

Nebraska's Annual Report
Under Bullet 3 Section IV of the
Platte River Recovery Implementation Program
Nebraska New Depletion Plan
January 1, 2021, to December 31, 2021

VIA ELECTRONIC MAIL ONLY

DATE: January 10, 2023
TO: Governance Committee (GC) of the Platte River Recovery Implementation Program (PRRIP)
FROM: Tom Riley, State of Nebraska's Representative to the GC, Director, Nebraska Department of Natural Resources
SUBJECT: Nebraska's Annual Report under Section IV, Bullet 3 of the Platte River Recovery Implementation Program, Nebraska New Depletion Plan for January 1, 2021, to December 31, 2021

This report fulfills the annual reporting requirement for Nebraska for the period of January 1, 2021, to December 31, 2021, for the Platte River Recovery Implementation Program (PRRIP) Attachment 5, Section 8, Nebraska New Depletion Plan (NNDP), Section IV, Bullet 3.

Based upon the data contained in this report and the depletion analysis, the net effect on the Platte River from all 2021 permitted water-related activities is positive. This means that the mitigation activities have an accretive effect to the river that is greater than the depletive effect of the new permitted uses.

This report contains information on the following activities in Nebraska as required by Section IV, Bullet 3 of the NNDP:

- 1) Permitted new and expanded uses of surface water;
- 2) Permitted new and expanded uses of groundwater;
- 3) Collective depletion of these new and expanded permitted uses;
- 4) Collective mitigation of these new and expanded permitted uses; and
- 5) Additional measures to be implemented by Nebraska to satisfy all mitigation elements required because of new depletions to target flows

Data in this report are from the Nebraska Department of Natural Resources (Department) and the five Natural Resources Districts (NRDs) with land in the 28/40 area upstream of or within the PRRIP designated associated habitat reach, which includes Central Platte NRD (CPNRD), North Platte NRD (NPNRD), South Platte NRD (SPNRD), Tri-Basin NRD (TBNRD), and Twin Platte NRD (TPNRD). All tables, maps, and definitions of terms can be found in [Appendix 1](#) at the end of this document.

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**Items (1) and (2) from Section IV, Bullet 3 of the NNDP:
Permitted and Expanded Uses of Surface and Groundwater**

In 2021, the NRDs and the Department issued the following permits:

- 241 groundwater transfer permits ([Table 1](#));
- 33 groundwater well permits ([Table 2](#));
- 11 groundwater variance permits ([Table 3](#)); and
- 9 new surface water permits ([Table 4](#)).

[Tables 1-4](#) in Appendix 1 summarize the water use permits issued upstream of and within the PRRIP Associated Habitat Reach (AHR) in 2021, ([Map 1](#) in Appendix 1). [Tables 5-8](#) in Appendix 1 provide a detailed list of these permitted uses and any required mitigation of these uses.

**Items (3) and (4) from Section IV, Bullet 3 of the NNDP:
Collective Depletion and Mitigation for New and Expanded Permitted Uses**

Based upon the data contained in this report and the depletion analysis, the resulting net effect of all 2021 permitted activities located within the 28/40 area is positive. This means that the mitigation activities have an accretive effect to the river that is greater than the depletive effect of the new permitted uses.

[Table 9](#) in Appendix 1 shows the total estimated stream depletions (new or expanded uses), total stream accretions (mitigations), and the net effect by stream reach through 2030 for all activities permitted in 2021. Values in [Table 9](#) were derived from the information for the permits listed in [Tables 5-8](#). Effects to the river were estimated for each permitted action representing a new consumptive use of water and its corresponding mitigation action.

Due to the nature of the permitted use, only the groundwater transfers listed in [Table 5](#) and the temporary manufacturing surface water permits in [Table 8](#) required further evaluation of the timing of impacts to streamflow.

For each groundwater transfer, there was a new use initiated and an existing use retired. For transfers where the new and retired uses were a change in agricultural land use, the difference in consumptive use was estimated based on land use data provided with the

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permit information, or on land use conversions typical of the area (i.e., irrigated corn to dryland corn, or vice versa) if specific data were not available. The change in consumptive use for other types of uses, such as new industrial uses, was estimated based upon available data. The yearly effect to the river from each individual portion of a permitted groundwater transfer (new/expanded uses or mitigations) was estimated using an annual depletion percentage series developed using the analytical groundwater equations (Hunt, 1999)¹ and average hydraulic characteristics taken from the Cooperative Hydrologic Study (COHYST) data.

Most of the groundwater well permits, listed in [Table 6](#), did not require evaluation of impacts to streamflow because there is no resulting new use. The well permits without new use were issued for: 1) replacement wells and the old wells decommissioned or modified to pump less than 50 gpm; 2) new wells with no new use; 3) supplemental wells to supplement existing groundwater irrigation with no associated increase in irrigated acres. Well permits with potential new use include: 1) a temporary well for road construction and 2) a well for a public water supply. Both of these new uses will be monitored by the local NRD and will be offset as needed.

The groundwater variance permits, described in [Table 7](#), did not result in any new or expanded uses. The permits issued were for: 1) exemption to allocation with the permittee responsible for mitigation.

The surface water permits issued, listed in [Table 8](#), were temporary (one-year) permits. All nine (9) were temporary permits for groundwater recharge. These permits only allow the diversion of streamflows in excess of already permitted uses and target flows when they are available and are intended to supply baseflow accretions back to the river. All temporary permits expire one (1) year from the issued date. The conditions under which each permit can operate are specified in detail in the order for each permit.

[Figure 1](#) illustrates that the net effect to streamflow upstream of the CHR and the net effect within the PRRIP CHR is positive. The aggregate net effect to both reaches for all activities permitted in 2021 is positive. For 2021, Nebraska's new permitted activities and associated mitigation efforts within the 28/40 area resulted in a net increase in streamflow upstream of the PRRIP CHR, a net increase within the CHR, and a net increase to streamflow overall.

¹ Hunt, B. (1999), Unsteady Stream Depletion from Ground Water Pumping. Ground Water, 37: 98-102.

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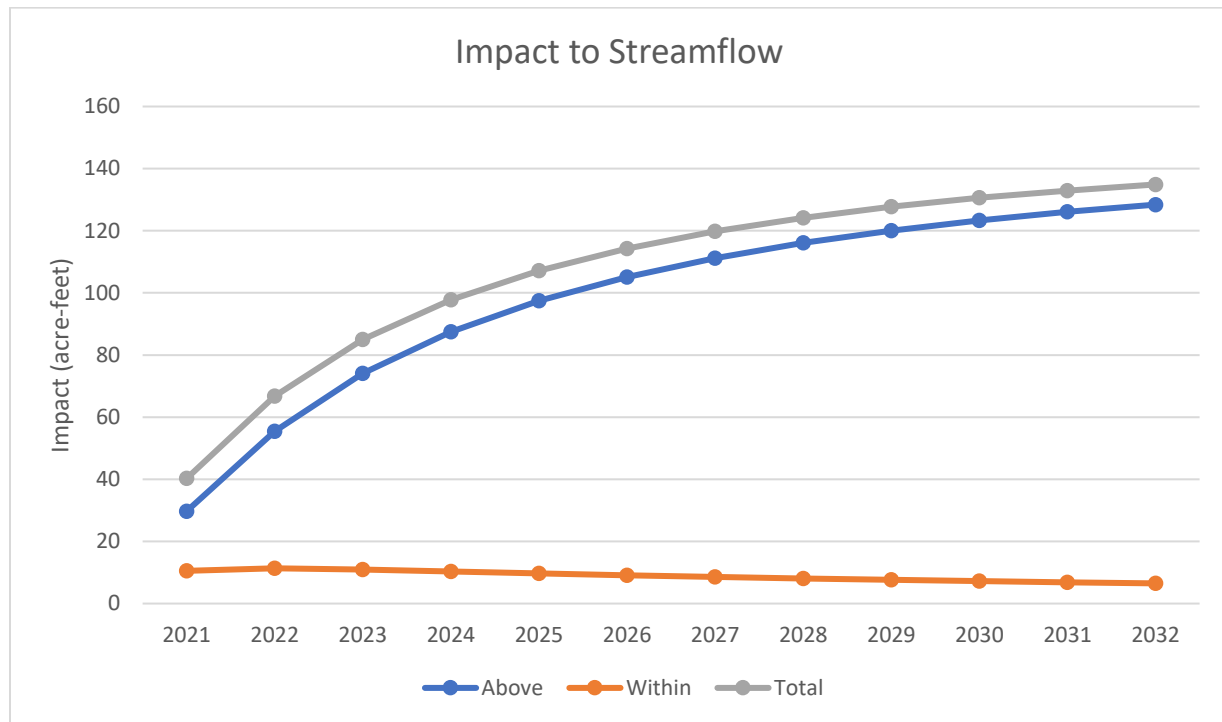


Figure 1: Aggregate net effect to streamflow resulting from all activities permitted in 2021, through the end of 2032.

Item (5) from Section IV, Bullet 3 of the NNDP: Implementation of additional measures to satisfy all mitigations required because of new depletions to target flows

Based upon the analysis of all activities permitted in 2021 and their cumulative depletions and mitigation accretions, no additional mitigation measures for 2021 permitted activities are required at this time.

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Update on Other NNDP Related Activities and Nebraska's Robust Review

To meet the requirements of the Upper Platte Basin-Wide Plan and the NRD integrated management plans (IMPs), the Department and the Upper Platte NRDs conducted a Robust Review, which was completed in 2019. This Review analyzed the impacts of new or expanded permitted activities since July 1, 1997, along with the impacts of mitigation or offset measures conducted through 2013, and non-permitted activities such as changes in livestock populations, municipal and industrial uses, and human populations. The Robust Review resulted in updated estimates of new net depletions due to new or expanded uses of water subsequent to July 1, 1997. The quantification of these depletions is also a requirement of the NNDP. The analysis indicated that Nebraska is meeting their goals in terms of offsetting post-1997 depletions within the basin. More details on the analysis can be found at <http://upjointplanning.nebraska.gov/>. More information regarding the Robust Review and compliance with NNDP requirements can be found in the 2019 Update memo submitted to the GC.

Future Robust Reviews are planned for 2023 and 2027. Updates on current and ongoing activities and progress on the 2023 Robust Review is shared with the PRRIP Executive Director's Office members through Platte Over Appropriated Committee (POAC) Technical Committee meetings. Nebraska will inform the GC of the future Robust Review activities and the results as they are available.

Questions about information provided in this report should be directed to:

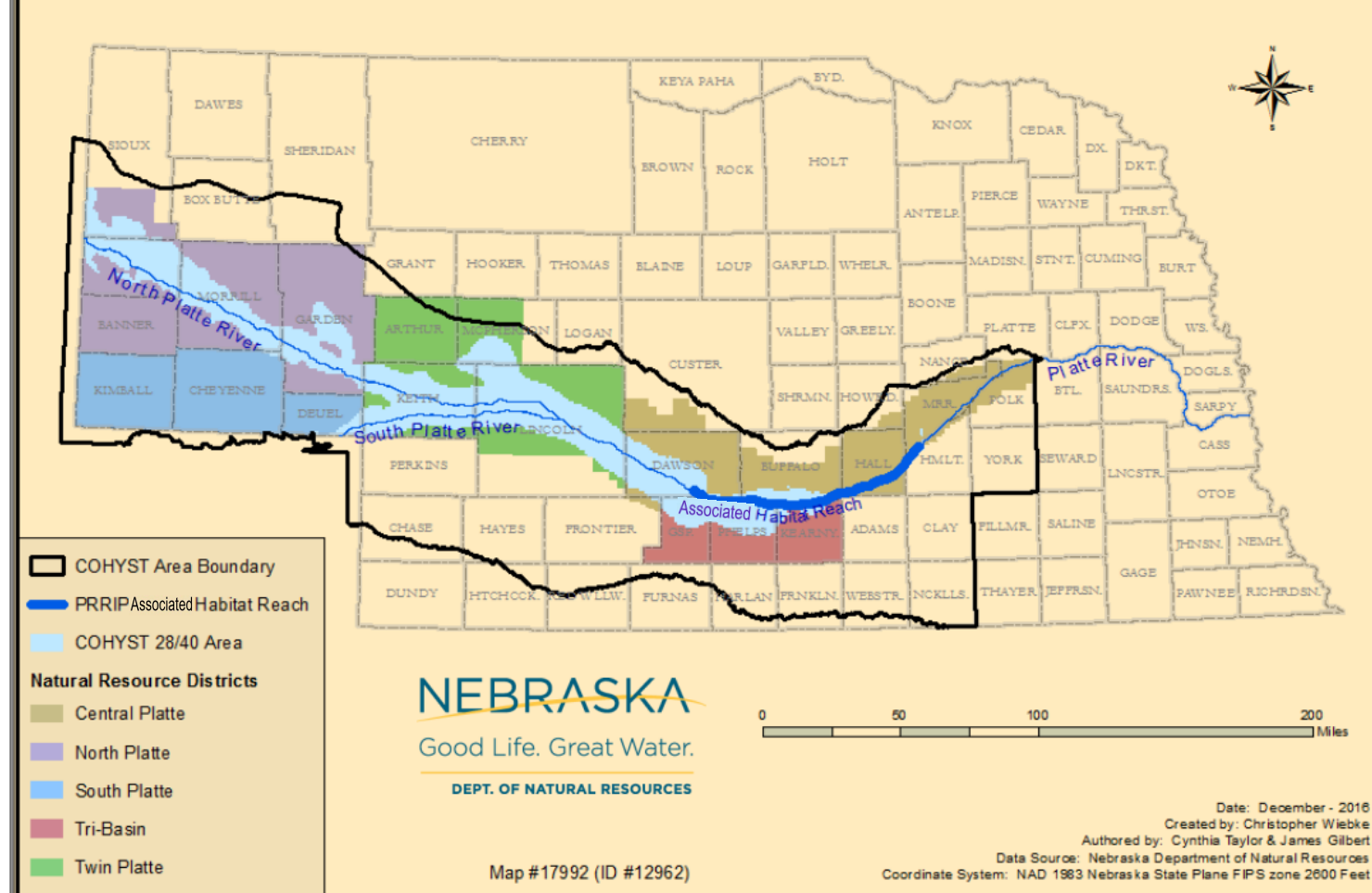
Central Platte NRD (CPNRD)	308-385-6282	Lyndon Vogt
North Platte NRD (NPNRD)	308-632-2749	Scott Schaneman
South Platte NRD (SPNRD)	308-254-2337	Galen Wittrock
Tri-Basin NRD (TBNRD)	308-995-6688	John Thorburn
Twin Platte NRD (TPNRD)	308-535-8080	Kent Miller
Department of Natural Resources (NeDNR)	402-471-2899	Jennifer J. Schellpeper

Supporting information can be found at <https://dnr.nebraska.gov/water-planning/upper-platte-river-basin>

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Appendix 1

Platte River Regions in Nebraska New Depletions Plan Annual Report, Platte River Recovery Implementation Program (PRRIP)



Map 1: COHYST 28/40 modeled area and PRRIP Associated Habitat Reach.²

² Map features the boundary of the original COHYST model

Table 1: Groundwater Transfer Permits in the 28/40 area upstream of and within the PRRIP Associated Habitat Reach.

Use	Upstream	Within	Total
GW Transfers	31	29	60
Total	31	29	60

Table 2: Groundwater Well Permits in the 28/40 area upstream of and within the PRRIP Associated Habitat Reach

Use	Upstream	Within	Total
Aquaculture	1	--	1
Domestic	1	--	1
Irrigation	5	--	5
Replacement	24	6	30
Supplemental GW	1	2	3
Dewatering	--	7	7
Total	32	15	47

Table 3: Groundwater Variance Permits in the 28/40 area upstream of and within the PRRIP Associated Habitat Reach

Use	Upstream	Within	Total
Exemption to Allocation	--	8	8
Total	--	8	8

Table 4: Surface water Permits in the surface water basin upstream of and within the PRRIP Associated Habitat Reach.

Use	Upstream	Within	Total
Temporary Recharge	10	--	10
Total	10	--	10

Table 5: Groundwater Transfer Permits

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NRD	Permit Type	Year Implemented*	NRD Permit	Permit Date	Range	Section	Township	E/W	Acres
CPNRD	New Use	2021	2138	1/14/2021	17	2	8	W	0.05
CPNRD	New Use	2021	2138	1/14/2021	17	2	8	W	1.51
CPNRD	Mitigation	2021	2138	1/14/2021	17	2	8	W	1.56
CPNRD	Mitigation	2021	2140	1/26/2021	22	1	10	W	1.17
CPNRD	Mitigation	2021	2140	1/26/2021	22	1	10	W	0.34
CPNRD	Mitigation	2021	2140	1/26/2021	22	1	10	W	0.53
CPNRD	Mitigation	2021	2140	1/26/2021	22	1	10	W	6.36
CPNRD	Mitigation	2021	2140	1/26/2021	22	1	10	W	1.55
CPNRD	Mitigation	2021	2140	1/26/2021	22	2	10	W	6.51
CPNRD	New Use	2021	2140	1/26/2021	22	2	10	W	28.44
CPNRD	Mitigation	2021	2140	1/26/2021	22	2	10	W	1.18
CPNRD	Mitigation	2021	2140	1/26/2021	22	2	10	W	0.40
CPNRD	Mitigation	2021	2140	1/26/2021	22	2	10	W	6.74
CPNRD	Mitigation	2021	2140	1/26/2021	22	2	10	W	0.63
CPNRD	Mitigation	2021	2140	1/26/2021	22	2	10	W	2.24
CPNRD	Mitigation	2021	2140	1/26/2021	22	2	10	W	1.48
CPNRD	Mitigation	2021	2154	2/18/2021	21	22	10	W	3.59
CPNRD	New Use	2021	2154	2/18/2021	21	22	10	W	1.16
CPNRD	New Use	2021	2154	2/18/2021	21	22	10	W	2.43
CPNRD	New Use	2021	2156	2/22/2021	23	32	11	W	17.93
CPNRD	New Use	2021	2156	2/22/2021	23	32	11	W	10.15
CPNRD	Mitigation	2021	2156	2/22/2021	23	32	11	W	3.87
CPNRD	Mitigation	2021	2156	2/22/2021	23	32	11	W	8.32
CPNRD	Mitigation	2021	2156	2/22/2021	23	32	11	W	7.95
CPNRD	Mitigation	2021	2156	2/22/2021	23	32	11	W	7.79
CPNRD	Mitigation	2021	2157	2/23/2021	22	17	9	W	15.01
CPNRD	New Use	2021	2157	2/23/2021	22	27	9	W	30.10
CPNRD	New Use	2021	2157	2/23/2021	22	27	9	W	0.16

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NRD	Permit Type	Year Implemented*	NRD Permit	Permit Date	Range	Section	Township	E/W	Acres
CPNRD	Mitigation	2021	2157	2/23/2021	22	27	9	W	3.96
CPNRD	Mitigation	2021	2157	2/23/2021	22	27	9	W	11.12
CPNRD	Mitigation	2021	2159	2/23/2021	21	15	9	W	2.74
CPNRD	New Use	2021	2159	2/23/2021	21	15	9	W	2.74
CPNRD	Mitigation	2021	2164	2/25/2021	25	2	11	W	2.19
CPNRD	New Use	2021	2164	2/25/2021	25	2	11	W	4.75
CPNRD	Mitigation	2021	2164	2/25/2021	25	2	11	W	1.56
CPNRD	Mitigation	2021	2164	2/25/2021	25	2	11	W	1.00
CPNRD	New Use	2021	2169	3/2/2021	19	1	8	W	11.32
CPNRD	Mitigation	2021	2169	3/2/2021	18	6	8	W	0.20
CPNRD	Mitigation	2021	2169	3/2/2021	18	6	8	W	2.15
CPNRD	Mitigation	2021	2169	3/2/2021	19	25	9	W	2.11
CPNRD	Mitigation	2021	2169	3/2/2021	19	25	9	W	2.04
CPNRD	Mitigation	2021	2169	3/2/2021	19	25	9	W	5.35
CPNRD	New Use	2021	2170	3/2/2021	25	12	10	W	1.39
CPNRD	Mitigation	2021	2170	3/2/2021	25	12	10	W	1.39
CPNRD	Mitigation	2021	2171	3/2/2021	21	22	9	W	2.94
CPNRD	Mitigation	2021	2171	3/2/2021	21	22	9	W	12.78
CPNRD	New Use	2021	2171	3/2/2021	21	22	9	W	6.54
CPNRD	New Use	2021	2171	3/2/2021	21	22	9	W	18.81
CPNRD	Mitigation	2021	2171	3/2/2021	21	27	9	W	1.56
CPNRD	Mitigation	2021	2171	3/2/2021	21	27	9	W	6.88
CPNRD	New Use	2021	2175	3/8/2021	24	22	9	W	0.72
CPNRD	Mitigation	2021	2175	3/8/2021	24	22	9	W	0.20
CPNRD	Mitigation	2021	2175	3/8/2021	24	22	9	W	0.49
CPNRD	Mitigation	2021	2175	3/8/2021	24	22	9	W	3.11
CPNRD	New Use	2021	2175	3/8/2021	24	22	9	W	2.45
CPNRD	New Use	2021	2175	3/8/2021	24	22	9	W	0.65
CPNRD	Mitigation	2021	2175	3/8/2021	24	27	9	W	0.02

Table 5: Groundwater Transfer Permits

NRD	Permit Type	Year Implemented*	NRD Permit	Permit Date	Range	Section	Township	E/W	Acres
CPNRD	Mitigation	2021	2177	3/8/2021	21	2	9	W	4.27
CPNRD	New Use	2021	2177	3/8/2021	21	35	10	W	4.41
CPNRD	Mitigation	2021	2186	3/26/2021	15	29	9	W	7.01
CPNRD	New Use	2021	2186	3/26/2021	11	32	10	W	7.01
CPNRD	Mitigation	2021	2187	3/26/2021	15	5	8	W	2.00
CPNRD	Mitigation	2021	2187	3/26/2021	13	34	10	W	0.52
CPNRD	Mitigation	2021	2187	3/26/2021	13	34	10	W	4.10
CPNRD	New Use	2021	2187	3/26/2021	13	34	10	W	8.73
CPNRD	New Use	2021	2199	4/2/2021	23	22	9	W	1.78
CPNRD	Mitigation	2021	2199	4/2/2021	23	22	9	W	1.78
CPNRD	New Use	2021	2200	4/6/2021	22	20	10	W	3.76
CPNRD	Mitigation	2021	2200	4/6/2021	22	20	10	W	3.76
CPNRD	Mitigation	2021	2206	4/13/2021	21	33	10	W	7.29
CPNRD	Mitigation	2021	2206	4/13/2021	21	33	10	W	4.31
CPNRD	New Use	2021	2206	4/13/2021	21	33	10	W	16.87
CPNRD	New Use	2021	2206	4/13/2021	21	33	10	W	1.17
CPNRD	Mitigation	2021	2206	4/13/2021	21	33	10	W	6.44
CPNRD	Mitigation	2021	2210	4/21/2021	24	23	9	W	2.15
CPNRD	New Use	2021	2210	4/21/2021	24	23	9	W	1.08
CPNRD	New Use	2021	2210	4/21/2021	24	23	9	W	1.08
CPNRD	New Use	2021	2211	4/21/2021	22	1	10	W	4.58
CPNRD	Mitigation	2021	2211	4/21/2021	21	6	10	W	0.70
CPNRD	Mitigation	2021	2211	4/21/2021	21	6	10	W	4.50
CPNRD	Mitigation	2021	2223	5/4/2021	23	23	9	W	0.67
CPNRD	New Use	2021	2223	5/4/2021	23	23	9	W	0.26
CPNRD	Mitigation	2021	2223	5/4/2021	23	23	9	W	11.75
CPNRD	Mitigation	2021	2223	5/4/2021	23	23	9	W	0.48
CPNRD	Mitigation	2021	2223	5/4/2021	23	23	9	W	7.57
CPNRD	Mitigation	2021	2223	5/4/2021	23	23	9	W	0.33

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NRD	Permit Type	Year Implemented*	NRD Permit	Permit Date	Range	Section	Township	E/W	Acres
CPNRD	New Use	2021	2223	5/4/2021	23	23	9	W	19.57
CPNRD	New Use	2021	2223	5/4/2021	23	23	9	W	0.96
CPNRD	New Use	2021	2224	5/5/2021	24	36	10	W	32.87
CPNRD	Mitigation	2021	2224	5/5/2021	24	36	10	W	4.95
CPNRD	Mitigation	2021	2224	5/5/2021	24	36	10	W	27.90
CPNRD	New Use	2021	2226	5/19/2021	12	22	11	W	14.07
CPNRD	Mitigation	2021	2226	5/19/2021	15	29	9	W	4.92
CPNRD	Mitigation	2021	2233	6/4/2021	13	27	9	W	1.10
CPNRD	New Use	2021	2233	6/4/2021	13	27	9	W	13.26
CPNRD	Mitigation	2021	2233	6/4/2021	15	27	9	W	16.01
CPNRD	Mitigation	2021	2235	6/11/2021	2	1	15	W	7.46
CPNRD	Mitigation	2021	2235	6/11/2021	2	1	15	W	0.02
CPNRD	Mitigation	2021	2235	6/11/2021	2	1	15	W	3.95
CPNRD	Mitigation	2021	2235	6/11/2021	2	1	15	W	7.93
CPNRD	New Use	2021	2235	6/11/2021	2	1	15	W	31.17
CPNRD	Mitigation	2021	2235	6/11/2021	16	14	8	W	1.59
CPNRD	Mitigation	2021	2235	6/11/2021	16	15	8	W	8.42
CPNRD	Mitigation	2021	2239	6/24/2021	23	17	9	W	1.54
CPNRD	Mitigation	2021	2239	6/24/2021	23	17	9	W	0.61
CPNRD	Mitigation	2021	2239	6/24/2021	23	20	9	W	0.35
CPNRD	New Use	2021	2239	6/24/2021	23	20	9	W	2.52
CPNRD	Mitigation	2021	2239	6/24/2021	23	20	9	W	3.37
CPNRD	Mitigation	2021	2239	6/24/2021	23	20	9	W	5.80
CPNRD	New Use	2021	2239	6/24/2021	23	20	9	W	9.75
CPNRD	Mitigation	2021	2241	7/7/2021	17	10	8	W	0.78
CPNRD	Mitigation	2021	2241	7/7/2021	17	10	8	W	0.56
CPNRD	Mitigation	2021	2241	7/7/2021	17	10	8	W	1.26
CPNRD	Mitigation	2021	2241	7/7/2021	17	10	8	W	0.49
CPNRD	Mitigation	2021	2241	7/7/2021	17	10	8	W	0.56

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NRD	Permit Type	Year Implemented*	NRD Permit	Permit Date	Range	Section	Township	E/W	Acres
CPNRD	Mitigation	2021	2241	7/7/2021	17	10	8	W	0.32
CPNRD	Mitigation	2021	2241	7/7/2021	17	10	8	W	0.80
CPNRD	Mitigation	2021	2241	7/7/2021	17	10	8	W	0.69
CPNRD	New Use	2021	2241	7/7/2021	17	10	8	W	5.35
CPNRD	New Use	2021	2241	7/7/2021	17	10	8	W	0.59
CPNRD	New Use	2021	2241	7/7/2021	17	10	8	W	0.51
CPNRD	Mitigation	2021	2241	7/7/2021	17	10	8	W	1.00
CPNRD	Mitigation	2021	2244	8/11/2021	17	28	9	W	0.14
CPNRD	Mitigation	2021	2244	8/11/2021	17	28	9	W	0.76
CPNRD	Mitigation	2021	2244	8/11/2021	17	28	9	W	5.32
CPNRD	New Use	2021	2244	8/11/2021	17	28	9	W	22.71
CPNRD	Mitigation	2021	2244	8/11/2021	17	28	9	W	0.09
CPNRD	Mitigation	2021	2244	8/11/2021	17	31	9	W	4.90
CPNRD	Mitigation	2021	2244	8/11/2021	17	31	9	W	1.78
CPNRD	Mitigation	2021	2244	8/11/2021	17	32	9	W	7.66
CPNRD	Mitigation	2021	2248	10/5/2021	19	35	9	W	2.53
CPNRD	New Use	2021	2248	10/5/2021	19	35	9	W	2.51
CPNRD	New Use	2021	2252	11/3/2021	22	22	9	W	0.86
CPNRD	Mitigation	2021	2252	11/3/2021	22	22	9	W	0.85
CPNRD	Mitigation	2021	2256	11/18/2021	19	34	9	W	0.44
CPNRD	Mitigation	2021	2256	11/18/2021	19	34	9	W	1.65
CPNRD	Mitigation	2021	2256	11/18/2021	19	34	9	W	0.22
CPNRD	New Use	2021	2256	11/18/2021	19	34	9	W	0.77
CPNRD	New Use	2021	2256	11/18/2021	19	34	9	W	1.54
CPNRD	Mitigation	2021	2261	12/20/2021	23	3	9	W	1.66
CPNRD	Mitigation	2021	2261	12/20/2021	23	3	9	W	5.67
CPNRD	New Use	2021	2261	12/20/2021	12	20	10	W	5.80
CPNRD	New Use	2021	2261	12/20/2021	12	20	10	W	4.95
CPNRD	New Use	2021	2261	12/20/2021	12	20	10	W	3.86

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NRD	Permit Type	Year Implemented*	NRD Permit	Permit Date	Range	Section	Township	E/W	Acres
CPNRD	New Use	2021	2261	12/20/2021	12	20	10	W	4.05
TBNRD	Mitigation	2021	TBAT-0359	1/12/2021	17	2	6	W	15.20
TBNRD	New Use	2021	TBAT-0359	1/12/2021	16	22	7	W	15.20
TBNRD	Mitigation	2021	TBAT-0361	3/9/2021	17	15	8	W	30.00
TBNRD	New Use	2021	TBAT-0361	3/9/2021	17	27	8	W	30.00
TBNRD	Mitigation	2021	TBAT-0367	3/9/2021	17	15	8	W	25.00
TBNRD	New Use	2021	TBAT-0367	3/9/2021	15	25	8	W	25.00
TBNRD	Mitigation	2021	TBAT-0368	3/9/2021	17	15	8	W	20.00
TBNRD	New Use	2021	TBAT-0368	3/9/2021	18	23	8	W	20.00
TBNRD	New Use	2021	TBAT-0369	3/9/2021	17	12	7	W	9.00
TBNRD	Mitigation	2021	TBAT-0369	3/9/2021	17	15	8	W	9.00
TBNRD	New Use	2021	TBAT-0372	4/13/2021	17	6	7	W	7.67
TBNRD	Mitigation	2021	TBAT-0372	4/13/2021	17	15	8	W	7.67
TBNRD	New Use	2021	TBAT-0373	4/13/2021	17	6	7	W	5.33
TBNRD	Mitigation	2021	TBAT-0373	4/13/2021	17	14	8	W	5.33
TBNRD	New Use	2021	TBAT-0374	4/13/2021	17	5	7	W	4.00
TBNRD	Mitigation	2021	TBAT-0374	4/13/2021	17	14	8	W	4.00
TBNRD	Mitigation	2021	TBAT-0375	4/13/2021	17	14	8	W	20.00
TBNRD	New Use	2021	TBAT-0375	4/13/2021	16	18	7	W	20.00
TBNRD	New Use	2021	TBAT-0376	4/13/2021	18	3	7	W	21.00
TBNRD	Mitigation	2021	TBAT-0376	4/13/2021	17	14	8	W	21.00
TBNRD	Mitigation	2021	TBAT-0377	5/11/2021	17	14	8	W	3.00
TBNRD	New Use	2021	TBAT-0377	5/11/2021	17	24	8	W	3.00
TBNRD	Mitigation	2021	TBAT-0378	5/11/2021	17	14	8	W	14.00
TBNRD	New Use	2021	TBAT-0378	5/11/2021	15	16	7	W	14.00
TBNRD	New Use	2022	TBAT-0382	9/14/2021	20	3	7	W	9.76
TBNRD	Mitigation	2022	TBAT-0382	9/14/2021	19	26	7	W	9.76
TBNRD	New Use	2022	TBAT-0384	12/14/2021	17	6	7	W	8.79
TBNRD	Mitigation	2022	TBAT-0384	12/14/2021	17	14	8	W	8.79

Table 5: Groundwater Transfer Permits

NRD	Permit Type	Year Implemented*	NRD Permit	Permit Date	Range	Section	Township	E/W	Acres
TPNRD	New Use	2021	TP-TRANS-21.01	1/14/2021	40	16	13	W	2.70
TPNRD	New Use	2021	TP-TRANS-21.01	1/14/2021	40	16	13	W	2.70
TPNRD	New Use	2021	TP-TRANS-21.03	1/14/2021	35	1	13	W	3.52
TPNRD	New Use	2021	TP-TRANS-21.03	1/14/2021	35	1	13	W	4.38
TPNRD	Mitigation	2021	TP-TRANS-21.03	1/14/2021	35	1	13	W	1.60
TPNRD	Mitigation	2021	TP-TRANS-21.03	1/14/2021	35	1	13	W	2.20
TPNRD	Mitigation	2021	TP-TRANS-21.03	1/14/2021	35	1	13	W	0.45
TPNRD	Mitigation	2021	TP-TRANS-21.03	1/14/2021	35	1	13	W	3.65
TPNRD	Mitigation	2021	TP-TRANS-21.03	1/14/2021	36	12	16	W	16.85
TPNRD	Mitigation	2021	TP-TRANS-21.03	1/14/2021	36	12	16	W	133.33
TPNRD	Mitigation	2021	TP-TRANS-21.03	1/14/2021	36	12	16	W	34.32
TPNRD	New Use	2021	TP-TRANS-21.03	1/14/2021	30	27	12	W	184.50
TPNRD	Mitigation	2021	TP-TRANS-21.04	2/11/2021	40	21	13	W	4.62
TPNRD	Mitigation	2021	TP-TRANS-21.04	2/11/2021	40	21	13	W	3.40
TPNRD	New Use	2021	TP-TRANS-21.04	2/11/2021	40	21	13	W	1.40
TPNRD	New Use	2021	TP-TRANS-21.04	2/11/2021	40	21	13	W	9.00

Table 5: Groundwater Transfer Permits

NRD	Permit Type	Year Implemented*	NRD Permit	Permit Date	Range	Section	Township	E/W	Acres
TPNRD	Mitigation	2021	TP-TRANS-21.04	2/11/2021	40	21	13	W	2.38
TPNRD	Mitigation	2021	TP-TRANS-21.06	2/11/2021	36	11	16	W	30.16
TPNRD	Mitigation	2021	TP-TRANS-21.06	2/11/2021	36	11	16	W	9.55
TPNRD	Mitigation	2021	TP-TRANS-21.06	2/11/2021	36	11	16	W	38.66
TPNRD	Mitigation	2021	TP-TRANS-21.06	2/11/2021	36	11	16	W	1.57
TPNRD	Mitigation	2021	TP-TRANS-21.06	2/11/2021	36	12	16	W	0.63
TPNRD	Mitigation	2021	TP-TRANS-21.06	2/11/2021	36	12	16	W	83.44
TPNRD	New Use	2021	TP-TRANS-21.06	2/11/2021	28	35	16	W	133.85
TPNRD	New Use	2021	TP-TRANS-21.08	3/11/2021	31	24	13	W	8.00
TPNRD	New Use	2021	TP-TRANS-21.09	3/11/2021	26	6	11	W	13.60
TPNRD	New Use	2021	TP-TRANS-21.09	3/11/2021	26	6	11	W	3.60
TPNRD	New Use	2021	TP-TRANS-21.09	3/11/2021	26	6	11	W	3.15
TPNRD	Mitigation	2021	TP-TRANS-21.09	3/11/2021	27	17	12	W	5.97
TPNRD	Mitigation	2021	TP-TRANS-21.09	3/11/2021	27	17	12	W	1.30
TPNRD	Mitigation	2021	TP-TRANS-21.09	3/11/2021	27	17	12	W	2.34
TPNRD	Mitigation	2021	TP-TRANS-21.09	3/11/2021	27	17	12	W	6.75

Table 5: Groundwater Transfer Permits

NRD	Permit Type	Year Implemented*	NRD Permit	Permit Date	Range	Section	Township	E/W	Acres
TPNRD	Mitigation	2021	TP-TRANS-21.09	3/11/2021	27	17	12	W	2.35
TPNRD	Mitigation	2021	TP-TRANS-21.09	3/11/2021	27	17	12	W	3.66
TPNRD	New Use	2021	TP-TRANS-21.09	3/11/2021	27	19	12	W	0.78
TPNRD	New Use	2021	TP-TRANS-21.09	3/11/2021	27	19	12	W	1.57
TPNRD	New Use	2021	TP-TRANS-21.09	3/11/2021	27	21	12	W	5.97
TPNRD	Mitigation	2021	TP-TRANS-21.09	3/11/2021	27	22	12	W	6.29
TPNRD	New Use	2021	TP-TRANS-21.09	3/11/2021	26	26	11	W	0.30
TPNRD	New Use	2021	TP-TRANS-21.09	3/11/2021	26	26	11	W	0.25
TPNRD	New Use	2021	TP-TRANS-21.09	3/11/2021	26	26	11	W	1.20
TPNRD	New Use	2021	TP-TRANS-21.09	3/11/2021	26	26	11	W	0.50
TPNRD	Mitigation	2021	TP-TRANS-21.09	3/11/2021	26	26	11	W	0.35
TPNRD	Mitigation	2021	TP-TRANS-21.09	3/11/2021	26	26	11	W	1.90
TPNRD	New Use	2021	TP-TRANS-21.09	3/11/2021	26	27	11	W	1.19
TPNRD	Mitigation	2021	TP-TRANS-21.09	3/11/2021	26	27	11	W	1.19
TPNRD	Mitigation	2021	TP-TRANS-21.10	4/8/2021	27	24	12	W	5.75
TPNRD	New Use	2021	TP-TRANS-21.10	4/8/2021	27	26	12	W	5.75

Table 5: Groundwater Transfer Permits

NRD	Permit Type	Year Implemented*	NRD Permit	Permit Date	Range	Section	Township	E/W	Acres
TPNRD	Mitigation	2021	TP-TRANS-21.11	4/8/2021	37	10	13	W	6.50
TPNRD	New Use	2021	TP-TRANS-21.11	4/8/2021	39	36	13	W	4.07
TPNRD	New Use	2021	TP-TRANS-21.11	4/8/2021	39	36	13	W	1.13
TPNRD	New Use	2021	TP-TRANS-21.11	4/8/2021	39	36	13	W	1.30
TPNRD	New Use	2021	TP-TRANS-21.12	5/13/2021	31	13	13	W	25.84
TPNRD	New Use	2021	TP-TRANS-21.12	5/13/2021	31	13	13	W	19.85
TPNRD	Mitigation	2021	TP-TRANS-21.12	5/13/2021	31	13	13	W	26.34
TPNRD	Mitigation	2021	TP-TRANS-21.12	5/13/2021	31	13	13	W	19.35
TPNRD	Mitigation	2021	TP-TRANS-21.13	6/10/2021	35	19	14	W	4.55
TPNRD	New Use	2021	TP-TRANS-21.13	6/10/2021	35	19	14	W	16.10
TPNRD	Mitigation	2021	TP-TRANS-21.13	6/10/2021	35	19	14	W	8.10
TPNRD	Mitigation	2021	TP-TRANS-21.13	6/10/2021	36	25	14	W	1.55
TPNRD	Mitigation	2021	TP-TRANS-21.13	6/10/2021	36	25	14	W	1.00
TPNRD	Mitigation	2021	TP-TRANS-21.13	6/10/2021	35	30	14	W	0.75
TPNRD	New Use	2021	TP-TRANS-21.13	6/10/2021	35	30	14	W	1.25
TPNRD	New Use	2021	TP-TRANS-21.13	6/10/2021	35	30	14	W	2.65

Table 5: Groundwater Transfer Permits

NRD	Permit Type	Year Implemented*	NRD Permit	Permit Date	Range	Section	Township	E/W	Acres
TPNRD	Mitigation	2021	TP-TRANS-21.13	6/10/2021	35	30	14	W	4.05
TPNRD	New Use	2022	TP-TRANS-21.14**	9/9/2021	31	16	14	W	6.70
TPNRD	Mitigation	2022	TP-TRANS-21.14**	9/9/2021	31	16	14	W	2.50
TPNRD	Mitigation	2022	TP-TRANS-21.14**	9/9/2021	31	16	14	W	3.75
TPNRD	Mitigation	2022	TP-TRANS-21.14**	9/9/2021	31	16	14	W	0.45
TPNRD	Mitigation	2022	TP-TRANS-21.15	9/9/2021	37	10	13	W	3.60
TPNRD	New Use	2022	TP-TRANS-21.15	9/9/2021	37	16	13	W	3.60
TPNRD	New Use	2022	TP-TRANS-21.17**	9/9/2021	29	8	13	W	11.00
TPNRD	Mitigation	2022	TP-TRANS-21.17**	9/9/2021	29	15	13	W	2.85
TPNRD	Mitigation	2022	TP-TRANS-21.17**	9/9/2021	29	15	13	W	2.47
TPNRD	Mitigation	2022	TP-TRANS-21.17**	9/9/2021	29	22	13	W	5.67
TPNRD	Mitigation	2022	TP-TRANS-21.18	10/14/2021	33	30	14	W	1.17
TPNRD	Mitigation	2022	TP-TRANS-21.18	10/14/2021	33	30	14	W	4.08
TPNRD	New Use	2022	TP-TRANS-21.18	10/14/2021	33	30	14	W	5.25
TPNRD	New Use	2022	TP-TRANS-21.19	10/14/2021	34	19	14	W	8.70
TPNRD	Mitigation	2022	TP-TRANS-21.19	10/14/2021	34	19	14	W	8.70

Table 5: Groundwater Transfer Permits

NRD	Permit Type	Year Implemented*	NRD Permit	Permit Date	Range	Section	Township	E/W	Acres
TPNRD	Mitigation	2022	TP-TRANS-21.21	11/18/2021	37	4	13	W	8.00

*All permits were issued in the 2021 calendar year. The Year Implemented field reflects when the permit takes effect

**Indicates this part of the transfer was not in the 28/40 area. These transfers are still included in the totals in Table 1 and the analysis for Table 9.

Table 6: Groundwater Well Permits

Table 6: Groundwater Well Permits

NRD	Permit Type	NRD Permit	Permit Date	Section	Township	Range	E/W	NDNR Well Registration	Notes	Year Implemented*
NPNRD	Replacement, Irrigation	RP-21001	4/24/2021	26	24	57	W	A-006597 or A-006537 in report		2021
NPNRD	Aquaculture	21003	7/6/2021	28	24	56	W		Per documentation from NPNRD documentation – cannot increase Consumptive Use, and this well is a backup well only to be used in emergency situations.	2021
NPNRD	Irrigation, Special Circumstance Replacement	SC-21002	6/7/2021	28	22	54	W			2021
NPNRD	Replacement, Livestock	RP-21004	7/14/2021	7	23	56	W			2021
SPNRD	Replacement, Commercial/Industrial	SP-RP-227-2021	7/6/2021	18	12	43	W	G-164174	Well is decommissioned	2021
TPNRD	Replacement	TP-RP-21.02	2/26/2021	10	14	37	W	G-076037		2021
TPNRD	Replacement	TP-RP-21.12	12/17/2021	16	14	31	W	G-125023		2022
TPNRD	Replacement	TP-RP-21.10	12/1/2021	19	14	34	W	G-003683		2022
TPNRD	Replacement	TP-RP-21.05	3/25/2021	24	14	33	W	G-019718		2021
TPNRD	Replacement	TP-RP-21.07	7/7/2021	9	13	39	W	G-164349		2021
TPNRD	New Irrigation Well	TP-NP-21.13	11/19/2021	7	13	34	W	G-194367	Tied to TP-TRANS-21.21. 30.83 AF available now	2022
TPNRD	Domestic	TP-IN-21.02	1/15/2021	15	13	39	W	NOT REGISTERED	TPNRD: Rest Area Public Water	
TPNRD	New Irrigation Well	TP-NP-21.14	12/1/2021	24	14	35	W	G-021479	Irrigated in past - 1 well was irrigating 2 pivots	2022

Table 6: Groundwater Well Permits

NRD	Permit Type	NRD Permit	Permit Date	Section	Township	Range	E/W	NDNR Well Registration	Notes	Year Implemented*
TPNRD	Replacement	TP-RP-21.09	11/3/2021	24	14	35	W	G-021479		2022
CPNRD	Replacement	CPRP24-21-025	12/29/2021	32	12	24	W	G-017288		2022
TPNRD	New Irrigation Well	TP-NP-21.08	4/8/2021	36	13	39	W	G-191921	Irrigated in past - 1 well was irrigating 2 pivots	2021
TPNRD	Replacement	TP-RP-21.03	2/26/2021	30	13	28	W	G-007615		2021
TPNRD	Replacement	TP-RP-21.11	12/22/2021	32	13	40	W	G-011693		2022
CPNRD	Replacement	CPRP24-21-020	11/3/2021	17	10	24	W	G-017233		2022
TPNRD	New Irrigation Well	TP-NP-21.06	3/12/2021	24	13	31	W	G-192117	Acres near river retired - new well drilled	2021
TPNRD	New Irrigation Well	TP-NP-21.07	3/11/2021	15	12	28	W	G-192073	Irrigated in past - 1 well was irrigating 2 pivots	2021
CPNRD	Replacement	CPIN24-21-009	5/3/2021	21	10	22	W	G-031790		2021
CPNRD	Replacement	CPRP24-21-021	12/13/2021	26	10	24	W	G-123841		2022
TPNRD	Replacement	TP-RP-21.01	1/15/2021	36	12	27	W	G-002848		2021
CPNRD	Replacement	CPRP24-21-022	12/13/2021	34	12	25	W	G-015803		2022
CPNRD	Replacement	CPIN24-21-003	2/24/2021	2	9	21	W	G-191768		2021
TPNRD	Replacement	TP-RP-21.04	3/24/2021	30	12	26	W	G-116117		2021
TBNRD	Replacement	TBRP-G-033717-R1	10/28/2021	34	8	18	W	G-033717		2022
TBNRD	Replacement	TBRP-G039190-R1	6/16/2021	31	8	19	W	G-039190		2021

Table 6: Groundwater Well Permits

NRD	Permit Type	NRD Permit	Permit Date	Section	Township	Range	E/W	NDNR Well Registration	Notes	Year Implemented*
CPNRD	Replacement	CPRP24-21-011	6/23/2021	36	9	23	W	G-032560		2021
TBNRD	Dewatering	TBDW-1533	7/14/2021	9	8	19	W	G-194761	Depletions caused by pumping this well are offset by excess flow diversion	2022
CPNRD	Replacement	CPRP24-21-007	4/19/2021	7	9	22	W	G-033297		2021
CPNRD	Replacement	CPRP24-21-010	5/20/2021	27	11	25	W	G-159998		2021
TBNRD	Dewatering	TBDW-1534	7/14/2021	10	8	19	W	G-194762	Depletions caused by pumping this well are offset by excess flow diversion	2022
TBNRD	Dewatering	TBDW-1535	7/14/2021	10	8	19	W	G-194763	Depletions caused by pumping this well are offset by excess flow diversion	2022
CPNRD	supplemental groundwater	CPSG10-21-003	4/27/2021	11	8	17	W	G-192839		2021
CPNRD	Replacement	CPRP10-21-008	12/7/2021	22	9	15	W	G-013002		2022
CPNRD	Replacement	CPRP24-21-013	8/12/2021	15	9	24	W	G-026969		2021
TBNRD	Dewatering	TBDW-1537	7/14/2021	11	8	19	W	G-194766	Depletions caused by pumping this well are offset by excess flow diversion	2022
TBNRD	Dewatering	TBDW-1538	7/14/2021	11	8	19	W	G-194767	Depletions caused by pumping this well are offset by excess flow diversion	2022
TBNRD	Dewatering	TBDW-1536	7/14/2021	14	8	19	W	G-194765	Depletions caused by pumping this well are offset by excess flow diversion	2022

Table 6: Groundwater Well Permits

NRD	Permit Type	NRD Permit	Permit Date	Section	Township	Range	E/W	NDNR Well Registration	Notes	Year Implemented*
CPNRD	Replacement	CPRP24-21-008	4/26/2021	33	9	22	W	G-106325		2021
CPNRD	supplemental groundwater	CPSG10-21-005	6/16/2021	1	8	18	W	G-193451		2021
CPNRD	Replacement	CPRP10-21-007	11/16/2021	7	8	15	W	G-009869		2022
CPNRD	Replacement	CPRP24-21-015	8/31/2021	18	9	22	W	G-043501		2021
CPNRD	supplemental groundwater	CPSG24-21-024	12/22/2021	33	11	22	W			2022
TBNRD	Replacement	TBRP-G026414-R1	10/28/2021	11	7	18	W	G-026414		2022
TBNRD	Dewatering	TBDW-1539	7/14/2021	17	8	19	W	G-194764	Depletions caused by pumping this well are offset by excess flow diversion	2022

*All permits in the table were issued in the 2021 calendar year. The Year Implemented field reflects the year in which the well was drilled. No well Registration number in the table indicates that the well was not drilled at the time of reporting. NDY in the table stands for “Not Drilled Yet”. NR in the table stands for “Not Registered”.

Table 7: Variance Permits

Table 7: Variance Permits

NRD	NRD Permit	DNR Well Registration	Permit Date	S	T	R	E/W	Type of Variance	Notes	Year implemented	Associated Well Permits	Associated Transfers
TBNRD	TBWS_2021-02	G-194761	9/14/2021	9	8	19	W	TBNRD Well Spacing	Depletions caused by pumping this well are offset by excess flow diversion	2022	TBDW-1533	
TBNRD	TBWS_2021-04	G-194763	9/14/2021	10	8	19	W	TBNRD Well Spacing	Depletions caused by pumping this well are offset by excess flow diversion	2022	TBDW-1535	
TBNRD	TBWS_2021-03	G-194762	9/14/2021	10	8	19	W	TBNRD Well Spacing	Depletions caused by pumping this well are offset by excess flow diversion	2022	TBDW-1534	
TBNRD	TBWS_2021-07	G-194767	9/14/2021	11	8	19	W	TBNRD Well Spacing	Depletions caused by pumping this well are offset by excess flow diversion	2022	TBDW-1538	

Table 7: Variance Permits

NRD	NRD Permit	DNR Well Registration	Permit Date	S	T	R	E/W	Type of Variance	Notes	Year implemented	Associated Well Permits	Associated Transfers
TBNRD	TBWS_2021-06	G-194766	9/14/2021	11	8	19	W	TBNRD Well Spacing	Depletions caused by pumping this well are offset by excess flow diversion	2022	TBDW-1537	
TBNRD	TBWS_2021-05	G-194765	9/14/2021	14	8	19	W	TBNRD Well Spacing	Depletions caused by pumping this well are offset by excess flow diversion	2022	TBDW-1536	
TBNRD	TBWS_2021-08	G-194764	9/14/2021	17	8	19	W	TBNRD Well Spacing	Depletions caused by pumping this well are offset by excess flow diversion	2022	TBDW-1539	
TBNRD	TBLC_2021-01	G-074228	7/23/2021	26	7	19	W	Livestock Conversion	cattle confinement operations	2021		

Table 8: Surface Water Permits

Table 8: Surface Water Permits

Appropriation Number	Approval Date	S-T-R-D	Use	Grant in CFS	Grant in AF	Surface Water or Groundwater Mitigation	Associate Variances
A-19799	12/21/2021	3-14-38W	Temporary MF - Manufacturing	MF	2000	Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.04	VAR-9453
A-19774	5/19/2021	12-14-33W	Temporary RC - Recharge	77		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.03	VAR-9376
A-19771	5/19/2021	18-14-33-W	Temporary RC - Recharge	103		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.03	VAR-9374
A-19772	5/19/2021	18-14-36W	Temporary RC - Recharge	81		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.03	VAR-9375
A-19773	5/19/2021	13-14-34W	Temporary RC - Recharge	201		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.03	VAR-9377
A-19797	11/30/2021	8-13-29W	Temporary RC - Recharge	950		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.03	VAR-9465
A-19790	9/8/2021	24-13-40W	Temporary MF - Manufacturing	0	10	Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.06	VAR-9429
A-19770	5/13/2021	14-12-43W	Temporary RC - Recharge	176		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.03	VAR-9378
A-19747	3/9/2021	19-12-26W	Temporary RC - Recharge	100		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.03	VAR-9261
A-19748	3/9/2021	18-10-23W	Temporary RC - Recharge	100		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.03	VAR-9262

Table 9: Net Effects

Table 9: Effects to streamflow from 2021 to 2032 in the Platte River resulting from all groundwater and surface water permitting activities in 2021. A positive for the net effect indicates that the permitted activities have an overall positive effect on the streamflow. Values are in acre-feet.

	Upstream of Associated Habitat Reach			Within Associated Habitat Reach			Aggregate Net Effect from Both Reaches
Year	Effect of Mitigations	Effect of New Uses	Net Effect	Effect of Mitigations	Effect of New Uses	Net Effect	Total Net Effect
2021	53.76	-24.04	29.73	25.58	-15.02	10.55	40.28
2022	99.14	-43.73	55.41	40.37	-29.01	11.35	66.76
2023	129.20	-55.11	74.10	50.19	-39.26	10.94	85.03
2024	150.65	-63.19	87.46	57.37	-47.04	10.33	97.79
2025	166.95	-69.52	97.43	62.92	-53.20	9.72	107.15
2026	179.88	-74.76	105.12	67.37	-58.24	9.13	114.25
2027	190.47	-79.28	111.19	71.05	-62.46	8.60	119.78
2028	199.34	-83.27	116.08	74.16	-66.06	8.10	124.18
2029	206.93	-86.86	120.07	76.84	-69.19	7.65	127.72
2030	213.51	-90.14	123.37	79.17	-71.93	7.23	130.60
2031	219.28	-93.17	126.11	81.22	-74.37	6.85	132.96
2032	224.41	-95.99	128.42	83.05	-76.56	6.49	134.91

*Note: Due to rounding in the calculations, the Net Effect shown does not exactly match the sum of effects in some rows

Definition of Terms

28/40 Area	The area within the North Platte, South Platte, or Platte River watershed in which groundwater intentionally withdrawn for 40 years will result in a cumulative stream depletion to the North Platte, South Platte, or Platte River or a baseflow tributary greater than or equal to 28 percent of the total groundwater consumed as a result of the withdrawals (see Map 1).
Acre-Feet (AF)	A unit of volume, commonly used to measure quantities of water used or stored equivalent to the volume of water required to cover 1 acre to a depth of 1 foot and equivalent to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters.
Application/Appropriation Number	Application Number (Docket and Application Numbers): Appropriations having docket numbers (D-) refer to claims covering rights which existed prior to April 4, 1895, or those rights that existed on the Missouri River that were covered by the law passed 1980. Those appropriations having applications numbers (A-) were filed after April 4, 1895. Surface water appropriations can also be referred to as “permits” and “rights”.
Area Correction	The correction of the amount of certified irrigated acres because acres with history of irrigation between 1997 and 2005 had not previously been classified as irrigated cropland by county assessors.
Augmentation Well	A groundwater well drilled to pump water into a stream to augment streamflows.
Cubic Feet per Second (CFS)	The USGS defines cubic foot per second (cfs) as “the flow rate or discharge equal to one cubic foot of water per second or about 7.5 gallons per second.”
CRP Reinstatement	Formerly irrigated land on which the water use had been temporarily retired under the federal Conservation Reserve Program (CRP) that has since come out of retirement and may now be irrigated again.
Dewatering Well	A groundwater well drilled for the purpose of lowering the water table.
Feedlot Expansion	A type of variance to allow new wells for livestock use. New depletions are to be mitigated by applicant.

Definitions

Grant in AF	The approved volume amount of acre-feet of water legally allowed to be pumped or stored.
Grant in CFS	The approved amount of cubic feet per second of water legally allowed to be pumped.
Pooling	Any arrangement approved by the NRD board in which two or more certified irrigated tracts are combined. Additional information can be found in the SPNRD Rules and Regulations.
PRRIP Associated Habitat Reach	The reach of the Platte River from Lexington, NE, to Chapman, NE, which is of critical importance to the endangered target species (see Map 1).
Replacement Well	A groundwater well drilled to replace an existing groundwater well which has become unusable. The replaced well must be decommissioned or modified to pump less than 50 gpm and used only for livestock, monitoring, observation, or other nonconsumptive or de minimis use approved by the NRD. No increase in irrigated acres is associate with a replacement well unless a variance is granted.
Section/Township/Range	The legal description of where a well or water appropriation is located.
Temporary Recharge	A temporary (for one year) surface water permit issued for the purpose of diverting excess streamflow (unappropriated water) to recharge groundwater, intended to supply baseflow accretions back to the river.
Supplemental Well	A groundwater well drilled to either supplement an existing groundwater well or to augment surface water irrigation when surface water is not available. No increase in irrigated acres is associated with a supplemental well unless a variance is granted.
Transfer	To allow for the historic consumptive use of water to be changed, in location and/or purpose without causing an increase in depletions to the river or an impact to existing surface water or groundwater uses.
Use	The legally accepted use of the well or water appropriation.

Definitions

Variance	To allow an exemption to the stay on new irrigated acres and new consumptive uses while providing adequate mitigations or transfers to assure that there is no net increase in depletions to the river or impacts to existing surface water or groundwater uses; any request that is contrary to existing rules or regulations will require a variance.
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