



Water Jamboree 2021 - Water Safety Session at Harlan County Reservoir on the Republican River

2020 Annual Report of Integrated Water Management Activities in the Republican Basin Within Tri-Basin NRD



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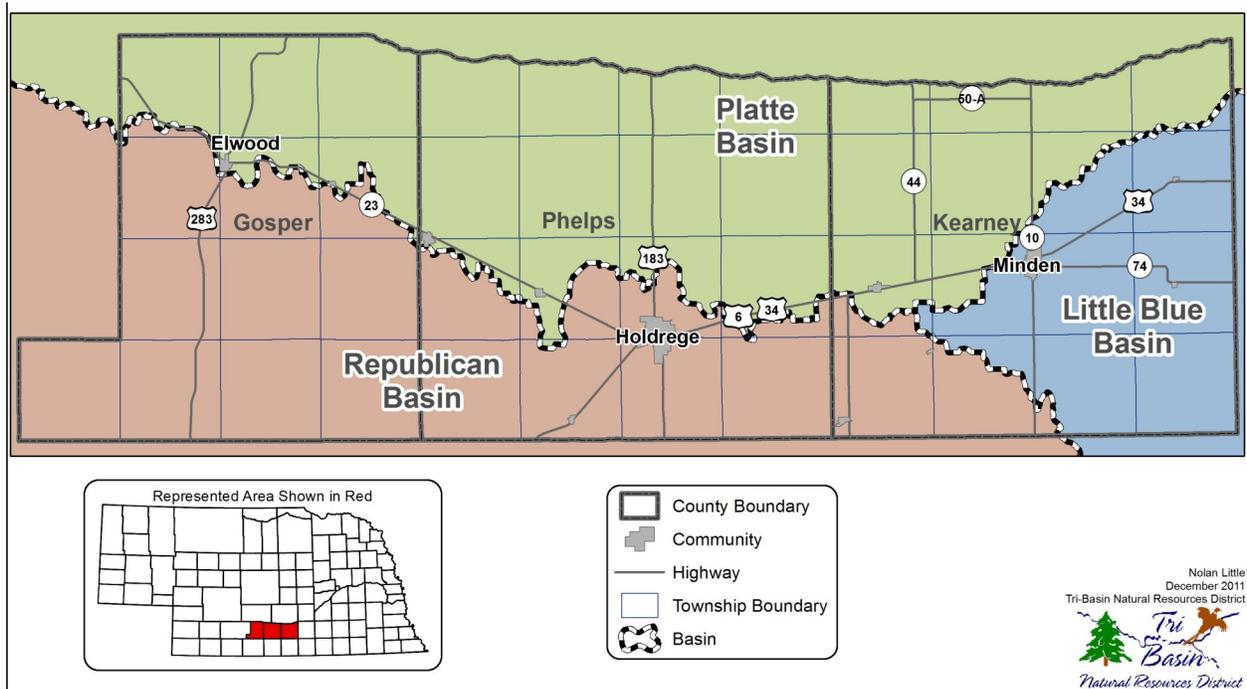
October 2021

**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 2020 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. Development of additional certified irrigated acres in the Republican Basin was prohibited as of September 15, 2004. Since that time, corrections and revisions to the certified acre database have occurred with a net result of 189,734.75 certified irrigated acres in the Republican Basin portion of Tri-Basin NRD as of December 31, 2020. Data regarding certified irrigated acres can be found in **TABLE 1: Certified Irrigated Acres**, below. The commingled acres referred to in the table are acres that may be watered with either groundwater or surface water, or a combination of both. Detailed information about locations and distribution of certified irrigated acres is available in the Tri-Basin NRD office.

| TABLE 1: Certified Irrigated Acres | | | | | |
|------------------------------------|------|-------------|------------------|---------------|-------------|
| County | Year | Groundwater | Commingled Acres | Surface Water | Totals |
| Gosper | 2012 | 56,489.90 | 1,057.16 | 173.00 | 57,720.06 |
| | 2013 | 56,501.89 | 1,013.68 | 216.48 | 57,732.05 |
| | 2014 | 56,494.37 | 1,013.68 | 123.48 | 57,631.53 |
| | 2015 | 56,671.20 | 1,013.68 | 123.48 | 57,808.36 |
| | 2016 | 56,707.83 | 1,013.68 | 88.48 | 57,809.99 |
| | 2017 | 56,590.81 | 1,017.11 | 87.98 | 57,695.90 |
| | 2018 | 56,605.10 | 1,017.11 | 87.98 | 57,710.19 |
| | 2019 | 56,604.94 | 1,017.11 | 87.98 | 57,710.03 |
| | 2020 | 56,531.46 | 888.89 | 87.98 | 57,508.33 |
| Kearney | 2012 | 40,955.11 | 427.59 | | 41,382.70 |
| | 2013 | 40,938.11 | 427.59 | | 41,365.70 |
| | 2014 | 40,937.45 | 427.59 | | 41,365.04 |
| | 2015 | 40,918.57 | 427.59 | | 41,346.16 |
| | 2016 | 40,922.16 | 427.59 | | 41,349.75 |
| | 2017 | 40,938.16 | 427.59 | | 41,365.75 |
| | 2018 | 40,941.91 | 427.59 | | 41,369.50 |
| | 2019 | 40,975.52 | 427.59 | | 41,403.11 |
| | 2020 | 40,975.52 | 427.59 | | 41,403.11 |
| Phelps | 2012 | 85,504.59 | 4,532.56 | 236.51 | 90,273.66 |
| | 2013 | 85,550.50 | 4,562.40 | 236.51 | 90,349.41 |
| | 2014 | 85,926.68 | 4,562.66 | 161.23 | 90,650.57 |
| | 2015 | 86,090.68 | 4,488.25 | 235.65 | 90,814.58 |
| | 2016 | 86,100.60 | 4,488.25 | 235.65 | 90,824.50 |
| | 2017 | 86,098.12 | 4,488.25 | 235.65 | 90,822.02 |
| | 2018 | 86,071.22 | 4,645.38 | 74.42 | 91,180.93 |
| | 2019 | 86,093.19 | 4,645.38 | 74.42 | 90,812.99 |
| | 2020 | 86,227.27 | 4,521.34 | 74.70 | 90,823.31 |
| District Totals | 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 |
| | 2015 | 183,680.45 | 5,929.52 | 359.13 | *189,969.10 |
| | 2016 | 183,730.59 | 5,929.52 | 324.13 | *189,984.24 |
| | 2017 | 183,627.09 | 5,932.95 | 323.63 | *189,883.67 |
| | 2018 | 183,618.23 | 6,090.08 | 162.40 | *189,870.71 |
| | 2019 | 183,673.65 | 6,090.08 | 162.40 | *189,926.13 |
| | 2020 | 183,734.25 | 5,837.82 | 162.68 | *189,734.75 |

*total does not include 342.2 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, 2020 and December 31, 2020 the District approved one certified irrigated acre transfer in the Republican Basin. A total of 4.1 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).

| Table 2A: Republican Basin Transfers - Mitigation (From Source) | | |
|--|--------------------|-------------------|
| NRD Permit Number | Legal Location | Decertified Acres |
| TBAT-0357 | Section 27-6- 19 W | 4.1 |

| Table 2B: Republican Basin Transfers - Destination (To Location) | | |
|---|-------------------|---------------------|
| NRD Permit Number | Legal Location | New Irrigated Acres |
| TBAT-0357 | Section 20-5- 19W | 4.1 |

- B. TBNRD regulates groundwater pumping off of overlying land by requiring landowners to secure groundwater transfer permits before they can pump groundwater to parcels 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 three groundwater transfer permits involving 125.4 acres in the Republican Basin between January 1, 2020 and December 31, 2020 (see **TABLE 3: Groundwater Transfers**, below).

| TABLE 3: Groundwater Transfers | | | | |
|---------------------------------------|-------------------|---|-------------------|---------|
| NRD Permit Number | Legal Location | Neighboring Certified Acres to be watered with well | Well Registration | Well ID |
| GWT-0343 | Section 4-5- 24W | 104 | G-046981 | 261313 |
| GWT-0344 | Section 20-5- 19W | 4.1 | G-001341 | 4762 |
| GWT-0345 | Section 20-5- 19W | 17.3 | G-001341 | 4762 |

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 4: TBNRD Well Permits | |
|--|--------|
| Permit Type | Number |
| New (variance) irrigation | 0 |
| Replacement irrigation | 6 |
| Conditional replacement irrigation - supplemental to groundwater | 0 |
| Conditional replacement irrigation - supplemental to surface water | 0 |
| Dewatering | 0 |
| New Commercial/industrial (Acre transfer involved) | 0 |
| Domestic (over 50 gallons per minute) | 0 |

- B. **TABLE 4: TBNRD Well Permits** (above) is a breakdown of well permits TBNRD issued in the Republican Basin between January 1, 2020 and December 31, 2020. A detailed listing of well permits issued by TBNRD in 2020 is found in **TABLE 5: Well Permit Summary** (below).

| Table 5: Well Permit Summary | | | | |
|------------------------------|------------------|--------------------------|------------------------------|--------------------|
| NRD Permit Number | Well Permit Type | Legal Description | DNR Well Registration Number | DNR Well ID Number |
| TBRP-G046981-R1 | Replacement | NW 1/4 Section 4-5- 24W | G-046981 | 261313 |
| TBRP-G053678-R1 | Replacement | SE 1/4 Section 31-6- 16W | G-053678 | 262077 |
| TBRP-G032452-R1 | Replacement | NE 1/4 Section 28-6- 19W | G-032452 | 262076 |
| TBRP-G064932-R1 | Replacement | SW 1/4 Section 36-7- 21W | G-064932 | 262234 |
| TBRP-G029398-R1 | Replacement | SE 1/4 Section 27-5- 19W | G-029398 | 263352 |
| TBRP-G025834-R1 | Replacement | SW 1/4 Section 24-5- 15W | G-025834 | 263890 |

VI. VARIANCES

TBNRD considers variances to district rules regarding certified irrigated acre transfers. In 2020, District directors approved one variance allowing a well being replaced to be modified to a stock well rather than abandoned. The variance had no bearing on the certified irrigated acres associated with the parcel. Information about this variance is in **TABLE 6: Republican Basin Certified Irrigated Variances** (below).

| Table 6: Republican Basin Well and Certified Irrigated Variances | | | | |
|--|---------------------------|------------------|----------------|---|
| Date | Variance Type | Location | Affected Acres | IMP Comments |
| 5/12/2020 | Well Requirement Variance | Section 5-5- 24W | | Variance on Abandonment Requirement - Modify Irrigation Well to Stockwell |

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 2020 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) and **TABLE 8: Industrial and Commercial Water Use Data** (below).

| TABLE 7: Republican Basin Municipal Water Use Data (in gallons) | | | | | | | | | |
|--|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------|-------------|-------------|
| Municipality | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| Atlanta | 33,219,000 | 23,124,400 | 20,357,400 | 21,729,800 | 18,953,600 | 14,161,100 | 10,210,500 | 9,046,300 | 17,806,800 |
| Arapahoe | 138,279,000 | 120,573,000 | 97,223,000 | 91,449,000 | 103,916,000 | 101,311,000 | 90,286,000 | 83,598,000 | 115,461,000 |
| Holdrege | 512,347,700 | 473,755,500 | 519,360,800 | 470,600,100 | 478,038,800 | 441,265,200 | 402,611,800 | 373,071,300 | 491,922,000 |
| Wilcox | 27,905,000 | 25,414,900 | 22,987,500 | 27,343,300 | 25,688,000 | 25,049,600 | 26,343,100 | 28,349,000 | 34,895,000 |
| Total | 611,122,200 | 626,596,400 | 581,786,900 | 529,451,400 | 494,064,600 | 660,084,800 | | | |

| TABLE 8: Republican Basin Industrial and Commercial Water Use Data | | | | |
|---|---------------------------|---------------------------------|--------------------------|---------------------|
| DNR Well Registration Number | DNR Well ID Number | Owner | Legal Description | Gallons Used |
| G-030619 | 37512 | City of Holdrege | Section 9-5- 18 | 0 |
| G-025572 | 32122 | City of Holdrege | Section 9-5- 18 | 0 |
| G-096786 | 109719 | City of Holdrege | Section 34-6- 18 | 1,556,300 |
| G-135221 | 169721 | Geer Utility | Section 27-6- 18 | 1,884,790 |
| G-135220 | 171309 | Geer Utility | Section 27-6- 18 | series well |
| G-069908 | 78071 | Holdrege County Club | Section 29-6- 18 | 24,642,300 |
| G-009687 | 14429 | Holdrege County Club | Section 29-6- 18 | 23,759,300 |
| G-070168 | 78331 | Holdrege Well Service | Section 34-6- 18 | 310,070 |
| G-070393 | 78555 | NE Game & Parks, Sac-Wilcox WMA | Section 27-5- 17 | 9,700 |
| G-184679 | 250906 | Norder Supply Inc | Section 12-6- 23 | 941,000 |
| G-071934 | 80096 | Sargent Irrigation Co Inc | Section 34-6- 18 | 141,100 |
| G-179201 | 241336 | Tri-Basin NRD | Section 7-6- 21 | 129,525 |

VIII. FLOWMETER DATA

TBNRD requires flowmeters to be installed on all irrigation, commercial, and industrial wells in the Republican Basin portion of the district. Annual water use is reported to TBNRD. In 2020, landowners reported data from 1,489 metered wells in the Republican Basin, which provided irrigation for 181,840.00 certified irrigated acres. There are 28 wells in the Republican Basin that are exempt from having flowmeters because they irrigate less than 15 acres. Water use on these wells is estimated and reported annually. All district flowmeter data is reported annually to the Nebraska Department of Natural Resources (NDNR) for 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.

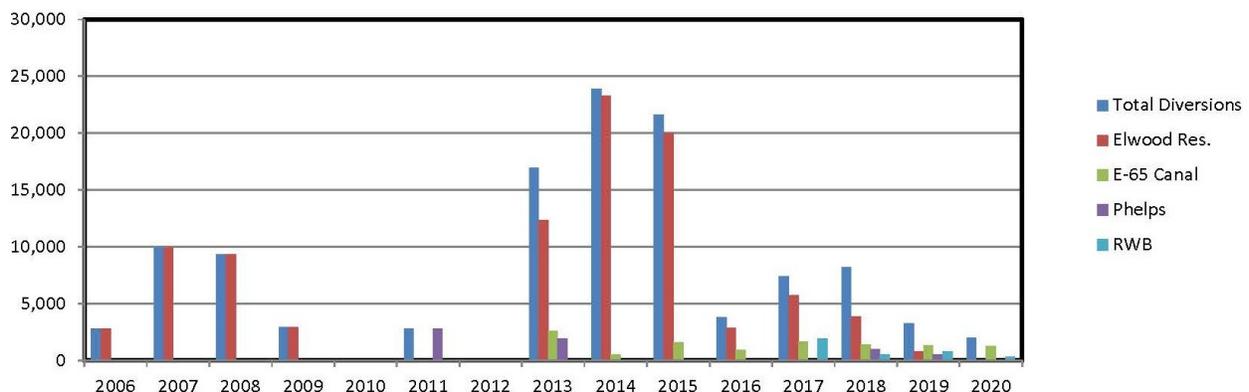
IX. WATER BANKING ACTIVITIES

TBNRD has initiated a new program called the Water Conservation Incentive Program (see program summary in **Appendix D**). Participants in this program sign contracts agreeing to limit irrigation to the UNL Average Corn Crop Irrigation requirement. In exchange, Tri-Basin NRD agrees to pay them if they use less water than their allocated amount. Participants will be provided with credit accounts that track available water use credits for participating fields. A total of 1,449.57 certified irrigated acres in the Republican Basin portion of the district were approved in 2020 for this new program. The TBNRD Board of Directors has committed funds sufficient to pay incentives for as many as 8,000 acres to be enrolled in the program.

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 9,551 acre-feet of water from the Platte River into Elwood Reservoir in Gosper County in 2006. Additional diversions (see **Appendix C** and **Graph 1** below) have been made regularly over the ensuing 14 years. In all these instances, diversions were made when Platte streamflows exceeded target flows, or when irrigation deliveries were suspended because of heavy rainfall in the CNPPID irrigated area. Diversions into Elwood Reservoir and E-65 Canal provide groundwater recharge and “imported water” to augment 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. The partners have purchased a 330-acre parcel of pasture

Graph 1: Platte Excess Flow Diversions by CNPPID for TBNRD and NDNR



at the upper end of Turkey Creek Canyon. We have also applied for a water right for the project. Construction is anticipated in 2022, assuming that water right is approved this year.

Tri-Basin NRD also constructed a streamflow augmentation well on the east branch of Turkey Creek. This augmentation well is capable of pumping as much as 1,000 acre-feet per year. The well has been tested and is fully functional. It hasn't been used yet for augmentation.

Tri-Basin NRD records indicate that 1,872.38 irrigated acres are enrolled in USDA Conservation Reserve Enhancement Program (CREP) in the Republican Basin portion of the district.

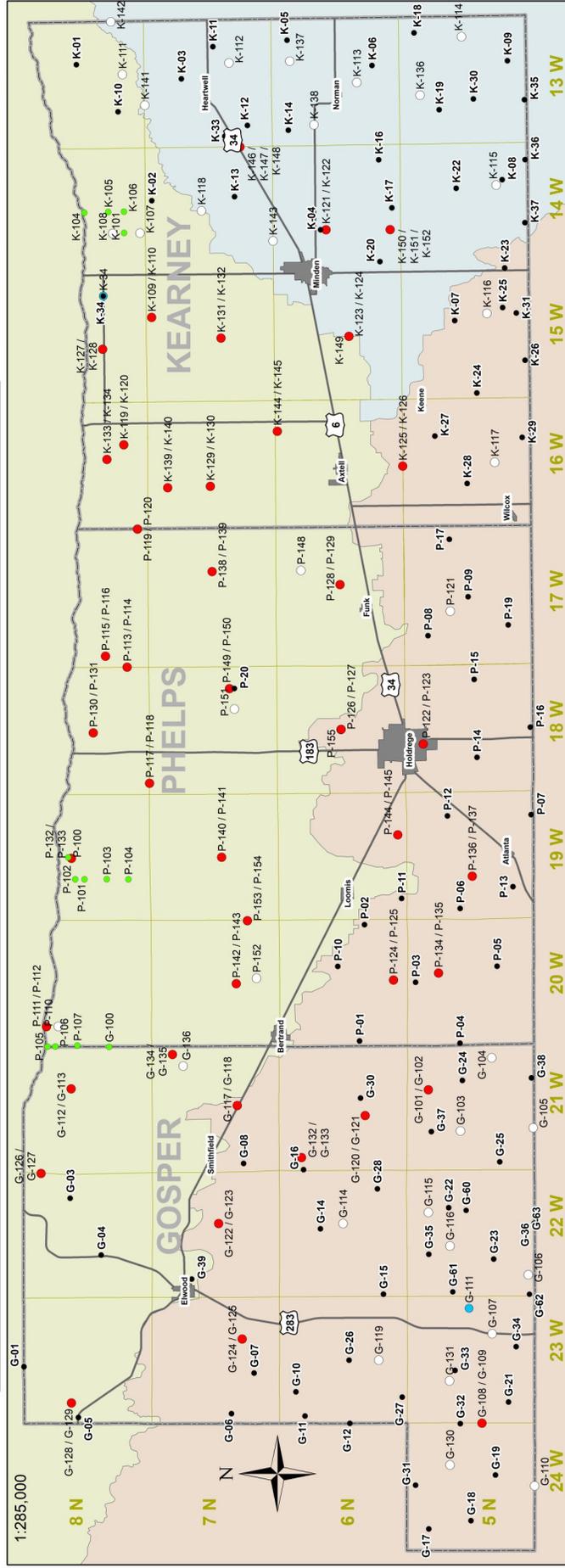
On district water use reports, landowners reported to TBNRD that conservation tillage practices have been adopted or continue to be utilized on 70,605.68 certified irrigated acres in the Republican Basin portion of the district during 2020 (no-till data is available from the Tri-Basin NRD office). University research (Klocke, et al, 2009) indicates that evapotranspiration (ET) is reduced by as much as 3 inches per acre on minimally tilled irrigated cropland, as compared to conventional tillage systems. If the estimates of no-till acres are accurate, as much as 17,651.25 acre-feet of water was conserved in the Republican Basin in TBNRD in 2020 through this conservation practice.

XI. GROUNDWATER LEVELS

TBNRD has an extensive network of 140 dedicated groundwater observation wells (45 in the Republican Basin) and 90 irrigation wells (60 in the Republican Basin) that are used to measure groundwater levels (see **Map 2**, page 9). TBNRD also works cooperatively with CNPPID to gather groundwater level data. Data from 10 wells in the Republican Basin that are measured by CNPPID are included in TBNRD's groundwater observation well data base. District water level data is reported semi-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 Natural Resources District Static Water Measurement Wells

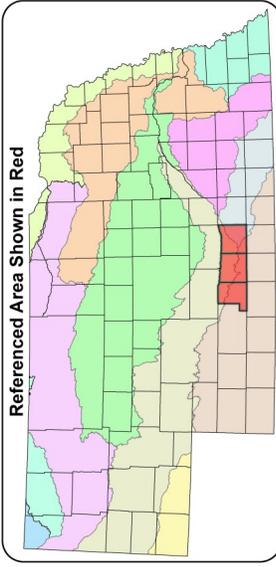


Well Types

- Irrigation Well
- Transect Well
- Nested Well
- Single Well
- Other Well
- Community

Geographic Features

- Highway
- County Boundary
- Township
- Little Blue Basin
- Republican Basin
- Platte Basin



- Observation Well Stats:**
- 93 Sites
 - 43 Nested Wells
 - 137 Data Loggers
 - 12 Hour Interval
- Irrigation Well Stats:**
- 10 Platte Basin
 - 21 Little Blue Basin
 - 59 Republican Basin
 - 90 Measured Wells
 - Spring & Fall

Nolan Little
May 2021
Tri-Basin Natural Resources District

Appendix A: Tri-Basin NRD – Republican Basin

**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 1.13, 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.

- 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.

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.

Appendix A: Tri-Basin NRD – Republican Basin

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 |

Appendix B: Tri-Basin NRD – Republican Basin Water Use

| Tri-Basin NRD Republican Basin Water Use | | | | | | | Kearney County | | | |
|---|---------------|----------------|----------------|---------------|---------------|---------------|-----------------------|--|--|--|
| YEAR | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | | | |
| Certified Irrigated Acres | 41,365.04 | 41,346.16 | 41,349.75 | 41,370.75 | 41,369.50 | 41,403.11 | 41,403.11 | | | |
| Pivots | | | | | | | | | | |
| Actual Reported Acres | 24,765.78 | 24,650.91 | 25,014.85 | 31,018.14 | 31,190.1 | 30,659.10 | 32,319.00 | | | |
| Gallons Used | 3,748,611,721 | 6,060,475,376 | 7,037,163,570 | 5,486,469,797 | 4,713,924,522 | 3,331,595,134 | 9,934,337,498 | | | |
| Average acre inches | 5.57 | 9.05 | 10.36 | 6.51 | 5.6 | 4.00 | 11.32 | | | |
| Gravity | | | | | | | | | | |
| Actual Reported Acres | 3,817.91 | 3,584.80 | 3,458.16 | 2,624.22 | 2,169.7 | 1,858.60 | 2,360.80 | | | |
| Gallons Used | 1,004,222,115 | 1,610,758,519 | 1,902,782,114 | 896,621,660 | 726,021,399 | 576,820,423 | 1,413,985,050 | | | |
| Average acre inches | 9.69 | 16.55 | 20.26 | 12.58 | 12.3 | 11.40 | 22.06 | | | |
| Combination | | | | | | | | | | |
| Actual Reported Acres | 9,834.82 | 10,367.16 | 10,052.32 | 4,977.82 | 4,968.2 | 5,075.90 | 5,171.50 | | | |
| Gallons Used | 1,662,313,886 | 2,655,672,700 | 2,938,231,843 | 970,126,131 | 820,374,310 | 568,830,323 | 1,529,432,009 | | | |
| Average acre inches | 6.22 | 9.43 | 10.76 | 7.18 | 6.1 | 4.13 | 10.89 | | | |
| Drip Tape | | | | | | | | | | |
| Actual Reported Acres | 37.00 | 37.00 | 37.00 | 37.00 | 37.0 | 82.00 | 37.00 | | | |
| Gallons Used | 7,942,200 | 18,391,400 | 12,882,000 | 9,601,700 | 8,759,500 | 13,702,512 | 15,770,700 | | | |
| Average acre inches | 7.91 | 18.31 | 12.82 | 9.56 | 8.7 | 6.15 | 15.70 | | | |
| Total Irrigation Use | | | | | | | | | | |
| Actual Reported Acres | 38,455.51 | 38,639.87 | 38,562.33 | 38,657.18 | 38,365.08 | 37,675.60 | 39,888.30 | | | |
| Gallons Used | 6,423,089,922 | 10,345,297,995 | 11,891,059,527 | 7,362,819,288 | 6,269,079,731 | 4,490,948,392 | 12,893,525,257 | | | |
| Average acre inches | 6.15 | 9.86 | 11.36 | 7.01 | 6.02 | 4.39 | 11.90 | | | |
| Misc [gallons used] | | | | | | | | | | |
| Wildlife Areas | | 104,039,000 | 10,227,000 | 58,700,000 | 52,748,000 | 8,000 | | | | |
| Other Uses | | | | | 40,459 | | | | | |
| Total Gallons Used | 6,423,089,922 | 10,449,336,995 | 11,901,286,527 | 7,421,519,288 | 6,321,868,191 | 4,490,956,392 | 12,893,525,257 | | | |

Appendix B: Tri-Basin NRD – Republican Basin Water Use

| Tri-Basin NRD Republican Basin Water Use | | | | | | PHELPS COUNTY | | | |
|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--|--|
| YEAR | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | | |
| Certified Irrigated Acres | 90,650.57 | 90,814.58 | 90,823.25 | 90,822.02 | 91,180.93 | 91,186.60 | 91,236.21 | | |
| Pivots | | | | | | | | | |
| Actual Reported Acres | 50,670.04 | 51,898.96 | 53,338.05 | 55,447.14 | 55,100.54 | 56,220.80 | 56,882.10 | | |
| Gallons Used | 8,303,306,913 | 11,443,663,774 | 15,208,478,608 | 10,910,834,987 | 6,762,281,160 | 7,482,177,323 | 15,603,732,760 | | |
| Average acre Inches | 6.03 | 8.12 | 10.50 | 7.25 | 4.52 | 4.90 | 10.10 | | |
| Gravity | | | | | | | | | |
| Actual Reported Acres | 7,431.08 | 7,894.43 | 7,652.13 | 6,145.48 | 5,529.48 | 5,184.00 | 5,960.70 | | |
| Gallons Used | 2,358,776,689 | 3,343,075,013 | 4,134,425,635 | 2,295,801,707 | 1,765,607,050 | 1,504,333,084 | 3,461,445,077 | | |
| Average acre Inches | 11.69 | 15.60 | 19.90 | 13.76 | 11.76 | 10.69 | 21.39 | | |
| Combination | | | | | | | | | |
| Actual Reported Acres | 22,523.31 | 23,976.76 | 23,270.96 | 22,411.53 | 22,387.63 | 21,745.80 | 22,997.00 | | |
| Gallons Used | 3,596,843,384 | 5,701,876,965 | 7,562,355,869 | 4,819,237,536 | 2,958,296,992 | 3,141,038,609 | 6,985,259,208 | | |
| Average acre Inches | 5.88 | 8.76 | 11.97 | 7.92 | 4.87 | 5.32 | 11.19 | | |
| Drip Tape | | | | | | | | | |
| Actual Reported Acres | 435.40 | 435.40 | 670.40 | 732.40 | 732.40 | 856.00 | 733.40 | | |
| Gallons Used | 79,980,790 | 133,860,021 | 189,132,035 | 155,429,742 | 100,822,467 | 135,178,288 | 200,010,610 | | |
| Average acre Inches | 6.76 | 11.32 | 10.39 | 7.82 | 5.07 | 5.82 | 10.04 | | |
| Total Irrigation Use | | | | | | | | | |
| Actual Reported Acres | 81,059.83 | 84,205.55 | 84,931.54 | 84,736.55 | 83,750.05 | 84,006.60 | 86,573.20 | | |
| Gallons Used | 14,338,907,776 | 20,622,475,773 | 27,094,392,147 | 18,181,303,972 | 11,587,007,669 | 12,262,727,304 | 26,250,447,655 | | |
| Average acre Inches | 6.51 | 9.02 | 11.75 | 7.90 | 5.10 | 5.38 | 11.17 | | |
| Misc [gallons used] | | | | | | | | | |
| Wildlife Areas | | 14,106,000 | 45,054,000 | 58,903,200 | 43,286,200 | 21,822,300 | 96,073,100 | | |
| Other Uses | | | | | | 5,000 | 349,200 | | |
| Total Gallons Used | 14,338,907,776 | 20,636,581,773 | 27,139,446,147 | 18,240,207,172 | 11,630,293,869 | 12,284,554,604 | 26,346,869,955 | | |

Appendix B: Tri-Basin NRD – Republican Basin Water Use

| Tri-Basin NRD Republican Basin Water Use | | | | | | Gosper County | | | |
|--|----------------|----------------|----------------|----------------|---------------|---------------|----------------|--|--|
| YEAR | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | | |
| Certified Irrigated Acres | 57,631.53 | 57,808.36 | 57,809.99 | 57,689.54 | 57,710.19 | 57,710.03 | 57,495.14 | | |
| Pivots | | | | | | | | | |
| Actual Reported Acres | 34,731.48 | 34,890.31 | 35,728.47 | 36,932.09 | 36,354.3 | 35,626.34 | 36,422.80 | | |
| Gallons Used | 6,214,034,271 | 7,540,338,329 | 8,270,724,930 | 7,646,156,083 | 5,415,780,801 | 4,561,602,106 | 9,304,414,461 | | |
| Average acre Inches | 6.59 | 7.96 | 8.53 | 7.62 | 5.5 | 4.72 | 9.41 | | |
| Gravity | | | | | | | | | |
| Actual Reported Acres | 5,313.43 | 4,590.33 | 4,193.53 | 3,398.67 | 3,371.67 | 3,183.67 | 3,600.60 | | |
| Gallons Used | 1,735,788,826 | 1,936,717,927 | 1,618,658,819 | 1,485,661,126 | 900,908,023 | 712,867,325 | 1,892,260,153 | | |
| Average acre Inches | 12.03 | 15.54 | 14.21 | 16.10 | 9.84 | 8.25 | 19.35 | | |
| Combination | | | | | | | | | |
| Actual Reported Acres | 14,543.61 | 14,714.00 | 14,829.31 | 14,498.23 | 14,483.43 | 13,409.90 | 14,731.30 | | |
| Gallons Used | 3,063,979,197 | 4,145,559,266 | 3,830,557,883 | 3,437,938,742 | 2,228,362,381 | 1,809,296,480 | 4,508,068,545 | | |
| Average acre Inches | 7.76 | 10.38 | 9.51 | 8.73 | 5.67 | 4.97 | 11.27 | | |
| Drip Tape | | | | | | | | | |
| Actual Reported Acres | 360.77 | 360.77 | 510.37 | 538.76 | 538.76 | 622.80 | 623.80 | | |
| Gallons Used | 84,044,100 | 123,091,700 | 133,466,835 | 131,221,335 | 92,376,011 | 95,243,727 | 171,248,794 | | |
| Average acre Inches | 8.58 | 12.57 | 9.63 | 8.97 | 6.31 | 5.63 | 10.11 | | |
| Total Irrigation Use | | | | | | | | | |
| Actual Reported Acres | 54,949.29 | 54,555.41 | 55,261.68 | 55,367.75 | 54,748.12 | 52,842.71 | 55,378.50 | | |
| Gallons Used | 11,097,846,394 | 13,745,707,222 | 13,853,408,466 | 12,700,977,286 | 8,637,427,217 | 7,179,009,638 | 15,875,991,953 | | |
| Average acre Inches | 7.44 | 9.28 | 9.23 | 8.45 | 5.81 | 5.00 | 10.56 | | |
| Misc [gallons used] | | | | | | | | | |
| Wildlife Areas | | 76,368,100 | | | | | | | |
| Other Uses | | | | | 201,000 | | | | |
| Total Gallons Used | 11,097,846,394 | 13,822,075,322 | 13,853,408,466 | 12,700,977,286 | 8,637,628,217 | 7,179,009,638 | 15,875,991,953 | | |

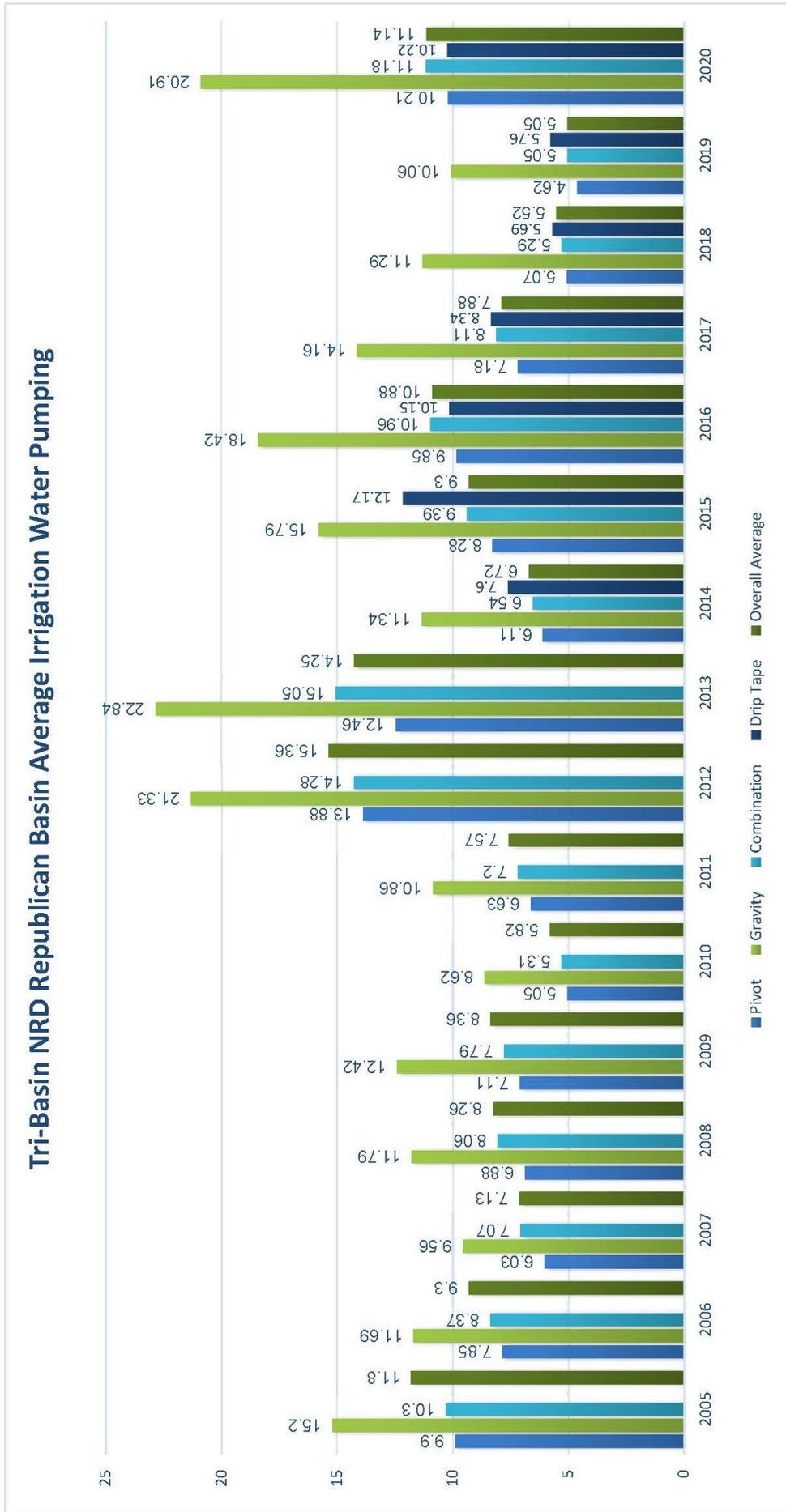
Appendix B: Tri-Basin NRD – Republican Basin Water Use

| Tri-Basin NRD Republican Basin Water Use | | | | | | Republican Basin | | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------------------------|-----------------------|--|--|
| YEAR | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | | |
| Certified Irrigated Acres | 189,647.14 | 189,969.10 | 189,982.99 | 189,882.31 | 190,260.62 | 190,299.74 | 190,134.46 | | |
| Pivots | | | | | | | | | |
| Actual Reported Acres | 110,167.30 | 111,440.18 | 114,081.37 | 123,397.37 | 122,644.94 | 122,506.24 | 125,623.90 | | |
| Gallons Used | 18,265,952,905 | 25,044,477,479 | 30,516,367,107 | 24,043,460,867 | 16,891,986,484 | 15,375,374,563 | 34,842,484,719 | | |
| Average acre Inches | 6.11 | 8.28 | 9.85 | 7.18 | 5.07 | 4.62 | 10.21 | | |
| Gravity | | | | | | | | | |
| Actual Reported Acres | 16,562.42 | 16,069.56 | 15,303.82 | 12,168.37 | 11,070.87 | 10,226.27 | 11,922.10 | | |
| Gallons Used | 5,098,787,630 | 6,890,551,459 | 7,655,866,568 | 4,678,084,493 | 3,392,536,472 | 2,794,020,832 | 6,767,690,280 | | |
| Average acre Inches | 11.34 | 15.79 | 18.42 | 14.16 | 11.29 | 10.06 | 20.91 | | |
| Combination | | | | | | | | | |
| Actual Reported Acres | 46,901.74 | 49,057.92 | 48,152.59 | 41,887.58 | 41,839.28 | 40,231.60 | 42,899.80 | | |
| Gallons Used | 8,323,136,467 | 12,503,108,931 | 14,331,145,595 | 9,227,302,409 | 6,007,033,683 | 5,519,165,412 | 13,022,759,762 | | |
| Average acre Inches | 6.535280715 | 9.39 | 10.96 | 8.11 | 5.29 | 5.05 | 11.18 | | |
| Drip Tape | | | | | | | | | |
| Actual Reported Acres | 833.17 | 833.17 | 1,217.77 | 1,308.16 | 1,308.16 | 1,560.80 | 1,394.20 | | |
| Gallons Used | 171,967,090 | 275,343,121 | 335,480,870 | 296,252,777 | 201,957,978 | 244,124,527 | 387,030,104 | | |
| Average acre Inches | 7.60 | 12.17 | 10.15 | 8.34 | 5.69 | 5.76 | 10.22 | | |
| Total Volume Pumped | | | | | | | | | |
| Actual Reported Acres | 174,464.63 | 177,400.83 | 178,755.55 | 178,761.48 | 176,863.25 | 174,524.91 | 181,840.00 | | |
| Gallons Used | 31,859,844,092 | 44,713,480,990 | 52,838,860,140 | 38,245,100,546 | 26,493,514,617 | 23,932,685,334 | 55,019,964,865 | | |
| Basin IPA | 6.73 | 9.28 | 10.89 | 7.88 | 5.52 | 5.05 | 11.14 | | |
| Wildlife Acres | 0 | 194,513,100 | 55,281,000 | 117,603,200 | 96,034,200 | 21,830,300 | 96,073,100 | | |
| Other Use [Non Irrigation] | 0 | 0 | 0 | 0 | 241,459 | 5,000 | 349,200 | | |
| Basin Total Gallons Used | 31,859,844,092 | 44,907,994,090 | 52,894,141,140 | 38,362,703,746 | 26,589,790,276 | 23,954,520,634 | 55,116,387,165 | | |
| Basin Acre Feet | 97,774.271 | 137,817.573 | 162,326.159 | 117,730.815 | 81,601.070 | 73,513.724 | 169,145.98 | | |
| Harlan County Acres | | | | | | | 342.20 | | |
| Harlan County Wells | | | | 19,580,400 | 20,133,900 | 17,748,400 | | | |
| * Lower Republican Reports volume on these wells | | | | | | | | | |

Appendix B: Tri-Basin NRD – Republican Basin Water Use

| Tri-Basin NRD Republican Basin Water Use | | | | | | | Union Township | | | |
|---|---------------|---------------|---------------|---------------|------------------|---------------|-----------------------|--|--|--|
| YEAR | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | | | |
| Certified Irrigated Acres | 8,184.02 | 8,163.02 | 8,164.49 | 8,167.47 | 8,169.29 | 8,169.29 | 8,169.29 | | | |
| Pivots | | | | | | | | | | |
| Actual Reported Acres | 7029.67 | 7176.67 | 7,156.70 | 7,224.67 | 7,007.70 | 6,941.00 | 6,802.90 | | | |
| Gallons Used | 955,549,803 | 1,290,179,868 | 1,650,537,892 | 1,439,253,491 | 1,107,044,683 | 1,024,037,708 | 1,767,525,855 | | | |
| Average acre Inches | 5.0 | 6.6 | 8.50 | 7.34 | 5.82 | 5.43 | 9.57 | | | |
| Gravity | | | | | | | | | | |
| Actual Reported Acres | | | | 45.00 | 45.00 | 45.00 | 45.00 | | | |
| Gallons Used | | | | 10,749,400 | 8,066,600 | 6,333,100 | 11,486,400 | | | |
| Average acre Inches | | | | 8.80 | 6.60 | 5.18 | 9.40 | | | |
| Combination | | | | | | | | | | |
| Actual Reported Acres | 462.8 | 462.8 | 462.80 | 462.80 | 417.00 | 171.00 | 426.00 | | | |
| Gallons Used | 46,298,000 | 71,712,700 | 64,802,400 | 59,907,800 | 37,224,800 | 24,930,100 | 73,908,300 | | | |
| Average acre Inches | 3.7 | 5.7 | 5.20 | 4.77 | 3.29 | 5.37 | 6.39 | | | |
| Drip Tape | | | | | | | | | | |
| Actual Reported Acres | | | | | | | | | | |
| Gallons Used | | | | | | | | | | |
| Average acre Inches | | | | | | | | | | |
| Total Irrigation Use | | | | | | | | | | |
| Actual Reported Acres | 7,492.47 | 7,639.47 | 7,619.50 | 7,732.47 | 7,469.70 | 7,157.00 | 7,273.90 | | | |
| Gallons Used | 1,001,847,803 | 1,361,892,568 | 1,715,340,292 | 1,509,910,691 | 1,152,336,083.00 | 1,055,300,908 | 1,852,920,555 | | | |
| Average acre Inches | 4.92 | 6.57 | 8.29 | 7.19 | 5.68 | 5.43 | 9.38 | | | |

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



Appendix C: CNPPID Groundwater Recharge Diversions Summary - 2020 Republican Basin

| 2006 | | | |
|------------------------------------|-----------------------------------|-----------------------------------|--|
| Dates of Recharge Diversion | 1/24/06 to 2/13/06 | 8/8/06 to 2 /13/06 | 12/22/06 to 12/31/06 |
| Elwood Reservoir Diversions | | | |
| AF, in | 6131 | 627 | |
| \$/af | | | |
| \$/other | | | |
| Notes | gravity, Appears to be no charges | gravity, Appears to be no charges | gravity, JO costs, NGPC was billed for 50% of the JO costs |
| | | | |
| Elwood Releases | | | |
| AF, in | | | |
| \$/af | | | |
| \$/other | | | |
| Notes | | | |
| | | | |
| E65 Canal | | | |
| AF, in | | | |
| \$/af | | | |
| \$/other | | | |
| Notes | | | |
| | | | |
| Phelps Canal | | | |
| AF, in | | | |
| \$/af | | | |
| \$/other | | | |
| Notes | | | |
| | | | |
| Funk Lagoon | | | |
| AF, in | | | |
| \$/af | | | |
| Notes | | | |
| | | | |
| Funds | | | |
| Total \$ | N/A | N/A | \$16,752.44 |
| PRRIP | | | |
| NDNR | | | |
| TBNRD | | | |
| NGPC | | | \$16,752.44 |

Appendix C: CNPPID Groundwater Recharge Diversions Summary - 2020 Republican Basin

| 2007 | | | |
|------------------------------------|--------------------|---------------------|-------------------|
| Dates of Recharge Diversion | 5/30/07 to 6/25/07 | 7/9/07 to 7/11/07 | 7/31/07 to 8/8/07 |
| Elwood Reservoir Diversions | | | |
| AF, in | | | |
| \$/af | | | |
| \$/other | | | |
| Notes | gravity, JO costs | gravity, Not billed | gravity, JO Costs |
| | | | |
| Elwood Releases | | | |
| AF, in | | | |
| \$/af | | | |
| \$/other | | | |
| Notes | | | |
| | | | |
| E65 Canal | | | |
| AF, in | | | |
| \$/af | | | |
| \$/other | | | |
| Notes | | | |
| | | | |
| Phelps Canal | | | |
| AF, in | | | |
| \$/af | | | |
| \$/other | | | |
| Notes | | | |
| | | | |
| Funk Lagoon | | | |
| AF, in | | | |
| \$/af | | | |
| Notes | | | |
| | | | |
| Funds | | | |
| Total \$ | \$57,819.51 | N/A | \$17,686.39 |
| PRRIP | | | |
| NDNR | | | |
| TBNRD | | | |
| NGPC | \$57,819.51 | | \$17,686.39 |

Appendix C: CNPPID Groundwater Recharge Diversions Summary - 2020 Republican Basin

| 2008-2009 | | | | |
|------------------------------------|---|------------------------|------------------------------|--|
| Dates of Recharge Diversion | 5/23/08 to 6/11/08 | 7/18/08 to 7/21/08 | 8/10/08 to 8/19/08 | 6/21/09 to 8/21/09 |
| Elwood Reservoir Diversions | | | | |
| AF, in | | | | |
| \$/af | | | | |
| \$/other | | | | |
| Notes | 4240 af gravity, 2543 pumped, \$ pump & hydro | pumped, \$pump & hydro | gravity, \$ for hydro offset | diversions stopped once irrigation decision was made |
| | | | | |
| Elwood Releases | | | | |
| AF, in | | | | |
| \$/af | | | | |
| \$/other | | | | |
| Notes | | | | |
| | | | | |
| E65 Canal | | | | |
| AF, in | | | | |
| \$/af | | | | |
| \$/other | | | | |
| Notes | | | | |
| | | | | |
| Phelps Canal | | | | |
| AF, in | | | | |
| \$/af | | | | |
| \$/other | | | | |
| Notes | | | | |
| | | | | |
| Funk Lagoon | | | | |
| AF, in | | | | |
| \$/af | | | | |
| Notes | | | | |
| | | | | |
| Funds | | | | |
| Total \$ | \$66,568.32 | \$12,878.02 | \$10,498.40 | \$25,572.80 |
| PRRIP | | | | |
| NDNR | | | | |
| TBNRD | \$33,284.16 | \$6,439.01 | \$5,249.20 | \$12,786.40 |
| NGPC | \$33,284.16 | \$6,439.01 | \$5,249.20 | \$12,786.40 |

Appendix C: CNPPID Groundwater Recharge Diversions Summary - 2020 Republican Basin

| 2012-2013 | | | | | | | | |
|------------------------------------|-------------------|--------------------|---------------------|---|-----------------|-------------|----|---|
| Dates of Recharge Diversion | 9/28/11 to 1/5/12 | 12/4/12 to 3/11/13 | 9/19/13 to 10/31/13 | | | | | |
| Elwood Reservoir Diversions | | | | | | | | |
| AF, in | | | 12385 | | | | | |
| \$/af | | | 35 | | | | | |
| \$/other | | | | | | | | |
| Notes | | | Pumped | | | | | |
| Elwood Releases | | | | | | | | |
| AF, in | | | | | | | | |
| \$/af | | | | | | | | |
| \$/other | | | | | | | | |
| Notes | | | | | | | | |
| E65 Canal | | | | | | | | |
| AF, in | | | | 2615 | | | | |
| \$/af | | | | 35 | | | | |
| \$/other | | | | | | | | |
| Notes | | | | Canal to NP 23.7-3.2, Cottonwood WPA, and 36.2S | | | | |
| Phelps Canal | | | | | | | | |
| AF, in | | | | | 3890 | 2000 | | 3897 |
| \$/af | | | | | 25 | 25 | NA | |
| \$/other | | | | | | | | |
| Notes | | | | | down to MP 13.3 | Funk Lagoon | | Phelps below 13.3 to 51.1 plus 19.1, 38.6. No payment for these diversions. |
| Funk Lagoon | | | | | | | | |
| AF, in | | | | | | | | |
| \$/af | | | | | | | | |
| Notes | | | | | | | | |
| Funds | | | | | | | | |
| Total \$ | \$138,954.00 | \$102,200.00 | \$433,475.00 | \$91,525.00 | \$97,250.00 | \$50,000.00 | NA | |
| PRRIP | \$69,477.00 | \$102,200.00 | | | \$48,625.00 | \$50,000.00 | | |
| NDNR | \$41,686.20 | | \$260,085.00 | \$54,915.00 | \$29,175.00 | | | |
| TBNRD | \$27,790.80 | | \$173,390.00 | \$36,610.00 | \$19,450.00 | | | |
| NGPC | | | | | | | | |

Appendix C: CNPPID Groundwater Recharge Diversions Summary - 2020 Republican Basin

| 2014 | | | | | | | |
|------------------------------------|---|--|-----------------------------------|--|--|-----------------|----------------------|
| Dates of Recharge Diversion | 6/10/14 to 7/7/14 | 11/26/14 to 11/30/14 | | | 12/9/14 to 12/27/14 | | 11/26/14 to 12/31/14 |
| Elwood Reservoir Diversions | | | | | | | |
| AF, in | 13237 | 1763 | 37 | | 8309.2 | | |
| \$/af | 39 | 39 | NA | | 41 | | |
| \$/other | | | | | | | |
| Notes | Pumped, 15,000 af contract with amendment | Pumped, finished contract 11-26 to 11-30 | Not billed but pumped into Elwood | | Pumped, 5000 af contract + 5000 af amendment | | |
| Elwood Releases | | | | | | | |
| AF, in | | | | | | | |
| \$/af | | | | | | | |
| \$/other | | | | | | | |
| Notes | | | | | | | |
| E65 Canal | | | | | | | |
| AF, in | | | | 70 | | 567.1 | |
| \$/af | | | | NA | | 38 | |
| \$/other | | | | | | | |
| Notes | | | | Not billed, part of Elwood filling, down to MP 5.9 | | down to MP 20.1 | |
| Phelps Canal | | | | | | | |
| AF, in | | | | | | | 2346 |
| \$/af | | | | | | | 27 |
| \$/other | | | | | | | |
| Notes | | | | | | | down to MP 13.3 |
| Funk Lagoon | | | | | | | |
| AF, in | | | | | | | |
| \$/af | | | | | | | |
| Notes | | | | | | | |
| Funds | | | | | | | |
| Total \$ | \$516,243.00 | \$68,757.00 | NA | NA | \$340,677.20 | \$21,549.80 | \$63,339.30 |
| PRRIP | | | | | | | \$31,669.65 |
| NDNR | \$258,121.50 | \$34,378.50 | | | \$170,338.60 | \$10,774.90 | \$31,669.65 |
| TBNRD | \$258,121.50 | \$34,378.50 | | | \$170,338.60 | \$10,774.90 | |
| NGPC | | | | | | | |

Appendix C: CNPPID Groundwater Recharge Diversions Summary - 2020 Republican Basin

| 2015 (cont.) Dates of Recharge Diversion | 11/23/15 to 12/18/15 | | | 11/16/15 to 12/31/15 | | 12/19/15 to 2/1/16 |
|---|--|-------------|--|--|---|---|
| Elwood Reservoir Diversions | | | | | | |
| AF, in | 3227 | | 5776 | | | |
| \$/af | 42.6 | | 42.6 | | | |
| \$/other | | | | | | |
| Notes | For NDNR/ TBNRD, 11-16- 15 Agreement for 4500 af total Canal and Elwood | | For PRRIP, May 2015 Agree- ment and Amendment No 1 | | | |
| Elwood Releases | | | | | | |
| AF, in | | | | | | 1119 |
| \$/af | | | | | | |
| \$/other | | | | | | |
| Notes | | | | | | Released from Elwood to E65 Canal. Subtracted from NDNR/State El- wood Acct for recharge in E65 Canal, No charge in the contract |
| E65 Canal | | | | | | |
| AF, in | | | | | 1273 | |
| \$/af | | | | | 39.5 | |
| \$/other | | | | | | |
| Notes | | | | | For NDNR/ TBNRD, 11-16 -15 Agree- ment for 4500 af total Canal and Elwood, down to MP 20.1 | |
| Phelps Canal | | | | | | |
| AF, in | | | | 747.5 | 2243 | |
| \$/af | | | | 28.1 | 28.1 | |
| \$/other | | | | | | |
| Notes | | | | down to MP 13.3, 25% of diversions for NDNR, 11-18- 15 Agreement | down to MP 13.3, 75% of diversions for PRRIP, 11-26- 14 Agreement | |
| Funk Lagoon | | | | | | |
| AF, in | | | | | | |
| \$/af | | | | | | |
| Notes | | | | | | |
| Funds | | | | | | |
| Total \$ | \$137,599.28 | \$50,308.96 | \$246,288.64 | \$20,989.80 | \$62,969.40 | NA |
| PRRIP | | | \$246,288.64 | | \$62,969.40 | |
| NDNR | \$68,799.64 | \$25,154.48 | | \$20,989.80 | | |
| TBNRD | \$68,799.64 | \$25,154.48 | | | | |
| NGPC | | | | | | |

Appendix C: CNPPID Groundwater Recharge Diversions Summary - 2020 Republican Basin

| 2016 (Cont. on pg. 48) Dates of Recharge Diversion | 1/1/16 to 2/14/16 | | 3/16/16 to 4/13/16 | | 3/16/16 to 3/20/16 | | 9/15/16 to 12/31/16 | |
|---|---|--|---|--|-----------------------|----|--|---|
| Elwood Reservoir Diversions | | | | | | | | |
| AF, in | | | | | | | | |
| \$/af | | | | | | | | |
| \$/other | | | | | | | | |
| Notes | | | | | | | | |
| Elwood Releases | | | | | | | | |
| AF, in | | | | | | | | |
| \$/af | | | | | | | | |
| \$/other | | | | | | | | |
| Notes | | | | | | | | |
| E65 Canal | | | | | | | | |
| AF, in | | | 500 | 28 | | | | |
| \$/af | | | 41.1 | | | | | |
| \$/other | | | | | | | | |
| Notes | | | Fullfills 3-17-16 agreement (ammendment NO.1), down to MP 20.1 | Not Billed, excess diversion as part of 500 af agreement | | | | |
| Phelps Canal | | | | | | | | |
| AF, in | 489.25 | 1467.75 | 157.5 | 472.5 | | | 1080.5 | 3241.4 |
| \$/af | 29.2 | 29.2 | 29.2 | 29.2 | | | 29.2 | 29.2 |
| \$/other | | | | | | | | |
| Notes | down to MP 13.3, 25% of diversions for NDNR, 11-18-15 Agreement | down to MP 13.3, 75% of diversions for PRRIP, 12-11-15 Agreement | down to MP 13.3, 25% of diversions for NDNR, 11-18-15 Agreement | down to MP 13.3, 75% of diversions for PRRIP, 12-11-15 Agreement | | | down to MP 13.3, 25% of diversions for NDNR, 9-20-2016 Agreement | down to MP 13.3, 75% of diversions for PRRIP, 9-26-2016 Agreement |
| Funk Lagoon | | | | | | | | |
| AF, in | | | | | | | | |
| \$/af | | | | | | | | |
| Notes | | | | | | | | |
| Funds | | | | | | | | |
| Total \$ | \$14,286.10 | \$42,858.30 | \$4,599.00 | \$13,797.00 | \$20,550.00 | NA | \$31,550.60 | \$94,648.88 |
| PRRIP | | \$42,858.30 | | \$13,797.00 | | | | \$94,648.88 |
| NDNR | \$14,286.10 | | \$4,599.00 | | \$10,275.00 | | \$31,550.60 | |
| TBNRD | | | | | \$10,275.00 | | | |
| NGPC | | | | | | | | |

Appendix C: CNPPID Groundwater Recharge Diversions Summary - 2020 Republican Basin

| 2016 (Cont.) Dates of Recharge Diversion | 12/10/16 to 12/31/16 | | | 12/9/16 to 12/31/16 | |
|---|--|--|--|---|---|
| Elwood Reservoir Diversions | | | | | |
| AF, in | 1152 | 2880 | 1728 | | |
| \$/af | 44.4 | 44.4 | 44.4 | | |
| \$/other | | | | | |
| Notes | For TBNRD, 12-7-2016 Agreement with \$127,036 limit for TBNRD and 60% NDNR/40% TBNRD split | For TBNRD, 12-7-2016 Agreement with \$127,036 limit for TBNRD and 60% NDNR/40% TBNRD split | For NDNR, 12-7-2016 Agreement with \$190,554 limit for NDNR and 60% NDNR/40% TBNRD split | | |
| Elwood Releases | | | | | |
| AF, in | | | | | |
| \$/af | | | | | |
| \$/other | | | | | |
| Notes | | | | | |
| E65 Canal | | | | | |
| AF, in | | | | 335.9 | 503.8 |
| \$/af | | | | 41.1 | 41.1 |
| \$/other | | | | | |
| Notes | | | | For TBNRD, 12-7-2016 Agreement with \$127,036 limit for TBNRD and 60% NDNR/40% TBNRD split, Water down to MP 19.3 | For NDNR, 12-7-2016 Agreement with \$190,554 limit for NDNR and 60% NDNR/40% TBNRD split, Water down to MP 19.3 |
| Phelps Canal | | | | | |
| AF, in | | | | | |
| \$/af | | | | | |
| \$/other | | | | | |
| Notes | | | | | |
| Funk Lagoon | | | | | |
| AF, in | | | | | |
| \$/af | | | | | |
| Notes | | | | | |
| Funds | | | | | |
| Total \$ | \$51,091.20 | \$127,728.00 | \$76,636.80 | \$13,805.49 | \$20,706.18 |
| PRRIP | | \$127,728.00 | | | |
| NDNR | | | \$76,636.80 | | \$20,706.18 |
| TBNRD | \$51,091.20 | | | \$13,805.49 | |
| NGPC | | | | | |

Appendix C: CNPPID Groundwater Recharge Diversions Summary - 2020 Republican Basin

| 2017 (Cont. on pg. 50) Dates of Recharge Diversion | 1/1/17 to 1/30/17 | | 1/1/17 to 1/31/17 | 1/1/17 to 2/14/17 | | 1/1/17 to 2/14/17 | 1/1/17 to 2/14/17 | 9/15/17 to 10/12/17 | |
|---|---|--|----------------------|--|---|--|---|--|--|
| Elwood Reservoir Diversions | | | | | | | | | |
| AF, in | 1631.6 | 2447.4 | | | | | | | |
| \$/af | 45.7 | 45.7 | | | | | | | |
| \$/other | | | | | | | | | |
| Notes | For TBNRD, 1-23-17 Amendment for \$164,800 limit. | For NDNR, 1-23-17 Amendment for \$247,200 limit. | | | | | | | |
| | | | | | | | | | |
| Elwood Releases | | | | | | | | | |
| AF, in | | | | | | | | | |
| \$/af | | | | | | | | | |
| \$/other | | | | | | | | | |
| Notes | | | | | | | | | |
| | | | | | | | | | |
| E65 Canal | | | | | | | | | |
| AF, in | | | | 599.4 | 899.1 | | | | |
| \$/af | | | | 42.3 | 42.3 | | | | |
| \$/other | | | | | | | | | |
| Notes | | | | For TBNRD, 1-23-17 Amendment for \$164,800 limit. Water to MP 19.3 | For NDNR, 1-23-17 Amendment for \$247,200 limit. Water to MP 19.3 | | | | |
| | | | | | | | | | |
| Phelps Canal | | | | | | | | | |
| AF, in | | | | | | 338.50 | 1015.40 | 1353.50 | 451.20 |
| \$/af | | | | | | 30.1 | 30.1 | 30.1 | 30.1 |
| \$/other | | | | | | | | | |
| Notes | | | | | | down to MP 13.3, 25% of diversions for NDNR, 9-20-2016 Agreement, 2,666 af limit | down to MP 13.3, 75% of diversions for PRRIP, 9-26-2016 Agreement, 8,000 af limit | down to MP 13.3, 75% of diversions for PRRIP, 10-20-17 Agreement | down to MP 13.3, 25% of diversions for NDNR, 9-20-2016 Agreement, 2,666 af limit |
| | | | | | | | | | |
| Funk Lagoon | | | | | | | | | |
| AF, in | | | | | | | | | |
| \$/af | | | | | | | | | |
| Notes | | | | | | | | | |
| | | | | | | | | | |
| Funds | | | | | | | | | |
| Total \$ | \$74,531.49 | \$111,797.23 | \$208,789.58 | \$25,372.60 | \$38,058.90 | \$10,182.08 | \$30,543.23 | \$40,713.28 | \$13,572.10 |
| PRRIP | | | \$208,789.58 | | | | \$30,543.23 | \$40,713.28 | |
| NDNR | | \$111,797.23 | | | \$38,058.90 | \$10,182.08 | | | \$13,572.10 |
| TBNRD | \$74,531.49 | | | \$25,372.60 | | | | | |
| NGPC | | | | | | | | | |

Appendix C: CNPPID Groundwater Recharge Diversions Summary - 2020 Republican Basin

| 2017 (Cont.) Dates of Recharge Diversion | 11/28/17 to 12/22/17 | 12/15/17 to 12/22/17 | | | | 12/1/17 to 12/31/17 | |
|---|---|---|--|---|--|--|--|
| Elwood Reservoir Diversions | | | | | | | |
| AF, in | 6953.6 | 657.5 | 986.3 | | | | |
| \$/af | 45.7 | 50.7 | 50.7 | | | | |
| \$/other | | | | | | | |
| Notes | For PRRIP, 10-20-17 Agreement, 8,000 af limit, All diversion to PRRIP until 12-15-17 when NDNR/TBNRD signed agreement, then 50%/50% split with them | For TBNRD, 12-15-17 Agreement, 50/50 split with PRRIP and then 40% of that split to TBNRD, 13,500 af limit for State and TBNRD combined | For NDNR, 12-15-17 Agreement, 50/50 split with PRRIP and then 60% of that split to State, 13,500 af limit for State and TBNRD combined | | | | |
| Elwood Releases | | | | | | | |
| AF, in | | | | | | | |
| \$/af | | | | | | | |
| \$/other | | | | | | | |
| Notes | | | | | | | |
| E65 Canal | | | | | | | |
| AF, in | | | | 66.6 | 100 | | |
| \$/af | | | | 42.3 | 42.3 | | |
| \$/other | | | | | | | |
| Notes | | | | For TBNRD, 12-15-17 Agreement, Contract No. 1024, 40% split to TBNRD, 60% to NDNR, 13,500 af limit for State and TBNRD combined | For NDNR, 12-15-17 Agreement, Contract No. 1024, 60% of that split to NDNR, 40% split to TBNRD, 13,500 af limit for State and TBNRD combined | | |
| Phelps Canal | | | | | | | |
| AF, in | | | | | | 1317.70 | 439.20 |
| \$/af | | | | | | 30.1 | 30.1 |
| \$/other | | | | | | | |
| Notes | | | | | | down to MP 13.3, 75% of diversions for PRRIP, 10-20-17 Agreement | down to MP 13.3, 25% of diversions for NDNR, 9-20-2016 Agreement, 2,666 af limit |
| Funk Lagoon | | | | | | | |
| AF, in | | | | | | | |
| \$/af | | | | | | | |
| Notes | | | | | | | |
| Funds | | | | | | | |
| Total \$ | \$317,640.45 | \$33,322.10 | \$49,985.68 | \$2,819.18 | \$4,233.00 | \$39,636.42 | \$13,211.14 |
| PRRIP | \$317,640.45 | | | | | \$39,636.42 | |
| NDNR | | | \$49,985.68 | | \$4,233.00 | | \$13,211.14 |
| TBNRD | | \$33,322.10 | | \$2,819.18 | | | |
| NGPC | | | | | | | |

Appendix C: CNPPID Groundwater Recharge Diversions Summary - 2020 Republican Basin

| 2018 (Cont. on pg. 52) Dates of Recharge Diversion | 1/3/18 to 3/22/18 | | 1/5/18 to 2/8/18 | | | 1/1/18 to 2/12/18 |
|---|---|--|--|--|---|---|
| Elwood Reservoir Diversions | | | | | | |
| AF, in | | | 3854.9 | 1542 | 2313 | |
| \$/af | | | 47.1 | 52.2 | 52.2 | |
| \$/other | | | | | | |
| Notes | | | For PRRIP, 10-20-17 Agreement, 8,000 af limit, 1-8-18 Amendment took limit to 12,000 af, 50%/50% split with NDNR/TBNRD | For TBNRD, 12-15-17 Agreement, 50/50 split with PRRIP and then 40% of that split to TBNRD, 13,500 af limit and/or \$362,948 limit for State and TBNRD combined | For NDNR, 12-15-17 Agreement, 50/50 split with PRRIP and then 60% of that split to State, 13,500 af limit and/or \$362,948 limit for State and TBNRD combined | |
| Elwood Releases | | | | | | |
| AF, in | | | | | | |
| \$/af | | | | | | |
| \$/other | | | | | | |
| Notes | | | | | | |
| E65 Canal | | | | | | |
| AF, in | 360.5 | 540.8 | | | | |
| \$/af | 43.6 | 43.6 | | | | |
| \$/other | | | | | | |
| Notes | For TBNRD, 12-15-17 Agreement, Contract No. 1024, 40% split to TBNRD, 60% to NDNR, 13,500 af limit for State and TBNRD combined. Diversions down to MP 19.3 | For NDNR, 12-15-17 Agreement, Contract No. 1024, 60% of that split to NDNR, 40% split to TBNRD, 13,500 af limit for State and TBNRD combined. Diversions down to MP 19.3 | | | | |
| Phelps Canal | | | | | | |
| AF, in | | | | | | 1066.00 |
| \$/af | | | | | | 31 |
| \$/other | | | | | | |
| Notes | | | | | | 10-20-17 Agreement. No agreement with NDNR, PRRIP got all diversions. Diversions down to MP 13.3. NOTE: Total diversions were reduced by 200 af for water left in the Phelps Canal at the start of irrigation season. |
| Funk Lagoon | | | | | | |
| AF, in | | | | | | |
| \$/af | | | | | | |
| Notes | | | | | | |
| Funds | | | | | | |
| Total \$ | \$15,717.80 | \$23,578.88 | \$181,373.05 | \$80,492.40 | \$120,738.60 | \$33,024.68 |
| PRRIP | | | \$181,373.05 | | | \$33,024.68 |
| NDNR | | \$23,578.88 | | | \$120,738.60 | |
| TBNRD | \$15,717.80 | | | \$80,492.40 | | |
| NGPC | | | | | | |

Appendix C: CNPPID Groundwater Recharge Diversions Summary - 2020 Republican Basin

| 2018 (Cont.) Dates of Recharge Diversion | 11/19/18 to 12/31/18 | 11/21/18 to 12/20/18 | 11/22/18 to 12/20/18 | 12/3/18 to 12/31/18 | | |
|---|---|--|---|--|---|--|
| Elwood Reservoir Di- versions | | | | | | |
| AF, in | | | | 11061 | | |
| \$/af | | | | 47.1 | | |
| \$/other | | | | | | |
| Notes | | | | 11-26-18 SWA Amendment No. 2, took limit to 30,000 af. All for PRRIP. NDNR and TBNRD wanted the remainder of their contract in E65 Canal | | |
| Elwood Releases | | | | | | |
| AF, in | | | | | | |
| \$/af | | | | | | |
| \$/other | | | | | | |
| Notes | | | | | | |
| E65 Canal | | | | | | |
| AF, in | | | | | 196.8 | 295.1 |
| \$/af | | | | | 43.6 | 43.6 |
| \$/other | | | | | | |
| Notes | | | | | Contract 1024, for TBNRD, down to MP 19.3 | Contract 1024, for NDNR, down to MP 19.3 |
| Phelps Canal | | | | | | |
| AF, in | 2191.80 | 1001.00 | | | | |
| \$/af | 31 | 31 | | | | |
| \$/other | | | | | | |
| Notes | 10-27-19 WSA w/ PRRIP, Diversions down to MP 13.3 | 11-15-17 WPA WSA with TBNRD, from MP 13.3 to MP 34.2. | | | | |
| Funk Lagoon | | | | | | |
| AF, in | | | 1952.4 | | | |
| \$/af | | | 25.5 | | | |
| Notes | | | 11-15-17 WPA WSA with TBNRD, Delivery to Funk Lagoon | | | |
| Funds | | | | | | |
| Total \$ | \$67,901.96 | \$31,010.98 | \$49,786.20 | \$520,401.23 | \$8,580.48 | \$12,866.36 |
| PRRIP | \$67,901.96 | | | \$520,401.23 | | |
| NDNR | | | | | | \$12,866.36 |
| TBNRD | | \$31,010.98 | \$49,786.20 | | \$8,580.48 | |
| NGPC | | | | | | |

Appendix C: CNPPID Groundwater Recharge Diversions Summary - 2020 Republican Basin

| Dates of Recharge Diversion | 1/1/19 to 1/24/19 | 1/1/19 to 1/28/19 | 1/1/19 to 1/31/19 | |
|------------------------------------|---|-------------------|--|---|
| Elwood Reservoir Diversions | | | | |
| AF, in | | | | |
| \$/af | | | | |
| \$/other | | | | |
| Notes | | | | |
| | | | | |
| Elwood Releases | | | | |
| AF, in | | | | |
| \$/af | | | | |
| \$/other | | | | |
| Notes | | | | |
| | | | | |
| E65 Canal | | | | |
| AF, in | | | 297 | 445.5 |
| \$/af | | | 44.9 | 44.9 |
| \$/other | | | | |
| Notes | | | Contract 1024 w/ 1-7-19 Ammendment, for TBNRD, down to MP 19.3 | Contract 1024 w/ 1-7-19 Ammendment, for NDNR, down to MP 19.3 |
| | | | | |
| Phelps Canal | | | | |
| AF, in | 712.1 | | | |
| \$/af | 31.9 | | | |
| \$/other | | | | |
| Notes | 10-27-19 WSA w/ PRRIP, Diversions down to MP 13.3 | | | |
| | | | | |
| Funk Lagoon | | | | |
| AF, in | | | | |
| \$/af | | | | |
| Notes | | | | |
| | | | | |
| Funds | | | | |
| Total \$ | \$22,723.11 | \$347,879.80 | \$13,338.27 | \$20,007.41 |
| PRRIP | \$22,723.11 | \$347,879.80 | | |
| NDNR | | | | \$20,007.41 |
| TBNRD | | | \$13,338.27 | |
| NGPC | | | | |

Appendix C: CNPPID Groundwater Recharge Diversions Summary - 2020 Republican Basin

| 2019 (Cont. on pg. 60 & 61) | 1-1-19 to 1-24-19 | 1-1-19 to 1-28-19 | 1-1-19 to 1-31-19 | |
|------------------------------------|---|---|--|---|
| Dates of Recharge Diversion | | | | |
| Elwood Reservoir Diversions | | | | |
| AF, in | | 7178.7 | | |
| \$/af | | 48.46 | | |
| \$/other | | | | |
| Notes | | 11-26-18 SWA Ammendment No. 2, took limit to 30,000 af. All for PRRIP. NDNR and TBNRD wanted the remainder of their contract in E65 Canal | | |
| | | | | |
| Elwood Releases | | | | |
| AF, in | | | | |
| \$/af | | | | |
| \$/other | | | | |
| Notes | | | | |
| | | | | |
| E65 Canal | | | | |
| AF, in | | | 297 | 445.5 |
| \$/af | | | 44.91 | 44.91 |
| \$/other | | | | |
| Notes | | | Contract 1024 w/ 1-7-19 Ammendment, for TBNRD, down to MP 19.3 | Contract 1024 w/ 1-7-19 Ammendment, for NDNR, down to MP 19.3 |
| | | | | |
| Phelps Canal | | | | |
| AF, in | 712.10 | | | |
| \$/af | 31.91 | | | |
| \$/other | | | | |
| Notes | 10-20-17 WSA w/ PRRIP, Diversions down to MP 13.3 | | | |
| | | | | |
| Funk Lagoon | | | | |
| AF, in | | | | |
| \$/af | | | | |
| Notes | | | | |
| | | | | |
| Funds | | | | |
| Total \$ | \$ 22,723.11 | \$ 347,879.80 | \$ 13,338.27 | \$20,007.40 |
| PRRIP | \$ 22,723.11 | \$ 347,879.80 | | |
| NDNR | | | | \$20,007.40 |
| TBNRD | | | \$ 13,338.27 | |
| NGPC | | | | |

Appendix C: CNPPID Groundwater Recharge Diversions Summary - 2020 Republican Basin

| | | | | |
|------------------------------------|--|---|--|--------------------|
| 2019 (Cont.) | | | | |
| Dates of Recharge Diversion | 5-10-19 to 5-16-19 | | | 5-10-19 to 5-20-19 |
| Elwood Reservoir Diversions | | | | |
| AF, in | 941.3 | | 123.2 | 184.9 |
| \$/af | 48.46 | | 53.77 | 53.77 |
| \$/other | | | | |
| Notes | For PRRIP. 11-26-18 SWA Amendment No. 2 , took limit to 30,000 af for PRRIP. 1-3-19 WSA Amendment to 1024 extends cost cap to \$402,247 for TBNRD-NDNR. 50% split until TBNRD-NDNR full then all to PRRIP. These deliveries fulfilled both amendments. | For TBNRD. 11-26-18 SWA Amendment No. 2 , took limit to 30,000 af for PRRIP. 1-3-19 WSA Amendment to 1024 extends cost cap to \$402,247 for TBNRD-NDNR. 50% split until TBNRD-NDNR full then all to PRRIP. These deliveries fulfilled both amendments. TBNRD 40%, NDNR 60% of their 50% of total diversions | For NDNR. 11-26-18 SWA Amendment No. 2 , took limit to 30,000 af for PRRIP. 1-3-19 WSA Amendment to 1024 extends cost cap to \$402,247 for TBNRD-NDNR. 50% split until TBNRD-NDNR full then all to PRRIP. These deliveries fulfilled both amendments. TBNRD 40%, NDNR 60% of their 50% of total diversions | |
| Elwood Releases | | | | |
| AF, in | | | | |
| \$/af | | | | |
| \$/other | | | | |
| Notes | | | | |
| E65 Canal | | | | |
| AF, in | | | | |
| \$/af | | | | |
| \$/other | | | | |
| Notes | | | | |
| Phelps Canal | | | | |
| AF, in | | | | |
| \$/af | | | | |
| \$/other | | | | |
| Notes | | | | |
| Funk Lagoon | | | | |
| AF, in | | | | |
| \$/af | | | | |
| Notes | | | | |
| Funds | | | | |
| Total \$ | \$ 45,615.40 | \$ 6,624.46 | \$ 9,942.07 | \$ 6,557.12 |
| PRRIP | \$ 45,615.40 | | | |
| NDNR | | | \$ 9,942.07 | |
| TBNRD | | \$ 6,624.46 | | \$ 6,557.12 |
| NGPC | | | | |

Appendix C: CNPPID Groundwater Recharge Diversions Summary - 2020 Republican Basin

| 2019 (Cont.) Dates of Recharge Diversion | 7-9-19 to 7-29-19 | 9-12-19 to 9-28-19 | 12-16-19 to 12-31-19 | 12-16-19 to 12-31-19 | 12-20-19 to 12-31-19 |
|---|---|---|--|---|----------------------|
| Elwood Reservoir Diversions | | | | | |
| AF, in | 4955.2 | 5463.9 | | | |
| \$/af | 48.46 | 48.46 | | | |
| \$/other | | | | | |
| Notes | For PRRIP. 6-24-19 WSA (30,000 af limit annually) | For PRRIP. 6-24-19 WSA (30,000 af limit annually) | | | |
| | | | | | |
| Elwood Releases | | | | | |
| AF, in | | | | | |
| \$/af | | | | | |
| \$/other | | | | | |
| Notes | | | | | |
| | | | | | |
| E65 Canal | | | | | |
| AF, in | | | 250.4 | 375.6 | |
| \$/af | | | 44.91 | 44.91 | |
| \$/other | | | | | |
| Notes | | | E65 Canal recharge down to MP 23.7-0.3-TBNRD under contract #1150, 60/40 split TBNRD/DNR | E65 Canal recharge down to MP 23.7-0.3 -DNR under contract #1150, 60/40 split TBNRD/DNR | |
| | | | | | |
| Phelps Canal | | | | | |
| AF, in | | | | | |
| \$/af | | | | | |
| \$/other | | | | | |
| Notes | | | | | |
| | | | | | |
| Funk Lagoon | | | | | |
| AF, in | | | | | |
| \$/af | | | | | |
| Notes | | | | | |
| | | | | | |
| Funds | | | | | |
| Total \$ | \$ 240,128.99 | \$ 264,780.59 | \$ 11,245.46 | \$ 16,868.20 | \$ 12,101.63 |
| PRRIP | \$ 240,128.99 | \$ 264,780.59 | | | |
| NDNR | | | | \$ 16,868.20 | |
| TBNRD | | | \$ 11,245.46 | | \$ 12,101.63 |
| NGPC | | | | | |

Appendix C: CNPPID Groundwater Recharge Diversions Summary - 2020 Republican Basin

| 2020 | | | | | | |
|------------------------------------|---|--|-------------------|--|---|--|
| Dates of Recharge Diversion | 1-1-20 to 2-14-20 | 1-1-20 to 2-14-20 | 1-1-20 to 2-23-20 | 3-19-20 to 4-14-20 | 3-26-20 to 4-14-20 | |
| Elwood Reservoir Diversions | | | | | | |
| AF, in | | | | | | |
| \$/af | | | | | | |
| \$/other | | | | | | |
| Notes | | | | | | |
| | | | | | | |
| Elwood Releases | | | | | | |
| AF, in | | | | | | |
| \$/af | | | | | | |
| \$/other | | | | | | |
| Notes | | | | | | |
| | | | | | | |
| E65 Canal | | | | | | |
| AF, in | 465.5 | 698.3 | | | 253.9 | 380.8 |
| \$/af | 46.26 | 46.26 | | | 46.26 | 46.26 |
| \$/other | | | | | | |
| Notes | E65 Canal re-charge down to MP 23.7-0.3-TBNRD under contract #1150, 60/40 split TBNRD/DNR | E65 Canal re-charge down to MP 23.7-0.3 -DNR under contract #1150, 60/40 split TBNRD/DNR | | | E65 Canal re-charge down to MP 23.7-0.3-TBNRD under contract #1150, 60/40 split TBNRD/DNR | E65 Canal re-charge down to MP 23.7-0.3 -DNR under contract #1150, 60/40 split TBNRD/DNR |
| | | | | | | |
| Phelps Canal | | | | | | |
| AF, in | | | | 910.40 | | |
| \$/af | | | | 32.87 | | |
| \$/other | | | | | | |
| Notes | | | | 9-25-19 WSA w/ PRRIP, Diversions down to MP 13.3 | | |
| | | | | | | |
| Funk Lagoon | | | | | | |
| AF, in | | | | | | |
| \$/af | | | | | | |
| Notes | | | | | | |
| | | | | | | |
| Funds | | | | | | |
| Total \$ | \$21,534.03 | \$32,303.36 | \$30,766.20 | \$29,924.85 | \$11,745.41 | \$17,615.81 |
| PRRIP | | | | \$29,924.85 | | |
| NDNR | | \$32,303.36 | | | | \$17,615.81 |
| TBNRD | \$21,534.03 | | \$30,766.20 | | \$11,745.41 | |
| NGPC | | | | | | |

Appendix C: CNPPID Groundwater Recharge Diversions Summary - 2020 Republican Basin

| 2020 (Cont.) Dates of Recharge Diversion | 7-20-20 to 9-22-20 | 9-21-20 to 9-22-20 | 11-17-20 to 12-3-20 | Total |
|---|--------------------|---|--|----------------|
| Elwood Reservoir Diversions | | | | |
| AF, in | | | | 35731.2 |
| \$/af | | | | |
| \$/other | | | | |
| Notes | | | | |
| Elwood Releases | | | | |
| AF, in | | | | 0 |
| \$/af | | | | |
| \$/other | | | | |
| Notes | | | | |
| E65 Canal | | | | |
| AF, in | | | | 0 |
| \$/af | | | | |
| \$/other | | | | |
| Notes | | | | |
| Phelps Canal | | | | |
| AF, in | | 20.90 | 1054.40 | 0.00 |
| \$/af | | 32.87 | 32.87 | |
| \$/other | | | | |
| Notes | | 9-25-19 WSA w/PRRIP, Diversions down to MP 13.3 | 9-25-19 WSA w/ PRRIP, Diversions down to MP 13.3 | |
| Funk Lagoon | | | | |
| AF, in | | | | 0 |
| \$/af | | | | |
| Notes | | | | |
| Funds | | | | |
| Total \$ | NA | \$686.98 | \$34,658.13 | \$0.00 |
| PRRIP | | \$686.98 | \$34,658.13 | \$2,474,063.04 |
| NDNR | | | | \$4,805,557.16 |
| TBNRD | | | | \$3,892,154.61 |
| NGPC | | | | \$1,663,764.56 |

Appendix D: Tri-Basin NRD Water Conservation Incentive Program

3/12/19

Introduction: The Tri-Basin NRD Water Conservation Incentive Program (WCIP) is intended to address two natural resources management issues: ensuring sustainability of groundwater supplies and protecting streamflows from diminishment due to groundwater pumping. The goal of this voluntary program is to reduce groundwater pumping and increase irrigation water use efficiency in Tri-Basin NRD.

The Program: Tri-Basin will allow landowners to enroll up to 8000 NRD-certified irrigated acres in the program. The enrollment period will be from March 26 through April 19, or until the program acre enrollment limit is reached. Once the enrollment limit is reached, water savings to the district could reach 650 acre-feet per year. Incentives in this program will likely be most attractive to landowners in phase two and phase three groundwater quantity management areas, so the water-use reductions should be greatest where the need is greatest (there are approximately 30,000 certified irrigated acres in Tri-Basin's phase two and phase three townships).

In exchange for their participation, landowners will be paid for the equivalent of one acre-inch of water credit per acre per year, with the opportunity to sell additional credits to the NRD at a set price. In addition to NRD purchases, landowners will have the opportunity to sell water credits on the open market at any agreed-upon price (private transactions require NRD board approval). Tri-Basin will maintain an "electronic bulletin board" to facilitate connections between buyers and sellers. Landowners will also be granted flexibility to irrigate any acres within enrolled parcels and to share (pool) allocations between parcels. Pooling agreements will be required to enable sharing allocations between parcels under different ownership.

The Contract: The NRD and the landowner will sign a five-year agreement. The agreement commits the landowner to limiting water use (allocation) on parcels that they select. The allocation will be equal to the UNL average corn crop consumptive irrigation requirement, which is nine inches per acre per year in Kearney County, ten inches per acre per year in Phelps County and eleven inches per acre per year in Gosper County (allocation will be limited to current allocation of nine inches per acre per year in Union Township in Gosper County). Landowners will be required to have flowmeters installed on all wells serving participating parcels and to report water use annually to the NRD. Tri-Basin NRD will offer cost share on flowmeters for participants. Tri-Basin NRD will spot check flowmeter readings on 20% of participating parcels annually. As a condition of their participation, landowners will agree to subject enrolled parcels to (most of) the same rules that apply to all landowners in Phase three groundwater quantity management areas. An instrument will be filed with the county clerk recording these contracts, to provide notice to potential buyers of water use limitations associated with program participation.

In exchange for their participation, the NRD agrees to buy one acre-inch per acre per year from every acre enrolled in the contract. Landowners will have two payment options: an annual payment of \$5 per acre-inch credit for one acre-inch per year, or payment at the end of the contract period for up to five acre-inches of credits per acre (assuming the landowner has that much unused allocation) at a rate of \$4 per acre-inch. The NRD may also choose to purchase additional credits from participants. NRD purchases of additional acre-inches will be prioritized in Groundwater Quantity Management Phase 2 and Phase 3 areas and 50%+ stream depletion zones. The NRD will have the right of first refusal to purchase unused allocations from landowners, so landowners would need NRD board approval before they make private sales.

Landowners will also have the option to irrigate any and all acres within participating parcels. They can also pool acre-inches between parcels under the same ownership (pooling water credits associated with parcels under different ownership, but the same management will

Appendix C: CNPPID Groundwater Recharge Diversions Summary - 2020 Republican Basin

| 2015 (cont. on 46) Dates of Recharge Diversion | 1/1/15 to 2/14/15 | | 1/14/15 to 1/21/15 | | 5/11/15 to 8/24/15 | | |
|---|--|-----------------------------|---|--------------------|--|---|--------------|
| Elwood Reservoir Diversions | | | | | | | |
| AF, in | | | 1028.8 | | 6800 | | 9007 |
| \$/af | | | 42.6 | | 42.6 | | 42.6 |
| \$/other | | | | | | | |
| Notes | | | Finished out 10,000 af contract, pumped | | For NDNR/TBNRD, finished out Amendments No 1 thru No 4 (Total 17,000 AF) | | For PRRIP |
| | | | | | | | |
| Elwood Releases | | | | | | | |
| AF, in | | | | | | | |
| \$/af | | | | | | | |
| \$/other | | | | | | | |
| Notes | | | | | | | |
| | | | | | | | |
| E65 Canal | | | | | | | |
| AF, in | | | | 94.9 | | 200 | |
| \$/af | | | | 39.5 | | 39.5 | |
| \$/other | | | | | | | |
| Notes | | | | in Canal to MP 5.9 | | Into Cottonwood WPA, part of Amendment No 1 | |
| | | | | | | | |
| Phelps Canal | | | | | | | |
| AF, in | 1654 | 543.7 | | | | | |
| \$/af | 28.1 | 28.1 | | | | | |
| \$/other | | | | | | | |
| Notes | down to MP 13.3, up to 4000 af, then PRRIP to get 100% | down to MP 13.3, PRRIP only | | | | | |
| | | | | | | | |
| Funk Lagoon | | | | | | | |
| AF, in | | | | | | | |
| \$/af | | | | | | | |
| Notes | | | | | | | |
| | | | | | | | |
| Total \$ | \$46,447.13 | \$15,267.10 | \$43,868.03 | \$3,750 | \$289,952.00 | \$7,904.00 | \$384,058.48 |
| PRRIP | \$23,223.56 | \$15,267.10 | | | | | \$384,058.48 |
| NDNR | \$23,223.56 | | \$21,934.02 | \$1,875.22 | \$144,976.00 | \$3,950.00 | |
| TBNRD | | | \$21,934.02 | \$1,875.22 | \$144,976.00 | \$3,950.00 | |
| NGPC | | | | | | | |

Appendix D: Tri-Basin NRD Water Conservation Incentive Program

require a separate NRD-approved pooling agreement). Pools are only allowed for multiple parcels in the same basin and with the same groundwater quantity management phase status. Water use will be deducted from landowner water credit “accounts.”

If a producer overuses their allocation, they will need to purchase credits from other landowners to eliminate their deficit. Otherwise they will be prohibited from irrigating enrolled parcels until the deficit is eliminated. The only way a landowner can cancel a contract would be to pay the NRD for the full contracted amount (refund any payments that we’ve already made to them and pay the NRD the amount we would have paid them at the end of the contract period).

Terminology

Accounts- An account will track the number of acre-inches of water available for pumping on a parcel. Each parcel will have a separate account, unless landowners form pool accounts.

Allocations- Allocation amounts would be based on estimated safe yields from aquifers that would not result in long-term declines in groundwater levels. An initial allocation will be equal to the University of Nebraska’s average annual irrigation water consumption requirement for corn (that amount is nine inches per acre in Kearney County, ten inches per acre in Phelps County and eleven inches per acre in Gosper County).

Credits (Water Use Credits)- Credits are accumulated on a per-NRD-certified irrigated acre per-parcel basis. Allocation credits are granted at the beginning of each allocation period.

Debits- Debits would be made against accounts based on actual pumping or water credits marketed and sold to the NRD or other water users.