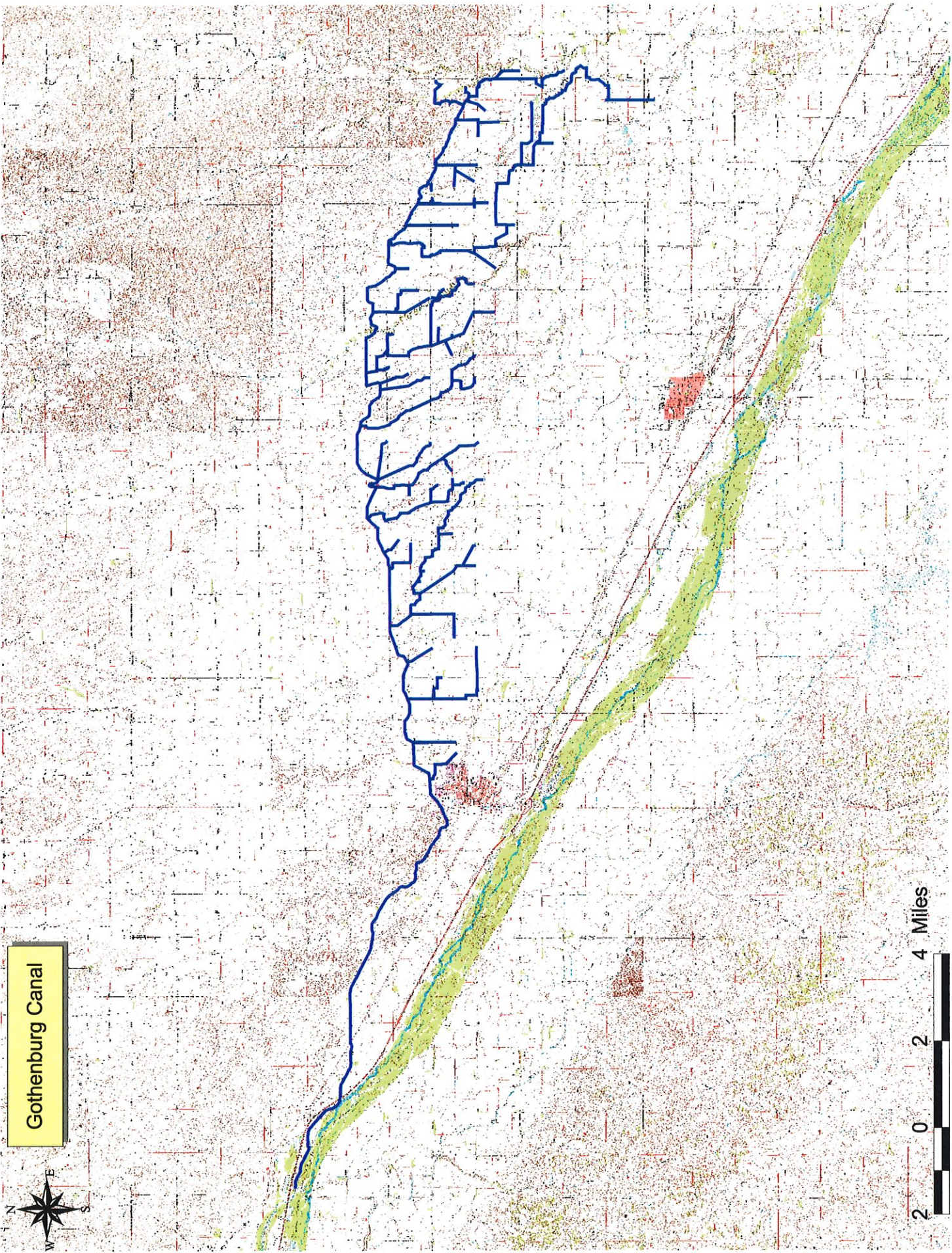
## **Project Benefits**

The Program has entered into an agreement with NPPD for recharge that would occur under this temporary appropriation.

In 1997, Colorado, Wyoming, Nebraska and the Department of Interior formed partnership with the goal of developing a shared approach for managing the Platte River. Water users from the three states, including NPPD, and local and national conservation groups joined the effort. The Program is the result of that planning effort. NPPD is one of the Downstream Water User representatives on the Program's Governance Committee and it is in NPPD's best interest to see the Program succeed.

During the first increment of the Program, one goal is to reduce shortages to target flows an average of 130,000 to 150,000 acre-feet annually. NPPD has contracted with the Program to provide the proposed recharge services.





Gothenburg Canal

