



2014 Annual Report of Integrated Water Management Activities in the Republican Basin Within Tri-Basin NRD



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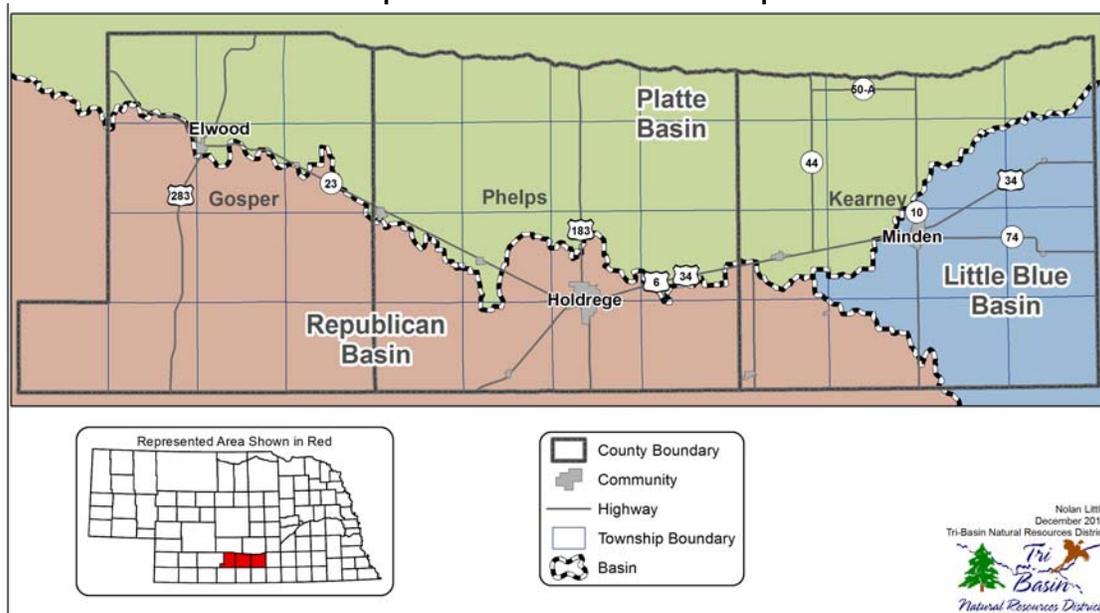
July 2015

**ANNUAL REPORT OF WATER USE ACTIVITIES
IN THE REPUBLICAN BASIN WITHIN TRI-BASIN NRD
TO MEET THE REQUIREMENTS OF THE JOINT INTEGRATED MANAGEMENT PLAN
FOR THE 2014 JOINT INTEGRATED MANAGEMENT PLAN PROGRESS REVIEW MEETING**

I. SUMMARY

The purpose of this report is to convey information that Tri-Basin Natural Resources District (TBNRD) agreed to supply to the State of Nebraska as part of a joint Integrated Water Resources Management Plan for the Republican River Basin.

Map #1: Basin Reference Map



II. INTRODUCTION

TBNRD encompasses portions of the Republican, Platte and Little Blue River Basins (see map #1, above). The district also contains an area commonly referred to as the “Groundwater Mound,” a large area spanning portions of all three basins that is characterized by groundwater levels that are higher than historic “pre-development” groundwater elevations.

More than 100,000 acres of cropland within the Platte Basin portion of TBNRD are irrigated with water diverted from the Platte River and distributed through the canals of the Central Nebraska Public Power and Irrigation District (CNPPID). Surface irrigation water and the canals that distribute it enhance recharge of groundwater supplies within the district. In addition to helping sustain groundwater supplies, this incidental recharge has increased streamflows in Platte and Republican tributaries.

III. CERTIFIED IRRIGATED ACRES

The district began certifying irrigated acres in the Republican Basin in 2004. The initial certification process in the Republican Basin ended on September 15,

2004. Since that time, corrections and revisions to the certified acre database have occurred with a net result that, as of December 31, 2014, there are 189,647.14 certified irrigated acres in the Republican Basin portion of Tri-Basin NRD. Commingled acres are acres that may be watered with either groundwater or surface water, often times a combination of both. Data regarding certified irrigated acres can be found in **TABLE 1: Certified Irrigated Acres**, below. Detailed information about locations and distribution of certified irrigated acres is available in the Tri-Basin NRD office.

TABLE 1: Certified Irrigated Acres					
	Year	Groundwater	CoMingled Acres	Surface Water	
Gosper County	2012	56,489.90	1,057.16	173.00	
	2013	56,501.89	1,013.68	216.48	
	2014	56,494.37	1,013.68	123.48	
Kearney County	2012	40,955.11	427.59		
	2013	40,938.11	427.59		
	2014	40,937.45	427.59		
Phelps County	2012	85,504.59	4,532.56	236.51	
	2013	85,550.50	4,562.40	236.51	
		85,926.68	4,562.66	161.23	
Total	2012	182,949.60	6,017.31	409.51	189,376.42
	2013	182,990.50	6,003.67	452.99	189,447.16
	2014	183,358.50	6,003.93	284.71	189,647.14

IV. APPROVED CERTIFIED ACRE AND GROUNDWATER TRANSFERS

A. TBNRD allows certified irrigated acres to be transferred from one parcel to another within the Republican Basin portion of the district, with some limitations. Certified irrigated acres cannot be transferred from parcels with surface water or commingled water resources to parcels that have groundwater wells as their only water source. The NRD also pro-rates certified acre transfers in which acres are transferred from low to high streamflow depletion zones. Between January 1, 2014 and December 31, 2014 the district approved 14 certified irrigated acre transfers in the Republican Basin. A total of 183.45 certified irrigated acres were involved in these transfers. Data regarding the location, amount and conditions associated with each transfer can be found in **TABLE 2A: Republican Basin Transfers-Acres Original Locations** (page 4) and **TABLE 2B: Republican Basin Transfers-Destinations for Transferred Acres** (page 4).

TABLE 2A: Republican Basin Transfers- Acres Original Locations		
NRD Permit Number	Legal Description	Acres Dried Up
TBAT-0209	NE 1/4 Section 36-6-20W	6
TBAT-0210	SE 1/4 Section 25-6-20W	6.5
TBAT-0231	SE 1/4 & E 1/2 of NE 1/4 Section 9-5-22W	75
TBAT-0232	N 1/2 of SW 1/4 Section 29-6-16W	5.17
TBAT-0129	W 1/2 of NW 1/4 Section 30-6-20W	2.27
TBAT-0237	Pt NW 1/4; N 1/2 NE 1/4 Section 26-7-22W	30
TBAT-0238	SE 1/4 Section 15-6-20W	5.5
TBAT-0239	SW 1/4 Section 23-6-20W	5.47
TBAT-0245	E 1/2 Section 32-5-16W	6.23
TBAT-0246	E 1/2 Section 32-5-16W	3
TBAT-0248	Pt S 1/2 Section 12-5-19W	6.4
TBAT-0249	Pt West 1/2 Section 30-5-18W	9.7
TBAT-0250	Pt West 1/2 Section 30-5-18W	15.5
TBAT-0252	SW 1/4 Section 2- 5- 17W	6.71

TABLE 2B: Republican Basin Transfers - Destinations for Transferred Acres		
NRD Permit Number	Section	New Irrigated
TBAT-0209	NW 1/4 Section 27-6-20W	6
TBAT-0210	NW 1/4 Section 27-6-20W	6.5
TBAT-0231	SE 1/4 Section 35-6-23W	75
TBAT-0232	NW 1/4 Section 34-6-16W	5.17
TBAT-0129	South 1/2 Section 25-6-21W	2.27
TBAT-0237	South 1/2 Section 25-6-21W	19.65
TBAT-0238	W 1/2 NW 1/4 Section 23-6-20W	5.5
TBAT-0239	W 1/2 NW 1/4 Section 23-6-20W	5.47
TBAT-0245	SE 1/4 Section 9-5-16W	6.23
TBAT-0246	NW 1/4 Section 21-5-15W	3
TBAT-0248	Pt East 1/2 Section 11-5-19W	6.4
TBAT-0249	NE 1/4 Section 35-5-19W	9.7
TBAT-0250	Lots 3-6 Section 30-5-17W	15.5
TBAT-0252	SE 1/4 Section 3-5-17W	6.71

B. TBNRD regulates groundwater pumping off of overlying land by requiring landowners to secure groundwater transfer permits before they can pump groundwater to properties that are not under the same ownership. Groundwater transfer permits can only be used to supply groundwater for irrigation of certified irrigated acres. Landowners are required to install flowmeters on wells that are permitted for transfers and to report pumping from these wells annually to TBNRD. TBNRD issued 11 groundwater transfer permits in the Republican Basin between January 1, 2014 and December 31, 2014. Data regarding groundwater transfers can be found in **TABLE 3: Groundwater Transfers**, below.

TABLE 3: Groundwater Transfers			
NRD Permit Number	Legal Description	Well	Neighboring Certified Acres to be watered with well
GWT-0304	NW 1/4 Section 15-5-15	G-020079-R2	6
GWT-0305	SE 1/4 Section 15-5-15	G-015198-R1	6
GWT-0306	NE 1/4 Section 15-5-15	G-083678	6
GWT-0307	NE 1/4 Section 15-5-15	G-083678	6
GWT-0308	NE 1/4 Section 15-5-15	G-083678	6
GWT-0310	SE 1/4 Section 10-5-16	G-011165	5.5
GWT-0312	SE 1/4 Section 4-5-19	G-035658	6
GWT-0313	SE 1/4 Section 4-5-19	G-035658	6
GWT-0314	SE 1/4 Section 4-5-19	G-035658	6
GWT-0315	SW 1/4 Section 25-6-16	G-003908-R1	7.64
GWT-0316	NE 1/4 Section 31-6-13	G-062245	4

V. **WELL CONSTRUCTION PERMITS**

A. Since 1989, TBNRD has required landowners to secure well construction permits before they drill wells capable of pumping more than 50 gallons per minute. The district issues three categories of well permits: new well permits, conditional replacement well permits, and replacement well permits.

TBNRD requires landowners to agree to several conditions on the operation of new wells and conditional replacement wells before permits are issued. These conditions are listed in an agreement that is signed by landowners when they apply for these types of well permits. A copy of that agreement is attached to this report as Appendix A.

B. **TABLE 4: TBNRD Well Permits** (below) is a breakdown of well permits that TBNRD issued in the Republican Basin between January 1, 2014 and December 31, 2014. A detailed listing of well permits issued by TBNRD in 2014 is found in **TABLE 5: Well Permit Summary** (below).

TABLE 4: TBNRD Well Permits	
Well Permit Type	Permits
New (variance) irrigation [Acre transfer involved]	1
Replacement irrigation	9
Conditional replacement irrigation - supplemental to groundwater	4
Dewatering	0
New commercial/industrial	

VI. VARIANCES

TBNRD issues new well permits to owners of parcels that don't have a prior irrigation history only after they have transferred sufficient certified irrigated acres for the intended new use. The TBNRD Board must approve a variance to the rule prohibiting new well construction before new well permits can be issued. One new well construction permit variance and three supplemental well permits were issued in the Republican Basin between January 1, 2014 and December 31, 2014 (see Table 5, below).

TABLE 5: Well Permit Summary			
Permit Number	Well Permit Type	Legal Description	NDNR Reg. Number
TBSG-1468	SG-Supplemental to Groundwater	NE 1/4 Section 36-5-21W	G-172943
TBSG-1471	SG-Supplemental to Groundwater	SW 1/4 Section 9-5-16W	G-171665
TBSG-1473	SG-Supplemental to Groundwater	SE 1/4 Section 9-5-18W	G-171394
TBSG-1477	SG-Supplemental to Groundwater	SE 1/4 Section 30-5-21W	G-172549
TBTF-1478	Transferred Acres	SE 1/4 Section 35-6-23W	G-172405

Since October 2013 Tri-Basin NRD landowners must meet certain pre-conditions for the board of directors to consider irrigated acre corrections. Landowners must prove not only that land was irrigated during the period 1997-2004, but that land was also irrigated during three of the past five years. Tri-Basin NRD's Republican Basin Corrections data is in **TABLE 6: Republican Basin Certified Irrigated Variances** (page 7).

Type of Variance	Section	Affected Acres	
Variance on Well Permit	SE 1/4 Section 35-6-23		Request for variance on New Well - To drill well for transferred acres
Variance on Allocation Rules	Pts of Sections 15 & 16 in 5-22		Field is part of 3 parcels, request to figure allocation on field rather than separate parcels to allow same allocation across the field.

VII. MUNICIPAL AND INDUSTRIAL ACCOUNTING

TBNRD collects water use data annually from all municipalities and industries within the district. Municipal and industrial water use data for communities and industries located in the Republican Basin reported to TBNRD in 2014 are shown in the next two tables. A summary of Municipal Water Use may be found in **TABLE 7: Republican Basin Municipal Water Use Data** (below). **TABLE 8** (page 8) shows Industrial and Commercial Water Use Data.

Municipality	2012	2013	2014
Atlanta	33,219,000	23,124,400	20,357,400
Arapahoe	138,279,000	120,573,000	97,223,000
Holdrege	512,347,700	473,755,500	519,360,800
Wilcox	27,905,000	25,414,900	22,987,500

VIII. FLOWMETER DATA

TBNRD requires flowmeters to be installed and annual water use to be reported to TBNRD whenever landowners drill new or supplemental wells, receive irrigation-related cost-share funds, or when groundwater is transferred from one property to another. In 2014 landowners reported data from 1,610 metered wells in the Republican Basin. The metered wells reported irrigating 175,223.6 certified irrigated acres. There are 28 wells in the Republican Basin that are exempted from having flowmeters because they irrigate less than 15 acres. All District flowmeter data is reported annually to the Department of Natural Resources (DNR) for purposes of Republican River Basin Compact Administration accounting. A summary of Republican Basin water use data is included in this report as Appendix B. Detailed Republican Basin flowmeter data is available from the Tri-Basin NRD office.

IX. WATER BANKING ACTIVITIES

TBNRD is considering establishing a water bank of some sort, but no policy has yet been agreed upon by the TBNRD Board of Directors.

TABLE 8: Republican Basin Industrial and Commercial Water Use Data

NDNR Reg. Number	Owner	Legal Description	Gallons Used	
G-070393	NE Game & Parks, Sac-Wilcox WMA	Section 27 - 5 - 17W	598,100	
G-030619	City of Holdrege	Section 9 - 5 - 18W		Well not used in 2014.
G-025572	City of Holdrege	Section 9 - 5 - 18W		Well not used in 2014.
G-079833	Cargill Ag Horizons Inc	Section 31 - 6 - 17W	162,600	
G-135221	Geer Utility	Section 27 - 6 - 18W	2,729,690	Series Well w/ G-135221 - 2 Wells, 1 Meter
G-135220-R1	Geer Utility	Section 27 - 6 - 18W		Series Well w/ G-135221 - 2 Wells, 1 Meter
G-009687	Holdrege County Club	Section 29 - 6 - 18W	25,681,800	
G-069908	Holdrege County Club	Section 29 - 6 - 18W	1,404,800	
G-096786	City of Holdrege	Section 34 - 6 - 18W	463,200	
G-071934	Sargent Irrigation Company Inc	Section 34 - 6 - 18W	190,700	
G-070168	Holdrege Irrigation	Section 34 - 6 - 18W	624,170	

X. RETIRED ACRES AND OTHER STREAMFLOW ACCRETION ACTIVITIES

Tri-Basin NRD paid CNPPID to divert 5400 acre-feet of water from the Platte River into Elwood Reservoir in Gosper County in 2008 and 2906 acre-feet in 2009. These diversions were made from the Platte when streamflows exceeded target flows, or when irrigation deliveries were suspended due to heavy rainfall in the CNP-PID irrigated area. CNPPID was paid \$1,119,897 by DNR and TBNRD for diverting 16,895 acre-feet of water into Elwood Reservoir and E-65 Canal in June 2014 and November 2014 to January 2015. Diversions into Elwood and E-65 provide recharge to groundwater supplies in the Republican Basin. TBNRD and DNR paid CNPPID to divert approximately 15,000 acre-feet into Elwood and the E-65 canal during the Fall of 2013. In both instances, these diversions were above and beyond normal diversions into the reservoir.

Irrigated land was temporarily retired in TBNRD during 2014 through three contracts totaling 60.4 irrigated acres that were signed up for USDA-EQIP Dryland Corners. Tri-Basin NRD records indicate that 1776.6 irrigated acres are enrolled in USDA Conservation Reserve Enhancement Program (CREP) in the Republican Basin portion of the district. Five of these contracts are set to expire by 2019.

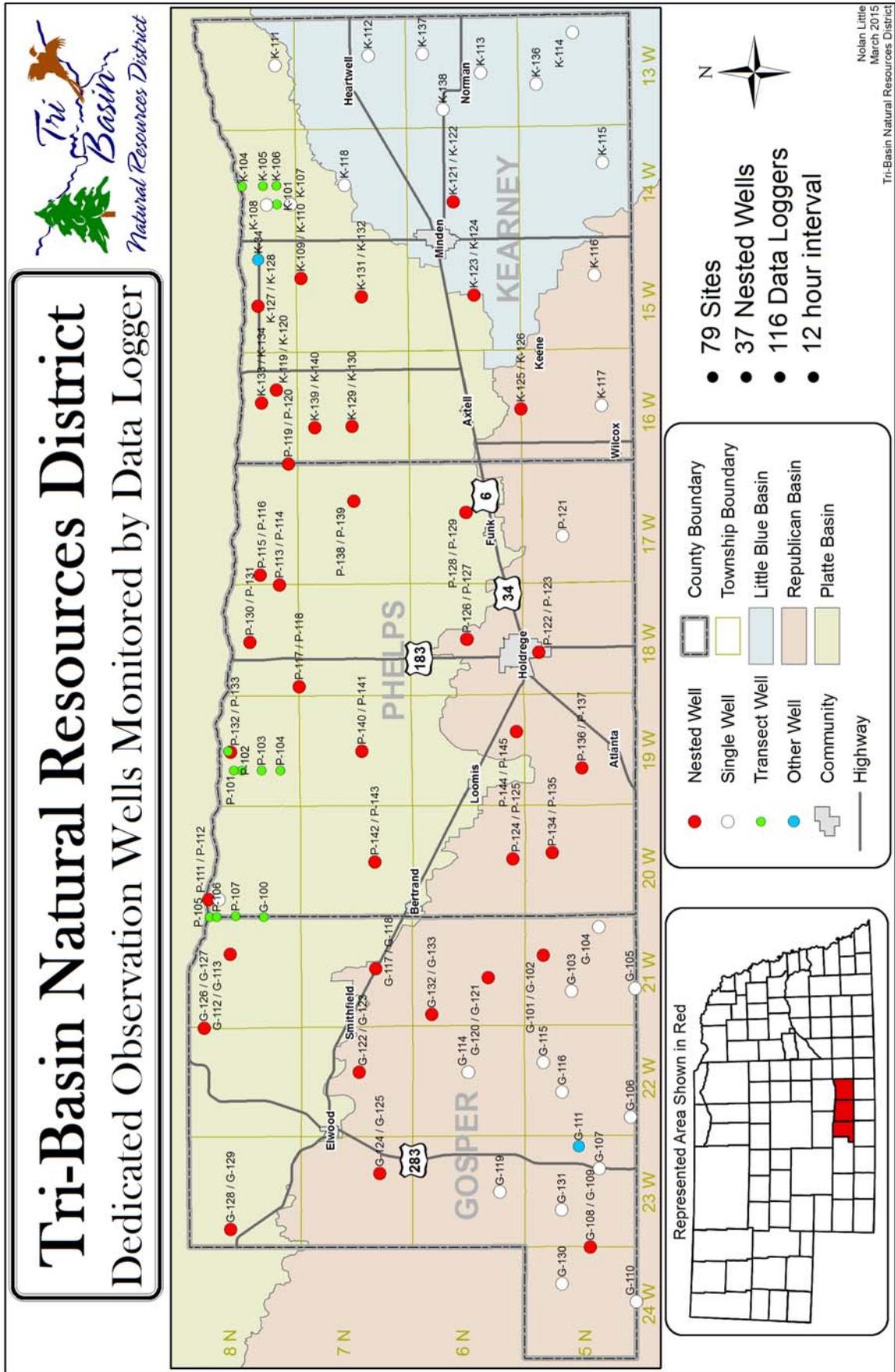
Landowners reported to TBNRD on district water use reports that conservation tillage practices have been adopted or continue to be utilized on 114,130.64 certified irrigated acres in the Republican Basin portion of the district during 2014 (no-till data is available from the Tri-Basin NRD office). Recent university research (Klocke, et al, 2009) indicates that evapotranspiration (ET) is reduced by as much as 3 inches per acre on irrigated cropland, as compared to conventional tillage systems, so if the

estimates of no-till acres are accurate, as much as 28,619 acre-feet of water was conserved in the Republican Basin in TBNRD in 2014 through this conservation practice.

XI. GROUNDWATER LEVELS

TBNRD has an extensive network of 114 dedicated groundwater observation wells (42 in the Republican Basin) and 90 irrigation wells (60 in the Republican Basin) that are used to measure groundwater levels (see Map #2, page 10). TBNRD also works cooperatively with CNPPID to gather groundwater level data. Data from 20 wells measured by CNPPID are included in TBNRD's groundwater observation well database. District water level data is reported bi-annually to U.S. Geological Survey and UNL-Conservation and Survey Division. Groundwater level data for the district is available from the Tri-Basin NRD office.

Map #2: Dedicated Groundwater Observation Wells



**Tri-Basin NRD – Republican Basin Annual Report
Appendix A**

**Tri-Basin Natural Resources District
New Well and Conditional Replacement Well Permit
Applicant Certification and Agreement**

Applicant Certification and Agreement to be bound by Conditions and Limitations on operation of a Well permitted as a New Well or as a Conditional Replacement Well pursuant to Rule 1.12, Tri-Basin Natural Resources District Rules and Regulations for Management of Land and Water Resources

NRD Permit # _____ Applicant _____

Applicant is the owner of the following- described real estate:

_____ ¼ Section T N - R W _____

Applicant accepts and agrees to be bound by the following conditions and limitations on the operation of a well that is constructed under the authority of a permit issued by the Tri-Basin Natural Resources District ("NRD"). The conditions and limitations are (check the box and initial those that apply):

1. Applicant agrees to offset any "new depletions" to streamflows of the Platte River, Little Blue River, Republican River, or their tributaries that may be determined to be associated with use of this well. Applicant agrees to use methods to offset those depletions that are deemed acceptable by the NRD and the State of Nebraska. Applicant understands and agrees that Applicant's failure to offset said new depletions may result in closure of this well or restrictions being imposed by the NRD on the number of acres of land that can be irrigated by this well.

2. Applicant agrees to abide by well spacing and pumping capacity limitations that apply to the well that is the subject of this permit, whether such limitations arise pursuant to federal or state law or by rule or regulation of the NRD. Applicant understands and agrees that Applicant's failure to comply with all rules and regulations of the NRD that pertain to this well may result in closure of this well and civil or criminal prosecution and other penalties.

3. Applicant agrees to comply with all current and future rules and regulations of the NRD that pertain to this well. Applicant understands and agrees that Applicant's failure to comply with all rules of regulations of the NRD that pertain to this well may result in closure of this well and civil or criminal prosecution and other penalties.

4. Applicant agrees to maintain any and all surface water rights associated with the land to be irrigated by this well for the lifespan of the permitted well. Applicant understands and agrees that Applicant's failure to comply with all rules and regulations of the NRD that pertain to this well may result in closure of this well and civil or criminal prosecution and other penalties (conditional replacement wells only).

5. Applicant agrees to irrigate only land that has been certified for irrigation by the NRD (no new irrigated acres will be allowed). Applicant understands and agrees that Applicant's failure to prevent irrigation of land not certified for irrigation by the NRD may result in closure of this well and prosecution by the State of Nebraska (conditional replacement wells only).

Applicant certifies that Applicant is familiar with the information contained in this instrument and that to the best of Applicant's knowledge and belief, such information is true, complete and accurate. Applicant further acknowledges and agrees that the NRD and/or the State of Nebraska may impose additional conditions, limitations and restrictions on operation of the well that is the subject of this permit. Applicant further acknowledges and agrees that the conditions and limitations agreed to herein shall also be binding upon Applicant's successors-in-interest to the well and/or the subject real estate.

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Appendix A

I certify that I am familiar with the information contained in this application and that to the best of my knowledge and belief such information is true, complete and accurate. I further acknowledge that Tri-Basin Natural Resources District or the State of Nebraska may impose additional conditions, limitations and restrictions on operation of the well that is the subject of this permit.

Date

Signature of Applicant

Date

Signature of Applicant

Date

Signature of Witness

Approval by Tri-Basin Natural Resources District

Date

Signature of Tri-Basin NRD Representative

**Tri-Basin NRD – Republican Basin Annual Report
Appendix B**

		Tri-Basin NRD Republican Basin Water Use																				
		2007	2008	2009	2010	2011	2012	2013	2014													
Updated February 10, 2015																						
Kearney Co																						
	Certified Irrigated Acres	41,644.42	41,424.32	41,424.04	41,347.80	41,348.06	41,351.41	41,365.70	41,365.04													
	Pivots																					
	Actual Reported Acres	22,385.64	23,654.85	23,989.45	23,420.07	19,638.94	20,353.60	24,643.73	24,765.78													
	Gallons Used	3,541,381,170	3,818,925,847	4,076,847,096	2,488,373,015	3,068,789,295	6,888,349,787	7,063,988,419	3,748,611,721													
	Average acre Inches	5.83	5.95	6.26	3.91	5.75	12.46	10.56	5.57													
	Gated Pipe																					
	Actual Reported Acres	8,713.63	7,884.45	6,782.76	6,336.83	6,379.60	6,331.91	4,280.08	3,817.91													
	Gallons Used	2,104,139,800	2,053,285,966	1,861,506,618	1,061,531,125	1,661,542,627	3,198,184,631	2,290,597,600	1,004,222,115													
	Average acre Inches	8.89	9.59	10.11	6.2	9.59	18.60	19.71	9.69													
	Combination																					
	Actual Reported Irrigated Acres	5,951.20	6,311.51	7,081.61	6,762.61	11,616.34	11,607.68	10,100.91	9,834.82													
	Gallons Used	1,045,863,800	1,029,295,800	1,216,909,854	738,619,900	2,194,067,314	4,146,802,562	3,338,885,321	1,662,313,886													
	Average acre Inches	6.47	6.01	6.33	4.0	6.96	13.16	11.98	6.22													
	Drip Tape																					
	Actual Reported Irrigated Acres																				37.00	
	Gallons Used																				7,942,200	
	Average acre Inches																				7.91	

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Updated February 10, 2015		Tri-Basin NRD Republican Basin Water Use													
		2007	2008	2009	2010	2011	2012	2013	2014						
Phelps Co															
Certified Irrigated Acres	90,034.35	90,056.49	90,074.28	90,122.96	90,327.49	90,253.97	90,349.41	90,650.57							
Pivots															
Actual Reported Acres	43,456.40	44,661.74	47,177.54	47,644.47	47,521.53	47,981.03	51,634.20	50,670.04							
Gallons Used	7,514,412,579	9,230,092,637	9,961,041,554	5,979,452,137	7,841,490,355	18,803,353,405	18,349,493,213	8,303,306,913							
Average acre Inches	6.37	7.61	7.78	4.6	6.08	14.43	13.09	6.03							
Gated Pipe															
Actual Reported Acres	21,777.69	20,956.49	17,813.10	17,294.97	16,438.95	16,632.09	8,916.10	7,431.08							
Gallons Used	5,988,777,976	7,023,928,292	6,659,829,299	3,811,778,121.7	4,761,461,576	9,377,865,221	5,972,669,159	2,358,776,689							
Average acre Inches	10.13	12.34	13.77	8.12	10.67	20.76	24.67	11.69							
Combination															
Actual Reported Irrigated Acres	14,799.53	16,210.16	16,395.53	16,540.54	18,173.41	18,052.33	22,874.36	22,523.31							
Gallons Used	2,797,496,400	3,884,727,743	3,834,900,501	2,340,349,155	3,563,491,797	7,338,795,255	8,950,299,149	3,596,843,384							
Average acre Inches	6.96	8.83	8.61	5.2	7.22	14.97	14.41	5.88							
Drip Tape															
Actual Reported Irrigated Acres								435.40							
Gallons Used								79,980,790							
Average acre Inches								6.76							

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		2007	2008	2009	2010	2011	2012	2013	2014
Updated February 10, 2015									
Tri-Basin NRD Republican Basin Water Use									
Gosper Co									
Certified Irrigated Acres		57,746.74	57,765.72	57,809.41	57,896.60	57,760.72	57,742.11	57,732.05	57,631.53
Pivots									
Actual Reported Acres		29671.79	31756.88	32,729.99	33,488.46	34,753.39	36,082.66	34,348.63	34,731.48
Gallons Used		4,571,094,694	5,640,850,350	6,022,172,888	5,874,547,547	7,451,121,723	13,656,214,745	12,023,940,692	6,214,034,271
Average acre Inches		5.67	6.54	6.78	6.5	7.90	13.94	12.89	6.59
Gated Pipe									
Actual Reported Acres		13368.98	12164.20	11,677.00	10,885.50	10,258.10	9,784.30	5,515.43	5,313.43
Gallons Used		3,292,907,800	4,052,542,200	3,708,816,337	3,203,004,797	3,327,536,001	6,393,890,714	3,343,182,638	1,735,788,826
Average acre Inches		9.07	12.27	11.70	10.8	11.95	24.07	22.32	12.03
Combination									
Actual Reported Irrigated Acres		8308.65	8434.50	8,456.40	8,294.00	8,603.37	8,571.25	14,310.51	14,543.61
Gallons Used		1,736,490,000	1,858,770,700	1,706,652,900	1,472,894,300	1,747,329,785	3,336,512,330	7,034,537,746	3,063,979,197
Average acre Inches		7.70	8.12	7.43	6.54	7.48	14.34	18.10	7.76
Drip Tape									
Actual Reported Irrigated Acres									360.77
Gallons Used									84,044,100
Average acre Inches									8.58

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2014 Meter Data Results					
Tri-Basin NRD - February 4, 2015					
County	System	Certified Irrigated Acres	Actual Reported Irrigated Acres	Gallons Used	Average Acre Inches
Republican Basin					
Kearney Co	Pivots		24,765.78	3,748,611,721	5.57
	Gravity		3,817.91	1,004,222,115	9.69
	Combination		9,834.82	1,662,313,886	6.22
	Drip Tape		37.00	7,942,200	7.91
Totals		41,365.04	38,455.51	6,423,089,922	6.15
Phelps Co	Pivots		50,670.04	8,303,306,913	6.03
	Gravity		7,431.08	2,358,776,689	11.69
	Combination		22,523.31	3,596,843,384	5.88
	Drip Tape		435.40	79,980,790	6.76
Totals		90,650.57	81,059.83	14,338,907,776	6.51
Gosper Co	Pivots		34,731.48	6,214,034,271	6.59
	Gravity		5,313.43	1,735,788,826	12.03
	Combination		14,543.61	3,063,979,197	7.76
	Drip Tape		360.77	84,044,100	8.58
Totals		57,631.53	54,588.52	11,013,802,294	7.43
Republican Basin Totals					
	Pivots		110,167.30	18,265,952,905	6.11
	Gravity		16,562.42	5,098,787,630	11.34
	Combination		46,901.74	8,323,136,467	6.54
	Drip Tape		833.17	171,967,090	7.60
	Totals	189,647.14	174,103.86	31,775,799,992	6.72
<p style="text-align: center;">Republican Basin Notes - Gosper County has 149 certified acres watered by wells in Furnas County. Phelps County has 250 acres watered with a combination of 3 wells in Phelps & 1 well in Harlan county; these same 4 wells water <u>117</u> acres in Harlan County.</p>					

Tri-Basin NRD – Republican Basin Annual Report
Appendix B

