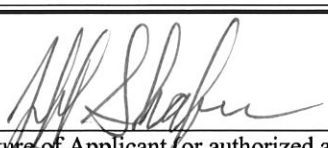


STATE OF NEBRASKA
DEPARTMENT OF NATURAL RESOURCES

PETITION TO THE NEBRASKA DEPARTMENT OF NATURAL RESOURCES

FOR LEAVE TO FILE OR CONSIDER AN APPLICATION FOR A NEW
SURFACE WATER APPROPRIATION WITHIN A MORATORIUM OR STAY AREA
UNDER TITLE 457 N.A.C. CHAPTER 23

Complete items 1 through 5 by printing in ink or typing the appropriate information and by placing an X in the appropriate box. Attach supporting documentation and a \$10 non-refundable filing fee.		For Department Use Only
<p>1. Name and address of petitioner:</p> <p>Nebraska Public Power District PO Box 499 Columbus, NE 68602</p> <p>E-mail address: jtshafe@nppd.com Telephone No. (402) 362-7360</p>		<p>Modification No.: VAR-7551</p> <p>Date Filed: August 26, 2019</p> <p>Time Filed: 8:25 am</p> <p>SW Appropriation No.: _____ (if applicable)</p> <p>Right ID No.: _____ (if applicable)</p> <p>Water Division: 1-A</p> <p>Receipt No.: A-5223</p> <p>Amount: \$10.00</p>
<p>2. Check the situation that applies:</p> <p><input type="checkbox"/> Application Already Filed Application Number: _____</p> <p><input checked="" type="checkbox"/> Application Not Filed (Enclose copy of proposed application)</p>		<p>(\$20.00)</p>
<p>3. Description of proposed project:</p> <p>Outside the irrigation season for baseflow enhancement through ground water recharge, NPPD proposes to divert a maximum of 100 cfs into the Gothenburg Canal. (Headgate located in the NW1/4 SW1/4 19-12-26 Lincoln County). This application is for a temporary appropriation as NPPD's permanent appropriation application is before the DNR.</p>		
<p>4. The Proposed Project — (Check all that apply):</p> <p><input type="checkbox"/> 001.01 — Is a non-consumptive use</p> <p><input type="checkbox"/> 001.02 — Will replace (offset) any consumptive use (Attach Offset Plan)</p> <p><input checked="" type="checkbox"/> 001.03 — Is for possible unappropriated water (Attach Analysis)</p> <p><input type="checkbox"/> 001.04 — Existed before the stay or moratorium (Attach Proof)</p> <p><input type="checkbox"/> 001.05 — Addresses a public safety issue (Attach Explanation)</p> <p><input type="checkbox"/> 001.06 — Is a temporary use for public construction (<10 AF)</p>		
<p>5. Other reason why a variance should be granted:</p> <p>See supplemental information</p> <p>_____</p> <p>_____</p> <p>_____</p>		
<p>8/22/19 Date</p> <p> Signature of Applicant (or authorized agent)</p>		

Send to the following address (along with \$10 non-refundable filing fee):

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

Supplemental Information for Variance Petition

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 (Variance Attachment 1), 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 upcoming potential 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.

Variance Petition

The DNR's July 14, 2004, order and the provisions of *Neb. Rev. Stat. § 46-714(3)(n)* allow for new surface water diversion if the DNR grants a variance and subsequently approves a permit for such a new use. In addition to requirements of *DNR Rules for Surface Water, Title 457, Neb. Admin. Code Chapter 23* regarding variances, the following useful definition of variance is found in *Neb. Rev. Stat. § 46-706(29)*, which states:

Variance means (a) an approval to deviate from a restriction imposed under subsection (1), (2), (8), or (9) of section 46-714 or (b) the approval to act in a manner contrary to existing rules or regulations from a governing body whose rule or regulation is otherwise applicable[.]

When filing a variance request, a project proponent must offer a clearly stated basis for such request and must offer good cause shown. *DNR Rules for Surface Water, Title 457, Neb. Admin. Code Chapter 23* requires information to indicate if:

1. The proposed project is for a non-consumptive use; or
2. The applicant has a credible proposal for replacing any consumptive use that will occur in a manner such that the project will not harm other users; or
3. The applicant has credible information that indicates there **may be** unappropriated water available at the proposed location at the time the depletion is likely to occur; or
4. The project existed prior to any informal moratorium, formal moratorium or stay.
5. There is a public safety issue that must be addressed and the proposed project addresses such issue.
6. The proposed use is a temporary use for public construction and the total volume requested is less than ten (10) acre-feet.

NPPD is providing information to indicate that credible information indicates there is unappropriated water available at the proposed location (Variance Attachment 2).

In determining the intent and scope of good cause, the DNR has applied the definition supplied by *Neb. Rev. Stat. § 46-706(23)*, which states:

Good cause shown means a reasonable justification for granting a variance for a consumptive use of water that would otherwise be prohibited by rule or regulation and which the granting agency, district, or organization reasonably and in good faith believes will provide an economic, environmental, social, or public health and safety benefit that is equal to or greater than the benefit resulting from the rule or regulation from which a variance is sought[.]

Good Cause

NPPD is providing the following information to indicate the basis for the good cause for allowing further consideration of the proposed water appropriation application. It includes a Project Description, Project Operations, Project Benefits, Moratorium Benefits and Impacts, and Environmental and Endangered Species Impacts.

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 approximately 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

NPPD sent letters to the Program, Central Platte NRD, Twin Platte NRD, North Platte NRD, Tri-Basin NRD, South Platte NRD and Nebraska Department of Natural Resources in January 2016 requesting interest in contracting for groundwater recharge benefits (Application Attachment B). The Program has entered into an agreement with NPPD for recharge that would occur under this temporary appropriation. Of the rest, only Tri-Basin NRD expressed a possible future interest, and the remainder did not have an interest in contracting with NPPD in 2016 or future years.

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.

Moratorium Benefits and Impacts

The moratorium on new surface water applications in the Platte River basin where the Gothenburg Canal diversion is located was ordered on July 14, 2004. The moratorium concluded that it was in the public interest to place a moratorium on surface water appropriations because the public "...would not be well served by the continuance of granting permits where sufficient water is not available." The order continues by saying that doing so "...would result in "paper water rights" that would cause additional costs to the taxpayer because of the costs of processing such applications, the costs of administering such applications, and the costs of canceling such appropriations in the future."

It is NPPD's belief that there will be no negative impacts to the public should this petition and appropriation be granted. As identified in Variance Attachment 2, sufficient water exists for the diversion location and therefore it will not result in a "paper water right".

Environmental and Endangered Species Impacts

Water appropriation A-17004A, A-17004B, A-17004C, A-17007B, A-17007C, A-17008A, A-17008B, A-17008C, and A-17009, were granted by DNR with the purpose of providing habitat for whooping cranes, sandhill cranes, interior least terns, and piping plovers or to provide habitat for food sources consumed by those bird species. Water appropriations A-17329, A-17330, A-17331 were granted for the beneficial use of maintaining a fish community, and A-17332 was granted for the beneficial use of maintaining roost habitat for whooping cranes.

Because all of these instream flow appropriations would be senior to the proposed water appropriation, these water appropriations would be unaffected by the proposed appropriation. The instream flow appropriations by statute are the minimum necessary to maintain the purposes for which they were granted. Therefore, there would be no endangered species impacts or environmental impacts as a result of the proposed application.

In regard to Program target flows, the purpose of recharge operations is to take flows in excess of targets and retime them so that baseflows are increased at other times. By doing so, the proposed project will not negatively impact Nebraska's participation in the Program and potentially aid the Program in meeting its water goals.

Summary

NPPD believes that the likelihood of excess flows outside of the irrigation season justifies the variance petition and outweighs the purpose of the moratorium. NPPD also believes that the information provided provides the reasonable good cause justification necessary for granting the variance petition.

NPPD believes that for the reasons provided in this supplement, that the variance petition should be approved and that the proposed baseflow enhancement application should be granted.

Variance
Attachment 1

STATE OF NEBRASKA
DEPARTMENT OF NATURAL RESOURCES
ORDER GRANTING LEAVE TO FILE AN APPLICATION FOR
A NEW SURFACE WATER APPROPRIATION WITHIN AN AREA SUBJECT TO A
MORATORIUM BY PETITION VAR-3470
WATER DIVISION 1-A

BACKGROUND

1. On July 14, 2004, the Department of Natural Resources (Department) issued a formal moratorium on all new surface water appropriations in the Platte River Basin upstream of the confluence with the Loup River near Columbus, Nebraska. The moratorium included all tributary streams above the Loup River confluence including the North and South Platte Rivers and tributaries.
2. On September 11, 2009, a Basin-Wide Integrated Management Plan (BWIMP) for the overappropriated area of the Platte River Basin was adopted by order of the Department. The BWIMP was also adopted by the following NRDs: the North Platte NRD, the South Platte NRD, the Twin Platte NRD, the Central Platte NRD, and the Tri-Basin NRD. These NRDs are collectively referred to in the BWIMP as the "Platte River Basin NRDs." The individual integrated management plans referenced in the next paragraph are required to be in conformance with the goals and objectives of the BWIMP.
3. On August 13, 2009, the initial integrated management plans (IMPs) were adopted by order of the Department, pursuant to *Neb. Rev. Stat. § 46-718(2)* for the following natural resources districts (NRDs): the North Platte NRD, the South Platte NRD, the Twin Platte NRD, the Central Platte NRD, and the Tri-Basin NRD. There have been subsequent revisions to the IMPs. As part of the surface water controls adopted by the Department pursuant to *Neb. Rev. Stat. § 46-716(1)(b)*, the moratorium on issuing new surface water appropriations was continued.
4. On January 1, 2007, work officially commenced on the Platte River Recovery and Implementation Program (PRRIP or Program). PRRIP's goals include reducing shortages to U.S. Fish and Wildlife Service target flows and providing additional land habitat for endangered species in the Lexington to Chapman reach of the Platte River. In order to meet these goals, each signatory to PRRIP has adopted depletions plans to address the mitigation of the adverse impacts of water-related activities on streamflows in the Platte River. The State of Nebraska, through the Department will utilize the integrated management process to achieve the goals of PRRIP (BWIMP and IMPs).

5. On January 11, 2013, Brian L. Barels, P.E., Water Resources Manager, Nebraska Public Power District (Petitioner), filed petition VAR-3470 for Leave to File or Consider an Application for a Permit to Appropriate Water within a Moratorium Area (variance petition). The draft application attached to the petition is for a permit to appropriate water from the Platte River for the purpose of baseflow enhancement through groundwater recharge via the Gothenburg Canal.
6. For the purposes of this order "Desired Minimum Discharge" (DMD) describes the water parameter that will be used to determine whether, and to what extent diversion may occur for projects such as that proposed under VAR-3470. Table A (see attached) lists the DMD values for the Platte River, measured in cubic feet per second at the Grand Island streamgage, for specific time periods. The magnitude of these flows differs according to the PRRIP's designation of dry, normal or wet hydrologic conditions, derived from the USEWS's recommendations for species flows and annual pulse flows and found in the PRRIP Water Plan Reference Materials Attachment 5, Section 11, Appendix A-5. These flow values also include instream flow appropriations, four of which are held by CPNRD, which must also be met in order for unappropriated water to be considered available for possible diversion.

ANALYSIS

1. The formal moratorium issued by the Department in 2004 has been continued in the surface water controls included in the individual NRD IMPs adopted by the Platte River Basin NRDs and the Department.

Because the Platte River Basin is currently undergoing integrated management for the purposes of reducing depletions to streamflow, any new consumptive use must be examined for its potential effects on extant surface and groundwater users and upon all matters of significant public interest and concern. This includes assessing both positive and negative impacts on the State's ability to comply with interstate agreements, programs, decrees and compacts, including PRRIP. Thus, any proposed project must be scrutinized to prevent conflict with (a) the goals and actions necessary to implement the IMPs adopted by the Platte River Basin NRDs and the Department and (b) the water needs of Water Action Plan projects that will be implemented under PRRIP. Applications for potential beneficial uses that are not clearly non-consumptive will be presumed to be at least partially consumptive. Therefore, an analysis of the effects of a proposed new diversion on these existing uses and responsibilities is required in order to determine whether sufficient good cause exists to grant a variance to apply for a new use.

2. Petitioner provided information that indicates the presence of unappropriated water throughout the Platte River Basin upstream of the confluence of the Loup and Platte Rivers. The information shows that U.S. Fish and Wildlife Service target flows and State-protected instream flow appropriations held by the Central Platte NRD and the Nebraska Game and Parks Commission are likely to be exceeded based on historical analysis and experience with a temporary permit that was utilized in 2011. Petitioner acknowledges that protection of target flows must be maintained throughout the year, and Petitioner expects

such to be a condition of any permit approval, if a permit was allowed to be filed and was ultimately granted.

3. Petitioner requests a permit to divert water for the purpose of groundwater aquifer recharge to assist in optimizing water management.
4. Petitioner proposes to divert unappropriated water prior to the normal irrigation season and possibly after the irrigation season concludes, if river conditions are such that unappropriated water is available.

CONCLUSIONS

1. Petitioner has convincingly argued there is likely to be unappropriated water in the future on the Platte River prior to and possibly after some irrigation seasons because of flows in excess of appropriated water and Desired Minimum Discharge, as defined above.
2. The diversion project proposed on the attached draft application does not appear to be in conflict with integrated management plan goals and potential conjunctive management projects. In addition, recharge from this project should assist NRDs in meeting their offset responsibilities under the BWIMP and individual NRD IMPs.
3. The potential benefits of groundwater recharge that Petitioner expects to result from the proposed project outweigh the effects of any stream depletions from temporarily diverting the water during times described above.
4. For these reasons, Petitioner should be granted leave to file an application to divert flows in excess of appropriated water and Desired Minimum Discharge for the purpose of groundwater recharge.

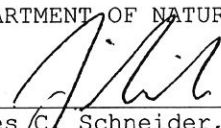
ORDER

IT IS HEREBY ORDERED:

1. Petition VAR-3470 meets the requirements of *Department of Natural Resources Rules of Surface Water, Title 457 Neb. Admin. Code Chapter 23, § 001.03*, has shown sufficient good cause, and is GRANTED.
2. This Order granting leave to file or consider an application for a new surface water appropriation within a moratorium or stay area pursuant to petition VAR-3470 shall be in effect for one year from the date this order is signed.
3. This decision shall not bind the Director to approve any application to which it relates, or in any way be used as evidence of prejudice for the Director's future decisions concerning the specific approval requirements of such an application.

DEPARTMENT OF NATURAL RESOURCES

December 12, 2014


James C. Schneider, Ph.D.
Acting Director

A copy of this Order was posted on the Department's website. A copy of this Order was provided to the Department's field office in Bridgeport, Nebraska. A copy of this Order was mailed on December 12, 2014, to the following:

Brian L. Barels
Water Resources Manager
Nebraska Public Power District
P.O. Box 499
Columbus, Nebraska 68602-0499

Jeffrey T. Shafer
Nebraska Public Power District
P.O. Box 608
York, Nebraska 68647-0608

Table A - Desired Minimum Discharge of the Platte River in cfs
Measured at the Grand Island Stream Gage

Period	PRRIP Target Flows Grand Island		
	Wet*	Normal*	Dry*
January 1 - January 31	1,000	1,000	600
February 1 - February 14	1,800	1,800	1,200
February 15 - February 28	3,350	3,350	2,250
March 1 - March 15	3,350	3,350	2,250
March 16 - March 22	1,800	1,800	1,200
March 23 - March 31	2,400	2,400	1,700
April 1 - April 14	2,400	2,400	1,700
April 15 - May 3	2,400	2,400	1,700
May 4 - May 10	2,400	2,400	1,700
May 11- May 19	1,200	1,200	800
May 20 - May 31	3,700	3,400	800
June 1 - June 20	3,700	3,400	1,000**
June 21 - June 23	1,200	1,200	1,000**
June 24 - July 31	1,200	1,200	1,000**
August 1 - August 22	1,200	1,200	800
August 23 - August 31	1,200	1,200	800
September 1 - September 15	1,200	1,200	800
September 16 - September 30	1,000	1,000	600
October 1 - October 11	2,400	1,800	1,350**
October 12 - November 10	2,400	1,800	1,500**
November 11 - November 15	2,400	1,800	1,300
November 16 - December 31	1,000	1,000	600

* The current Hydrologic Condition, (Wet Normal or Dry) determined by PRRIP can be found at: <http://platteriverprogram.org/PubsAndData/Pages/CurrentHydrologicCondition.aspx>

**Represents the minimum discharge required by instream flow appropriation, which is greater than PRRIP Target Flows

Availability of Unappropriated Water

Credible information exists that indicates unappropriated water is likely to be available for the proposed application.

In December 2010, DNR published a report titled "Evaluation of Historic Platte River Streamflow in Excess of State Protected Flows and Target Flows". The report identified times and locations when historical streamflows were in excess of target flow requirements established by the U.S. Fish and Wildlife Service for the Program and also in excess of that which could be beneficially used by existing surface water appropriations. This report used very conservative assumptions which skew the available water volumes below what would likely occur. In Table 11 of the report, it is shown that the average natural flow volume in excess of state protected flows during the non-irrigation season totaled over 68,000 acre-feet of water. The average number days during the non-irrigation season when flows were available totaled 96 days.

In March 2013, DNR published a supplement to the original report. Appendix E of the report contains graphs showing the volume of excess natural flow and number of days with excess flow at the Gothenburg Canal location. The report indicates that outside the irrigation season, there is a high likelihood of significant excess flows being available.

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 _____ a.m./p.m.

on _____

Application No. _____

Map No. _____

Water Division _____

Receipt No. _____ Amount _____

Right ID _____

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).

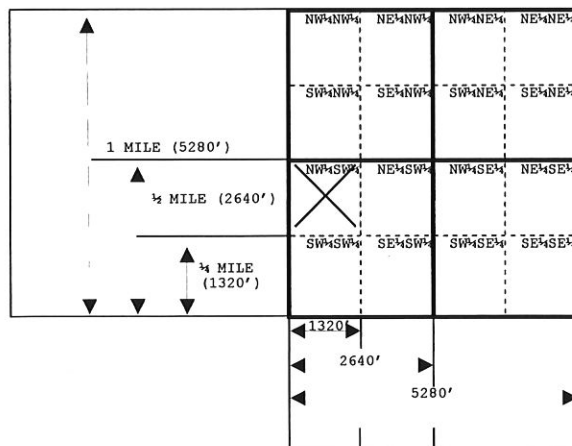
Platte River

- 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.

20

* A separate permit to impound water must be obtained.

** A temporary permit maybe 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

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

appropriation. 100 cfs - see supplemental information

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 _____

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

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). 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.

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

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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.

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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

2 0 2 4 Miles

