

**NATURAL RESOURCES CONSERVATION SERVICE  
REPORT TO THE LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT  
September 19, 2018**

**PERSONNEL:**

- Fred Stevens has been selected as the Resource Conservationist in the Weeping Water Field Office. Fred previously served as the Soil Conservationist in the Fairbury Field Office. He will begin his new duties on October 15, 2018.

**LAND TREATMENT:**

- Summer construction is finished, and staff is starting to certify and submit payments for completed conservation practices.
- Lancaster and Cass Counties have received some interest in the LPSNRD Cover Crop Program. We've had about 10 -15 inquires from landowners about the program, but most have land located outside of the eligible areas. The NRD staff has sent letters to producers in the Phase 2 & Phase 3 areas to promote the program. We have taken no eligible applications to this point.

**USDA PROGRAMS:**

**EQIP – FY2018**

- Staff has obligated the following EQIP contracts:
  - Lancaster – 10 contracts – 1,651 acres - \$333,853
  - Cass – 8 contracts – 1,020 acres - \$241,842

**CSP – FY2018**

- Staff has obligated the following CSP contracts:
  - Lancaster – 4 contracts – 1,818 acres - \$31,728
  - Cass – 2 contracts – 653 acres - \$9,847

**CRP**

- The Farm Service Agency did approve a limited number of CRP acres. Staff completed the following CRP contracts:
  - Lancaster – 10 contracts
  - Cass – 8 contracts

**UPCOMING EVENTS:**

- September 23<sup>rd</sup> – 25<sup>th</sup> – NRDs Annual Conference - Kearney
- October 3<sup>rd</sup> – LPS NRCS Staff Meeting - Lincoln
- October 8<sup>th</sup> – Columbus Day Holiday

***Cory Schmidt - District Conservationist***





## LOWER PLATTE SOUTH natural resources district

3125 Portia Street | P.O. Box 83581 • Lincoln, Nebraska 68501-3581 | P: 402.476.2729 • F: 402.476.6454 | [www.lpsnrd.org](http://www.lpsnrd.org)

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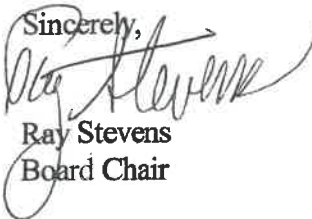
August 15, 2018

Nebraska Department of Natural Resources  
P.O. Box 94676  
Lincoln, Nebraska 68509-4676

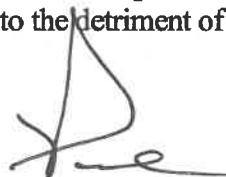
The Lower Platte South NRD is submitting these written comments on the proposed Platte Republican Diversion Project (Application Number A-19594) under Option 1. The LPSNRD does not feel there is enough detailed information on this water right application to fully understand the impact.

The applicant desires a permit to divert “excess” flows from the Platte River. We support some of the recent examples of the State allowing a portion of the Platte River’s “excess” flow (flood) to be diverted into irrigation canals to recharge adjacent aquifers in the Platte River Basin. We do feel that some of what might be called “excess” flows is providing important benefits downstream, including environmental and recharge benefits, and should not be diverted from the Platte River.

The Lower Platte South NRD is very supportive of utilizing Platte River water for the benefit of the Platte River Basin. We are concerned about attempts to divert water from the Platte River Basin for the benefit of other river basins and to the detriment of the Platte River Basin.

Sincerely,  
  
Ray Stevens  
Board Chair

PDZ/pz

  
Paul Zillig  
General Manager



**PUBLIC WORKS & UTILITIES DEPARTMENT**  
555 South 10th Street Suite 208 Lincoln, NE 68508  
[lincoln.ne.gov](http://lincoln.ne.gov)

August 16, 2018

Mr. Gordon W. Fassett, P.E.  
Director  
Department of Natural Resources  
P.O. Box 94676  
Lincoln, Nebraska 68509-4676

**RE: Written Comments from the City of Lincoln Concerning Water Application  
A-19594 – Platte Republican Diversion Interbasin Transfer Permit**

Dear Mr. Fassett:

Please find attached written comments on behalf of the City of Lincoln concerning application A-19594 – Platte Republican Diversion Interbasin Transfer Permit. The City is commenting under Option 1 of the Department of Natural Resources guidance document "Opportunities for Participation in the Permitting Process".

These comments are being sent on behalf of the City via Lincoln Public Works and Utilities. If you have questions concerning these comments, please contact Donna Garden, Assistant Director of Public Works and Utilities. She can be reached at 402.441.8605 or [dgarden@lincoln.ne.gov](mailto:dgarden@lincoln.ne.gov). Address for the submission of these comments is 555 S. 10<sup>th</sup> Street, Suite 208, Lincoln, Nebraska 68508.

Sincerely,

A handwritten signature in blue ink, appearing to read "Miki Esposito".

Miki Esposito  
Director  
Public Works and Utilities  
City of Lincoln

Attachment

cc: Donna Garden

**The following comments to Application A-19594 are provided on behalf of the City of Lincoln.**

### **Lincoln Water Supply**

As the Department of Natural Resources is keenly aware, the City of Lincoln relies on Platte River flows as the single source of water to recharge its well fields located near Ashland, NE. While this source of water has been reliable and of high quality since Lincoln first developed the wellfield in the 1930s, there have been periods of drought and low river flow that required the City to implement water restrictions at times, most recently in 2002 and 2012. Lincoln remains proactive in its water use and has developed a Water Management Plan to respond to these shortages. The actions imposed as part of the Water Management Plan provide immediate and significant reductions in water use. As a result, Lincoln has not had to request a call on the river under its Permit to Appropriate Natural Flow for Induced Ground Water Recharge A-17312. Additionally, Lincoln has worked to promote water conservation which has resulted in a 32% reduction on per capita water use since the early 1980's. This has kept average annual use for the City of Lincoln almost constant while the City has gained significant population. The City of Lincoln is doing its part in being responsible and ensuring the finite amount of water in the Platte River remains sustainable.

The City of Lincoln is constantly in a state of water supply planning. Considerable funds are invested in water supply master planning with the most recent effort completed in 2014 where seasonal water demands and wellfield capacity were carefully evaluated. This allows the City of Lincoln to effectively plan for differing levels of water supply. This most recent master plan also identifies future water sources independent of the Platte River knowing that supply reliability is key to a growing state capital. These sources include connecting to the Metropolitan Utilities District water system and/or developing another wellfield somewhere near the Missouri River.

### **Application A-19594 Impacts**

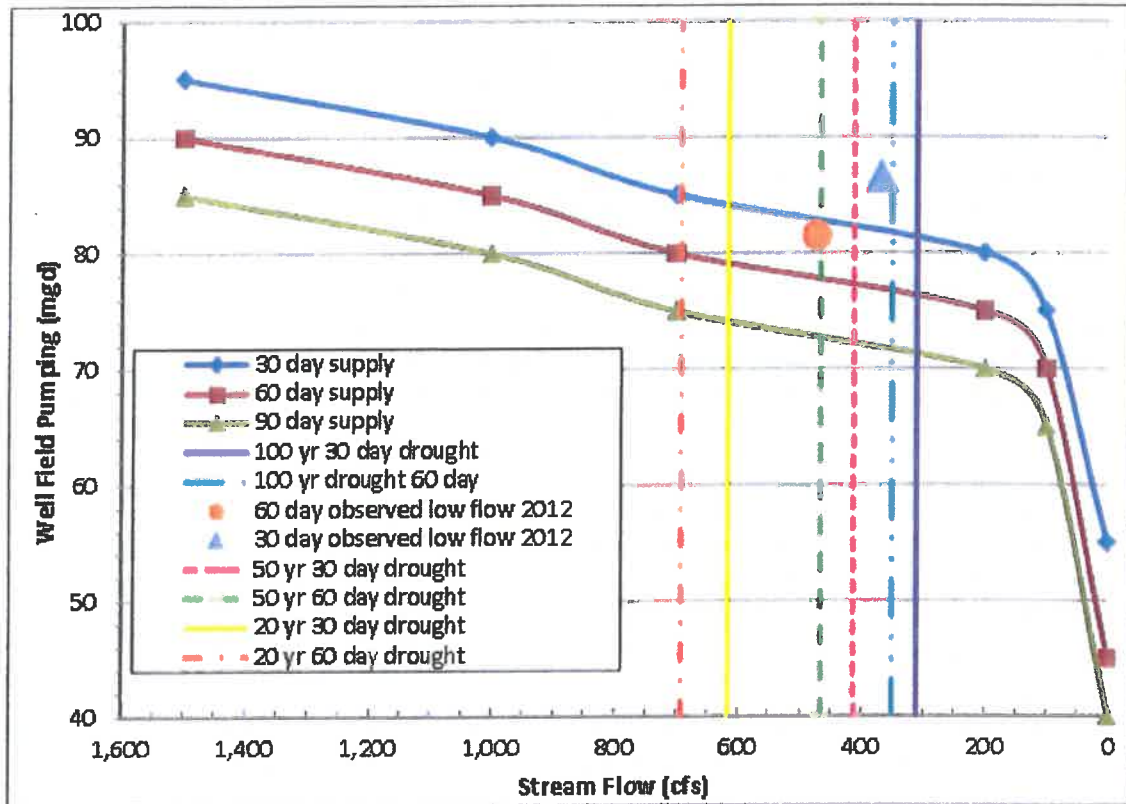
There are several points to make as we reflect on this application. First, this responsible and proactive approach to water conservation and planning for Lincoln's future water supply demonstrates that any water diversions from the Platte River as proposed in Application A-19594 should be viewed with great concern. While the premise of the application is to utilize excess flows, who and how excess flows are determined is not clearly understood. At best, excess flows appear to be based on flows required to meet existing appropriations and instream flow targets with reference to another 1000 cfs for future appropriations. The City of Lincoln does not agree that excess flow is water that would otherwise be wasted or leave the state as suggested in the Application and associated documents. This reference gives the impression the Application may be defining excess flows as climatologically excess flows available during high runoff events. However, this does not appear to be the case and how excess flows are determined appears ambiguous and not well defined.

Secondly, it is also a concern that excess flows could be controlled and created by the applicant in how releases from McConaughy are timed allowing the applicant to essentially provide a regular supply source to accommodate this project. It is unknown what may motivate the Applicant to act in any particular way for the benefit of the Republican basin stakeholders.

Thirdly, lower streamflows from any cause will always be a concern for appropriators in the Platte. Low stream flow past the City of Lincoln wellfields has a direct and detrimental impact on wellfield capacity. The City of Lincoln has developed a robust ground water predication model to assist in water supply planning especially in meeting Lincoln's seasonal (summer) water demands. The results of this model are shown in Figure 3-3 from the 2014 Water Facilities Master Plan. This demonstrates how sensitive capacity is to low streamflows. Wellfield capacity is highly dependent on bank to bank flows for sufficient recharge. Generally bank to bank flows are associated with approximately 1000 cfs which is above the current induced recharge permit allocation of 704 cfs. Again, this clearly demonstrates that any flow diversion is detrimental to recharge for City of Lincoln wells. While the City agrees that diversion of water during climatologically excess flows or flood flows would not be harmful and can likely be classified as water not used, the definition of excess flows in the application is not clearly defined to a degree that the City of Lincoln can be assured the project is not harmful to its water supply and the City's ability to meet water demands now and into the future.

The area of diversion has historically been an area of overappropriation. This is a fact. We now have a proposal to divert flows from this overappropriated area. There is just something intrinsically imprudent with a new diversion from this area. Has the area improved to a point where it can now be adjudged fully appropriated instead of overappropriated? Shouldn't this proposed diversion wait for that milestone to be reached?

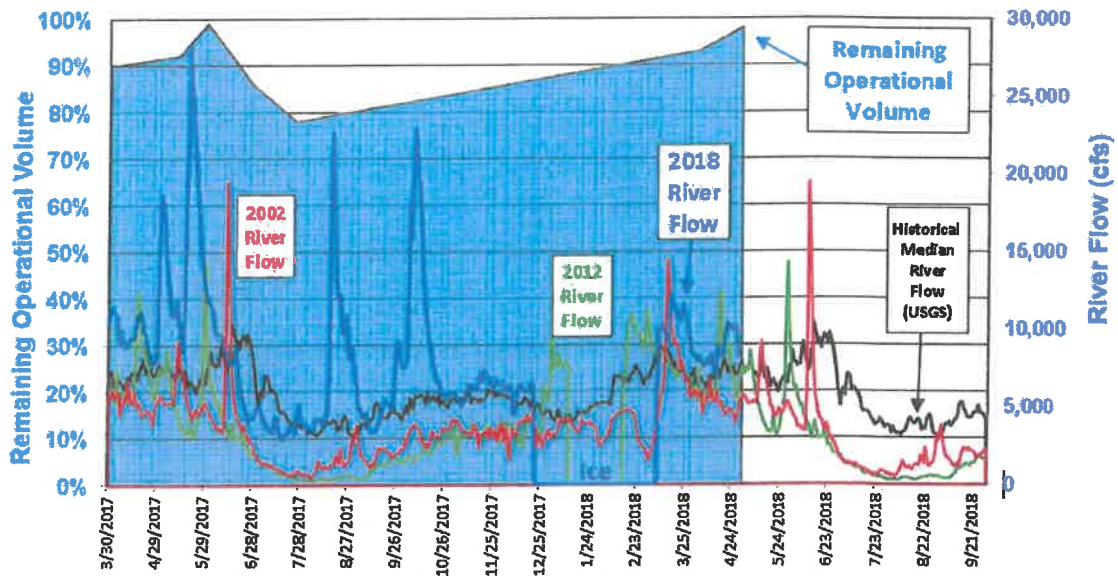
Fourth, in 2016 the City of Lincoln received \$7.6M from the Water Sustainability Fund to better improve water supply during drought and low river conditions. The Drought Resiliency and Flood Protection Project allowed the City to expand the limits of its wellfield to increase capacity during low river conditions when little or no recharge occurs. This project greatly improves Lincoln's ability to provide a sustainable water supply during drought conditions. This project serves as an example of adapting to create a sustainable water supply which is highly dependent on streamflow. This project demonstrates the "value" of water and the expense associated with providing a water supply from a single source of water that is susceptible to shortages caused by low streamflows.



**Figure 3-3 Model-Predicted Well Field Capacity with third HCW and Drought Recurrence Interval Window**

Fifth, the City of Lincoln also actively monitors the Remaining Operational Volume (ROV) of its wellfield. The ROV is a direct measurement of the available wellfield supply. It is critical to note that collection of past ROV data indicates that it takes a significant amount of time for Lincoln’s wellfield to recover back to “full” conditions following the summer pumping seasons. An example of this slow recovery is shown by the figure below. In most cases the wellfield does not fully recover until April or May of the following year. Wellfield recovery is directly related to the amount and width of streamflow. Again, a flow diversion such as proposed in application A-19594 may have impact on Lincoln’s wellfield recharge especially if transfers are made during low river conditions that could occur as a result of excess flows determined solely on the basis of meeting existing appropriations and instream target levels.

### Platte River Wellfield 2017-2018



To the extent that the excess flows diverted to the Republican basin which are the subject of this application diminish the scouring flows that occur in the Platte every year, it will have an impact on the recovery of Lincoln's wellfield. It is well known that the scouring flows of high water events in the Platte both remove the silt sediment that is deposited in the riverbed as well as removing the vegetation that generally occurs in inundated areas of the river channel. The vegetation increases the settling of the sediment and the sediment decreases the ability of water to infiltrate into the aquifer. Without the scouring flows to periodically clean the system out, the transmissivity of the river bed can be dramatically impacted to decrease the efficiency of the wellfield to take full advantage of lower flows. While there are a variety of studies or sources that may address the function of the scouring flows, there is a dearth of information with which to evaluate the exact level of flow needed. Thus, it is very difficult to assess the the potential impact of the loss of the excess flows referenced by this application.

In conclusion, the concern for Lincoln is the element of the unknown. If we knew exactly the conditions that would exist during these periods of excess flows, we would know whether the proposed diversion is detrimental to our needs. As a result, it is our position that the project should wait until the State has more information to make an informed decision.

Miki Esposito, Director  
Public Works and Utilities  
City of Lincoln, Nebraska