



# 2016 Annual Report of Integrated Water Management Activities in the Republican Basin Within Tri-Basin NRD



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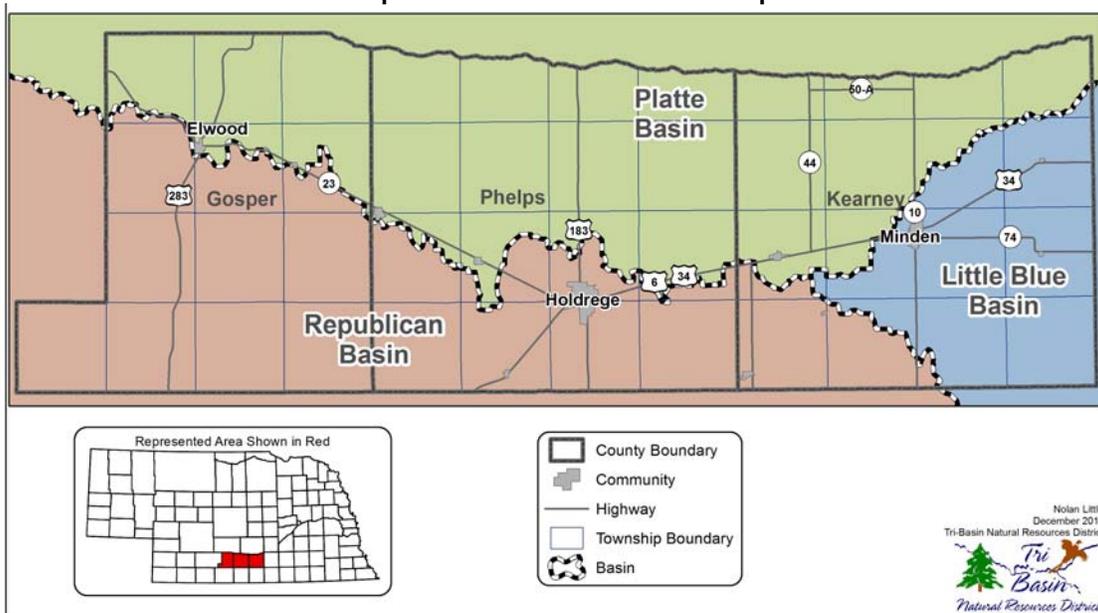
October 2017

**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 2016 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 portion of the district.

**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 generally 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, 2016, there are 189,984.24 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.

<b>TABLE 1: Certified Irrigated Acres</b>					
	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	
	2015	56,671.20	1,013.68	123.48	
	2016	56,707.83	1,013.68	88.48	
Kearney County	2012	40,955.11	427.59		
	2013	40,938.11	427.59		
	2014	40,937.45	427.59		
	2015	40,918.57	427.59		
	2016	40,922.16	427.59		
Phelps County	2012	85,504.59	4,532.56	236.51	
	2013	85,550.50	4,562.40	236.51	
	2014	85,926.68	4,562.66	161.23	
	2015	86,090.68	4,488.25	235.65	
	2016	86,100.60	4,488.25	235.65	
<b>Total</b>	2012	<b>182,949.60</b>	<b>6,017.31</b>	<b>409.51</b>	<b>189,376.42</b>
	2013	<b>182,990.50</b>	<b>6,003.67</b>	<b>452.99</b>	<b>189,447.16</b>
	2014	<b>183,358.50</b>	<b>6,003.93</b>	<b>284.71</b>	<b>189,647.14</b>
	2015	<b>183,680.45</b>	<b>5,929.52</b>	<b>359.13</b>	<b>*189,969.10</b>
	2016	<b>183,730.59</b>	<b>4,929.52</b>	<b>324.13</b>	<b>*189,984.24</b>

\*total not showing 157.8 Harlan County acres

#### 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, 2016 and December 31, 2016 the district approved four certified irrigated acre transfers in the Republican Basin. A total of 26.19 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** (below) and **TABLE 2B: Republican Basin Transfers-Destinations for Transferred Acres** (below).

<b>TABLE 2A: Republican Basin Transfers- Acres Original Locations</b>		
<b>NRD Permit Number</b>	<b>Legal Description</b>	<b>Acres Dried Up</b>
TBAT-0277	SW 1/4 Section 2-6- 21	11.47
TBAT-0281	Pt SW 1/2 Section 26-5- 16	7.97
TBAT-0282	SW 1/4 Section 14-5- 16	3.2
TBAT-0283	SE 1/4 Section 14-5- 16	3.55
	<b>Total</b>	<b>26.19</b>

<b>TABLE 2B: Republican Basin Transfers - Destinations for Transferred Acres</b>		
<b>NRD Permit Number</b>	<b>Section</b>	<b>New Irrigated</b>
TBAT-0277	Pt SW 1/4; W 1/2 SE 1/4 Section 34-6-20	11.47
TBAT-0281	NE 1/4 Section 27-5- 16	7.97
TBAT-0282	NE 1/4 Section 27-5- 16	3.2
TBAT-0283	NE 1/4 Section 27-5- 16	3.55
	<b>Total</b>	<b>26.19</b>

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 no groundwater transfer permits in the Republican Basin between January 1, 2016 and December 31, 2016.

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.

TABLE 3: TBNRD Well Permits	
Well Permit Type	Permits
New (variance) irrigation [Acre transfer involved]	
Replacement irrigation	10
Conditional replacement irrigation - supplemental to groundwater	1
Dewatering	1
New commercial/industrial	

B. TABLE 3: TBNRD Well Permits (above) is a breakdown of well permits that TBNRD issued in the Republican Basin between January 1, 2016 and December 31, 2016. A detailed listing of well permits issued by TBNRD in 2016 is found in TABLE 4: Well Permit Summary (below).

TABLE 4: Well Permit Summary				
Permit Number	Well Permit Type	Legal Description	NDNR Reg. Number	NDNR Well ID Number
TBDW-1510	DW- Dewatering - Augmentation	NE 1/4 Section 7-6- 21	G-179201	241336
TBSG-1511	SG-Supplemental to Groundwater	NW 1/4 Section 4-5- 19	G-178984	241500
TBRP-G068708-R1	RP- Replacement Well	SE 1/4 Section 8-5- 16	G-068708	241990
TBRP-G050365-R1	RP- Replacement Well	SW 1/4 Section 35-5- 16	G-050365	243042
TBRP-G036698-R1	RP- Replacement Well	NW 1/4 Section 26-5- 22	G-036698	242755
TBRP-G062292B-R1	RP- Replacement Well	SE 1/4 Section 13-5- 18	G-062292B	243496
TBRP-G056059-R1	RP- Replacement Well	NE 1/4 Section 25-5-23	G-056059	243622
TBRP-G041730-R3	RP- Replacement Well	NW 1/4 Section 18-5- 15	G-041730	243976
TBRP-G034026-R1	RP- Replacement Well	NE 1/4 Section 24-5- 18	G-034026	245974
TBRP-G048034-R1	RP- Replacement Well	SW 1/4 Section 17-5- 17	G-048034	245545
TBRP-G036448-R1	RP- Replacement Well	NE 1/4 Section 6-5- 18	G-036448	NDY
TBRP-G047900-R1	RP- Replacement Well	SW 1/4 Section 12-5- 17	G-047900	246098

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. No new well construction permit variances and one supplemental well permit was issued in the Republican Basin between January 1, 2016 and December 31, 2016.

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 5: Republican Basin Certified Irrigated Variances** (below).

TABLE 5: Republican Basin Certified Irrigated Variances			
Type of Variance	Section	Affected Acres	Comment
Certified Acre Correction	SW 1/4 Section 19-5- 15W	10.15	Request correction to certify irrigated acres, proof was provided showing historic and current irrigation of these acres.

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 2016 are shown in the next two tables. A summary of Municipal Water Use may be found in **TABLE 6: Republican Basin Municipal Water Use Data** (below). **TABLE 7** (page 7) shows Industrial and Commercial Water Use Data.

TABLE 6: Republican Basin Municipal Water Use Data (in gallons)					
Municipality	2012	2013	2014	2015	2016
Atlanta	33,219,000	23,124,400	20,357,400	21,729,800	18,953,600
Arapahoe	138,279,000	120,573,000	97,223,000	91,449,000	103,916,000
Holdrege	512,347,700	473,755,500	519,360,800	470,600,100	478,038,800
Wilcox	27,905,000	25,414,900	22,987,500	27,343,300	25,688,000

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 2016 landowners reported data from 1,610 metered wells in the Republican Basin. The metered wells reported irrigating 179,761.35 certified irrigated acres. There are 29 wells in the Republican Basin that are exempted from having flowme-

TABLE 7: Republican Basin Industrial and Commercial Water Use Data				
NDNR Reg. Number	Owner	Legal Description	Gallons Used	Comments
G-070393	NE Game & Parks, Sac-Wilcox WMA	Section 27 - 5 - 17W	0	Well not Used in 2016
G-030619	City of Holdrege	Section 9 - 5 - 18W		Well not Used in 2016
G-025572	City of Holdrege	Section 9 - 5 - 18W		Well not Used in 2016
G-135221	Geer Utility	Section 27 - 6 - 18W	2,436,340	
G-135220-R1	Geer Utility	Section 27 - 6 - 18W		Series with G-135221
G-009687	Holdrege County Club	Section 29 - 6 - 18W	24,540,400	
G-069908	Holdrege County Club	Section 29 - 6 - 18W	612,200	
G-096786	City of Holdrege	Section 34 - 6 - 18W	380,600	
G-071934	Sargent Irrigation Co Inc	Section 34 - 6 - 18W	146,800	
G-070168	Holdrege Irrigation	Section 34 - 6 - 18W	301,090	
G-179201	Tri-Basin NRD	Section 7-6- 21W	51,593	

ters 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.

#### X. RETIRED ACRES AND OTHER STREAMFLOW ACCRETION ACTIVITIES

Tri-Basin NRD started utilizing the facilities of Central Nebraska Public Power District (CNPPID) to provide groundwater recharge and to augment streamflows when the district and the NE Game and Parks Commission paid CNPPID to divert 9551 acre-feet of water from the Platte River into Elwood Reservoir in Gosper County in 2006. Additional diversions (see Appendix C and graph below) have been made regularly over the past eleven years. In all these instances, diversions were made when Platte streamflows exceeded target flows, or when irrigation deliveries were suspended due to heavy rainfall in the CNPPID irrigated area. Diversions into Elwood Reservoir and E-65 Canal provide groundwater recharge and "imported water" to Republican Basin water supplies.

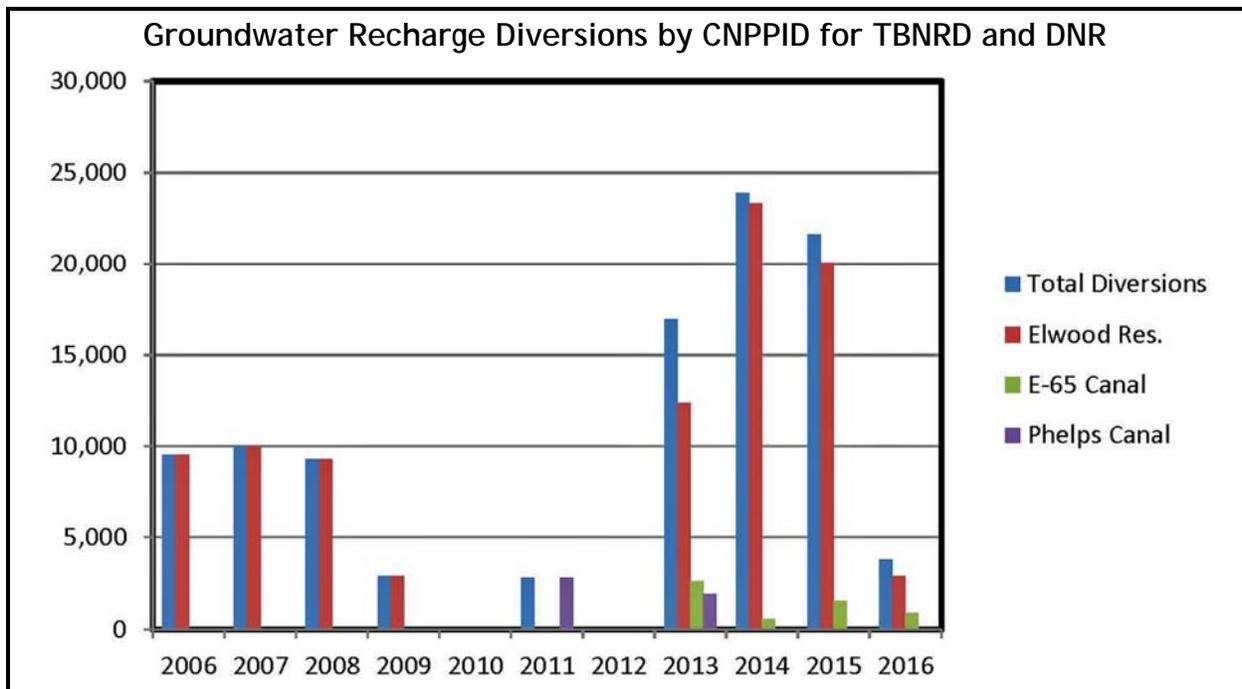
Tri-Basin and Lower Republican NRDs commissioned a feasibility study to examine directly diverting excess flows from the Platte via E-65 Canal to Turkey Creek, a Republican tributary in Gosper County. That study concluded that the diversion

project is feasible both hydrologically and economically (see Appendix D). Construction is anticipated in 2018.

Tri-Basin NRD also constructed a streamflow augmentation well on the east branch of Turkey Creek. This augmentation well is expected to go into operation in 2016, and is expected to pump as much as 1000 acre-feet per year starting in 2017.

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. Four of these contracts are set to expire by 2019.

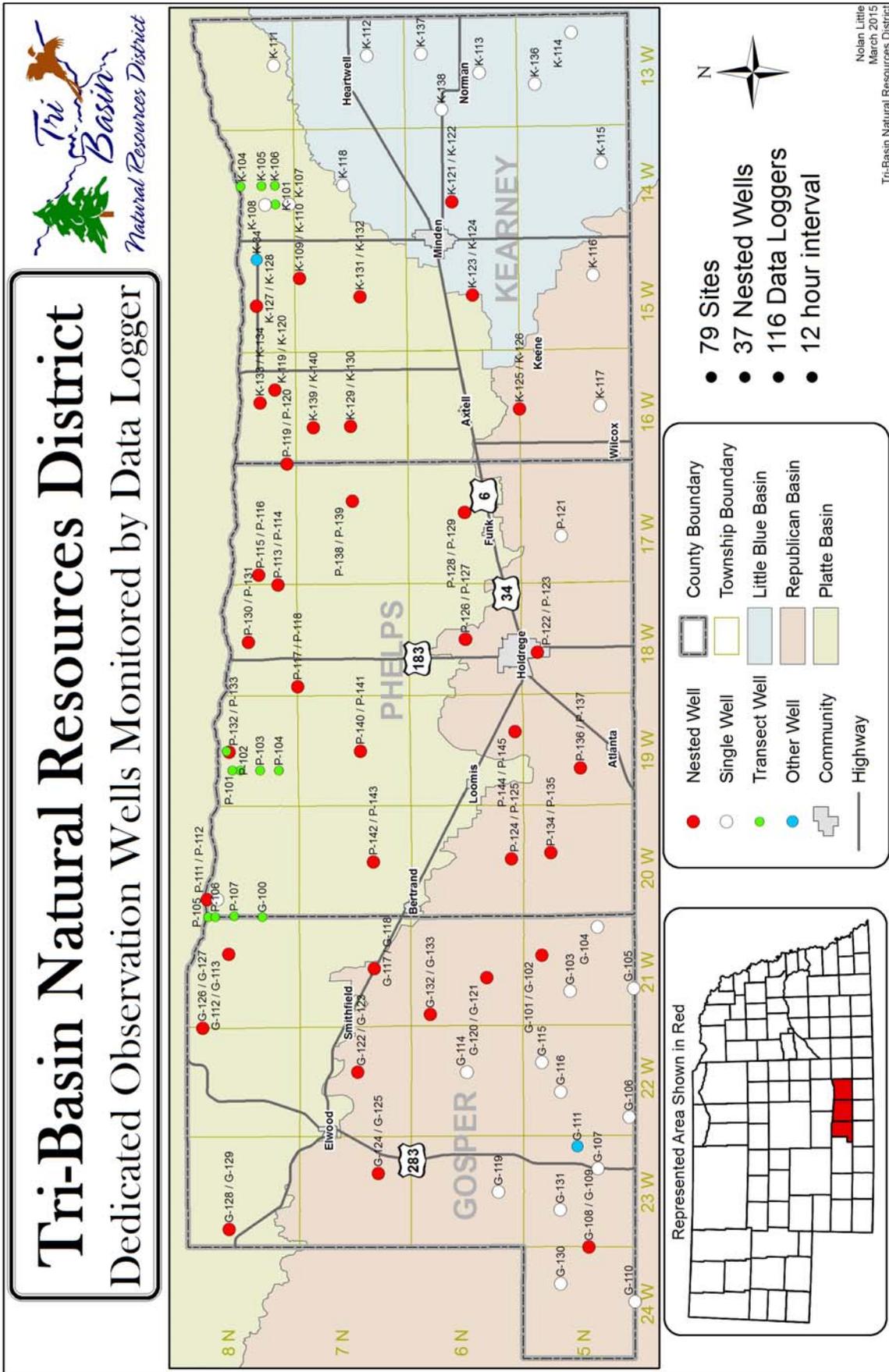
Landowners reported to TBNRD on district water use reports that conservation tillage practices have been adopted or continue to be utilized on 112,975.82 certified irrigated acres in the Republican Basin portion of the district during 2016 (no-till data is available from the Tri-Basin NRD office). Recent 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 28,243.75 acre-feet of water was conserved in the Republican Basin in TBNRD in 2017 through this conservation practice.



#### XI. GROUNDWATER LEVELS

TBNRD has an extensive network of 116 dedicated groundwater observation wells (44 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 13 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.

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

Updated February 8, 2017		Tri-Basin NRD Republican Basin Water Use																
		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016							
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	90,814.58	90,823.25								
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	51,898.96	53,338.05								
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	11,443,663,774	15,208,478,608								
Average acre Inches	6.37	7.61	7.78	4.6	6.08	14.43	13.09	6.03	8.12	10.50								
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	7,894.43	7,652.13								
Gallons Used	5,988,777,976	7,023,928,292	6,659,829,299	3,811,778,122	4,761,461,576	9,377,865,221	5,972,669,159	2,358,776,689	3,343,075,013	4,134,425,635								
Average acre Inches	10.13	12.34	13.77	8.12	10.67	20.76	24.67	11.69	15.60	19.90								
Combination																		
Actual Reported 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	23,976.76	23,270.96								
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	5,701,876,965	7,562,355,869								
Average acre Inches	6.96	8.83	8.61	5.2	7.22	14.97	14.41	5.88	8.76	11.97								
Drip Tape																		
Actual Reported Acres								435.40	435.40	670.40								
Gallons Used								79,980,790	133,860,021	189,132,035								
Average acre Inches								6.76	11.32	10.39								
Wildlife Areas																		
Gallons Used									14,106,000	45,054,000								

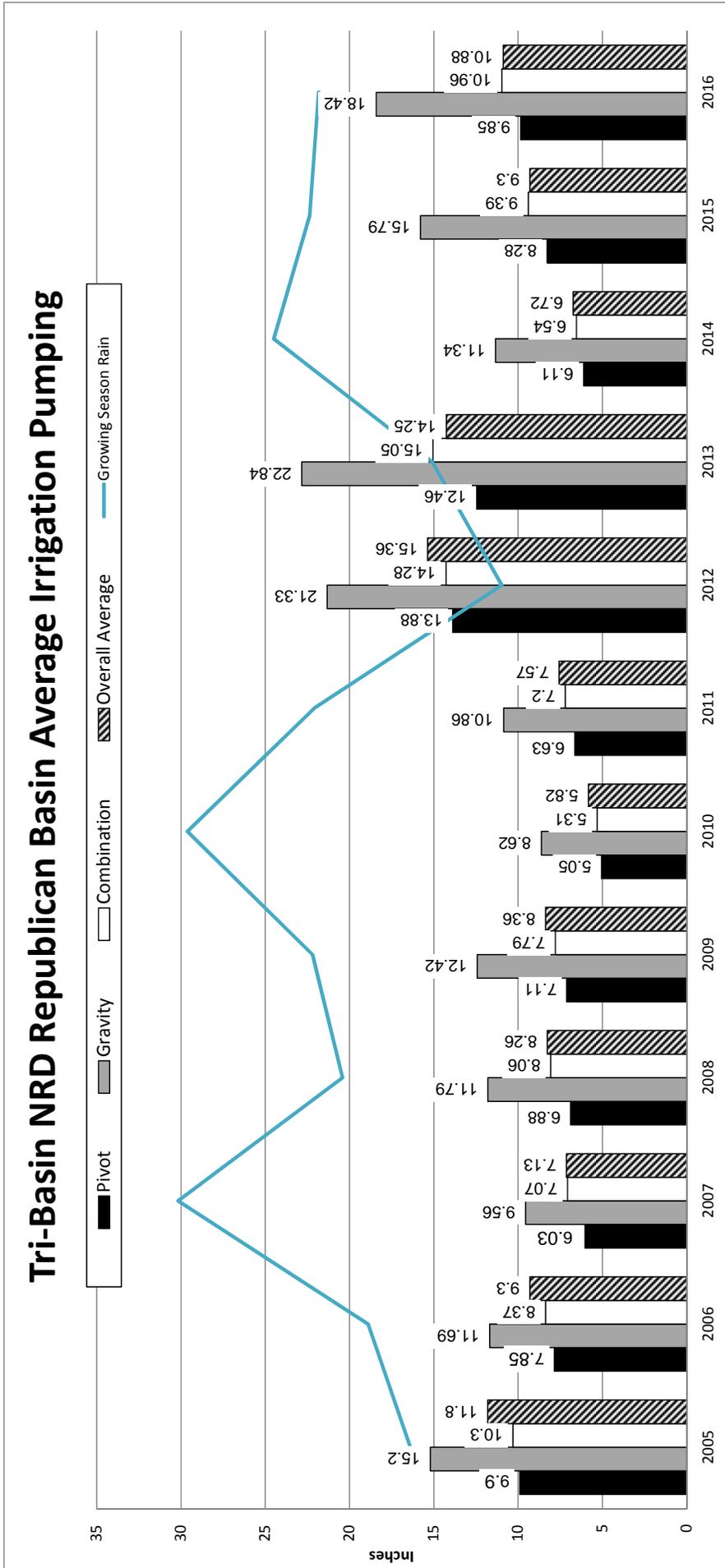
NOTES: When meters are not working estimates are used.

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

Updated February 8, 2017		Tri-Basin NRD Republican Basin Water Use																			
		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016										
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	57,808.36											57,809.99	
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	34,890.31												35,728.47
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	7,540,338,329												8,270,724,930
Average acre Inches	5.67	6.54	6.78	6.5	7.90	13.94	12.89	6.59	7.96												8.53
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	4,590.33												4,193.53
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	1,936,717,927												1,618,658,819
Average acre Inches	9.07	12.27	11.70	10.8	11.95	24.07	22.32	12.03	15.54												14.21
Combination																					
Actual Reported Acres	8308.65	8434.50	8,456.40	8,294.00	8,603.37	8,571.25	14,310.51	14,543.61	14,714.00												14,829.31
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	4,145,559,266												3,830,557,883
Average acre Inches	7.70	8.12	7.43	6.54	7.48	14.34	18.10	7.76	10.38												9.51
Drip Tape																					
Actual Reported Acres														360.77							510.37
Gallons Used														84,044,100							133,466,835
Average acre Inches														8.58							12.57
Wildlife Areas																					
Gallons Used																					76,368,100

NOTES: When meters are not working estimates are used.

Tri-Basin NRD – Republican Basin Annual Report  
Appendix B



# CNPPID Groundwater Recharge Diversions Summary

## 2016 Republican Basin Annual Report

### Appendix C

Dates of Recharge diversions	Elwood Reservoir			E65 Canal			Phelps Canal			Funds				
	AF, in	\$/af	\$/other Notes	AF, in	\$/af	\$/other Notes	AF, in	\$/af	\$/other Notes	Total \$	PRRIP	NDNR	TBNRD	NGPC
1/24/2006 to 2/13/2006	6131		gravity, Appears to be no charges							NA				
8/8/2006 to 2/13/2006	627		gravity, Appears to be no charges							NA				
12/23/2006 to 12/31/2006	2793		gravity, IO costs, NGPC was billed for 50% of the IO costs							\$ 16,752.44				\$ 16,752.44
5/30/2007 to 6/25/2007	7261		gravity, IO costs							\$ 57,819.51				\$ 57,819.51
7/9/2007 to 7/11/2007	419		gravity, Not billed							NA				
7/31/2007 to 8/8/2007	2277		gravity, IO Costs							\$ 17,686.39				\$ 17,686.39
5/23/2008 to 6/11/2008	6963		4240 af gravity, 2543 pumped, \$ pump & hydro							\$ 66,568.32				\$ 33,284.16 \$ 33,284.16
7/18/2008 to 7/21/2008	1168		pumped, \$pump & hydro							\$ 12,878.02				\$ 6,439.01 \$ 6,439.01
8/10/2008 to 8/19/2008	1193		gravity, \$ for hydro offset							\$ 10,498.40				\$ 5,249.20 \$ 5,249.20
6/21/2009 to 8/21/2009	2906		diversions stopped once irr decision was made							\$ 25,572.80				\$ 12,786.40 \$ 12,786.40
9/28/2011 to 1/5/2012										\$ 138,954.00	\$ 69,477.00	\$ 41,686.20	\$ 27,790.80	
12/4/2012 to 3/11/2013										\$ 102,200.00	\$ 102,200.00			
9/19/2013 to 10/31/2013	12385	35	Pumped							\$ 433,475.00		\$ 260,085.00	\$ 173,390.00	
				2615	35	Canal to MP 23.7-3.2, Cottonwood WPA, and 36.25								
6/10/2014 to 7/7/2014	13237	39	Pumped, 15,000 af contract with amendment							\$ 516,243.00		\$ 258,121.50	\$ 258,121.50	
11/26/2014 to 11/30/2014	1763	39	Pumped, finished contract 11-26 to 11-30							\$ 68,757.00		\$ 34,378.50	\$ 34,378.50	
	37	NA	Not billed but pumped into Elwood							NA				
										NA				
12/9/2014 to 12/27/2014	8306	41	Pumped, 5000 af contract + 5000 af amendment							\$ 340,677.20		\$ 170,338.60	\$ 170,338.60	
11/26/2014 to 12/31/2014										\$ 21,549.80		\$ 10,774.90	\$ 10,774.90	
										\$ 63,339.30	\$ 31,669.65	\$ 31,669.65		
1/1/2015 to 2/14/2015										\$ 46,447.13	\$ 23,223.56	\$ 23,223.56		
										\$ 15,267.10	\$ 15,267.10			
1/14/2015 to 1/21/2015	1028	42.64	Finished out 10,000 af contract, pumped							\$ 49,868.03		\$ 21,994.02	\$ 21,994.02	
										\$ 3,750.45		\$ 1,875.22	\$ 1,875.22	
5/11/2015 to 8/24/2015	6800	42.64	For NDNR/TBNRD, finished out Amendments No 1 thru No 4 (Total 17,000 AF)							\$ 289,952.00		\$ 144,976.00	\$ 144,976.00	
										\$ 7,904.00		\$ 3,952.00	\$ 3,952.00	
										\$ 384,058.48	\$ 384,058.48			
11/23/2015 to 12/18/2015	3227	42.64	For NDNR/TBNRD, 11-16-15 Agreement for 4500 af total Canal and Elwood							\$ 137,599.28		\$ 68,799.64	\$ 68,799.64	
										\$ 50,308.96		\$ 25,154.48	\$ 25,154.48	
11/16/2015 to 12/31/2015										\$ 246,288.64	\$ 246,288.64			
										\$ 20,989.80	\$ 20,989.80			
11/16/2015 to 12/31/2015										\$ 62,969.40	\$ 62,969.40			
9/15/2016 to 12/31/2016										\$ 126,197.32	\$ 94,647.99	\$ 31,549.33	\$ 31,549.33	
12/9/2016 to 12/31/2016	5760	44.35								\$ 255,452.40	\$ 127,726.20	\$ 75,535.72	\$ 51,090.48	
12/10/2016 to 12/31/2016										\$ 34,512.00		\$ 20,707.20	\$ 13,804.80	

**Platte-Republican Diversion Project Feasibility Review  
2016 Republican Basin Annual Report  
Appendix D**