Nebraska's Annual Report
Under Bullet 3 Section IV of the
Platte River Recovery Implementation Program
Nebraska New Depletion Plan
January 1, 2023, to December 31, 2023

VIA ELECTRONIC MAIL ONLY

DATE: **December 23rd, 2024**
TO: **Governance Committee (GC) of the Platte River Recovery Implementation Program (PRRIP)**
FROM: **Jesse Bradley, State of Nebraska's Representative to the GC**
Interim 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, 2023, to December 31, 2023**

This report fulfills the annual reporting requirement for Nebraska for the period of January 1, 2023, to December 31, 2023, 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 2023 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.

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

In 2023, NRDs and the Department issued the following permits:

- 30 groundwater transfer permits (Table 1);
- 48 groundwater well permits (Table 2);
- 2 groundwater variance permits (Table 3); and
- 10 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 2023 (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 2023 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 2033 for all activities permitted in 2023. 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 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 4) Supplemental industrial wells with no associated increase in use 5) supplemental Industrial well will no new associated use; Well permits with potential new use include: 1) a well permit for fire suppression; 2) a temporary well permit for dust control; and 3) temporary Department of Roads projects. Any new consumptive use is minimal and will be represented via the next robust review as part of the changes in municipal and industrial water use.

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

The surface water permits issued, listed in Table 8, were temporary (one-year) permits. All ten (10) were either temporary permits for groundwater recharge, or a temporary manufacturing permit for a pump issued for a value of 19.99 AF in total. The temporary recharge 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 AHR and the net effect within the PRRIP AHR is positive. The aggregate net effect to both reaches for all activities permitted in 2023 is positive. For 2023, Nebraska's new permitted activities

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

and associated mitigation efforts within the 28/40 area resulted in a net increase in streamflow upstream of the PRRIP AHR, a net increase within the AHR, and a net increase to streamflow overall.

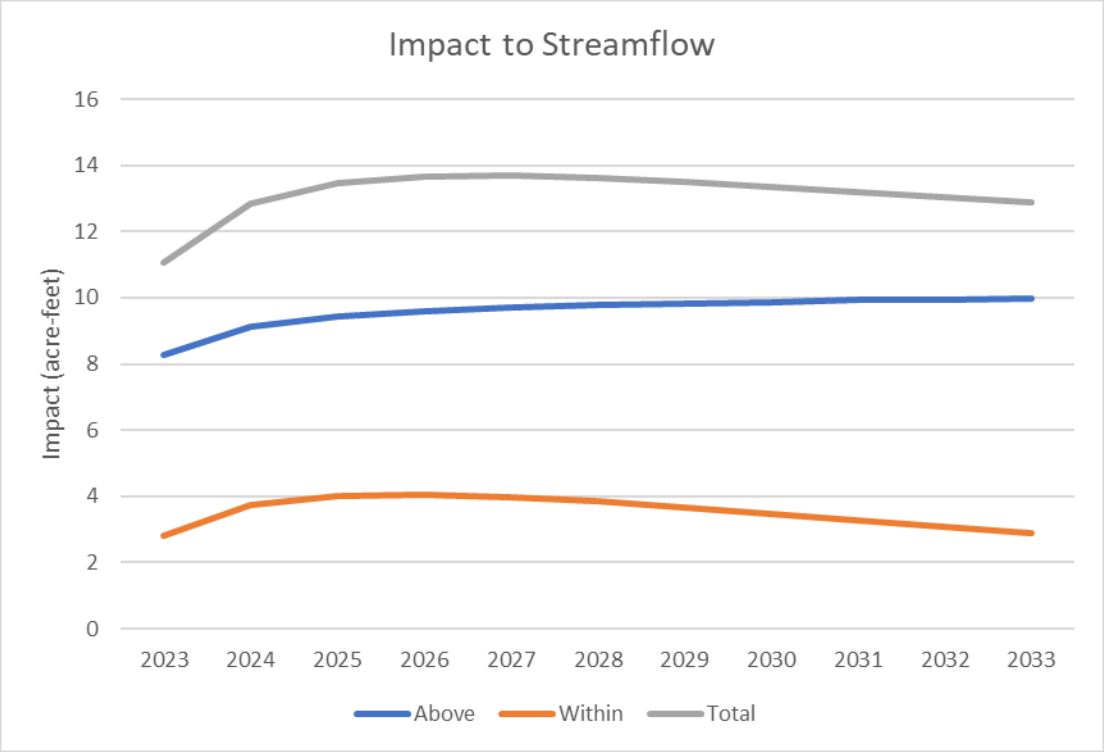


Figure 1: Aggregate net effect to streamflow resulting from all activities permitted in 2023, through the end of 2033.

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 2023 and their cumulative depletions and mitigation accretions, no additional mitigation measures for 2023 permitted activities are required at this time.

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, and again in 2023. This Review analyzed the impacts of new or expanded permitted activities since July 1, 1997, along with the impacts of mitigation or offset measures, 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 2023 Update memo submitted to the GC.

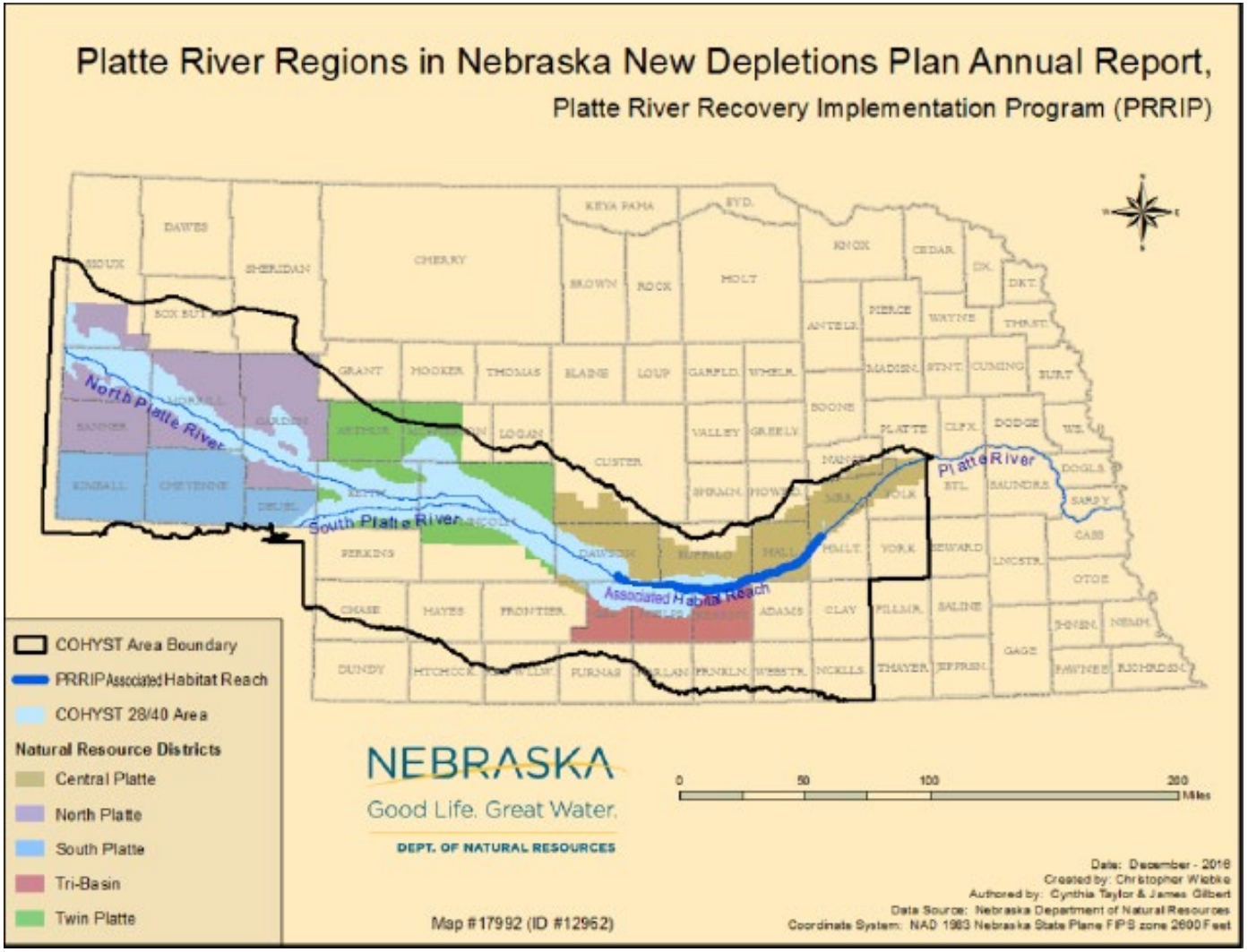
A future Robust Review is planned for 2027. Updates on current and ongoing activities and progress on the 2023 Robust Review is shared with the PRRIP Executive Director's Office members through Platte Over Appropriated Committee (POAC) Technical Committee meetings. Nebraska will inform the GC of the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

Appendix 1



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	9	21	**30**
Total	**9**	**21**	**30**

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

Use	Upstream	Within	Total
Replacement Well	13	13	**26**
Supplemental GW	9	9	**18**
Industrial	1	3	**4**
Total	23	25	**48**

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	2	--	**2**
Total	**2**	**--**	**2**

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	8	--	**8**
Temporary Manufacturing	2	--	**2**
Total	**10**	**--**	**10**

Table 5: Groundwater Transfer Permits

NRD Permit	Permit Type	Year Implemented*	Permit Date	S	T	R	E/W	Acres
CPNRD								
2389**	Mitigation	2023	1/5/2023	4	8	20	W	2.507845
	New Use**	2023	1/5/2023	5	9	19	W	0.695592
	New Use**	2023	1/5/2023	5	9	19	W	4.006061
	New Use**	2023	1/5/2023	5	9	19	W	0.426305
2400**	Mitigation	2023	2/2/2023	28	11	24	W	0.5543
	New Use**	2023	2/2/2023	16	11	23	W	1.469091
2407	New Use	2023	3/8/2023	16	10	22	W	12.0763
	New Use	2023	3/8/2023	16	10	22	W	0.352692
	Mitigation	2023	3/8/2023	16	10	22	W	6.358269
	Mitigation	2023	3/8/2023	16	10	22	W	5.820341
	Mitigation	2023	3/8/2023	16	10	22	W	0.185387
2413	New Use	2023	3/24/2023	2	8	15	W	13.03936
	Mitigation	2023	3/24/2023	9	8	15	W	10.00205
2419**	Mitigation	2023	3/24/2023	30	9	15	W	3.116902
	New Use**	2023	3/24/2023	12	10	10	W	3.310846
2420	New Use	2023	3/24/2023	13	9	23	W	2.029628
	Mitigation	2023	3/24/2023	13	9	23	W	0.609736
	Mitigation	2023	3/24/2023	13	9	23	W	1.419874
2425	New Use	2023	3/30/2023	4	8	18	W	1.175059
	Mitigation	2023	3/30/2023	4	8	18	W	0.935568
	Mitigation	2023	3/30/2023	4	8	18	W	0.142103
2446	New Use	2023	4/21/2023	31	10	23	W	3.307502
	Mitigation	2023	4/21/2023	12	9	24	W	3.343729
	Mitigation	2023	4/21/2023	12	9	24	W	0.494856
2447	New Use	2023	4/21/2023	20	9	23	W	11.23112
	Mitigation	2023	4/21/2023	12	9	24	W	4.955097
	Mitigation	2023	4/21/2023	12	9	24	W	0.310184
	Mitigation	2023	4/21/2023	12	9	24	W	2.625913
2464**	Mitigation	2023	5/18/2023	9	8	15	W	6.506727
	Mitigation	2023	5/18/2023	9	8	15	W	2.683855
	New Use**	2023	5/18/2023	16	9	14	W	7.003671
	New Use**	2023	5/18/2023	21	9	14	W	2.407571
	New Use**	2023	5/18/2023	21	9	14	W	2.319742

NRD Permit	Permit Type	Year Implemented*	Permit Date	S	T	R	E/W	Acres
	New Use**	2023	5/18/2023	16	9	14	W	1.021602
	New Use**	2023	5/18/2023	16	9	14	W	4.714153
2471	New Use	2023	5/26/2023	27	9	14	W	0.123908
	New Use	2023	5/26/2023	27	9	14	W	1.116493
	Mitigation	2023	5/26/2023	27	9	14	W	1.242949
2481	New Use	2023	6/28/2023	2	8	15	W	9.134999
	Mitigation	2023	6/28/2023	27	9	15	W	10.50099
2486**	Mitigation	2023	6/30/2023	30	9	15	W	6.849777
	New Use**	2023	6/30/2023	15	11	11	W	9.289313
	New Use**	2023	6/30/2023	15	11	11	W	0.721909
	New Use**	2023	6/30/2023	10	11	11	W	1.269318
	New Use**	2023	6/30/2023	15	11	11	W	4.24718
2487**	Mitigation	2023	6/30/2023	30	9	15	W	7.033849
	Mitigation	2023	6/30/2023	30	9	15	W	16.47607
	Mitigation	2023	6/30/2023	30	9	15	W	3.976301
	New Use**	2023	6/30/2023	19	11	10	W	48.28879
2488**	Mitigation	2023	6/30/2023	30	9	15	W	5.92303
	Mitigation**	2023	6/30/2023	19	15	1	W	1.514881
	New Use**	2023	6/30/2023	19	15	1	W	2.310443
	New Use**	2023	6/30/2023	19	15	1	W	0.051804
	New Use**	2023	6/30/2023	19	15	1	W	5.163997
2489**	Mitigation	2023	6/30/2023	29	9	15	W	5.068721
	Mitigation	2023	6/30/2023	29	9	15	W	3.729285
	New Use**	2023	6/30/2023	15	9	10	W	10.27258
2491**	Mitigation	2023	7/17/2023	30	9	15	W	19.79626
	New Use**	2023	7/17/2023	34	14	6	W	14.62238
2493	New Use	2023	7/20/2023	30	9	22	W	27.0307
	Mitigation	2023	7/20/2023	30	9	22	W	0.215115
	Mitigation	2023	7/20/2023	30	9	22	W	0.36587
	Mitigation	2023	7/20/2023	25	9	23	W	6.619825
	Mitigation	2023	7/20/2023	25	9	23	W	6.413796
	Mitigation	2023	7/20/2023	25	9	23	W	7.968246
	Mitigation	2023	7/20/2023	30	9	22	W	2.082926
	Mitigation	2023	7/20/2023	30	9	22	W	0.284825
	Mitigation	2023	7/20/2023	30	9	22	W	0.680813

NRD Permit	Permit Type	Year Implemented*	Permit Date	S	T	R	E/W	Acres
	Mitigation	2023	7/20/2023	25	9	23	W	4.875575
2495	New Use	2023	9/5/2023	31	9	21	W	5.752262
	Mitigation	2023	9/5/2023	31	9	21	W	0.343247
	Mitigation	2023	9/5/2023	32	9	21	W	5.403908
TBNRD								
TBAT-0406	New Use	2023	1/10/2023	16	7	17	W	9.87
	Mitigation	2023	1/10/2023	17	7	17	W	9.87
TBAT-0407	New Use	2023	1/10/2023	16	7	17	W	6
	Mitigation	2023	1/10/2023	20	7	17	W	6
TBAT-0416	New Use	2023	2/21/2023	16	8	20	W	7
	Mitigation	2023	2/21/2023	9	8	20	W	7
TBAT-0417	New Use	2023	2/21/2023	16	8	20	W	7
	Mitigation	2023	2/21/2023	11	8	20	W	7
TBAT-0418	New Use	2023	2/21/2023	16	8	20	W	6.11
	Mitigation	2023	2/21/2023	21	8	20	W	7
TPNRD								
TP-TRANS-23.01	New Use	2023	3/9/2023	10	14	37	W	4.445659
	New Use	2023	3/9/2023	15	14	37	W	2.55335
	Mitigation	2023	3/9/2023	10	14	37	W	4.430081
	Mitigation	2023	3/9/2023	10	14	37	W	1.271554
	Mitigation	2023	3/9/2023	10	14	37	W	1.303393
TP-TRANS-23.03	New Use	2022	4/13/2023	16	14	35	W	33.29922
	Mitigation	2022	4/13/2023	16	14	35	W	33.30155
TP-TRANS-23.04	New Use	2023	4/13/2023	14	13	35	W	80.0375
	Mitigation	2023	4/13/2023	11	13	35	W	55.30478
	Mitigation	2023	4/13/2023	11	13	35	W	19.57041
	Mitigation	2023	4/13/2023	11	13	35	W	5.174251
TP-TRANS-23.05	New Use	2023	4/13/2023	15	12	28	W	0.480523
	New Use	2023	4/13/2023	15	12	28	W	6.145096
	New Use	2023	4/13/2023	15	12	28	W	4.651541
	New Use	2023	4/13/2023	15	12	28	W	0.527464
	New Use	2023	4/13/2023	15	12	28	W	0.47236
	New Use	2023	4/13/2023	15	12	28	W	1.972688
	Mitigation	2023	4/13/2023	24	12	28	W	2.813721

NRD Permit	Permit Type	Year Implemented*	Permit Date	S	T	R	E/W	Acres
	Mitigation	2023	4/13/2023	24	12	28	W	11.43839
TP-TRANS-23.06	New Use	2023	4/13/2023	19	14	35	W	6.899826
	Mitigation	2023	4/13/2023	25	14	36	W	3.499901
	Mitigation	2023	4/13/2023	25	14	36	W	0.237769
	Mitigation	2023	4/13/2023	25	14	36	W	0.722723
	Mitigation	2023	4/13/2023	25	14	36	W	0.109618
	Mitigation	2023	4/13/2023	25	14	36	W	0.130088
	Mitigation	2023	4/13/2023	24	14	36	W	0.817172
	Mitigation	2023	4/13/2023	19	14	35	W	1.384794
TP-TRANS-23.08	New Use	2023	4/13/2023	12	14	37	W	19.79968
	Mitigation	2023	4/13/2023	11	14	37	W	15.5
	Mitigation	2023	4/13/2023	11	14	37	W	4.300966

*All permits were issued in the 2023 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

NRD	Permit Type	NRD Permit	Permit Date	S	T	R	D	NeDNR Well Registration	Notes	Year Implemented *
CPNRD	Replacement	CPRP-24-23-017	8/3/2023	36	10	22	W	G-010335		2023
CPNRD	Replacement	CPRP-24-23-025	12/19/2023	6	11	24	W	G-065084		2023
CPNRD	Replacement	CPRP-24-23-023	11/13/2023	6	11	24	W	G-018265		2023
CPNRD	Replacement	CPRP-24-23-006	3/16/2023	30	10	23	W	G-012500		2023
CPNRD	Replacement	CPRP-24-23-012	7/21/2023	31	12	24	W	G-012128		2023
CPNRD	Replacement	CPRP-10-23-015	10/17/2023	30	9	14	W	G-005021		2023
CPNRD	Replacement	CPRP-24-23-021	10/10/2023	3	9	21	W	G-007761		2023
CPNRD	Replacement	CPRP-24-23-018	9/11/2023	2	9	22	W	G-003845		2023
CPNRD	Industrial	CPIN-24-23-009**	5/3/2023	26	9	21	W	G-197475	This permit is for dust suppression and compaction	2023
CPNRD	Replacement	CPRP-24-23-004	2/9/2023	9	9	21	W	G-014382		2023

NRD	Permit Type	NRD Permit	Permit Date	S	T	R	D	NeDNR Well Registration	Notes	Year Implemented *
CPNRD	Replacement	CPRP-24-23-005	3/8/2023	23	9	22	W	G-073557		2023
CPNRD	Supplemental	CPSG-10-23-005	3/28/2023	4	8	18	W	G-197110		2023
CPNRD	Replacement	CPRP-10-23-006	4/10/2023	31	9	15	W	G-011691		2023
CPNRD	Industrial	CPIN-24-23-010**	5/16/2023	17	9	21	W	G-199013	DOR project dust suppression, pump is rated for a flow of 5-10 gpm	2023
CPNRD	Supplemental	CPSG-10-23-001	2/23/2023	17	8	18	W	G-198428		2023
CPNRD	Replacement	CPRP-10-23-011	5/1/2023	34	9	14	W	G-053679		2023
CPNRD	Replacement	CPRP-24-23-013	7/26/2023	34	9	23	W	G-056595		2023
CPNRD	New Permit	CPNP-10-23-016**	11/16/2023	15	8	18	W	G-199412	Fire suppression at Rowe Sanctuary, infrequent use and less than 50 gpm	2023

NRD	Permit Type	NRD Permit	Permit Date	S	T	R	D	NeDNR Well Registration	Notes	Year Implemented *
CPNRD	Replacement	CPRP-10-23-018	11/27/2023	13	9	22	W	G-013918		2023
CPNRD	Supplemental	CPSG-24-23-016	8/10/2023	31	11	22	W	G-199226		2023
CPNRD	Replacement	CPRP-24-23-024	12/4/2023	9	10	21	W	A-006954B		2023
NPNRD	Replacement	RP-23006	9/19/2023	36	24	57	W	A-003890		2023
NPNRD	Supplemental	SG-23007	12/14/2023	6	23	56	W	G-134262		2024
NPNRD	Replacement	RP-23002	3/3/2023	25	22	52	W	G-075753		2023
NPNRD	Supplemental	SG-23003	3/14/2023	21	21	52	W	G-021711		2023
NPNRD	Supplemental	SG-23005	7/27/2023	14	17	44	W	G-198105		2023
SPNRD	Replacement	SP-RP-233-2023	3/23/2023	16	12	43	W	G-045963		2023
SPNRD	Replacement	SP-RP-232-2023	3/22/2023	16	12	42	W	G-018696		2023
TBNRD	Industrial	TBIN-1549	3/14/2023	4	8	22	W	G-197419	Supplemental to existing, no new use	2023
TBNRD	Supplemental	TBSS-1552	7/31/2023	24	8	15	W	G-198584		2023

NRD	Permit Type	NRD Permit	Permit Date	S	T	R	D	NeDNR Well Registration	Notes	Year Implemented *
TBNRD	Supplemental	TBSG-1551	7/12/2023	16	8	18	W	G-197643		2023
TBNRD	Supplemental	TBSG-1546	1/3/2023	29	8	15	W	G-197276		2023
TBNRD	Replacement	TBRP-G060506_2	3/9/2023	19	8	18	W	G-060506		2023
TBNRD	Replacement	TBRP-G007468	11/14/2023	4	7	20	W	G-007468		2024
TBNRD	Replacement	TBRP-G051375	12/11/2023	28	8	17	W	G-051375		2024
TBNRD	Replacement	TBRP-G038170	11/13/2023	25	8	14	W	G-038170		2024
TBNRD	Replacement	TBRP-G065013	11/14/2023	27	8	20	W	G-065013		2024
TBNRD	Supplemental	TBSG-1545	1/3/2023	22	8	15	W	G-197292		2023
TBNRD	Supplemental	TBSS-1550	4/25/2023	6	7	21	W	G-197341		2023
TBNRD	Replacement	TBRP-G100592	10/27/2023	7	7	17	W	G-100592		2024
TBNRD	Replacement	TBRP-G127903	3/9/2023	18	7	18	W	G-127903		2023
TBNRD	Supplemental	TBSS-1553	9/29/2023	17	7	20	W			2024

NRD	Permit Type	NRD Permit	Permit Date	S	T	R	D	NeDNR Well Registration	Notes	Year Implemented *
TBNRD	Supplemental	TBSS-1548	7/31/2023	19	7	19	W			2024
TPNRD	Supplemental	TP-NP-23.02	2/16/2023	7	13	34	W	G-198629		2023
TPNRD	Supplemental	TP-NP-23.06	8/10/2023	22	14	35	W	G-198901		2023
TPNRD	Supplemental	TP-NP-23.04	4/14/2023	14	13	35	W			2023
TPNRD	Supplemental	TP-NP-23.01	1/12/2023	33	13	38	W	G-197705		2023
TPNRD	Supplemental	TP-NP-23.09	10/9/2023	35	13	26	W	G-046103		2023

*All permits in the table were issued in the 2023 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”.
**Permits in this category will be analyzed during Upper Platte Robust Reviews in the Municipal and Industrial Use Analysis.

Table 7: Variance Permits

NRD	NRD Permit	DNR Well Registration	Permit Date	S	T	R	D	Type of Variance	Year Implemented	Associated Well Permits	Associated Transfers
NPNRD	VAR-2023-03	G-018143	4/13/2023	29	19	48	W	Variance to allocation	2023		
NPNRD	VAR-2023-02	G-023669	4/13/2023	15	23	58	W	Variance to allocation	2023		
NPNRD		A-007085A	4/13/2023	15	23	58	W	Variance to allocation	2023		
NPNRD		G-062324	4/13/2023	15	23	58	W	Variance to allocation	2023		

**All permits are new instances of reoccurring variances for permit holders to rearrange their acres in order to utilize center pivots, irrigators are required set aside 9.75% of acres to avoid irrigating "new acres".*

Table 8: Surface Water Permits

Appropriation Number	Approval Date	S-T-R-W	Use	Grant in CFS	Grant in AF	Surface Water or Groundwater Mitigation	Associate Variances
A-19905	3/13/2023	12-14-33-W	Temporary Recharge	77.47		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.03	VAR-9858
A-19902	3/13/2023	18-14-33-W	Temporary Recharge	102.78		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.03	VAR-9855
A-19903	3/13/2023	18-14-36-W	Temporary Recharge	80.56		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.03	VAR-9856
A-19904	3/13/2023	13-14-34-W	Temporary Recharge	201.00		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.03	VAR-9857
A-19925	6/8/2023	8-13-29-W	Temporary Manufacturing		10	Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.06	VAR-10008
A-19899	3/13/2023	8-13-29-W	Temporary Recharge	950.00		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.03	VAR-9862
A-19906	3/13/2023	14-12-43-W	Temporary Recharge	176.26		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.03	VAR-9859
A-19901	3/13/2023	19-12-26-W	Temporary Recharge	100.00		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.03	VAR-9854
A-19900	3/13/2023	18-10-23-W	Temporary Recharge	100.00		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.03	VAR-9853
A-19948	9/14/2023	30-8-22-W	Temporary Manufacturing		9.99	Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.06	VAR-10071

Table 9: Effects to streamflow from 2023 to 2033 in the Platte River resulting from all groundwater and surface water permitting activities in 2023. 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
2023	31.23	-22.96	8.27	5.73	-2.92	2.81	11.08
2024	41.48	-32.35	9.13	11.04	-7.31	3.73	12.86
2025	47.96	-38.53	9.43	15.09	-11.07	4.03	13.45
2026	52.57	-42.98	9.59	18.21	-14.15	4.07	13.65
2027	56.08	-46.38	9.69	20.69	-16.70	3.98	13.68
2028	58.87	-49.10	9.77	22.71	-18.87	3.84	13.61
2029	61.16	-51.33	9.83	24.40	-20.73	3.67	13.50
2030	63.08	-53.20	9.88	25.83	-22.36	3.48	13.36
2031	64.73	-54.81	9.92	27.08	-23.79	3.28	13.20
2032	66.16	-56.20	9.95	28.16	-25.08	3.09	13.04
2033	67.41	-57.43	9.98	29.13	-26.23	2.89	12.88

*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.
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.
Monitoring Well	Monitoring well means a water well that is designed and constructed to provide ongoing hydrologic or water quality information and is not intended for consumptive use
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 Associate 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.
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.