

**2014 ANNUAL REPORT FOR THE LOWER NIOBRARA NATURAL RESOURCES
DISTRICT/NEBRASKA DEPARTMENT OF NATURAL RESOURCES INTEGRATED
MANAGEMENT PLAN**

Prepared by the Nebraska Department of Natural Resources

For the 2014 Annual Meeting on December 14, 2015

Introduction

The Lower Niobrara Resources District (LNNRD) and the Nebraska Department of Natural Resources (NDNR) jointly adopted an Integrated Management Plan (IMP) which became effective on May 1, 2014 with the goal of jointly managing ground and surface waters within the LNNRD to sustain a balance between water uses and supplies for the long term. The purpose of the report is to fulfill the Department of Natural Resources (Department) responsibilities under the integrated management plan (IMP) annual reporting obligations and provide updates to current monitoring projects or studies as outlined in the IMP.

Reporting and exchanging information gathered from monitoring projects, streamflow data, or other studies provides a basis to increase understanding of the surface water and hydrologically connected groundwater system. As surface water and groundwater are hydrologically connected throughout much of the district, estimates of water quantity of either surface water or groundwater cannot be evaluated separately. The data gathered through this IMP's monitoring plan are designed to evaluate and measure the success of the objectives of this IMP. This information exchange also helps to test the validity of the conclusions and information upon which the IMP is based. This report contains information for January 1, 2014, through December 31, 2014.

Department Reporting: Data

The IMP requires that the Department annually report on the following surface water data within the District on an annual basis:

- 1) streamflow measurements;
- 2) any surface water permits issued and/or denied;
- 3) surface water usage data, such as voluntary water use reports, flow meter data, crops irrigated, and acreage irrigated;
- 4) any groundwater transfers approved; and
- 5) any offsets provided for depletions resulting from increased consumptive use related to any of the above listed items.

Details for each of these items are as follows.

- 1) Streamflow

- a. The streamflow measurements made by the Department in eight locations are included in Appendix A. This streamflow data can be acquired from the Department's stream gaging website at <http://dnr.nebraska.gov/swr/streamgaging>.
 - b. Streamflow measurements made by the USGS are included in Appendix B. This streamflow data can be acquired from USGS's National Water Information System at <http://waterdata.usgs.gov/>. The USGS stream gage on the Missouri River at Niobrara Nebraska, number 06466010, has no discharge data, and has stage data beginning on January 19, 2015, therefore this stream gage is not included on the attached Appendix B.
- 2) Surface Water Permitting
 - a. There were 17 surface water applications approved during 2014. These are listed in Appendix C. Three surface water permits were cancelled and six applications were dismissed during 2014, as listed in Appendices D and E, respectively.
- 3) Surface Water Usage Reporting - Voluntary surface water use reporting included irrigated acres for nine crop types as shown in Appendix F.
- 4) Groundwater Transfers – One application (MT-44) for a municipal transfer for municipal and rural domestic use was dismissed.
- 5) Offsets approved – No offsets were approved in 2014.

APPENDICES

Appendix A

LLNRD 2014
NDNR Stream Measurements

Date	Discharge (cfs)	Stream	Location
3/10/2014	13.0	North Branch, Verdigre Creek	NE¼NE¼ Sec. 11-30-9W
4/2/2014	8.88	Steele Creek	NE¼NE¼ Sec. 15-31-9W
5/19/2014	0.62	Louse Creek, trib. to	NE¼NW¼ Sec. 30-32-9W
5/19/2014	6.75	Louse Creek	NW¼NW¼ Sec. 30-32-9W
5/19/2014	5.63	Louse Creek	NE¼NW¼ Sec. 1-31-10W
5/19/2014	5.86	Louse Creek	SW¼SW¼ Sec. 1-31-10W
6/6/2014	0.24	Soldier Creek	SE¼SE¼ Sec. 1-31-8W
10/7/2014	0.26	Ponca Creek, trib. to	SW¼NW¼ Sec. 19-33-8W

Appendix B

LLNRD 2014

Daily (5:00 p.m.) USGS Stream Gage Readings (cfs) for 2014

	DNR Keya Paha River @ Naper	DNR Niobrara River @ Butte	USGS Ponca Creek @ Verdel	USGS Missouri River @ Verdel	USGS Niobrara River @ Mariaville	USGS Niobrara River @ Verdel	USGS Verdigre Creek @ Verdigre
Gage Number	6464900	6464930	6453600	6453620	6463720	6465500	6465700
Date	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)
1/1/14	650.90	3201.22	0.00	0.00	0.00	0.00	0.00
1/2/14	644.50	867.68	0.00	0.00	0.00	0.00	0.00
1/3/14	673.15	3943.28	0.00	0.00	0.00	0.00	0.00
1/4/14	684.41	4090.53	0.00	0.00	0.00	0.00	0.00
1/5/14	695.75	3943.28	0.00	0.00	0.00	0.00	0.00
1/6/14	627.75	600.40	0.00	0.00	0.00	0.00	0.00
1/7/14	638.64	600.40	0.00	0.00	0.00	0.00	0.00
1/8/14	658.37	3972.44	0.00	0.00	0.00	0.00	0.00
1/9/14	723.55	3715.17	0.00	0.00	0.00	0.00	0.00
1/10/14	716.83	4364.81	0.00	0.00	0.00	0.00	0.00
1/11/14	674.20	4916.15	0.00	0.00	0.00	0.00	0.00
1/12/14	787.14	5191.06	0.00	0.00	0.00	0.00	0.00
1/13/14	799.25	5191.06	0.00	0.00	0.00	0.00	0.00
1/14/14	801.00	4949.97	0.00	0.00	0.00	0.00	0.00
1/15/14	821.02	5018.06	0.00	0.00	0.00	0.00	0.00
1/16/14	792.72	5052.35	0.00	0.00	0.00	0.00	0.00
1/17/14	822.36	4716.52	0.00	0.00	0.00	0.00	0.00
1/18/14	872.45	4180.63	0.00	0.00	0.00	0.00	0.00
1/19/14	843.31	4490.59	0.00	0.00	0.00	0.00	0.00
1/20/14	873.83	4716.52	0.00	0.00	0.00	0.00	0.00
1/21/14	864.51	1799.28	0.00	0.00	0.00	0.00	0.00
1/22/14	875.21	4272.05	0.00	0.00	0.00	0.00	0.00
1/23/14	855.93	744.37	0.00	0.00	0.00	0.00	0.00
1/24/14	788.42	30280.95	0.00	0.00	0.00	0.00	0.00
1/25/14	938.53	3972.44	0.00	0.00	0.00	0.00	0.00
1/26/14	949.64	4427.40	0.00	0.00	0.00	0.00	0.00
1/27/14	919.31	2156.42	0.00	0.00	0.00	0.00	0.00
1/28/14	849.43	600.40	0.00	0.00	0.00	0.00	0.00
1/29/14	890.14	3370.54	0.00	0.00	0.00	0.00	0.00

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Date	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)
1/30/14	850.80	3604.52	0.00	0.00	0.00	0.00	0.00
1/31/14	901.68	3943.28	0.00	0.00	0.00	0.00	0.00
2/1/14	902.38	3943.28	0.00	0.00	0.00	0.00	0.00
2/2/14	872.77	2316.96	0.00	0.00	0.00	0.00	0.00
2/3/14	843.64	5226.14	0.00	0.00	0.00	0.00	0.00
2/4/14	874.15	3715.17	0.00	0.00	0.00	0.00	0.00
2/5/14	835.15	2226.88	0.00	0.00	0.00	0.00	0.00
2/6/14	826.04	600.40	0.00	0.00	0.00	0.00	0.00
2/7/14	807.28	600.40	0.00	0.00	0.00	0.00	0.00
2/8/14	837.18	30280.95	0.00	0.00	0.00	0.00	0.00
2/9/14	867.59	30280.95	0.00	0.00	0.00	0.00	0.00
2/10/14	868.28	1455.10	0.00	0.00	0.00	0.00	0.00
2/11/14	889.07	30280.95	0.00	0.00	0.00	0.00	0.00
2/12/14	870.28	30280.95	0.00	0.00	0.00	0.00	0.00
2/13/14	913.44	30280.95	0.00	0.00	0.00	0.00	0.00
2/14/14	926.43	7211.30	0.00	0.00	0.00	0.00	0.00
2/15/14	949.91	5847.03	0.00	0.00	0.00	0.00	0.00
2/16/14	963.14	4848.99	0.00	0.00	0.00	0.00	0.00
2/17/14	997.69	4586.50	0.00	0.00	0.00	0.00	0.00
2/18/14	1032.82	4120.42	0.00	0.00	0.00	0.00	0.00
2/19/14	1068.52	4396.03	0.00	0.00	0.00	0.00	0.00
2/20/14	1093.62	5261.37	0.00	0.00	0.00	0.00	0.00
2/21/14	1063.33	5403.90	0.00	0.00	0.00	0.00	0.00
2/22/14	1088.37	4120.42	0.00	0.00	0.00	0.00	0.00
2/23/14	1124.96	3828.08	0.00	0.00	0.00	0.00	0.00
2/24/14	1150.67	3577.21	0.00	0.00	0.00	0.00	0.00
2/25/14	1119.64	3349.09	0.00	0.00	0.00	0.00	0.00
2/26/14	1111.36	1225.39	0.00	0.00	0.00	0.00	0.00
2/27/14	1159.74	4651.20	0.00	0.00	0.00	0.00	0.00
2/28/14	1151.32	3715.17	0.00	0.00	0.00	0.00	0.00
3/1/14	1097.85	3799.64	0.00	0.00	0.00	0.00	0.00
3/2/14	981.07	818.86	0.00	0.00	0.00	0.00	0.00
3/3/14	941.90	600.40	0.00	0.00	0.00	0.00	0.00
3/4/14	1029.58	30280.95	0.00	0.00	0.00	0.00	0.00

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Date	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)
3/5/14	1000.15	30280.95	0.00	0.00	0.00	0.00	0.00
3/6/14	981.68	30280.95	0.00	0.00	0.00	0.00	0.00
3/7/14	1082.12	4427.40	0.00	0.00	0.00	0.00	0.00
3/8/14	1233.92	4716.52	0.00	0.00	0.00	0.00	0.00
3/9/14	1144.25	4554.38	0.00	0.00	0.00	0.00	0.00
3/10/14	1301.12	4848.99	0.00	0.00	0.00	0.00	0.00
3/11/14	1391.96	7122.87	0.00	0.00	0.00	0.00	0.00
3/12/14	1420.83	2899.42	0.00	0.00	0.00	0.00	0.00
3/13/14	1360.76	1784.16	0.00	0.00	1830.00	0.00	0.00
3/14/14	1301.83	1482.21	0.00	0.00	2230.00	0.00	0.00
3/15/14	492.15	1112.84	0.00	0.00	2490.00	0.00	238.00
3/16/14	265.17	1179.59	0.00	0.00	2050.00	0.00	186.00
3/17/14	212.26	799.82	119.00	0.00	1830.00	0.00	0.00
3/18/14	216.29	1375.63	102.00	0.00	2110.00	0.00	126.00
3/19/14	232.74	1608.03	120.00	0.00	1730.00	0.00	122.00
3/20/14	226.84	996.46	51.00	0.00	1880.00	2400.00	126.00
3/21/14	223.06	1080.33	91.00	0.00	1680.00	2800.00	126.00
3/22/14	221.66	966.05	91.00	0.00	1500.00	2090.00	122.00
3/23/14	212.97	1037.89	0.00	0.00	1500.00	2110.00	109.00
3/24/14	194.04	976.13	59.00	0.00	1410.00	2430.00	106.00
3/25/14	192.20	1123.80	51.00	0.00	1500.00	2300.00	103.00
3/26/14	190.53	916.62	40.00	0.00	1250.00	2210.00	109.00
3/27/14	189.01	857.78	57.00	0.00	1370.00	1910.00	122.00
3/28/14	196.20	1101.94	62.00	0.00	1150.00	1670.00	97.00
3/29/14	189.38	726.43	34.00	0.00	1410.00	1930.00	100.00
3/30/14	188.44	1017.05	43.00	0.00	1370.00	1500.00	0.00
3/31/14	187.66	897.28	66.00	0.00	1370.00	0.00	122.00
4/1/14	174.43	1091.10	55.00	0.00	1150.00	1760.00	109.00
4/2/14	154.17	1058.98	39.00	0.00	983.00	1310.00	133.00
4/3/14	160.09	1017.05	34.00	0.00	1370.00	0.00	115.00
4/4/14	145.79	1027.44	32.00	0.00	1680.00	0.00	115.00
4/5/14	141.69	1213.84	26.00	0.00	1290.00	0.00	122.00
4/6/14	137.65	1157.08	29.00	0.00	1500.00	0.00	122.00
4/7/14	133.68	1190.94	32.00	0.00	1540.00	0.00	144.00

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Date	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)
4/8/14	136.41	1101.94	29.00	0.00	1370.00	1570.00	122.00
4/9/14	143.89	1157.08	30.00	0.00	1330.00	1800.00	126.00
4/10/14	147.24	1415.02	37.00	0.00	1290.00	1800.00	126.00
4/11/14	150.66	1349.74	34.00	0.00	1290.00	1820.00	122.00
4/12/14	146.95	1112.84	40.00	0.00	1180.00	2040.00	133.00
4/13/14	139.85	1037.89	37.00	0.00	1450.00	2070.00	133.00
4/14/14	153.93	1037.89	32.00	0.00	1290.00	1820.00	115.00
4/15/14	146.52	1080.33	24.00	0.00	1330.00	1840.00	133.00
4/16/14	139.40	1249.23	25.00	0.00	0.00	1840.00	122.00
4/17/14	139.25	1179.59	20.00	0.00	0.00	1820.00	112.00
4/18/14	132.38	1249.23	16.00	0.00	0.00	0.00	112.00
4/19/14	128.95	1237.00	20.00	0.00	0.00	0.00	0.00
4/20/14	116.09	1190.94	20.00	0.00	0.00	1550.00	133.00
4/21/14	125.42	1101.94	30.00	0.00	0.00	1760.00	136.00
4/22/14	109.73	926.38	25.00	0.00	0.00	1460.00	122.00
4/23/14	103.68	1261.53	33.00	0.00	1250.00	1690.00	115.00
4/24/14	95.01	1401.81	34.00	0.00	1430.00	1630.00	122.00
4/25/14	89.41	1286.36	30.00	0.00	1150.00	1670.00	119.00
4/26/14	86.62	1273.91	34.00	0.00	1250.00	1860.00	115.00
4/27/14	83.88	1509.62	39.00	0.00	1270.00	1650.00	119.00
4/28/14	89.06	1523.45	37.00	0.00	1510.00	1780.00	115.00
4/29/14	164.00	1666.00	42.00	0.00	1980.00	2720.00	136.00
4/30/14	207.38	1261.53	59.00	0.00	0.00	2940.00	160.00
5/1/14	241.28	1037.89	84.00	0.00	1430.00	2110.00	136.00
5/2/14	279.67	1213.84	151.00	0.00	1510.00	2020.00	136.00
5/3/14	283.14	1048.41	132.00	0.00	1450.00	2110.00	126.00
5/4/14	286.82	1048.41	115.00	0.00	1410.00	2020.00	115.00
5/5/14	261.65	916.62	95.00	0.00	0.00	2210.00	119.00
5/6/14	233.20	1017.05	76.00	0.00	1270.00	2020.00	112.00
5/7/14	204.16	1058.98	64.00	0.00	1740.00	2210.00	115.00
5/8/14	168.92	1145.92	62.00	0.00	0.00	2380.00	122.00
5/9/14	164.27	1468.62	57.00	0.00	0.00	2160.00	122.00
5/10/14	163.37	1168.30	51.00	0.00	1130.00	2260.00	119.00
5/11/14	141.12	1225.39	47.00	0.00	0.00	2430.00	112.00

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5/12/14	169.03	1401.81	57.00	0.00	0.00	2480.00	136.00
5/13/14	189.36	1157.08	64.00	0.00	1620.00	2720.00	148.00
5/14/14	259.86	1058.98	62.00	0.00	1740.00	2380.00	122.00
5/15/14	306.37	1037.89	68.00	0.00	1640.00	3030.00	115.00
5/16/14	285.97	1101.94	72.00	0.00	1690.00	2580.00	112.00
5/17/14	305.63	1157.08	66.00	0.00	1780.00	3290.00	109.00
5/18/14	260.12	1027.44	64.00	0.00	1550.00	2660.00	119.00
5/19/14	217.24	976.13	53.00	0.00	0.00	2880.00	109.00
5/20/14	194.05	1006.72	45.00	0.00	0.00	2450.00	109.00
5/21/14	177.63	1202.36	40.00	0.00	0.00	2430.00	109.00
5/22/14	160.01	1037.89	36.00	0.00	0.00	2260.00	103.00
5/23/14	144.87	1091.10	32.00	0.00	0.00	2660.00	103.00
5/24/14	124.03	1058.98	27.00	0.00	0.00	2940.00	100.00
5/25/14	110.84	1112.84	25.00	0.00	1200.00	3170.00	97.00
5/26/14	110.11	1190.94	24.00	0.00	1250.00	3320.00	94.00
5/27/14	106.41	1048.41	25.00	0.00	1410.00	3450.00	115.00
5/28/14	99.89	996.46	22.00	0.00	1510.00	2560.00	100.00
5/29/14	93.59	809.31	18.00	0.00	1510.00	1420.00	100.00
5/30/14	77.19	976.13	15.00	0.00	1470.00	1610.00	89.00
5/31/14	69.32	936.20	13.00	0.00	1330.00	1500.00	91.00
6/1/14	68.75	1080.33	14.00	0.00	1740.00	1520.00	91.00
6/2/14	82.96	1145.92	16.00	0.00	0.00	2020.00	119.00
6/3/14	79.78	809.31	15.00	0.00	2340.00	1650.00	103.00
6/4/14	174.34	1190.94	29.00	0.00	2140.00	2330.00	201.00
6/5/14	242.16	799.82	25.00	0.00	2090.00	1350.00	133.00
6/6/14	447.09	847.94	18.00	0.00	2590.00	1130.00	115.00
6/7/14	703.65	906.92	16.00	0.00	2560.00	1740.00	100.00
6/8/14	554.66	906.92	20.00	0.00	2620.00	3140.00	100.00
6/9/14	669.13	1080.33	84.00	0.00	3130.00	6950.00	414.00
6/10/14	1628.35	1695.08	134.00	0.00	0.00	7670.00	683.00
6/11/14	1279.70	1349.74	228.00	0.00	2750.00	5700.00	349.00
6/12/14	716.51	1375.63	236.00	0.00	2120.00	4280.00	186.00
6/13/14	542.27	1091.10	176.00	0.00	1860.00	2970.00	148.00
6/14/14	435.23	1080.33	130.00	0.00	1550.00	3730.00	129.00

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6/15/14	400.04	1123.80	113.00	0.00	1880.00	3800.00	152.00
6/16/14	480.59	1027.44	99.00	0.00	1600.00	3170.00	148.00
6/17/14	414.97	857.78	81.00	0.00	1490.00	2880.00	136.00
6/18/14	354.09	744.37	66.00	0.00	1490.00	3110.00	133.00
6/19/14	291.93	838.18	57.00	0.00	2090.00	2400.00	122.00
6/20/14	264.92	735.36	49.00	0.00	1830.00	2480.00	115.00
6/21/14	234.93	717.56	37.00	0.00	1620.00	2020.00	106.00
6/22/14	216.21	828.49	32.00	0.00	1780.00	1740.00	97.00
6/23/14	216.74	682.76	36.00	0.00	1490.00	2400.00	106.00
6/24/14	212.59	847.94	30.00	0.00	1620.00	1950.00	97.00
6/25/14	194.96	744.37	24.00	0.00	1830.00	1950.00	94.00
6/26/14	182.54	700.02	21.00	0.00	2010.00	2690.00	89.00
6/27/14	187.28	877.65	20.00	0.00	1810.00	2210.00	81.00
6/28/14	183.65	833.32	20.00	0.00	1980.00	1840.00	103.00
6/29/14	201.59	861.73	24.00	0.00	1910.00	2230.00	133.00
6/30/14	197.67	789.47	22.00	0.00	1830.00	2400.00	122.00
7/1/14	177.07	796.05	18.00	0.00	1740.00	2160.00	129.00
7/2/14	161.68	753.44	18.00	0.00	1410.00	1800.00	100.00
7/3/14	162.13	770.86	15.00	0.00	1310.00	1890.00	89.00
7/4/14	147.34	938.18	14.00	0.00	1200.00	2580.00	86.00
7/5/14	133.22	974.11	12.00	0.00	1160.00	2660.00	89.00
7/6/14	130.04	847.94	11.00	0.00	1090.00	2350.00	78.00
7/7/14	123.45	824.63	9.90	0.00	997.00	2140.00	74.00
7/8/14	137.81	935.22	9.90	0.00	1090.00	2140.00	83.00
7/9/14	121.04	903.05	8.90	0.00	1080.00	1890.00	78.00
7/10/14	115.56	933.25	8.40	0.00	1600.00	1740.00	76.00
7/11/14	116.31	1166.05	0.00	0.00	1090.00	1890.00	67.00
7/12/14	113.97	995.44	9.90	0.00	1040.00	1740.00	119.00
7/13/14	108.62	1086.79	12.00	0.00	1090.00	1800.00	201.00
7/14/14	106.33	1019.12	9.40	0.00	1200.00	1500.00	126.00
7/15/14	107.04	1024.31	7.00	0.00	1040.00	1420.00	109.00
7/16/14	93.24	990.33	5.90	0.00	1080.00	1440.00	100.00
7/17/14	99.57	1017.05	5.20	0.00	1060.00	1420.00	89.00
7/18/14	73.36	1025.36	4.90	0.00	1030.00	1380.00	86.00

	DNR Keya Paha River @ Naper	DNR Niobrara River @ Butte	USGS Ponca Creek @ Verdel	USGS Missouri River @ Verdel	USGS Niobrara River @ Mariaville	USGS Niobrara River @ Verdel	USGS Verdigre Creek @ Verdigre
Gage Number	6464900	6464930	6453600	6453620	6463720	6465500	6465700
Date	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)
7/19/14	73.88	1031.61	3.60	0.00	997.00	1420.00	76.00
7/20/14	74.41	982.20	2.40	0.00	1040.00	1400.00	74.00
7/21/14	72.44	1060.05	2.90	0.00	1180.00	1380.00	71.00
7/22/14	63.28	1079.26	0.00	0.00	1090.00	1440.00	74.00
7/23/14	53.88	1011.88	0.00	0.00	981.00	1380.00	67.00
7/24/14	54.34	938.18	0.00	0.00	921.00	1330.00	61.00
7/25/14	43.81	964.04	1.20	0.00	863.00	1230.00	63.00
7/26/14	48.40	888.66	1.10	0.00	863.00	1230.00	57.00
7/27/14	51.04	910.79	1.20	0.00	863.00	1180.00	112.00
7/28/14	42.96	847.94	0.97	0.00	877.00	1130.00	86.00
7/29/14	43.33	933.25	0.61	0.00	891.00	1110.00	74.00
7/30/14	43.49	954.04	0.41	0.00	906.00	1110.00	69.00
7/31/14	41.36	871.66	0.77	0.00	906.00	1090.00	61.00
8/1/14	37.50	839.15	0.77	0.00	906.00	1090.00	53.00
8/2/14	35.58	848.92	0.77	0.00	877.00	1140.00	53.00
8/3/14	38.91	857.78	0.77	0.00	849.00	1230.00	59.00
8/4/14	33.55	896.32	0.61	0.00	863.00	1210.00	57.00
8/5/14	36.75	892.48	0.48	0.00	891.00	1260.00	65.00
8/6/14	44.06	942.13	4.30	0.00	1180.00	2300.00	1240.00
8/7/14	64.79	1100.85	29.00	0.00	997.00	1480.00	1430.00
8/8/14	61.95	990.33	19.00	0.00	966.00	1670.00	797.00
8/9/14	73.88	1094.35	19.00	0.00	1150.00	1930.00	750.00
8/10/14	76.09	1170.55	18.00	0.00	1180.00	1570.00	293.00
8/11/14	75.78	1235.84	0.00	0.00	1310.00	1570.00	227.00
8/12/14	86.21	1078.19	0.00	0.00	1080.00	1570.00	164.00
8/13/14	77.74	1002.61	7.90	0.00	1110.00	1460.00	133.00
8/14/14	72.38	1031.61	7.00	0.00	966.00	1420.00	112.00
8/15/14	67.28	969.07	5.50	0.00	906.00	1400.00	91.00
8/16/14	71.78	1017.05	4.90	0.00	935.00	1310.00	83.00
8/17/14	76.58	999.53	4.10	0.00	906.00	1330.00	81.00
8/18/14	68.78	973.10	3.10	0.00	891.00	1260.00	81.00
8/19/14	53.99	954.04	1.70	0.00	863.00	1190.00	81.00
8/20/14	39.28	899.20	1.80	0.00	863.00	1140.00	74.00
8/21/14	35.53	906.92	2.10	0.00	835.00	1110.00	74.00

	DNR Keya Paha River @ Naper	DNR Niobrara River @ Butte	USGS Ponca Creek @ Verdel	USGS Missouri River @ Verdel	USGS Niobrara River @ Mariaville	USGS Niobrara River @ Verdel	USGS Verdigre Creek @ Verdigre
Gage Number	6464900	6464930	6453600	6453620	6463720	6465500	6465700
Date	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)
8/22/14	37.08	894.40	1.10	0.00	782.00	1090.00	67.00
8/23/14	38.68	942.13	1.50	0.00	1010.00	1140.00	83.00
8/24/14	85.54	1186.39	1.50	0.00	1310.00	1210.00	78.00
8/25/14	71.73	1226.54	1.10	0.00	951.00	1520.00	83.00
8/26/14	66.41	965.05	0.48	0.00	981.00	1190.00	81.00
8/27/14	67.15	1001.58	0.48	0.00	966.00	1190.00	76.00
8/28/14	63.59	1009.81	7.90	0.00	1130.00	1520.00	160.00
8/29/14	406.09	1326.71	22.00	0.00	1160.00	2480.00	201.00
8/30/14	142.34	1245.55	53.00	0.00	1160.00	1930.00	148.00
8/31/14	108.67	1167.18	122.00	0.00	1290.00	1910.00	168.00
9/1/14	109.54	1238.22	151.00	0.00	1180.00	1820.00	136.00
9/2/14	94.85	1123.80	88.00	0.00	1130.00	1670.00	136.00
9/3/14	81.29	1090.03	47.00	0.00	981.00	1460.00	129.00
9/4/14	71.38	1074.97	32.00	0.00	1010.00	1400.00	122.00
9/5/14	64.78	1035.79	0.00	0.00	891.00	1350.00	106.00
9/6/14	60.40	933.25	0.00	0.00	981.00	1240.00	112.00
9/7/14	58.58	1005.69	0.00	0.00	906.00	1190.00	115.00
9/8/14	56.80	967.06	0.00	0.00	921.00	1140.00	112.00
9/9/14	52.69	950.06	0.00	0.00	921.00	1140.00	106.00
9/10/14	65.72	986.26	9.90	0.00	997.00	1180.00	109.00
9/11/14	71.25	1135.94	0.00	0.00	935.00	0.00	106.00
9/12/14	77.20	1032.66	13.00	0.00	1270.00	0.00	122.00
9/13/14	86.20	1152.61	14.00	0.00	1180.00	0.00	140.00
9/14/14	86.98	1094.35	11.00	0.00	1130.00	0.00	122.00
9/15/14	84.94	1121.60	0.00	0.00	1090.00	0.00	89.00
9/16/14	80.20	1094.35	0.00	0.00	1060.00	0.00	86.00
9/17/14	70.47	1097.60	6.60	0.00	1010.00	0.00	97.00
9/18/14	66.24	1128.21	6.60	0.00	935.00	1400.00	94.00
9/19/14	61.85	1118.31	6.60	0.00	906.00	1400.00	91.00
9/20/14	57.38	1064.30	6.20	0.00	981.00	1460.00	89.00
9/21/14	55.56	1057.92	5.20	0.00	863.00	1370.00	89.00
9/22/14	56.21	1008.78	4.60	0.00	782.00	1260.00	89.00
9/23/14	54.03	1063.23	5.50	0.00	835.00	1280.00	89.00
9/24/14	61.06	1061.11	8.90	0.00	835.00	1310.00	112.00

	DNR Keya Paha River @ Naper	DNR Niobrara River @ Butte	USGS Ponca Creek @ Verdel	USGS Missouri River @ Verdel	USGS Niobrara River @ Mariaville	USGS Niobrara River @ Verdel	USGS Verdigre Creek @ Verdigre
Gage Number	6464900	6464930	6453600	6453620	6463720	6465500	6465700
Date	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)
9/25/14	63.14	1038.94	6.20	0.00	849.00	1350.00	109.00
9/26/14	65.14	984.23	5.20	0.00	835.00	1350.00	109.00
9/27/14	61.97	926.38	4.60	0.00	822.00	1330.00	112.00
9/28/14	58.81	924.42	3.10	0.00	877.00	1280.00	112.00
9/29/14	55.78	976.13	3.80	0.00	891.00	1230.00	115.00
9/30/14	62.87	1031.61	3.80	0.00	808.00	1310.00	103.00
10/1/14	57.18	1042.08	0.00	0.00	877.00	1350.00	100.00
10/2/14	59.14	1016.01	0.00	0.00	1690.00	1350.00	106.00
10/3/14	68.60	1211.53	0.00	0.00	1860.00	2140.00	109.00
10/4/14	72.99	1019.12	4.60	0.00	1670.00	1370.00	97.00
10/5/14	69.94	954.04	4.60	0.00	1410.00	1190.00	94.00
10/6/14	71.84	1164.92	4.90	0.00	1410.00	1190.00	94.00
10/7/14	76.41	937.18	4.90	0.00	1310.00	1520.00	97.00
10/8/14	73.20	932.26	0.00	0.00	1010.00	1540.00	103.00
10/9/14	70.15	1061.10	4.30	0.00	0.00	1630.00	100.00
10/10/14	69.59	1101.93	0.00	0.00	1270.00	1380.00	103.00
10/11/14	66.66	1047.35	3.80	0.00	1330.00	899.00	94.00
10/12/14	63.75	1053.68	4.30	0.00	1430.00	1230.00	97.00
10/13/14	65.61	1060.04	3.80	0.00	1390.00	1160.00	97.00
10/14/14	69.80	1070.69	3.80	0.00	1350.00	789.00	100.00
10/15/14	74.24	1032.65	3.80	0.00	1410.00	927.00	109.00
10/16/14	73.65	1117.21	3.80	0.00	1220.00	971.00	106.00
10/17/14	75.66	1055.80	3.10	0.00	1250.00	885.00	103.00
10/18/14	72.46	1017.04	3.10	0.00	782.00	956.00	100.00
10/19/14	71.87	1054.74	3.60	0.00	718.00	1050.00	97.00
10/20/14	71.29	1110.65	3.60	0.00	822.00	1080.00	103.00
10/21/14	68.55	1046.29	3.60	0.00	849.00	1230.00	103.00
10/22/14	66.22	987.27	3.60	0.00	863.00	1280.00	106.00
10/23/14	70.91	997.48	4.30	0.00	981.00	1280.00	115.00
10/24/14	70.91	933.24	3.80	0.00	951.00	1330.00	109.00
10/25/14	68.55	926.37	4.60	0.00	951.00	1310.00	103.00
10/26/14	63.90	885.68	4.30	0.00	921.00	1330.00	97.00
10/27/14	66.22	884.67	4.60	0.00	981.00	1310.00	100.00
10/28/14	68.55	934.23	4.30	0.00	921.00	1260.00	97.00

	DNR Keya Paha River @ Naper	DNR Niobrara River @ Butte	USGS Ponca Creek @ Verdel	USGS Missouri River @ Verdel	USGS Niobrara River @ Mariaville	USGS Niobrara River @ Verdel	USGS Verdigre Creek @ Verdigre
Gage Number	6464900	6464930	6453600	6453620	6463720	6465500	6465700
Date	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)
10/29/14	70.91	792.28	3.80	0.00	0.00	1210.00	89.00
10/30/14	68.55	740.75	4.30	0.00	822.00	1140.00	103.00
10/31/14	70.91	0.00	7.90	0.00	906.00	1090.00	109.00
11/1/14	76.11	0.00	4.90	0.00	718.00	1110.00	106.00
11/2/14	78.78	0.00	5.90	0.00	511.00	1080.00	109.00
11/3/14	81.50	0.00	6.20	0.00	614.00	1090.00	100.00
11/4/14	81.50	600.40	6.60	0.00	682.00	1210.00	106.00
11/5/14	78.78	611.53	6.60	0.00	647.00	1230.00	100.00
11/6/14	78.78	723.75	6.20	0.00	647.00	1160.00	109.00
11/7/14	81.50	735.36	6.20	0.00	670.00	1050.00	106.00
11/8/14	84.27	600.40	5.90	0.00	625.00	1380.00	106.00
11/9/14	84.27	829.45	5.90	0.00	571.00	1180.00	109.00
11/10/14	84.27	812.16	7.00	0.00	682.00	1080.00	106.00
11/11/14	81.50	687.05	0.00	0.00	0.00	1130.00	86.00
11/12/14	132.14	600.40	0.00	0.00	0.00	1090.00	83.00
11/13/14	87.99	4075.61	0.00	0.00	0.00	713.00	0.00
11/14/14	88.52	4324.42	0.00	0.00	0.00	816.00	0.00
11/15/14	127.01	3149.37	0.00	0.00	0.00	1240.00	0.00
11/16/14	134.66	2313.30	0.00	0.00	0.00	1740.00	0.00
11/17/14	161.51	2259.04	0.00	0.00	0.00	1610.00	0.00
11/18/14	158.29	2863.28	0.00	0.00	0.00	1240.00	0.00
11/19/14	190.88	3285.21	0.00	0.00	0.00	1670.00	0.00
11/20/14	206.68	3516.36	0.00	0.00	0.00	0.00	0.00
11/21/14	223.12	3385.58	0.00	0.00	0.00	0.00	0.00
11/22/14	225.98	3569.02	0.00	0.00	0.00	0.00	0.00
11/23/14	238.33	3560.86	0.00	0.00	0.00	0.00	0.00
11/24/14	250.96	3468.07	0.00	0.00	0.00	0.00	0.00
11/25/14	253.96	3067.48	0.00	0.00	0.00	0.00	0.00
11/26/14	256.98	2992.88	0.00	0.00	0.00	0.00	0.00
11/27/14	270.05	2681.18	0.00	0.00	0.00	0.00	0.00
11/28/14	278.27	2504.32	0.00	0.00	0.00	0.00	0.00
11/29/14	292.46	2739.87	0.00	0.00	0.00	0.00	0.00
11/30/14	319.25	2905.13	0.00	0.00	0.00	0.00	0.00
12/1/14	293.67	2537.71	0.00	0.00	0.00	0.00	0.00

	DNR Keya Paha River @ Naper	DNR Niobrara River @ Butte	USGS Ponca Creek @ Verdel	USGS Missouri River @ Verdel	USGS Niobrara River @ Mariaville	USGS Niobrara River @ Verdel	USGS Verdigre Creek @ Verdigre
Gage Number	6464900	6464930	6453600	6453620	6463720	6465500	6465700
Date	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)	Discharge (cfs)
12/2/14	260.31	2147.70	0.00	0.00	0.00	0.00	0.00
12/3/14	273.39	1953.19	0.00	0.00	0.00	0.00	0.00
12/4/14	276.50	2207.35	0.00	0.00	0.00	0.00	0.00
12/5/14	325.23	2562.49	0.00	0.00	0.00	0.00	0.00
12/6/14	288.21	2520.11	0.00	0.00	0.00	0.00	0.00
12/7/14	291.63	2535.95	0.00	0.00	0.00	0.00	0.00
12/8/14	342.09	2450.40	0.00	0.00	0.00	0.00	0.00
12/9/14	410.67	2474.66	0.00	0.00	0.00	0.00	0.00
12/10/14	438.29	2259.04	0.00	0.00	0.00	3860.00	0.00
12/11/14	392.52	1636.85	0.00	0.00	1640.00	3170.00	0.00
12/12/14	399.76	1908.87	0.00	0.00	1880.00	2110.00	0.00
12/13/14	387.58	1835.87	0.00	0.00	2060.00	1670.00	0.00
12/14/14	363.08	1501.36	0.00	0.00	1430.00	2430.00	0.00
12/15/14	242.61	1053.68	0.00	0.00	1640.00	2210.00	0.00
12/16/14	157.38	1235.83	0.00	0.00	0.00	1820.00	0.00
12/17/14	129.01	1799.27	0.00	0.00	0.00	1800.00	0.00
12/18/14	300.79	1120.50	0.00	0.00	1330.00	2110.00	0.00
12/19/14	290.33	1572.44	0.00	0.00	1600.00	2330.00	0.00
12/20/14	241.22	1809.90	0.00	0.00	1530.00	3000.00	0.00
12/21/14	246.69	1200.06	12.00	0.00	1600.00	2280.00	0.00
12/22/14	281.79	1226.54	29.00	0.00	1600.00	1780.00	126.00
12/23/14	287.83	1308.95	39.00	0.00	0.00	2720.00	152.00
12/24/14	273.19	1654.30	29.00	0.00	0.00	2300.00	140.00
12/25/14	278.87	1505.48	16.00	0.00	0.00	2860.00	103.00
12/26/14	279.58	1214.98	21.00	0.00	0.00	2940.00	115.00
12/27/14	275.30	2701.27	20.00	0.00	0.00	1950.00	112.00
12/28/14	726.86	3726.33	0.00	0.00	0.00	1500.00	0.00
12/29/14	685.63	3383.43	0.00	0.00	0.00	1740.00	0.00
12/30/14	653.66	1538.74	0.00	0.00	0.00	1820.00	0.00
12/31/14	502.62	690.49	0.00	0.00	0.00	1370.00	0.00

Appendix C.

Surface water application approvals in LNNRD for calendar year 2014

Appropriation Number	Approval Date	Section	Township	Range	Dir.	Use	Acres	Grant in CFS	Grant in AF
A-18461	12/2/2014	26	34	17	W	Irrigation ¹	120.0	1.71	-
A-18498	12/5/2014	5	33	13	W	Irrigation	160.8	2.30	-
A-18515	12/31/2014	12	33	14	W	Irrigation	109.0	1.56	-
A-18516	12/31/2014	14	32	16	W	Irrigation	58.0	0.83	-
A-18555	12/31/2014	19	34	14	W	Storage ²	-	-	27.3
A-18556	12/31/2014	19	34	14	W	Storage use ³	147.2	-	15.4 ⁴
A-18840	1/16/2014	21	34	16	W	Storage use	68.0	-	15.0
A-18886	12/10/2014	35	33	9	W	Irrigation	57.9	0.83	
A-18892	2/4/2014	5	33	13	W	Storage use	102.1	-	93.7
A-18925	12/5/2014	2	31	8	W	Supplemental ⁵ Storage	-	-	8.4
A-18926	12/5/2014	2	31	8	W	Storage use	74.7	-	16.8
A-18927	12/5/2014	2	31	8	W	Storage	-	-	8.4
A-18928	12/5/2014	2	31	8	W	Storage	-	-	50.0
A-18929	12/5/2014	2	31	8	W	Storage use	74.7	-	100.0
A-18930	12/5/2014	2	31	8	W	Storage	-	-	50.0
A-18988	12/11/2014	18	32	8	W	Irrigation	251.9	3.60	-
A-18993	12/12/2014	17	34	12	W	Irrigation	112.3	1.60	-
A-18997	12/11/2014	31	31	12	W	Irrigation	137.6	01.97	-
A-18997	12/11/2014	31	31	12	W	Irrigation	137.6	01.97	-
A-19030	12/12/2014	13	31	7	W	Storage use	10.0	-	14.0
A-19031	12/12/2014	13	29	9	W	Irrigation	80.0	1.14	
A-19044	12/11/2014	26	30	8	W	Irrigation	11.1	0.16	
A-19063	12/11/2014	8	30	6	W	Irrigation	17.3	0.25	
A-19085	12/12/2014	6	30	7	W	Domestic	2.0	0.03	

A-19104	12/16/2014	25	30	7	W	Irrigation	67.6	0.97	
A-19127	12/11/2014	12	29	9	W	Irrigation	83.2	1.19	
A-19136	12/16/2014	21	35	11	W	Storage use	31.5	-	43.5
A-19144	1/14/2014	34	34	12	W	Storage	-	-	65.4
A-19251	12/18/2014	10	31	12	W	Storage	-		40.0
A-19252	12/18/2014	10	31	12	W	Storage	-	-	233.0
A-19253	12/18/2014	10	31	12	W	Storage use	(182.3)	-	273.0
A-19300	12/31/2014	33	35	17	W	Storage use	59.0	-	51.3
A-19302	12/18/2014	28	32	12	W	Domestic		0.06	
						Totals	1835.9	18.20	1105.24

¹ Irrigation = Diversion from a naturally flowing source for irrigation

² Storage = Impound water in a reservoir

³ Storage-Use = Diversion of water from a reservoir for irrigation, acres counted if not under irrigation permit as well

⁴ Acre-feet granted for storage use appropriations are not included in the totals found on the bottom of above table

⁵ Supplemental Storage = A permit to store additional water in a reservoir that has a storage appropriation

Appendix D.

LLNRD

Cancelled surface water permits (active appropriation cancelled) during 2014

Appropriation Number	Cancellation Date	Section	Township	Range	Dir.	Use	Begin Acres	Cancelled Acres	Cancellation in CFS	Cancellation in AF
A-7324	4/8/2014	1	30	9	W	Irrigation	117.0	117.0	0.87	-
A-14175	11/18/2014	10	30	7	W	Irrigation	92.0	92.0	1.31	-
A-18265	5/22/2014	18	30	12	W	Irrigation	54.2	54.2	0.78	-
Totals							263.2	263.2	2.96	-

Appendix E.

LLNRD 2014

Dismissed surface water applications (pending application dismissed) during 2014

<u>Appropriation Number</u>	<u>Dismissal Date</u>	<u>Section</u>	<u>Township</u>	<u>Range</u>	<u>Dir.</u>	<u>Use</u>	<u>Number of Acres Requested</u>	<u>Amount of Water Requested</u>
<u>A-18861</u>	<u>2/13/2014</u>	<u>33</u>	<u>33</u>	<u>8</u>	<u>W</u>	<u>Storage</u>	<u>-</u>	<u>48.0 af</u>
<u>A-18862</u>	<u>2/13/2014</u>	<u>33</u>	<u>33</u>	<u>8</u>	<u>W</u>	<u>Storage Use</u>	<u>48.0</u>	<u>48.0 af</u>
<u>A-18938</u>	<u>9/11/2014</u>	<u>35</u>	<u>31</u>	<u>8</u>	<u>W</u>	<u>Irrigation</u>	<u>50.0</u>	<u>0.71 cfs</u>
<u>A-19129</u>	<u>9/4/2014</u>	<u>22</u>	<u>31</u>	<u>9</u>	<u>W</u>	<u>Irrigation</u>	<u>271.9</u>	<u>3.88 cfs</u>
<u>A-19131</u>	<u>9/4/2014</u>	<u>22</u>	<u>31</u>	<u>9</u>	<u>W</u>	<u>Storage</u>	<u>-</u>	<u>40.5 af</u>
<u>A-19132</u>	<u>9/4/2014</u>	<u>22</u>	<u>31</u>	<u>9</u>	<u>W</u>	<u>Storage Use</u>	<u>271.9</u>	<u>40.5 af</u>

Appendix F.

LLNRD 2014

Voluntarily Water Use Reporting

Crop type	Total Reported Crop Acres	Crop Acres Irrigated		Crop Acres Not Irrigated	
		Acres	%	Acres	%
Alfalfa	1313	968	18	345	22
Beans, Dry Edible	661	355	7	306	20
Corn	2263	2183	40	80	5
Forage Hay/Grass	358	190	3	168	11
Millet	78	78	1	0	0
Other	783	166	2	617	40
Sorghum	5	5	0	0	0
Soybeans	1517	1485	27	32	2
Wheat	30	30	1	0	0
Totals	7007	5459	100	1548	100