

LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT

2016-2017 REPORT AS REQUIRED BY THE DISTRICT'S VOLUNTARY INTEGRATED MANAGEMENT PLAN

I. INTRODUCTION

In 2009, the Lower Platte South Natural Resources District (LPSNRD or District) adopted rules and regulations for the management of ground and surface water in what is known as the hydrologically connected area (HCA). The HCA was delineated by the Nebraska Department of Natural Resources (NDNR) based upon the likelihood of hydrologic connection between surface water and shallow ground water. For LPSNRD, this area consists of all or parts of about 70 sections along both sides of Salt Creek roughly between Waverly and Ashland, and then along the south side of the Platte River from Ashland to Plattsmouth. The location of the HCA can be seen in all of the figures attached to this report.

As a natural extension of the above activities, the District developed its voluntary Integrated Management Plan (IMP) in conjunction with NDNR. Following approval by both LPSNRD and NDNR, the IMP became effective on May 15, 2014. For more detail regarding the development of the IMP, see LPSNRD-NDNR, 2014.

As part of the effort toward a more comprehensive management strategy, LPSNRD joined six other NRDs and NDNR to form the Lower Platte River Basin Coalition (LPRBC) to jointly develop a water management plan for the entire Lower Platte River basin. As of early 2018, all seven participating NRD Boards and NDNR had approved the Interlocal Agreement that continues the Coalition and adopts the first five-year plan. For more information on the LPRBC, refer to its website at <https://lprbc.nebraska.gov/>.

II. ACTIVITIES TO BE REPORTED

The activities reported in this document cover the period from July 1, 2016 through December 31, 2017. It should be noted that, in the discussion involving water use, current LPSNRD regulations require reporting of water pumped on an annual basis ending on December 31 and are not separated by month. Therefore, the figures for 2016 may include some usage for the period from January 1 through June 30. However, especially for irrigation usage, the majority of irrigation occurs after July 1, so it is assumed that the figures reported represent a reasonably accurate estimate for the reporting period.

A. CERTIFICATION OF GROUND WATER USES AND CHANGES TO THOSE CERTIFICATIONS

LPSNRD began certification of irrigated acres within its jurisdiction in 2009 and required that all such irrigated acres be certified with the District by January 31, 2011 in its updated Ground Water Rules and Regulations. Going forward, current regulations require that any new irrigated acres be certified with the District prior to being irrigated.

For the HCA, the process of certifying irrigated acres documented “historically irrigated acres,” which were defined as acres irrigated with ground water prior to December 16, 2008; these acres within the HCA were required to be certified by March 31, 2010. In its initial documentation of historically irrigated acres, the District issued 34 separate certifications from 27 landowners in the HCA for a total of 2,964.48 acres. State law current at the time allowed for an annual expansion in the HCA of 20% of the documented historically irrigated acres, meaning that LPSNRD could allow up to 592.9 acres of newly irrigated land in the HCA each year. District regulations have maintained that annual limit of expansion since that time, but LPSNRD has never received applications for expansion which have approached that annual limit.

For the 2016-2017 reporting period, Figure 1 shows the location of the four applications for a total of 63.88 expanded irrigated acres (Note: these four applications were for a small total number of acres which are not easily visible at this map scale; the western location is comprised of one application while the eastern location has three separate applications). As a result, as of December 31, 2017, LPSNRD has a total of 3,267.20 certified irrigated acres in the entire HCA; the locations of those certified acres are shown in Figure 2.

B. APPROVED TRANSFERS

There were no approved transfers in the HCA for this reporting period.

C. FLOW METER DATA

Beginning in 2011, the District included in its Ground Water Rules and Regulations the requirements that all wells pumping more than 50 gallons per minute (gpm) be fitted with a flow meter capable of totalizing the volume of water pumped. Owners of such wells are required to report their water usage on an annual basis by December 31 of each year.

Figures 3 and 4 show the locations of wells within the HCA and their reported usage, broken up by well type (irrigation, commercial, aquaculture and other (the “other” classification includes any other recognized well category such as livestock, wetland restoration, etc.)). Note that irrigation wells are most numerous, but that the total usage of commercial wells is generally the largest volume for a given year.

D. WELL CONSTRUCTION PERMITS

Like all other NRDs, LPSNRD permits wells which pump more than 50 gpm in its jurisdiction. For the 2016-2017 reporting period, LPSNRD issued two well permits within the HCA, one for wetland restoration, and one for public water supply (replacement). The locations of those well permits are shown in Figure 5.

E. OTHER PERMITS

There were no other permits issued in the HCA for this reporting period.

F. MUNICIPAL INFORMATION

As of this writing, LPSNRD is working with municipalities within its jurisdiction to document the amount of water pumped. Public water suppliers have been required to issue various reports

to state and federal authorities predating the District's requirement of reporting of flow meter data, and so LPSNRD is utilizing the first five-year increment to establish baseline data from this historical record for all public water supplies, and that information will be reported in the future.

G. VARIANCES ISSUED

There were no variances issued in the HCA for this reporting period.

H. RETIREMENTS OF IRRIGATED ACRES OR OTHER WATER USES

There were no retirements of any water uses in the HCA for this reporting period.

I. WATER BANKING TRANSACTIONS

No water banking transactions have occurred in the HCA.

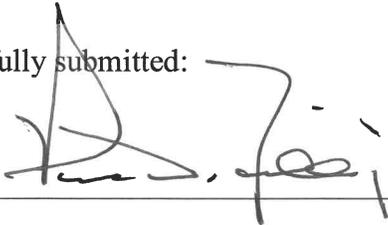
J. OFFSETS PROVIDED FOR DEPLETIONS RESULTING FROM INCREASED CONSUMPTIVE USES

LPSNRD has no data indicating any increased consumptive uses in the HCA.

K. REFERENCE

Lower Platte South Natural Resources District & Nebraska Department of Natural Resources. 2014. Integrated Management Plan. 37 p.

Respectfully submitted:



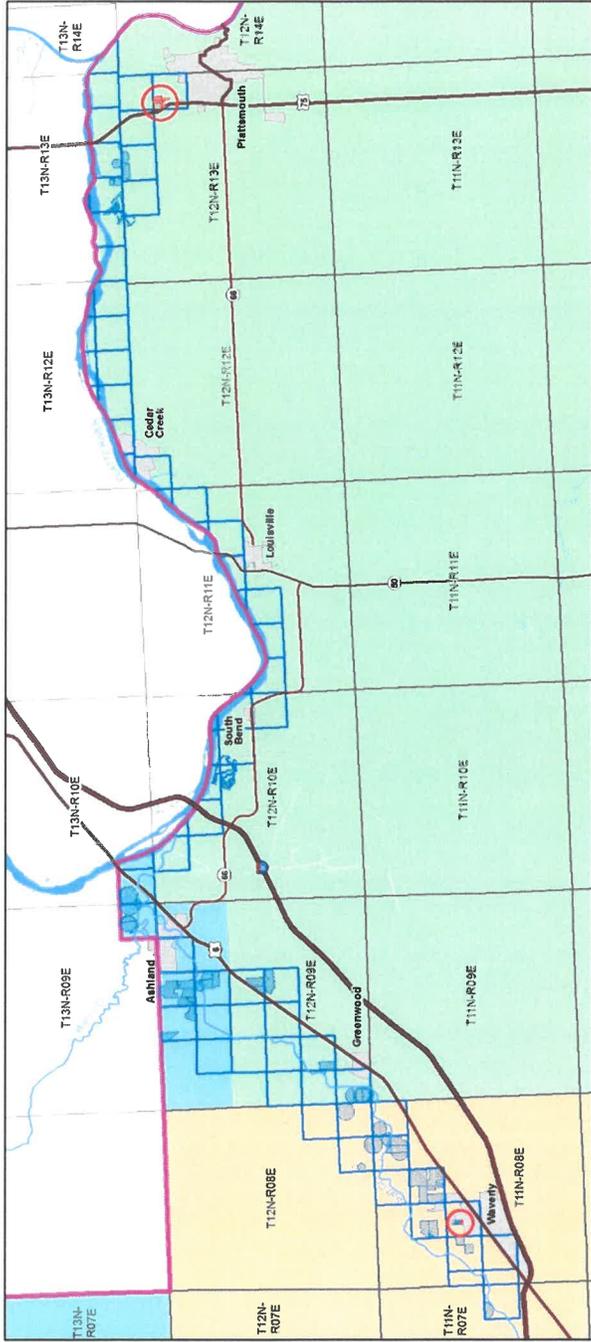
Paul D. Zillig, General Manager

FEB 22, 2018

Date



2016-2017 Irrigation Certifications in Hydrologically Connected Area - Lower Plate South Natural Resources District



0 0.5 1 2 3 4 5
Miles

Map Updated: February 2018
By: LPSNRD_sdr

Sources:
Lower Plate South NRD
NE Dept of Natural Resources

- LPSNRD Boundary
- Hydrologically Connected Area
- Certified Acres before 2016
- New Cert Acres 2016
- New Cert Acres 2017
- Cities & Towns
- Township Lines
- Streams
- Interstate
- US Hwy
- NE Hwy
- Butler County
- Cass County
- Lancaster County
- Osceola County
- Saunders County
- Seward County



Figure 1. HCA irrigated acres certified from July 1, 2016 to December 31, 2017



Completed Irrigation Certifications in Hydrologically Connected Area - Lower Platte South Natural Resources District

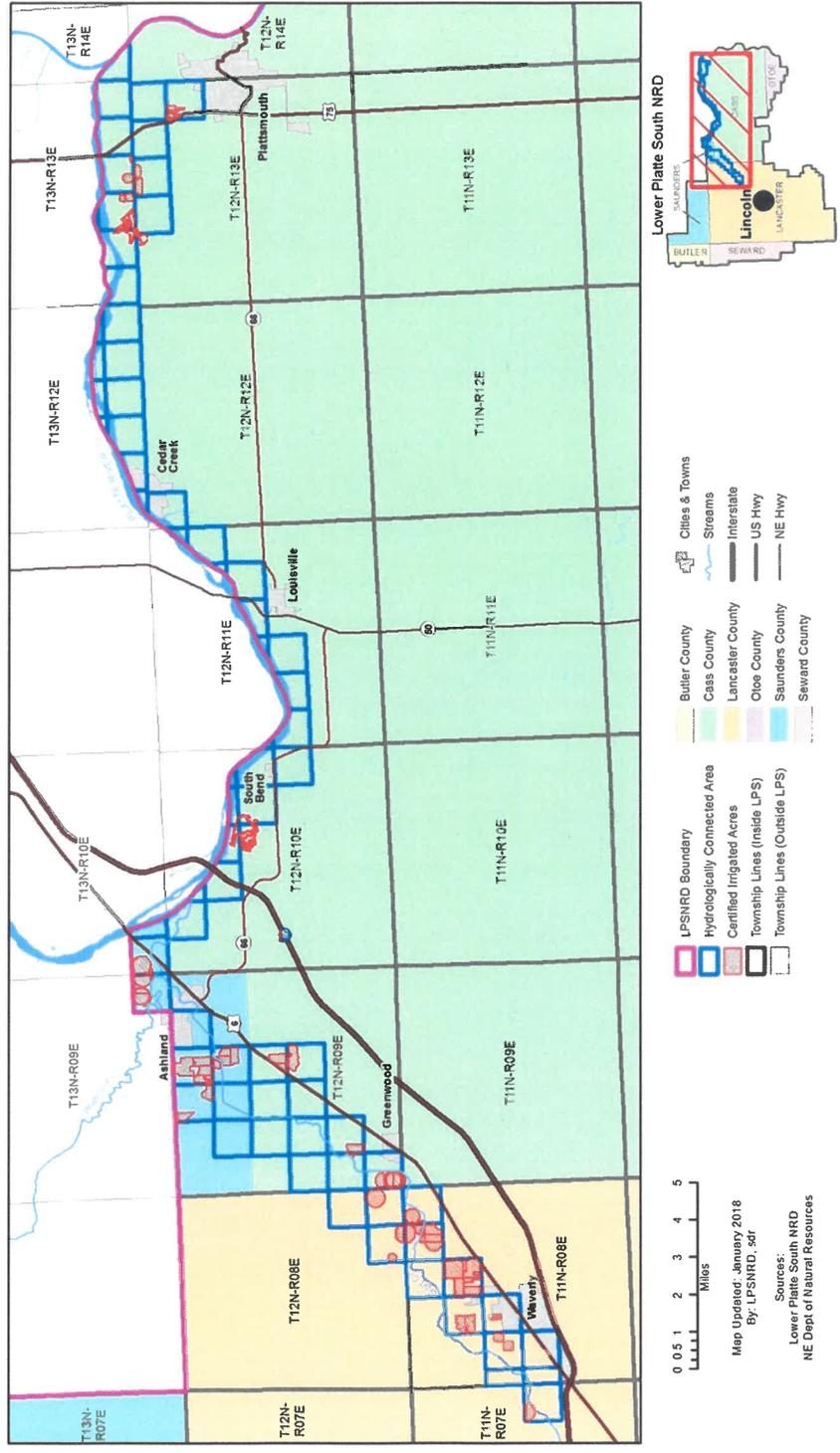


Figure 2. All certified irrigated acres within the HCA as of December 31, 2017

Lower Platte South Natural Resources District - Hydrologically Connected Area Water Usage Reports 2016

Total Gallons Reported - 508,369,665

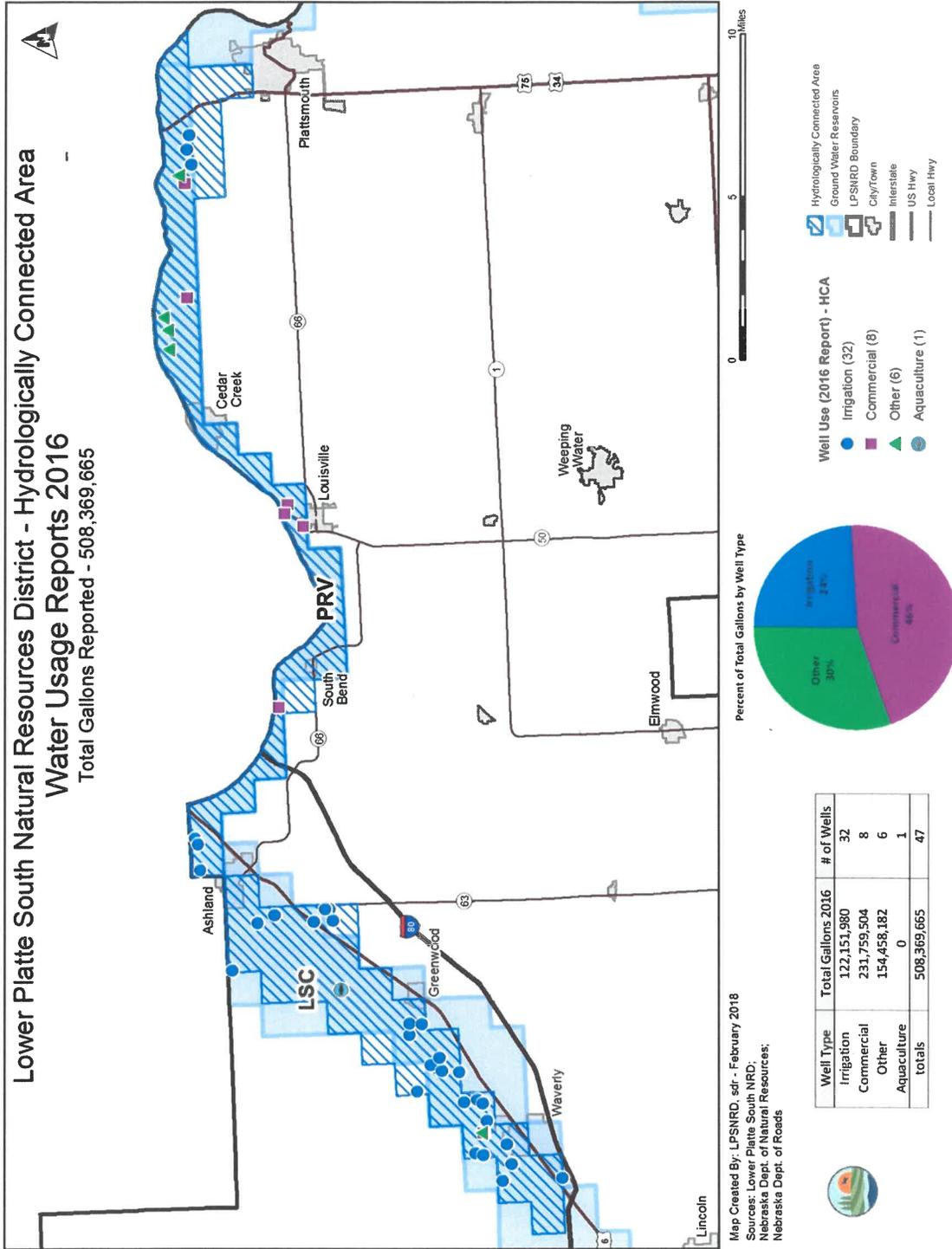


Figure 3. 2016 Water Usage Reports

Lower Platte South Natural Resources District - Hydrologically Connected Area

Water Usage Reports 2017

Total Gallons Reported - 476,269,435

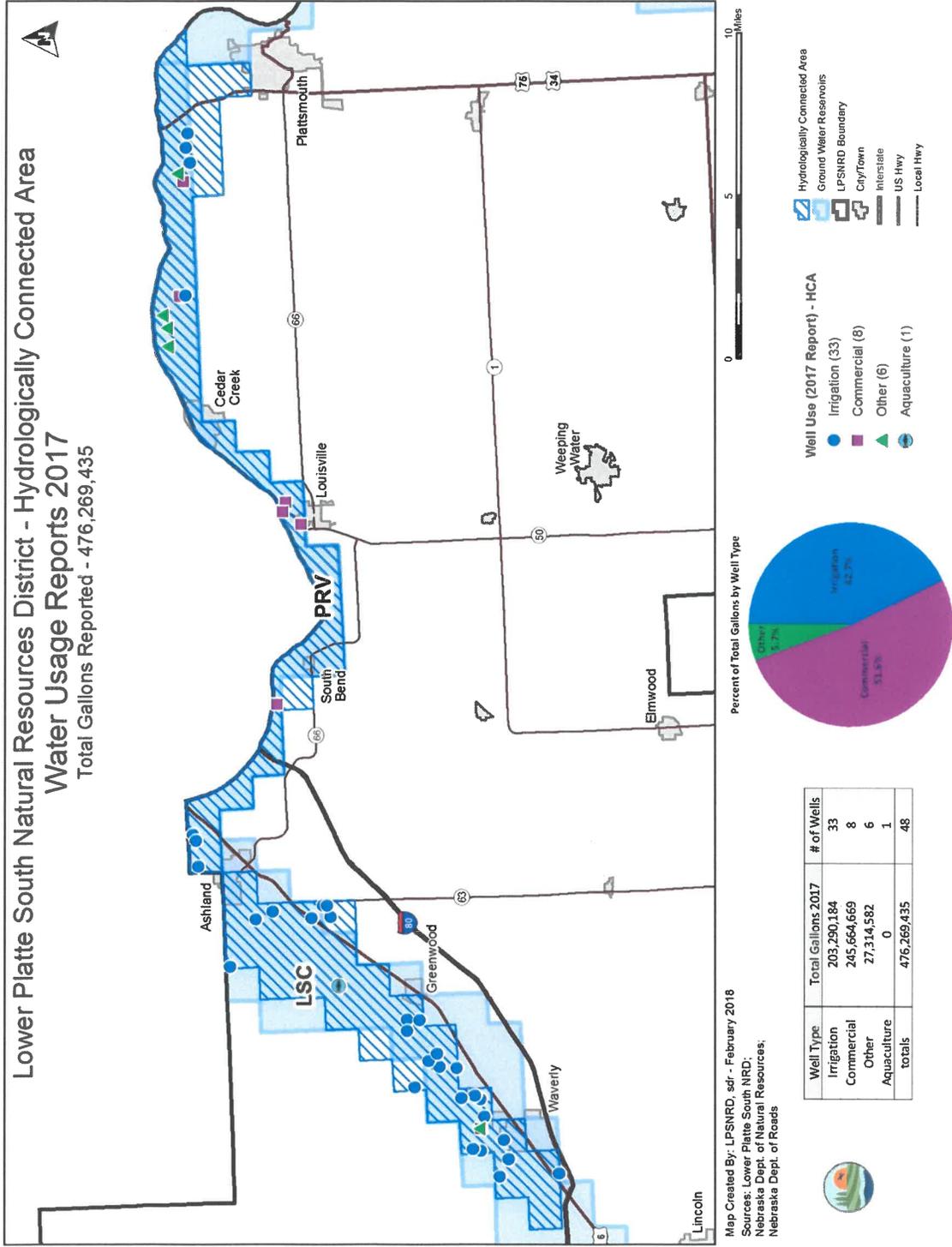


Figure 4. 2017 Water Usage Reports

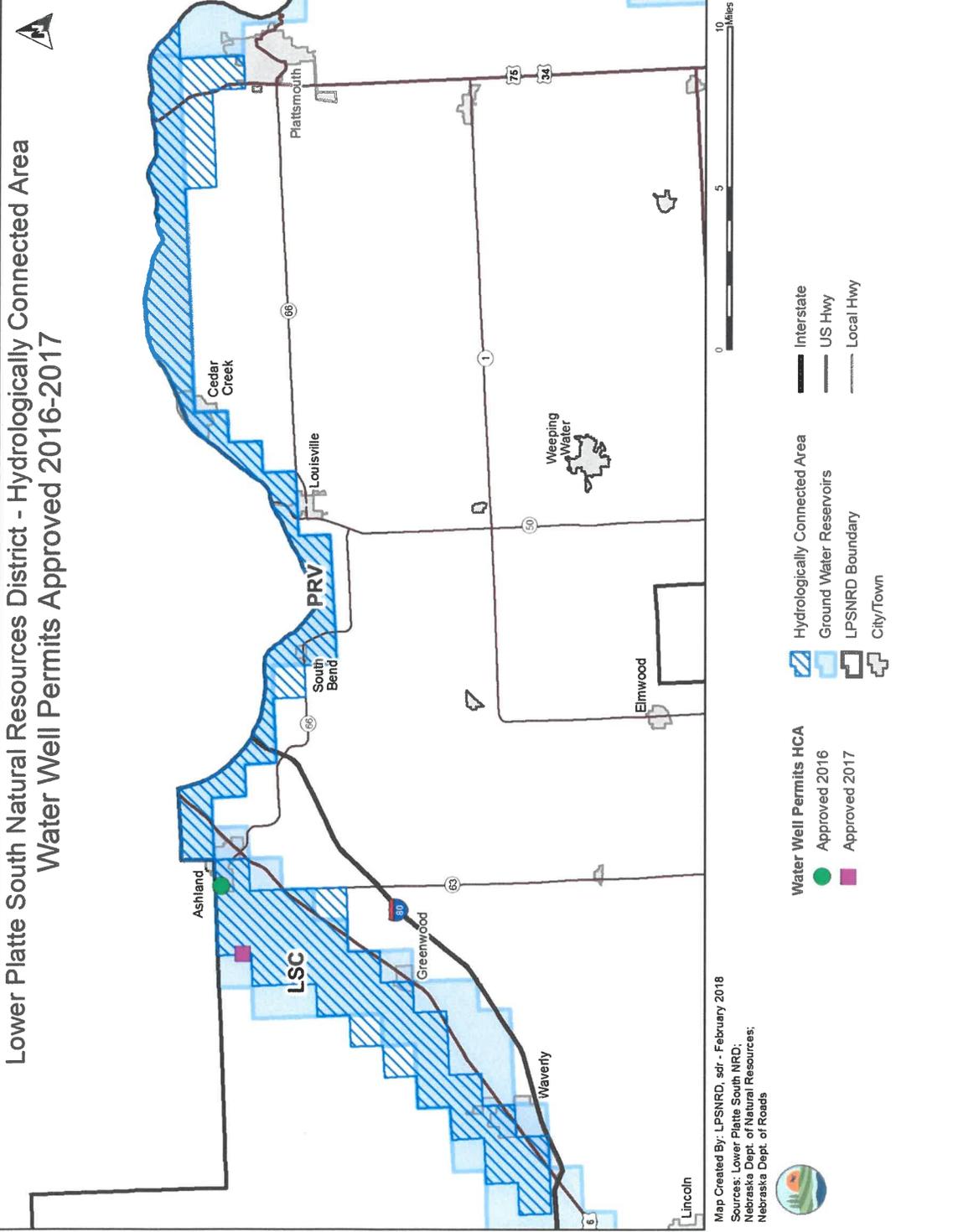


Figure 5. Well permits issued in the HCA, July 1, 2016 to December 31, 2017