

**NEBRASKA WATER SUSTAINABILITY FUND
GRANT AWARD ANNUAL REPORT
FOR APPLICATION NO. 4135
LOWER PLATTE NORTH NRD**

Groundwater Management for Mid-Summer Declines (Project) / Annual Report 2018

PROJECT PROGRESS APRIL 2017 TO APRIL 2018:

The Lower Platte North conducted mid-season drawdown measurements in the Management Areas during the summer of 2017 to help determine the effects of pumping during the irrigation season. (Figure A) The drawdowns reflect the water use results (Figure B) from the irrigation wells in 2017 and how it relates to the pumping of wells. (-6 means 6 inches pumped) The average pumping as shown in Figure B ranged from 3 to 6 inches per acre. This does correlate back on rainfall amounts received within the area during the irrigation season.

The LPNNRD has cost-shared with producers on 185 flow meters for a total of \$140,294 within the two management areas (Platte/Colfax–SQS2 and Butler/Saunders–SQS1). After obtaining permission from the Commission, the LPN expanded the area for cost-share within a 2-mile radius of the SQS boundaries. The purpose of the expansion was to collect additional data from users that might be within the same aquifer. The data collected from the flow meter along with the AEM flights and other data being collected, the NRD will begin to re-evaluate the boundaries of the original area, along with assisting producers in developing best management practices to conserve water. In the expanded area, the LPNNRD has cost-shared with producers on 20 flow meters for a total of \$13,158. This number is a little disappointing, but this area was only voluntary cost-share for the producers.

ANTICIPATED ACTIVITIES FROM NOW UNTIL NEXT ANNUAL REPORT DUE APRIL 1, 2019:

The LPNNRD will be wrapping of the grant around May 1, 2018 as a deadline was given to producers of March 1, 2018 on cost-share invoices. The NRD will continue educating producers on the importance of conservations and develop maps and reports on producer's farm. An example (Figure C) of the water use reports sent to producers showed the amount of water they applied in 2016 and 2017 and what is available for the upcoming 2018 crop year. This report also informed the producers of a couple of educational opportunities.

LIKELIHOOD THAT BENEFITS PROJECTED IN APPLICATION 4135 WILL BE REALIZED:

Based on preliminary results provided by water use reports and cost-share applications, the project is on target for achieving the benefits to the LPNNRD as described in the application. The numbers and figures that the NRD can generate is invaluable. The only benefit not realized is for the producers in the 2-mile radius not taking advantage of the cost-share, so they could realize the value of the flow meter as a management tool.

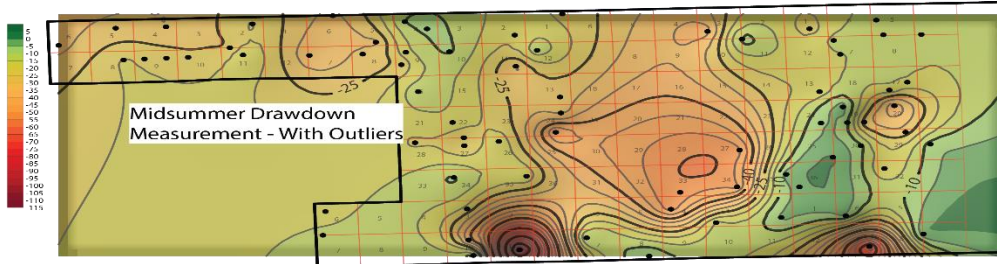


Figure A showing midsummer drawdowns.

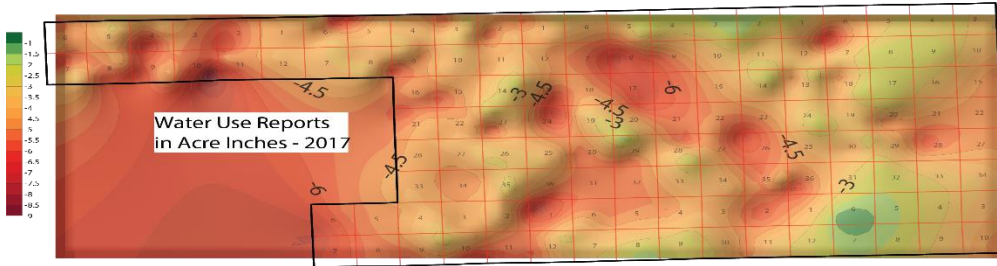


Figure B showing water use in 2017

Figure C

**Platte-Colfax Special Quantity Subarea (SQS #2)
Flow Meter Readings Report**

Landowner, Well, and Acres

Landowner Name:	John Doe
Well Registration Number:	G-123456
Number of Certified Acres:	100
Type of Flow Meter	
Brand Name of Flow Meter:	McCrometer
Serial Number of Flow Meter:	18-XXXXXX
Measurement Units on Meter (Gallons or Acre Inches):	Acre Inches x .01

Water Allocation Used during 2016

Start Reading on Flow Meter:	0
End Reading on Flow Meter:	400.00
Acre Inches Used in 2016:	4

Water Allocation Used during 2017

Start Reading on Flow Meter:	400.00
End Reading on Flow Meter:	800.00
Acre Inches Used in 2017:	4

Water Allocation Remaining for 2018

Allocation in In Acre Inches for 3 Years:	27
Water Pumped in 2016 in Acre Inches:	4
Water Pumped in 2017 in Acre Inches:	4
Water Allocation Remaining for 2018 in Acre Inches:	19
2018 Flow Meter Reading should not exceed:	2700.00

The Lower Platte North NRD has set a rolling allocation of 27 acre inches for a three-year period. Producers can adjust their water use each year depending on the crop planted and weather conditions, but need to remain at or below 27 acre inches by the end of that 3 year period.

This winter, the Lower Platte North NRD will be holding two informational meetings for land owners and or operators in SQS #2. We will be presenting data collected from the Airborne Electromagnetic Survey flown in 2016. These flights were commissioned to 3-dimensionally map out the aquifers in this geologically unique area.

Class Time and Location:

Tuesday January 30th, 2018. 1:00pm @ Columbus Ag Park (2nd Floor)
Thursday March 22nd, 2018. 3:00pm @ Columbus Ag Park (2nd Floor)

Please contact the Lower Platte North NRD with any questions or concerns regarding the information on this report. Office Hours, 8:00am-4:30pm M-F, 402-443-4675.