

---

# Nebraska Department of Natural Resources

## 2020 Annual Report



of 2019 Data for the

Lower Platte River Basin Coalition's  
*Lower Platte River Basin-Wide  
Water Management Plan*

**NEBRASKA**

Good Life. Great Water.

DEPT. OF NATURAL RESOURCES

## Table of Contents

<b>1. INTRODUCTION.....</b>	<b>3</b>
<b>2. MONITORING OF SURFACE WATER AND GROUNDWATER .....</b>	<b>4</b>
A. Streamgages Maintained by NeDNR in the Lower Platte River Basin .....	4
B. Measured Canal Diversions .....	5
C. Surface Water Pump Inspections by NeDNR Field Office .....	6
D. Surface Water Administration .....	6
E. Active Surface Water Permits Previously Issued for Induced Groundwater Recharge .....	7
F. Active Groundwater Permits Previously Issued by NeDNR .....	8
<b>3. NeDNR SURFACE WATER AND GROUNDWATER PERMITTING ACTIVITY .....</b>	<b>10</b>
A. New Surface Water Applications Approved.....	10
B. Cancellation and Transfer of Surface Water Appropriations .....	12
C. Municipal and Industrial Surface Water Permitting Activity .....	18
D. Groundwater Permitting Activity .....	18
<b>4. ESTIMATED STREAM DEPLETIONS FOR NEWLY PERMITTED SURFACE WATER ACRES .....</b>	<b>18</b>
<b>5. OTHER BASIN PLAN IMPLEMENTATION ACTIONS .....</b>	<b>20</b>
A. Data Tracking and Reporting Background and Update.....	21

## Figures

<b>Figure 1.</b> Natural Resources Districts in the Lower Platte River Basin.....	<b>3</b>
---	----------

## Tables

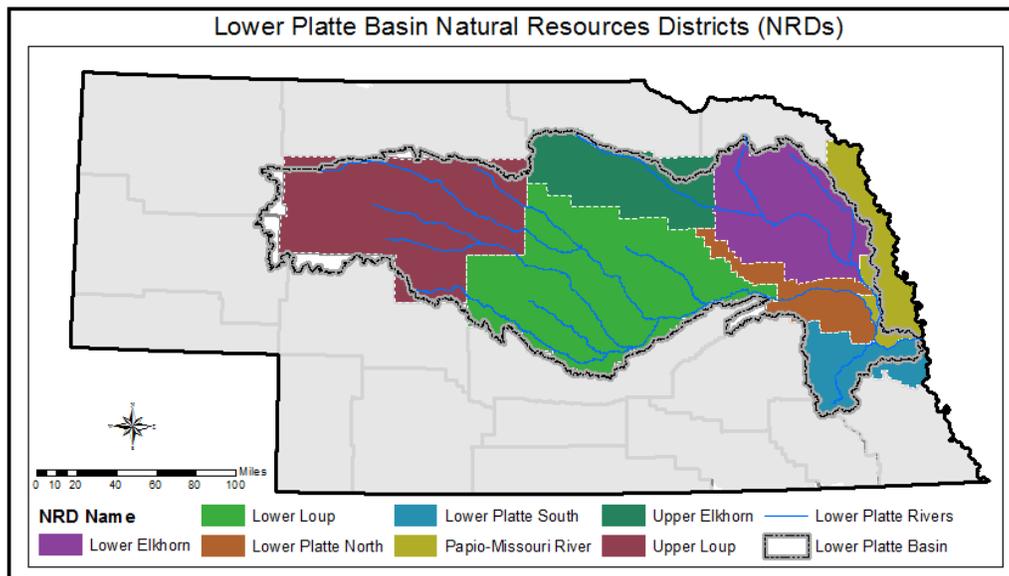
<b>Table 1.</b> Streamgages Maintained by NeDNR within the Basin.....	<b>4</b>
<b>Table 2.</b> Irrigation Canals within the Basin measured by NeDNR .....	<b>5</b>
<b>Table 3.</b> Surface water pump inspections by NeDNR .....	<b>6</b>
<b>Table 4.</b> City of Lincoln and MUD surface water permits for induced groundwater recharge .....	<b>7</b>
<b>Table 5.</b> Municipal Groundwater Transfer Permits for the City of Lincoln and MUD .....	<b>8</b>
<b>Table 6.</b> Previously Issued Groundwater Permits .....	<b>8</b>
<b>Table 7.</b> Surface water applications approved in 2019 within Lower Platte River Basin.....	<b>11</b>
<b>Table 8.</b> New Surface Water Appropriations outside of the Basin.....	<b>11</b>
<b>Table 9.</b> Surface water appropriations canceled in full or canceled in part in 2019 .....	<b>14</b>
<b>Table 10.</b> Appropriations Transferred in 2019 .....	<b>16</b>
<b>Table 11.</b> Twin Loup Reclamation District Filings Acted Upon in 2019 .....	<b>17</b>
<b>Table 12.</b> Summary of Twin Loups Reclamation District Filings .....	<b>16</b>
<b>Table 13.</b> Estimated Stream Depletions by NRD for New Acres Permitted to Use Surface Water .....	<b>19</b>
<b>Table 14.</b> Estimated Stream Accretions by NRD for Previous Depletions Which No Longer Occur .....	<b>20</b>

## 1. INTRODUCTION

In April of 2013, The Nebraska Department of Natural Resources (NeDNR) and seven Natural Resources Districts (NRDs) entered into an Interlocal Cooperative Agreement to form the **Lower Platte River Basin Water Management Plan Coalition** (Coalition). The Nebraska Association of Resource Districts (NARD) serves as the coordinator on behalf of the Coalition. The members of the Coalition are:

- Lower Platte South NRD,
- Lower Platte North NRD,
- Papio-Missouri River NRD,
- Lower Loup NRD,
- Lower Elkhorn NRD,
- Upper Elkhorn NRD, and
- Upper Loup NRD
- NeDNR

The Lower Platte River Basin (Basin) is located in the central and eastern portion of the state (Figure 1). The Coalition recognizes the hydrologic connectivity of groundwater and surface water resources within the Basin, and desires to work together to manage the resources as one. The Coalition jointly developed and adopted the Lower Platte River Basin Water Management Plan (Plan) in early 2018. It is through this Plan that the Coalition will protect and sustain the long-term balance between the water uses and water supplies throughout the areas of the Basin that are within the seven represented NRDs. The Plan requires reporting on an annual basis, which this report serves to fulfill.



**Figure 1.** Natural Resources Districts in the Lower Platte River Basin

## 2. MONITORING OF SURFACE WATER AND GROUNDWATER

### A. Streamgages Maintained by NeDNR in the Lower Platte River Basin

NeDNR maintains 21 streamgages within the Basin in order to measure various parameters of streams. The Plan requires NeDNR to list our maintained streamgages in this report. A listing of streamgages maintained by NeDNR is shown in Table 1. There are additional gages within the Basin that are maintained by the United States Geological Survey (USGS). The streamgage data for active gages maintained by both NeDNR and USGS in the Basin may be accessed at: <https://nednr.nebraska.gov/RealTime/>. All website data are provisional and subject to revision unless otherwise denoted.

**Table 1.** Streamgages maintained by NeDNR within the Basin

Streamgages Maintained by NeDNR in the Lower Platte River Basin		
Station Name	Station Number	River Basin
Middle Loup River at Rockville	6780000	Loup
Mud Creek near Sweetwater	6783500	Loup
Turkey Creek near Dannebrog	6784800	Loup
Calamus River near Harrop	6787000	Loup
Calamus River near Burwell	6787500	Loup
North Loup River at Ord	6788500	Loup
Mira Creek near North Loup	6788988	Loup
Cedar River near Spalding	6791500	Loup
Cedar River near Fullerton	6792000	Loup
Beaver Creek at Loretto	6793500	Loup
Loup River at Columbus	6794500	Loup
Elkhorn River near Atkinson	6796973	Elkhorn
South Fork Elkhorn River near Ewing	6798000	Elkhorn
Elkhorn River at Neligh	6798500	Elkhorn
Elkhorn River near Tilden	6798780	Elkhorn
Willow Creek near Foster	6799080	Elkhorn
Willow Creek near Pierce	232500	Elkhorn
Union Creek at Madison	6799230	Elkhorn
Pebble Creek at Scribner	6799385	Elkhorn
Logan Creek at Pender	6799450	Elkhorn
Elkhorn River near Winslow	6799510	Elkhorn

## B. Measured Canal Diversions

NeDNR measures diversions of 21 canals located within the Basin. The list of canals measured by NeDNR is shown in Table 2. The canal diversion data may be accessed at: <https://nednr.nebraska.gov/RealTime/>. All website data is provisional and subject to revision unless otherwise denoted.

**Table 2.** *Irrigation canals within the Basin measured by NeDNR*

Canals Measured by NeDNR in the Lower Platte River Basin		
Canal Name	Canal Number	River Basin
Calamus Fish Hatchery inlet from Calamus	19800	Loup
Farwell (Sherman Feeder) Canal from Middle Loup River	47000	Loup
Farwell Main Canal from Sherman Reservoir	48000	Loup
Farwell South Canal from Sherman Reservoir	49000	Loup
Fullerton Canal from Davis Creek Reservoir	54700	Loup
Kent Canal from North Loup River	76500	Loup
Loup River Power Canal Return at Columbus	82100	Loup
Inlet Canal to Davis Cr. Res. from Mirdan	88500	Loup
Middle Loup Canal No. 1 from Middle Loup	90000	Loup
Middle Loup Canal No. 1 Pump from Middle	90200	Loup
Middle Loup Canal No. 2 from Middle Loup	91000	Loup
Middle Loup Canal No. 3 from Middle Loup	92000	Loup
Middle Loup Canal No. 4 from Middle Loup	93000	Loup
Middle Loup Canal No. 4 from Sherman Feeder Canal	93200	Loup
Mirdan Canal from Calamus Reservoir	100500	Loup
Taylor-Ord Canal from North Loup River	107000	Loup
Taylor-Ord Canal inlet to Mirdan Canal	107100	Loup
Taylor-Ord Canal outlet from Mirdan Canal	107200	Loup
Burwell-Sumter Canal from North Loup River	108000	Loup
Ord-North Loup Canal from North Loup River	109000	Loup
Sargent Canal from Middle Loup River	130000	Loup

### C. Surface Water Pump Inspections by NeDNR Field Office

The NeDNR field office staff regularly inspect pump sites of permitted surface water diversions as conditions, time and staffing allow. Not all pump sites are inspected every year, and some pump sites may be visited more than one time per year. NeDNR field offices within the Basin are located in Lincoln, Norfolk, and Ord, Nebraska. Pump inspections conducted in 2019 are found in Table 3. As a part of inspections, field staff collect the following data:

- Evidence of pump site
- Pumps that are running
- Crops in fields
- Irrigation methods

**Table 3.** *Surface water pump inspections by NeDNR*

Surface Water Pump Inspections in 2019	
NRD	Number of Inspections
Lower Elkhorn	2
Lower Loup	0
Lower Platte North	80
Lower Platte South	141
Papio-Missouri River	1
Upper Elkhorn	0
Upper Loup	0
<b>Total</b>	<b>224</b>

### D. Surface Water Administration

In the 2019 water year, no surface water administration (enforcement of the prior appropriation doctrine principals of first in time, first in right, in times of shortage) occurred, as surface water supplies were sufficient for all permitted uses in the Basin.

## E. Active Surface Water Permits Previously Issued for Induced Groundwater Recharge

No new induced groundwater recharge surface water permits were issued and no changes to existing permits occurred in 2019. Induced groundwater recharge permits have no reporting requirements as a condition of the permit.

Currently, the two appropriators of induced groundwater recharge permits within the Basin are (1) the City of Lincoln and (2) Metropolitan Utilities District (MUD). Table 4 provides a summary of the induced groundwater recharge permits within the Basin. The associated municipal groundwater transfer permits, although not surface water, are covered here, and summarized in Table 5, because the groundwater permits are associated with the induced groundwater recharge surface water permits.

**Table 4.** City of Lincoln and MUD surface water permits for induced groundwater recharge

Surface Water Permits for Induced Groundwater Recharge						
Permit Holder	Permit Number	Priority Date	Associated GW Municipal Transfer Permit <sup>1</sup>	Number of Wells	Rate in Cubic feet per second (cfs)	Required Reporting
City of Lincoln	A-17312	1/21/1964	A-10367 <sup>2</sup>	31	704 - Summer	No
					200 - All Other Seasons	
		1/1/1970	A-16917 <sup>2</sup>	7	No additional streamflow	No
		1/1/1980		6	No additional streamflow	
		1/1/1990		2	No additional streamflow	
1/1/1993	2	No additional streamflow				
MUD	A-17310	1/1/1970	A-10538 <sup>3</sup>	38	480	No
		1/1/1990		1	20	
	A-17318	10/6/1993	A-17356 <sup>3</sup>	42	160	No

In contrast to the surface water appropriations listed in Table 4, Table 5 provides a summary of the permitted maximum water withdrawals for the City of Lincoln's and MUD's Municipal Groundwater Transfer Permits. The annual reports submitted by City of Lincoln and MUD for these permits are available upon request.

<sup>1</sup> See Table 5 for a summary of these permits.

<sup>2</sup> The City of Lincoln has one induced groundwater recharge surface water permit, A-17312, with two associated municipal groundwater transfer permits (Table 5) for the Ashland wellfield.

<sup>3</sup> MUD has two induced groundwater recharge surface water permits, each with an associated municipal groundwater transfer permit (Table 5), for each of its two wellfields: A-17310 and A-10538 in the south wellfield: A-17318 and A-17356 in the west wellfield.

2020 NeDNR Annual Report of 2019 Data  
Lower Platte River Basin Water Management Plan

**Table 5.** *Municipal groundwater transfer permits held by the City of Lincoln and MUD*

Municipal Groundwater Transfer Permits					
Permit Holder	Permit Number	Priority Date	Maximum Daily Withdrawal	Total Annual Withdrawal	Required Reporting
City of Lincoln	A-10367	6/15/1931	60 Million Gallons	NA	Yes
	A-16917	1/25/1990	50 Million Gallons	NA	Yes
MUD	A-10538	2/15/1965	60 Million Gallons	NA	Yes
	A-17356	3/1/1994	104 Million Gallons	19 Billion Gallons	Yes

## F. Active Groundwater Permits Previously Issued by NeDNR

The data provided by permit holders of groundwater pumped in 2019, for the applicable permits listed in Table 6 are available electronically upon request. The types of groundwater permits shown in Table 6 are authorized as follows:

- “Municipal” is a Municipal Groundwater Transfer Permit pursuant to *Neb. Rev. Stat. §46-613.01, §§46-639 - 46-650*
- “Industrial Transfer” is an Industrial Groundwater Transfer Permit pursuant to *Neb. Rev. Stat. §§46-675 – 46-689*
- “Municipal Notice of Intent” is a notice pursuant to *Neb. Rev. Stat. §46-655.01*

**Table 6.** *Previously issued groundwater permits*

Current Groundwater Permits Previously Issued by NeDNR in the Lower Platte River Basin				
Index Number	Permit Holder	Permit Number	Approval Date	Permit Type
3	Lincoln, City of	A-10367	5/28/1964	Municipal
4	Fremont, City of	A-10411	8/21/1964	Municipal
8	Wakefield, City of	A-10531	3/8/1965	Municipal
9	Plattsmouth, City of	A-10533	3/8/1965	Municipal
11	Metropolitan Utilities District	A-10538	6/9/1965	Municipal
17	Leigh, Village of	A-10578	5/10/1965	Municipal
18	Laurel, City of	A-10579	5/10/1965	Municipal
24	Ashland, City of	A-10589	5/10/1965	Municipal
26	Lincoln, City of	A-10595	5/10/1965	Municipal
27	Columbus, City of	A-10596	5/10/1965	Municipal
32	Fremont, City of	A-12171	4/29/1971	Municipal
33	Fremont, City of	A-13909	2/19/1976	Municipal

2020 NeDNR Annual Report of 2019 Data  
Lower Platte River Basin Water Management Plan

**Table 6 Continued:** *Previously issued groundwater permits*

Current Groundwater Permits Previously Issued by NeDNR in the Lower Platte Basin				
Index Number	Permit Holder	Permit Number	Approval Date	Permit Type
34	Columbus, City of	A-15704	10/17/1980	Municipal
41	Wayne, City of	A-16525	1/16/1987	Municipal
42	Laurel, City of	A-16530	1/16/1987	Municipal
49	Howells, Village of	A-16888	12/8/1989	Municipal
51	Howells, Village of	A-16911	4/6/1990	Municipal
52	Lincoln, City of	A-16917	8/31/1990	Municipal
53	Wayne, City of	A-16927	6/25/1990	Municipal
54	Bruno, Village of	A-16964	7/12/1990	Municipal
57	Howells, Village of	A-17082	9/16/1991	Municipal
58	Valparaiso, Village of	A-17086	9/16/1991	Municipal
63	Valparaiso, Village of	A-17212	9/29/1992	Municipal
71	Columbus, City of	A-17325	12/11/1995	Municipal
72	Pleasant Dale, Village of	A-17351	4/11/1994	Municipal
73	Eagle, Village of	A-17352	10/27/1994	Municipal
74	Metropolitan Utilities District	A-17356	12/10/1998	Municipal
78	St. Paul, City of	A-17426	1/4/1996	Municipal
121	Clarkson, City of	A-17556	4/2/1998	Municipal
158	Humphrey, City of	A-17807	3/7/2001	Municipal
194	Palmer, Village of	A-17949	2/19/2002	Municipal
128	Ceresco, Village of	A-18018	8/27/2002	Municipal
199	Cuming County Rural Water District #1	A-18024	6/13/2005	Municipal
218	Weston, Village of	A-18070	6/13/2005	Municipal
212	Springfield, City of	A-18104	4/14/2006	Municipal
225	Cass County Rural Water District #2	A-18163	5/3/2006	Municipal
109	Tyson Fresh Meats, Inc.	I-4	10/22/1996	Industrial Transfer
110	Nebco, Inc.	I-5	9/27/1996	Industrial Transfer
270	Nebco, Inc.	I-5A	7/31/2006	Industrial Transfer
141	Hormel Foods Corp.	I-6	1/5/1999	Industrial Transfer
423	Coleridge, Village of	MNI-22	1/22/2014	Municipal Notice of Intent
261	Waverly, City of	MT-13	9/12/2007	Municipal
262	Cuming County Rural Water District #1	MT-14	6/7/2006	Municipal
263	Pierce, City of	MT-15	7/12/2007	Municipal
264	Madison, City of	MT-16	1/11/2007	Municipal
268	Papillion, City of	MT-18	11/6/2018	Municipal
284	Louisville, City of	MT-23	9/29/2006	Municipal
332	Wayne, City of	MT-24	7/12/2007	Municipal
351	Palmer, Village of	MT-27	10/5/2007	Municipal
375	Broken Bow, City of	MT-35	11/30/2009	Municipal
391	Waverly, City of	MT-38	2/25/2011	Municipal

### **3. NeDNR SURFACE WATER AND GROUNDWATER PERMITTING ACTIVITY**

#### **A. New Surface Water Applications Approved**

Surface water applications approved from January 1, 2019, to December 31, 2019, for the Lower Platte Basin Coalition NRDs for the area within the Lower Platte Basin are summarized in Table 7. Permit use codes are as follows:

- IR (Irrigation) is a permit to divert water from natural flow for irrigation
- MF (Manufacturing) is a permit to divert water for manufacturing, construction, or industrial uses
- SO (Storage-only) Irrigation from a reservoir on lands not covered by a natural flow appropriation
- ST (Storage) is a permit to store water
- WT (Wetland) is a permit to divert water for a wetland

Table 8 contains new surface water applications that were approved within the seven NRDs in calendar year 2019, but that lie outside of the Lower Platte Basin. While these permits do not count as new uses within the Lower Platte Basin, these permits are included so as to meet the reporting requirements for those NRD IMPs.

2020 NeDNR Annual Report of 2019 Data  
Lower Platte River Basin Water Management Plan

**Table 7.** Surface water applications approved in 2019 within Lower Platte River Basin

Surface Water Applications Approved between January 1, 2019, to December 31, 2019										
NRD	Permit Number	Date Approved	Source	Location of Diversion/Reservoir	Sub-basin	Use	Grant in cfs	Grant in af	Acres	New Acres
Lower Elkhorn	A-19619	2/14/2019	Elkhorn River, Trib. To	35-23-1E	Elkhorn River Norfolk to Waterloo	WT	NA	60.0	NA	NA
	A-19642	6/26/2019	Logan Creek Dredge	20-20-8E	Elkhorn River Norfolk to Waterloo	IR	2.48	NA	173.4	173.4
Lower Loup	A-19477	1/30/2019	Sherman Reservoir	1-15-14W	Middle Loup River	SO	NA	340.2	340.2	340.2
	A-19620	2/14/2019	Davis Creek Reservoir	6-21-16W	North Loup River	SO	NA	377.4	125.8	0.0
	A-19621	2/14/2019	Calamus Reservoir	6-21-16W	North Loup River	SO	NA	1293.6	431.2	431.2
	A-19626	4/22/2019	Mira Creek, North Branch	24-18-14W	North Loup River	IR	3.01	NA	210.5	210.5
	A-19645	8/27/2019	Embankment 1 Reservoir	18-20-13W	Middle Loup North	SO	NA	9.5	164.5	164.5
	A-19646	8/27/2019	Elm Creek, Trib. To	18-20-13W	Middle Loup North	ST	NA	9.5	NA	NA
Papio-Missouri River	A-19671 <sup>4</sup>	8/29/2019	Elkhorn River	18-17-10E	Elkhorn River Norfolk to Waterloo	MF	0.56	10.0	NA	NA

**Table 8.** Surface water applications approved in 2019 outside of the Basin

Surface Water Applications Approved between January 1, 2019, to December 31, 2019 (Outside of the Lower Platte River Basin but Within Coalition NRDs)										
NRD	Permit Number	Date Approved	Source	Location of Diversion or Reservoir(S-T-R)	Sub-basin	Use	Grant in cfs	Grant in af	Acres	
Papio-Missouri River	A-19586	2/14/2019	Papillion Creek, West, Trib. To	28-14-12E	Missouri River	ST	NA	71.2	NA	
Papio-Missouri River	A-19622	7/31/2019	Pigeon Creek	8-27-7E	Missouri River	ST	NA	297.5	NA	
Papio-Missouri River	A-19670 <sup>5</sup>	9/4/2019	Cameron Ditch	7-18-12E	Missouri River	MF	1.34	NA	NA	

<sup>4</sup> A-19671 is a temporary permit to divert water needed for road construction.

<sup>5</sup> A-19670 is a temporary permit to divert water needed for road construction.

## B. Cancellations and Transfers of Surface Water Appropriations

Table 9 shows the Basin surface water appropriations that were cancelled in full, or cancelled in part in 2019. NeDNR must follow statutory requirements when proceeding with any cancellation, in full or in part, of a surface water appropriation. The basis for cancellations listed in Table 9 are found below. Table 10 summarizes the appropriations that were issued an “Expedited Transfer”<sup>6</sup> and Tables 11 and 12 summarize the “Provisional Relinquishments” and “Reassignments” filed by the Twin Loups Reclamation District. No other types of transfers were acted upon in 2019.

Permit use codes are as follows:

- IR (Irrigation) is a permit to divert water from natural flow for irrigation
- DO (Domestic Use) is a permit to divert water for personal or livestock use
- MF (Manufacturing) is a permit to divert water for manufacturing, construction, or industrial uses

NeDNR’s basis for cancellation pertains to one of the following authorities:

- BUC (Beneficial Use Cancellation): The field offices conduct an investigation for all new appropriations after the time period given in the approval order to perfect the water right. If for any reason the appropriation had not been perfected, and water has not been put to beneficial use as stated in the approval order, it may be cancelled in full or in part.
  - Authority upon which the action was based: *Neb. Rev. Stat. §46-229.02(7)* “A water appropriation that has not been perfected pursuant to the terms of the permit may be canceled by the department without complying with sections 46-229.01 to 46-229.04 if the owner of such appropriation fails to comply with any of the conditions of approval in the permit, except that this subsection does not apply to appropriations to which subsection (2) of section 46-237 applies.”
- PDNU (Preliminary Determination of Non-use): After a field investigation found the appropriation had not been used in the last five years, and the owner did not successfully contest the preliminary determination of nonuse.
  - Authority upon which the action was based: *Neb. Rev. Stat. §§ 46-229.02(1) through 46-229.02(6)* which state that if the NeDNR makes a preliminary determination that an appropriation has not been used for more than five consecutive years, and the owner of said appropriation does not successfully contest the determination, then NeDNR may cancel said appropriation in whole or in part.

---

<sup>6</sup> According to *Neb. Rev. Stat. §46-291(1)* “*Expedited Transfers*” are restricted to the following but not limited to: appropriations that are for irrigation; no increase in the number of acres; location of use may only change to adjacent lands; and the point of diversion may not change significantly. No other types of transfers were acted upon in 2019

2020 NeDNR Annual Report of 2019 Data  
Lower Platte River Basin Water Management Plan

- REL (Relinquishment): Appropriator filed a voluntary relinquishment of water appropriation.
  - Authority upon which the action was based: Department of Natural Resources *Rules for Surface Water, Neb. Admin. Code. Title 457, Chapter 3*, which specifies that any appropriation, or part of any appropriation, may be voluntarily relinquished.
- Temporary permits: Temporary permits may not be granted for a term of more than one year. These permits expire one year from the order date and are cancelled without further action by the Department as of that date.

2020 NeDNR Annual Report of 2019 Data  
Lower Platte River Basin Water Management Plan

**Table 9.** Surface water appropriations cancelled in full or cancelled in part in 2019

Surface Water Appropriations Cancelled in Full or Cancelled in Part from January 1, 2019, to December 31, 2019												
NRD	Appropriation Number	Cancelled Date	Source	NeDNR Action	Location of Diversion (S-T-R)	Use	Begin Acres	Cancelled Acres	Cancelled Grant in cfs	Cancelled Grant in af	Estimated Date of Last Use	Basis for NeDNR Action
Lower Elkhorn	A-13678A	1/9/2019	Bell Creek	Cancelled in Full	34-22-9E	IR	148.0	148.0	2.11	NA	1979	REL-7214
	A-13678B	1/9/2019	Bell Creek	Cancelled in Full	34-22-9E	IR	38.0	38.0	0.54	NA	1979	REL-7211
	A-9963	1/30/2019	Taylor Creek	Cancelled in Full	22-22-2W	IR	147.2	147.2	2.10	NA	1978	REL-7215, REL-7216
	A-16085	5/21/2019	Logan Creek	Cancelled in Part	20-20-8W	IR	60.21	0.01	0.00	NA	1991	REL-7387
Lower Loup	A-8892B	7/31/2019	Mud (Beaver) Creek	Cancelled in Part	24-14-7W	IR	98.7	76.3	1.09	NA	NA <sup>7</sup>	REL-7434
	A-11661	1/30/2019	Loup River, Middle	Cancelled in Full	24-15-10W	IR	277.5	277.5	3.96	NA	1983	REL-7207
	A-3912A	5/22/2019	Mud (Beaver) Creek	Cancelled in Full	34-15-17W	IR	101.7	101.7	0.89	NA	2005	REL-7364
	A-13352A	5/22/2019	Mud (Beaver) Creek	Cancelled in Full	34-15-17W	IR	73.7	73.7	1.05	NA	2009	REL-7365
	A-1207	2/15/2019	Dane Creek	Cancelled in Part	20-19-14W	DO	2.0	1.2	0.01	NA	2003	PDNU-7193
	A-14239 <sup>8</sup>	6/24/2019	Spring Creek	Cancelled in Part	19-16-9W	IR	39.6	6.4	0.09	NA	1997	REL-7385
	A-14239R <sup>8</sup>	6/24/2019	Spring Creek	Cancelled in Part	19-16-9W	IR	30.1	22.1	0.32	NA	1997	REL-7384
	D-210	11/20/2019	Victoria Creek	Cancelled in Full	1-19-21W	IR	50.0	50.0	0.71	NA	2002 <sup>9</sup>	PDNU-7628
	A-1945	11/20/2019	Victoria Creek	Cancelled in Full	6-19-20W	IR	69.5	69.5	0.84	NA	Before 1999 <sup>10</sup>	PDNU-7631
	A-2023	11/20/2019	Victoria Creek	Cancelled in Full	6-19-20W	IR	10.0	10.0	0.14	NA	Before 1999 <sup>10</sup>	PDNU-7632
A-1845B	11/20/2019	Victoria Creek	Cancelled in Full	6-19-20W	IR	32.0	32.0	0.46	NA	Before 1999 <sup>10</sup>	PDNU-7630	

<sup>7</sup> Estimated date of last use of NA = Records on file in the Department do not indicate either use or nonuse.

<sup>8</sup> The remaining acres and grant associated with appropriation A-14239R were merged into A-14239; resulting in one remaining appropriation (A-14239).

<sup>9</sup> Estimated date of last use was based upon converting to groundwater and installation of a center pivot system in February 2003.

<sup>10</sup> A-1945, A-2023, A-1845B, and D-213B, estimated dates as owners said that they did not irrigate after 1999.

2020 NeDNR Annual Report of 2019 Data  
Lower Platte River Basin Water Management Plan

**Table 10 Continued.** Surface water appropriations cancelled in full or cancelled in part in 2019

Surface Water Appropriations Cancelled in Full or Cancelled in Part from January 1, 2019, to December 31, 2019												
NRD	Appropriation Number	Cancelled Date	Source	NeDNR Action	Location of Diversion	Use	Begin Acres	Cancelled Acres	Cancelled Grant in cfs	Cancelled Grant in af	Estimated Date of Last Use	Basis for NeDNR Action
Lower Loup	D-213B	11/20/2019	Victoria Creek	Cancelled in Full	6-16-20W	IR	100.0	100.0	1.43	NA	Before 1999 <sup>10</sup>	PDNU-7629
Lower Platte North	A-10862	1/9/2019	Dunlap Creek, Trib. To	Cancelled in Full	3-14-5E	IR	35.5	35.5	0.51	NA	Not Used	REL-7209
	A-17997	10/9/2019	Wahoo Creek	Cancelled in Full	2-13-8E	IR	197.0	197.0	2.81	NA	NA	REL-7622
	A-17998	10/9/2019	Silver Creek	Cancelled in Full	1-13-8E	IR	67.0	67.0	0.96	NA	2004	REL-7621
	A-18124	10/9/2019	Wahoo Creek	Cancelled in Full	3-13-8E	IR	71.0	71.0	1.01	NA	2007	REL-7623
Lower Platte South	A-11078	2/27/2019	Elk Creek	Cancelled in Part	18-11-5E	IR	14.4	2.0	0.03	NA	NA	REL-6550
	A-19598	6/7/2019	Dee Creek	Cancelled in Full	21-11-9E	MF	NA	NA	1.0	10	2018	Temporary Permit
Upper Loup	A-18548	10/9/2019	Loup River, North	Cancelled in Full	9-23-23W	IR	128.4	128.4	1.83	NA	Not Used	BUC-7615
	A-19329	10/9/2019	Loup River, Middle	Cancelled in Full	9-23-28W	IR	4.0	4.0	0.06	NA	Not Used	BUC-7599

2020 NeDNR Annual Report of 2019 Data  
Lower Platte River Basin Water Management Plan

**Table 11. Appropriations transferred in 2019**

Surface Water Appropriations Approved for an Expedited Transfer <sup>11</sup> from January 1, 2019, to December 31, 2019									
NRD	Permit Number	Approval Date	Source	Use	S-T-R of Diversion	Acres Transferred	Grant in cfs Transferred	Increase in Acres?	Transfer Number
Lower Elkhorn	A-16085	5/21/2019	Logan Creek	IR	20-20-8E	60.21	0.86	No	EXT-7366
Lower Loup	A-3702	6/24/2019	Spring Creek	IR	30-16-9W	24.4 <sup>12</sup>	0.18	No	EXT-7380
	A-5661	6/24/2019	Spring Creek	IR	19-16-9W	36.5 <sup>13</sup>	0.27	No	EXT-7381
	A-13034	6/24/2019	Oak Creek	IR	15-15-13W	34.0	0.49	No	EXT-7433
	A-15744	6/24/2019	Oak Creek	IR	15-15-13W	67.0	0.96	No	EXT-7431
	A-14239 <sup>14</sup>	6/24/2019	Spring Creek	IR	19-16-9W	33.2	0.48	No	EXT-7382
	A-14239R <sup>14</sup>	6/24/2019	Spring Creek	IR	19-16-9W	8.0	0.11	No	EXT-7383
	A-8892B	7/31/2019	Mud (Beaver) Creek	IR	24-14-17W	22.4	0.32	No	EXT-7430
	A-10608B	11/4/2019	Loup River	IR	6-16-4W	73.0 <sup>15</sup>	0.44	No	EXT-7608
	A-14706B	11/4/2019	Loup River	IR	6-16-4W	73.0 <sup>16</sup>	0.32	No	EXT-7607
A-11408R	11/21/2019	Dane Creek	IR	2-18-15W	69.0	0.99	No	EXT-7525	
Lower Platte South	A-12414	8/27/2019	Oak Creek, North	IR	9-13-5E	134.5	1.92	No	EXT-7537

<sup>11</sup> According to *Neb. Rev. Stat. §46-291(1)* "Expedited Transfers" are restricted to the following but not limited to: appropriations that are for irrigation; no increase in the number of acres; location of use may only change to adjacent lands; and the point of diversion may not change significantly. No other types of transfers were acted upon in 2019.

<sup>12</sup> A-3702 prior to the transfer allowed a rate of diversion for each acre irrigated that was less than the maximum allowed by law (1/70), at one cfs for every 135 acres irrigated, or 1/135. Application EXT-7380 requested to reduce the number of acres irrigated from 24.4 to 12.6 without changing the grant, therefore changing the rate of diversion to one cfs for every 70 acres irrigated (1/70).

<sup>13</sup> A-5661 prior to the transfer allowed a rate of diversion for each acre irrigated that was less than the maximum allowed by law (1/70), at one cfs for every 135 acres irrigated, or 1/135. Application EXT-7381 requested to reduce the number of acres irrigated from 36.5 to 18.9 without changing the grant, therefore changing the rate of diversion to one cfs for every 70 acres irrigated (1/70).

<sup>14</sup> The acres and grant associated with appropriation A-14239R were merged into A-14239; resulting in one remaining appropriation (A-14239).

<sup>15</sup> A-10608B prior to the transfer allowed a rate of diversion for each acre irrigated that was less than the maximum allowed by law (1/70), at one cfs for every 166 acres irrigated, or 1/166. Application EXT-7608 requested to reduce the number of acres irrigated from 73.0 to 55.0 without changing the grant, therefore changing the rate of diversion to one cfs for every 125 acres irrigated (1/125).

<sup>16</sup> A-14706B prior to the transfer allowed a rate of diversion for each acre irrigated that was less than the maximum allowed by law (1/70), at one cfs for every 230 acres irrigated, or 1/230. Application EXT-7607 requested to reduce the number of acres irrigated from 73.0 to 67.4 without changing the grant, therefore changing the rate of diversion to one cfs for every 210 acres irrigated (1/210).

2020 NeDNR Annual Report of 2019 Data  
Lower Platte River Basin Water Management Plan

**Table 121.** Filings by Twin Loup Reclamation District in 2019

Provisional Relinquishments and Reassignments <sup>17</sup> Filed by Twin Loups Reclamation District in NeDNR in 2019							
Appropriation Number	Source	Provisional Relinquishment	Acres Provisionally Relinquished	Grant Provisionally Relinquished (cfs)	Reassignment	Acres Reassigned	Grant Reassigned
A-9642	Calamus River	PREL-7235 & PREL-7550	134.20	1.92	REA-7242	51.8	0.74
A-4628R	Calamus River	NA	NA	NA	REA-7244 <sup>18</sup>	13.5	0.10
A-10234R	Calamus River	NA	NA	NA	REA-7243 <sup>18</sup>	13.5	0.09
A-15088	Loup River, North	PREL-7234 & PREL-7549	225.4	3.22	REA-7241	142.9	2.04
A-15089	Calamus River	PREL-7233	91.6	1.31	REA-7240	91.6	1.31
A-17105	Davis Creek Reservoir	PREL-7232	11.6	NA	REA-7239	11.6	NA
A-17602	Calamus Reservoir	PREL-7230, 7231 & 7548	156.7	NA	REA-7238	117.8	NA
A-18290	Calamus Reservoir	PREL-7229 & PREL-7547	67.6	NA	REA-7237	25.1	NA
A-18291	Davis Creek Reservoir	PREL-7228	10.8	NA	REA-7236	10.8	NA

**Table 12.** Summary of Twin Loup Reclamation District's Filings listed in Table 11

Summary of Provisional Relinquishments and Reassignments filed by Twin Loups Reclamation District by Source				
Source	Acres Provisionally Relinquished	Grant Provisionally Relinquished (cfs)	Acres Reassigned	Grant Reassigned
Calamus River	225.8	3.23	170.4	2.24
Loup River, North	225.4	3.22	142.9	2.04
Davis Creek Reservoir	22.4	NA	22.4	NA
Calamus Reservoir	224.3	NA	142.9	NA

<sup>17</sup> When an appropriation is held in the name of an irrigation district, a reclamation district, a public power and irrigation district, a mutual irrigation company or canal company, or the United States Bureau of Reclamation, such appropriator has the latitude provided by *Neb. Rev. Stat. § 46-229.04 (5)*; within five years after an order of cancellation issued by the department following the filing of a voluntary relinquishment of the water appropriation; to assign the right to use that portion of the appropriation to other land within the district or the area served by the company. The department shall be notified of any such assignment within thirty days after such assignment. Such appropriators are bound by all terms and conditions set forth in the appropriation, and in no way does this relinquishment/reassignment allow any increase in the number of acres irrigated by surface water.

<sup>18</sup> Prior to the Orders acted upon in 2019, appropriations A-4628R and A-10234R had available acres and grant yet to be reassigned, resulting from an Order dated October 2, 2018.

## C. Municipal and Industrial Surface Water Permitting Activity

In the reporting period, NeDNR had the following surface water permitting activity within the Basin for the following uses:

- Induced Groundwater Recharge Permits – No cancellations or new permits issued.
- Manufacturing Permits – One new manufacturing permit was approved in 2019 (Table 7) and one manufacturing permit was cancelled in 2019 (Table 9). Both of these manufacturing permits were temporary (one year) and granted to divert water for road construction.
- Municipal Permits – No cancellations or new permits issued.

## D. Groundwater Permitting Activity

The following is a listing of all the types of groundwater permits authorized by statute to be issued by NeDNR. In 2019, NeDNR had no groundwater permitting activity within the Basin for the following uses:

- Application to Drill Without Regard to Spacing –No cancellations or new permits issued
- Industrial Groundwater Transfers –No cancellations or new permits issued
- Industrial Transfer Notice –No cancellations or new permits issued
- Municipal Groundwater Transfers –No cancellations or new permits issued
- Municipal Notice of Intent –No cancellations or new permits issued
- Permit to Violate Well Spacing –No cancellations or new permits issued
- Permit to Transfer to Adjoining State –No cancellations or new permits issued

## 4. ESTIMATED STREAM DEPLETIONS FOR NEWLY PERMITTED SURFACE WATER ACRES

The Plan provides an overview of the agreed-upon methodology to calculate stream depletions for newly permitted irrigated acres. In line with this methodology, NeDNR applied the Net Corn Crop Irrigation Requirement to estimate stream depletions for newly permitted surface water acres (see Table 7 for a listing of permits). The net stream depletion estimates by NRD are shown in Table 13. The permit use codes shown in Table 13 are defined as follows:

- IR (Irrigation) is a permit to divert water from natural flow for irrigation
- MF (Manufacturing) is a permit to divert water for manufacturing, construction, or industrial uses
- SO (Storage-only) Irrigation from a reservoir on lands not covered by a natural flow appropriation
- ST (Storage) is a permit to store water,
- WT (Wetland) is a permit to divert water for a wetland

There are also estimated stream accretions resulting from certain cancelled permits in 2019. These are listed in Table 14 by NRD. For ease of tracking Basin accounting, all new depletions and accretions that have been reported since the first annual Basin-Wide report are shown in Table 15 along with a net total of depletions.

2020 NeDNR Annual Report of 2019 Data  
Lower Platte River Basin Water Management Plan

**Table 13.** Estimated stream depletion by NRD for newly permitted surface water acres

Estimated Stream Depletion by NRD for New Acres Permitted to Use Surface Water January 1, 2019, through December 31, 2019								
NRD	Permit Number	Use	Sub-basin	Net Irrigation Requirement	Newly Permitted Acres	Annual Consumptive use in af	Peak Season Stream Depletion in af	Non-Peak Season Stream depletion in af
Lower Elkhorn	A-19619 <sup>19</sup>	WT	Elkhorn River Norfolk to Waterloo	NA	NA	NA	0	60
	A-19642	IR	Elkhorn River Norfolk to Waterloo	4.85	173.4	4.85 * 173.4 = 840.99 ac-in. 840.99/12 = 70.08 ac-ft.	70	0
Lower Loup	A-19477 <sup>20</sup>	SO <sub>21</sub>	Middle Loup River	7.36	340.2	7.36 * 340.2 = 2503.87 ac-in. 2503.87/12 = 208.66 ac-ft.	0	209
	A-19620	SO	North Loup River	7.28	128.5	7.28 * 128.5 = 935.48 ac-in. 935.48/12 = 77.96 ac-ft.	0	78
	A-19621	SO	North Loup River	9.5	431.2	9.50 * 431.2 = 4096.40 ac-in. 4096.40/12 = 341.37 ac-ft.	0	341
	A-19626	IR	Loup River, North	7.42	210.5	7.42 * 210.5 = 1561.91 ac-in. 1561.91/12 = 130.16 ac-ft.	130	0
	A-19645 <sup>22</sup>	SO	Middle Loup North	7.5	164.5	9.5	0	9.5
	A-19646 <sup>23</sup>	ST	Middle Loup North	NA	NA	NA	0	0
Papio-Missouri River	A-19671 <sup>24</sup>	MF	Elkhorn River Norfolk to Waterloo	NA	NA	NA	10	0
<b>Total</b>							<b>210</b>	<b>697.5</b>

<sup>19</sup> A-19619 is a permit to store water to create a wetland, with storage occurring in the non-peak season.

<sup>20</sup> Depletions for appropriations A-19477, A-19620 and A-19621 use the NIR, consistent with the agreed upon methodology from the plan, as this is reflective of the consumptive use of the use, rather than the volume granted by the appropriation.

<sup>21</sup> Storage in reservoirs occurs during the non-peak season, therefore, storage use is considered a non-peak depletion.

<sup>22</sup> The order of approval for A-19645 limits use to a volume of 9.5 af per year, which is more limiting to the consumptive use of the acres than using the NIR calculation.

<sup>23</sup> The consumptive use of 9.5 af for storage appropriation A-19646 is represented in the storage-use appropriation, A-19645.

<sup>24</sup> A-19671 is a temporary permit to divert water needed for road construction.

2020 NeDNR Annual Report of 2019 Data  
Lower Platte River Basin Water Management Plan

**Table 14.** *Estimated accretions due to miscellaneous actions*

Estimated Stream Accretions by NRD for Previous Depletions Which No Longer Occur									
NRD	Number of Permits	Purpose of Use	Sub-basin	Acres	First Year Depletion Taken	Final Year Depletion Taken	Original Depletion	Resulting Peak Season Stream Accretion in af	Resulting Non-Peak Season Stream Accretion in af
Upper Loup	2	IR <sup>25</sup>	Middle Loup River	134.1	2017	2018	65 af	65.0	0
Lower Platte South	1 (A-19598)	MF <sup>26</sup>	Lower Platte River North Bend to Louisville	0	2018	2018	10 af	10.0	0
<b>Total</b>								<b>75.0</b>	<b>0</b>

**Table 15.** *Total estimated stream depletions and accretions since 2016*

Estimated Stream Depletions and Accretions Since 2016										
NRD	2016-2017		2018		2019				Net Total Depletions	
	Depletions		Depletions		Accretions		Depletions			
	Peak	Non-Peak	Peak	Non-Peak	Peak	Non-Peak	Peak	Non-Peak	Peak	Non-Peak
Lower Elkhorn	117	NA <sup>27</sup>	97	0	0	0	70	60	284	60
Lower Loup	0	NA	305	0	0	0	130	637.5	435	637.5
Lower Platte North	0	NA	0	0	0	0	0	0	0	0
Lower Platte South	65	NA	10	0	10	0	0	0	65	0
Papio-Missouri River	67	NA	0.3	0	0	0	10	0	77.3	0
Upper Elkhorn	0	NA	0	0	0	0	0	0	0	0
Upper Loup	118	NA	345.32	89.41	65	0	0	0	398.32	89.41
<b>Total Basin-Wide</b>	<b>367</b>	<b>NA</b>	<b>757.62</b>	<b>89.41</b>	<b>75</b>	<b>0</b>	<b>210</b>	<b>697.5</b>	<b>1,259.62</b>	<b>786.91</b>

<sup>25</sup> These two irrigation permits were granted in 2016, which were listed on the first annual report. Since then, the NeDNR field office has investigated for beneficial use and found none, therefore, no depletions occurred as neither irrigation project occurred.

<sup>26</sup> A temporary permit for road construction is valid for only one year. Therefore, depletions no longer occur under this appropriation.

<sup>27</sup> Non-Peak season depletions were not calculated for the 2016-2017 report for any of the new surface water uses in any NRD and have not been evaluated at this point in time

## 5. OTHER BASIN PLAN IMPLEMENTATION ACTIONS

### A. Ongoing Efforts to Complete the 5-year Comprehensive Review

#### *Annual Reporting Database*

The Coalition took action in 2018 and 2019 to implement Action item A of Objective 2 under Goal 1.<sup>28</sup> of the Basin Plan. The Coalition signed a contract with HDR, Inc. to create a database tool for annual reporting NeDNR signed a separate contract to share costs on this project through USGS grant, as the ongoing development of the database tool focuses on two primary functions:

- (1) A tool for members of the Coalition to report and store data on new uses reported annually
- (2) A tool that NeDNR can use statewide for collecting, storing, and reporting water use types not related to irrigated agriculture, that are part of the USGS Water Census.

The reason for development of a single database tool with the flexibility and capability to meet both functions is that many of the elements related to the development of the database tool will overlap. While one purpose for this database is to provide for the reporting of new uses, a second purpose is to be a standard source of data for the development of new modeling and analyses of the balance of water uses and water supplies, which will be used to assist the Coalition members in determining allowable depletions in future plan increments. The creation of an annual reporting database with standard formatting and content will improve the efficiency of including this data in the 5-year comprehensive review.

#### *Lower Platte Missouri Tributary Model*

The NeDNR completed the Lower Platte Missouri Tributaries (LPMT) model<sup>29</sup> in December of 2018. The LPMT model covers the northern and central portion of eastern Nebraska, an area that previously had no regional model.

The model uses the most up-to-date modeling techniques to provide the Department a scientific basis on which to make informed decisions on the aquifer-stream interaction for the rivers in the area including the Lower Platte River, and Elkhorn River.

The LPMT model is currently in use by the Department to analyze the hydrologic connectivity between the streams and aquifers in the region. The Department is in the process of adding the LPMT model to the Department's SUSTAIN graphical user interface, which will aid our partners in their water planning decisions. This modeling tool's purpose is to replace the current stream depletion methodology using the CSD mapping of transmissivity and specific yield along with the Jenkins calculation of stream depletion factors.

---

<sup>28</sup> Goal 1: Develop and maintain a water supply and use inventory based on the best available data and analysis. Objective 2: Monitor current and future water demands in the Basin; Action Item A: Develop a standard data collection and reporting system for all NRDs in the Lower Platte River Basin for documenting water uses in the Basin.

<sup>29</sup> Goal 1: Develop and maintain a water supply and use inventory based on the best available data and analysis. Objective 1.1: Develop and maintain a comprehensive inventory of the location and source of the Basin's current and future water supplies, water uses and outflows

### *Lower Elkhorn NRD Modeling & AEM Investigations*

The LENRD and the NeDNR have completed a contract with JEO Consulting Group (JEO) to develop a pilot-scale project<sup>30</sup> for the LENRD. This project was designed to test incorporating airborne electromagnetic survey (AEM) data into a sub-regional flow model at a pilot scale to inform efficiently processing the AEM data into a flow model to cover the entire NRD.

In this project, the partners worked to overcome discrepancies between the AEM and geologic data that became obvious during the establishment of the hydrogeologic framework for the pilot-scale model. The consultants customized an approach that combines the AEM and geologic data to provide a solution that allowed them to move the project forward.

JEO calibrated the model to observed groundwater levels and stream baseflows in different parts of the model area. They also provided a geospatial assessment (performed a geospatial analysis to understand the differences between the framework created from the AEM data and geologic framework from geologic logs; this was delivered in a GIS Geodatabase format).

Completion of this pilot study will allow LENRD and NeDNR to better understand how AEM data can most effectively be utilized throughout the remainder of the NRD in a sub-regional model. The consultant's work has yielded invaluable lessons working with both the geologic logs and the AEM data.

The process will enable the LENRD and NeDNR to clearly understand the most effective ways to maximize the investment that has been made into AEM data. At the time of this report, work has begun on developing a district-wide groundwater model incorporating AEM data. The hydrogeologic framework of this model is nearly complete.

### *Lower Platte North NRD Modeling & AEM Investigations*

Jacqueline Polashek, a UNL School of Natural Resources graduate student, completed a project for which groundwater levels were tracked at selected well sites corresponding geographically to AEM flight lines within the LPNNRD's SQS2 area in Platte and Colfax Counties.<sup>31</sup>

Data collected through this monitoring network will help staff from NeDNR, LPNNRD, and UNL evaluate how coupling hydrostratigraphic modeling methods and LPNNRD hydrographs can improve modeling efforts.

UNL and NeDNR have created an assistantship for another School of Natural Resources graduate student to continue integrating AEM data into future hydrogeologic interpretations. The student will investigate the impact of refining groundwater models using AEM data to add more detail to the geologic framework of a model. The results of this work will help NeDNR and the NRDs decide how best to use AEM data in the modeling process and what level of detail is appropriate for the groundwater models.

---

<sup>30</sup> Goal 1: Develop and maintain a water supply and use inventory based on the best available data and analysis.  
Objective 1.1: Develop and maintain a comprehensive inventory of the location and source of the Basin's current and future water supplies, water uses and outflows.

<sup>31</sup> Goal 1: Develop and maintain a water supply and use inventory based on the best available data and analysis.  
Objective 1.1: Develop and maintain a comprehensive inventory of the location and source of the Basin's current and future water supplies, water uses and outflows.

The modeling data obtained from this study will also assist the LPNNRD staff and board in considering how to best address midsummer groundwater declines in confined aquifers. More information on these efforts can be found in LPNNRD's 2020 annual report for the Lower Platte River Basin Water Management Plan.

The purpose of both the LENRD and LPNNRD modeling efforts is to improve upon the geologic representation of data within the Lower Platte Missouri Tributaries model, so that this product could be used for the upcoming 5-year comprehensive plan review. The current anticipated timeline for these projects would not allow sufficient time for incorporation of this data prior to the December 2021 plan deadline.

## B. Lower Platte River Consortium Background and Update

Beginning in 2016, the Lower Platte River Consortium (made up of the Lower Platte Basin NRDs, Metropolitan Utilities District, Lincoln Water System, and Nebraska Department of Natural Resources) embarked on a collaborative effort to develop a drought contingency plan<sup>32</sup> for the Lower Platte River Basin in Nebraska.

The focus of this first increment of the Drought Plan is on augmenting surface water supplies in the Lower Platte River near Ashland. It is believed that in addressing the municipal and industrial water supply shortages in the Lower Platte River, ancillary benefits to the remaining sectors would exist including: irrigation, power, environmental, and recreational.

There are a wide-range of stakeholder interests in the Lower Platte River Basin. The Consortium solicited stakeholder input throughout the planning effort. Two stakeholder workshops and two public open houses were held, and written comments were accepted via comment forms and a project email posted on the project website open to the public.

A draft plan was sent for review by the United States Bureau of Reclamation (BOR) in early 2019, comments were received and addressed and a final plan was accepted by the BOR in September of 2019. This plan was then approved by each NRD Board in December of 2019.

---

<sup>32</sup> Goal 1: Develop and maintain a water supply and use inventory based on the best available data and analysis.  
Objective 1.5: Evaluate variations in water inventory due to climate cycles.