

Nebraska's Annual Report
Under Bullet 3 Section IV of the
Platte River Recovery Implementation Program
Nebraska New Depletion Plan
January 1, 2022, to December 31, 2022

VIA ELECTRONIC MAIL ONLY

DATE: December 29, 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, 2022, to December 31, 2022

This report fulfills the annual reporting requirement for Nebraska for the period of January 1, 2022, to December 31, 2022, 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 2022 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 2022, NRDs and the Department issued the following permits:

- 47 groundwater transfer permits ([Table 1](#));
- 45 groundwater well permits ([Table 2](#));
- 16 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 2022, ([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 2022 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 2022. 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 permit 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

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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) Temporary dewatering for construction with flow returned to the Platte River; 5) Measurement wells put to observe ground water levels. Well permits with potential new use include: 1) a well permit for temporary dust mitigation which will be transferred to a livestock use; 2) a well permit for fire suppression; and 3) a temporary well permit for dust control. Any new consumptive use will be represented via the next robust review as part of the changes in municipal and livestock water use.

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 either temporary permits for groundwater recharge, or a temporary manufacturing permit for a pump issued for a value of 2 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 2022 is positive. For 2022, Nebraska's new permitted activities and associated mitigation efforts within the 28/40 area resulted in a net increase in

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

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streamflow upstream of the PRRIP AHR, a net increase within the AHR, and a net increase to streamflow overall.

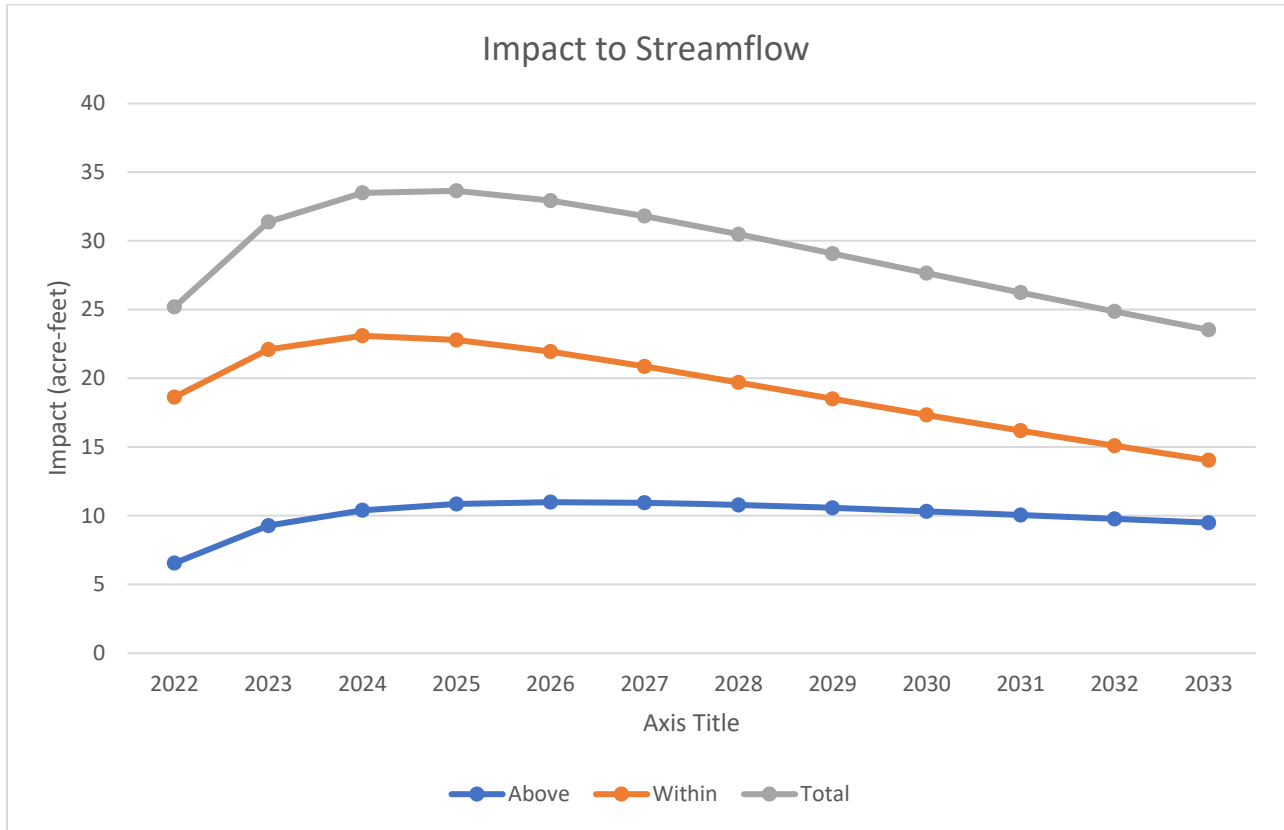


Figure 1: Aggregate net effect to streamflow resulting from all activities permitted in 2022, through the end of 2033.

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 2022 and their cumulative depletions and mitigation accretions, no additional mitigation measures for 2022 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.

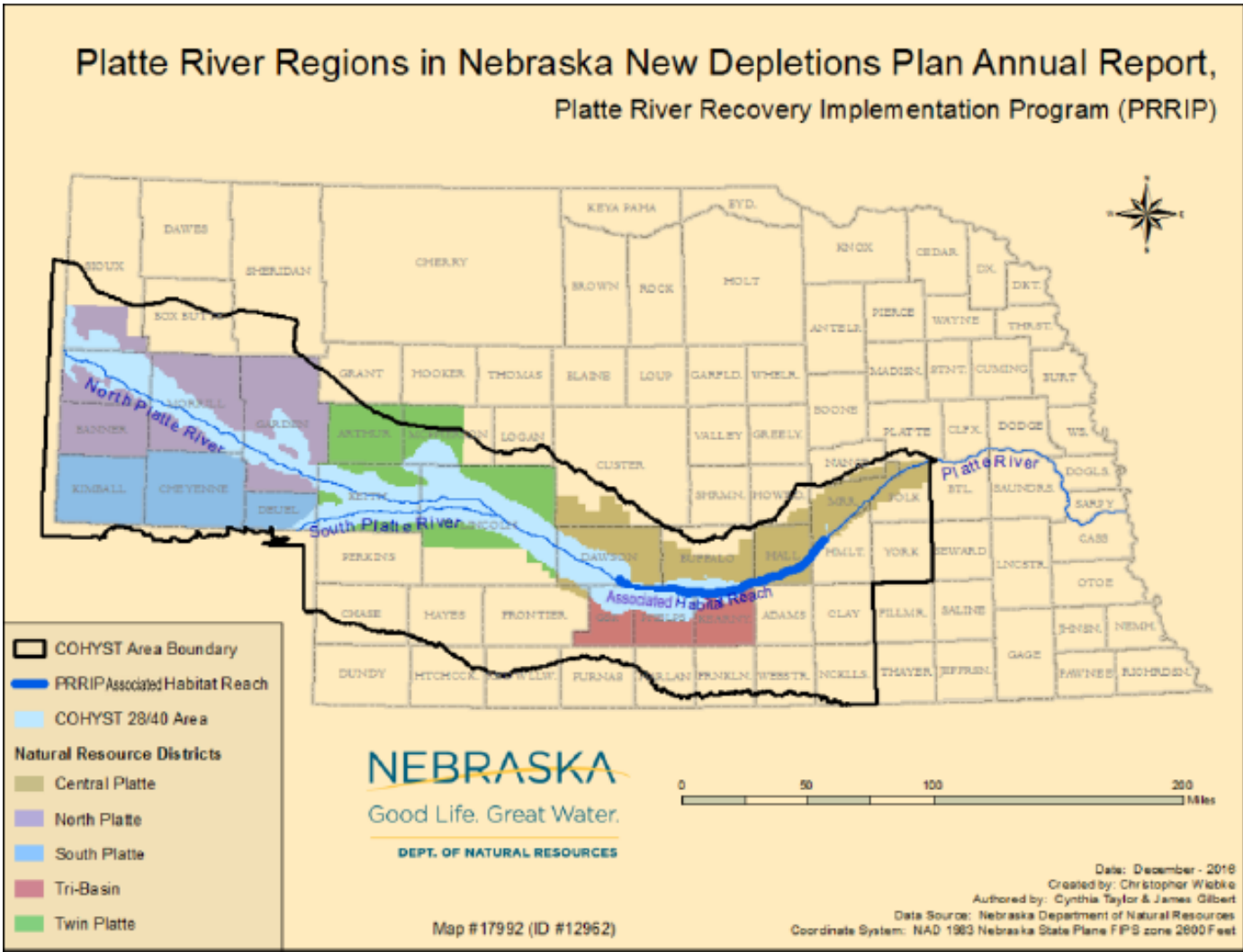
Future Robust Reviews are planned for 2023 and 2027. Updates on current and ongoing activities and progress on the 2023 Robust Review is shared with the PRRIP Executive Director's Office members through Platte Over Appropriated Committee (POAC) Technical Committee meetings. Nebraska will inform the GC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

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	24	23	47
Total	23	24	47

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	14	11	25
Irrigation	4	--	4
Supplemental GW	3	4	7
Dewatering	--	8	8
Observation	1	--	1
Total	22	23	45

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	16	--	16
Total	16	--	16

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	1	--	1
Total	9	--	9

Table 5: Groundwater Transfer Permits

NRD Permit	Permit Type	Year Implemented*	Permit Date	Range	Section	Township	E/W	Acres
CPNRD								
2267**	New Use**	2022	1/14/2022	16	17	9	W	22.76
	Mitigation	2022	1/14/2022	18	28	9	W	17.47
2273	Mitigation	2022	2/1/2022	14	3	8	W	6.19
	New Use	2022	2/1/2022	14	3	8	W	6.19
2274**	Mitigation**	2022	2/7/2022	4	16	15	W	23.36
	Mitigation**	2022	2/7/2022	4	16	15	W	2.96
	New Use**	2022	2/7/2022	4	16	15	W	63.73
	New Use**	2022	2/7/2022	4	16	15	W	1.85
	Mitigation**	2022	2/7/2022	4	16	15	W	0.24
	Mitigation	2022	2/7/2022	15	5	8	W	40.00
2275**	Mitigation**	2022	2/8/2022	20	15	9	W	4.15
	Mitigation**	2022	2/8/2022	20	15	9	W	12.83
	New Use**	2022	2/8/2022	20	16	9	W	2.60
	New Use**	2022	2/8/2022	20	16	9	W	23.41
	New Use**	2022	2/8/2022	20	16	9	W	0.85
	Mitigation**	2022	2/8/2022	20	16	9	W	2.14
	Mitigation	2022	2/8/2022	20	31	9	W	5.86
2280**	Mitigation	2022	2/22/2022	14	10	8	W	44.11
	Mitigation	2022	2/22/2022	14	10	8	W	12.85
	Mitigation	2022	2/22/2022	14	10	8	W	16.45
	Mitigation	2022	2/22/2022	14	11	8	W	32.47
	Mitigation**	2022	2/22/2022	11	15	11	W	3.99
	Mitigation**	2022	2/22/2022	11	15	11	W	8.00
	Mitigation**	2022	2/22/2022	10	19	11	W	2.22

NRD Permit	Permit Type	Year Implemented*	Permit Date	Range	Section	Township	E/W	Acres
	New Use**	2022	2/22/2022	10	19	11	W	203.68
	New Use**	2022	2/22/2022	10	19	11	W	2.63
	Mitigation**	2022	2/22/2022	10	19	11	W	0.65
	Mitigation**	2022	2/22/2022	10	19	11	W	0.48
	Mitigation**	2022	2/22/2022	10	19	11	W	0.16
	Mitigation**	2022	2/22/2022	10	19	11	W	2.43
	Mitigation**	2022	2/22/2022	10	19	11	W	1.58
	Mitigation**	2022	2/22/2022	10	19	11	W	1.78
	Mitigation**	2022	2/22/2022	10	19	11	W	2.42
	New Use**	2022	2/22/2022	10	19	11	W	15.79
	Mitigation**	2022	2/22/2022	10	19	11	W	1.50
	Mitigation**	2022	2/22/2022	10	19	11	W	2.06
	Mitigation**	2022	2/22/2022	10	19	11	W	0.76
	Mitigation**	2022	2/22/2022	10	20	11	W	1.43
	Mitigation**	2022	2/22/2022	10	20	11	W	1.26
	Mitigation**	2022	2/22/2022	10	20	11	W	1.15
	Mitigation**	2022	2/22/2022	10	20	11	W	7.65
	Mitigation**	2022	2/22/2022	10	20	11	W	1.15
	New Use**	2022	2/22/2022	11	24	11	W	4.32
	New Use**	2022	2/22/2022	11	24	11	W	113.91
	New Use**	2022	2/22/2022	11	25	11	W	7.28
	Mitigation**	2022	2/22/2022	10	30	11	W	1.60
	Mitigation**	2022	2/22/2022	10	31	12	W	10.64
	Mitigation**	2022	2/22/2022	10	31	12	W	0.63
Mitigation**	2022	2/22/2022	10	31	12	W	6.98	
Mitigation**	2022	2/22/2022	11	33	11	W	1.03	

NRD Permit	Permit Type	Year Implemented*	Permit Date	Range	Section	Township	E/W	Acres
	Mitigation**	2022	2/22/2022	11	33	11	W	0.98
	Mitigation**	2022	2/22/2022	11	35	11	W	2.04
	Mitigation**	2022	2/22/2022	11	35	11	W	1.07
	Mitigation**	2022	2/22/2022	11	35	11	W	1.22
	Mitigation**	2022	2/22/2022	11	35	11	W	1.16
2281**	Mitigation	2022	2/22/2022	14	10	8	W	0.21
	Mitigation	2022	2/22/2022	14	10	8	W	0.40
	Mitigation	2022	2/22/2022	14	10	8	W	0.39
	Mitigation**	2022	2/22/2022	12	22	11	W	1.35
	Mitigation**	2022	2/22/2022	12	22	11	W	1.60
	Mitigation**	2022	2/22/2022	12	22	11	W	1.24
	Mitigation**	2022	2/22/2022	11	30	11	W	0.69
	Mitigation**	2022	2/22/2022	11	30	11	W	1.16
	New Use**	2022	2/22/2022	11	30	11	W	11.44
	Mitigation**	2022	2/22/2022	11	30	11	W	1.36
	Mitigation**	2022	2/22/2022	12	32	11	W	1.39
Mitigation**	2022	2/22/2022	12	32	11	W	1.29	
2299	Mitigation	2022	3/16/2022	22	15	10	W	0.69
	New Use	2022	3/16/2022	22	15	10	W	0.69
2303	Mitigation	2022	3/30/2022	22	32	10	W	0.32
	New Use	2022	3/30/2022	22	32	10	W	0.32
	New Use	2022	3/30/2022	22	32	10	W	4.06
2304	New Use	2022	4/4/2022	22	11	9	W	6.50
	Mitigation	2022	4/4/2022	22	11	9	W	1.49
	Mitigation	2022	4/4/2022	22	11	9	W	1.04
	Mitigation	2022	4/4/2022	22	11	9	W	0.98

NRD Permit	Permit Type	Year Implemented*	Permit Date	Range	Section	Township	E/W	Acres
	Mitigation	2022	4/4/2022	22	11	9	W	0.15
	Mitigation	2022	4/4/2022	22	11	9	W	1.64
	Mitigation	2022	4/4/2022	22	11	9	W	1.20
2307	New Use	2022	4/6/2022	17	28	9	W	13.87
	Mitigation	2022	4/6/2022	17	28	9	W	4.85
	Mitigation	2022	4/6/2022	17	28	9	W	4.95
	Mitigation	2022	4/6/2022	17	28	9	W	4.07
2310	Mitigation	2022	4/6/2022	14	4	8	W	0.62
	Mitigation	2022	4/6/2022	14	5	8	W	0.79
	Mitigation	2022	4/6/2022	14	5	8	W	2.44
	New Use	2022	4/6/2022	14	5	8	W	4.41
	Mitigation	2022	4/6/2022	14	5	8	W	0.55
2312**	Mitigation	2022	4/8/2022	15	5	8	W	8.24
	Mitigation**	2022	4/8/2022	13	27	10	W	0.73
	New Use**	2022	4/8/2022	13	11	9	W	0.56
	New Use**	2022	4/8/2022	13	11	9	W	0.31
	New Use**	2022	4/8/2022	13	27	10	W	16.24
	New Use**	2022	4/8/2022	13	28	10	W	1.65
2313**	New Use**	2022	4/11/2022	4	13	14	W	17.47
	Mitigation	2022	4/11/2022	15	5	8	W	11.14
2315	New Use	2022	4/11/2022	22	28	9	W	0.49
	Mitigation	2022	4/11/2022	22	28	9	W	1.66
	New Use	2022	4/11/2022	22	28	9	W	1.17
2318	Mitigation	2022	4/13/2022	22	27	9	W	0.28
	Mitigation	2022	4/13/2022	22	27	9	W	3.00
	Mitigation	2022	4/13/2022	22	27	9	W	0.50

NRD Permit	Permit Type	Year Implemented*	Permit Date	Range	Section	Township	E/W	Acres
	New Use	2022	4/13/2022	22	27	9	W	5.43
	Mitigation	2022	4/13/2022	22	27	9	W	1.11
	Mitigation	2022	4/13/2022	22	27	9	W	0.54
2319	Mitigation	2022	4/13/2022	21	18	10	W	1.91
	New Use	2022	4/13/2022	21	18	10	W	1.91
2321**	New Use**	2022	4/14/2022	24	8	12	W	21.46
	New Use**	2022	4/14/2022	24	8	12	W	3.76
	New Use**	2022	4/14/2022	24	8	12	W	0.44
	Mitigation	2022	4/14/2022	24	29	11	W	2.54
2322	Mitigation	2022	4/15/2022	13	8	8	W	0.88
	New Use	2022	4/15/2022	13	8	8	W	1.02
	Mitigation	2022	4/15/2022	13	8	8	W	0.14
2325	Mitigation	2022	4/18/2022	21	16	10	W	1.18
	New Use	2022	4/18/2022	21	16	10	W	1.18
2329	Mitigation	2022	4/21/2022	21	34	10	W	1.13
	New Use	2022	4/21/2022	21	34	10	W	3.31
	Mitigation	2022	4/21/2022	21	34	10	W	1.41
	Mitigation	2022	4/21/2022	21	34	10	W	0.75
2330	Mitigation	2022	4/26/2022	21	20	10	W	1.16
	New Use	2022	4/26/2022	21	20	10	W	1.16
2366**	New Use**	2022	11/23/2022	20	25	9	W	0.53
	New Use**	2022	11/23/2022	20	25	9	W	0.63
	New Use	2022	11/23/2022	20	35	9	W	1.79
	New Use	2022	11/23/2022	20	35	9	W	1.14
	Mitigation	2022	11/23/2022	20	35	9	W	3.93
2367**	New Use**	2022	11/23/2022	24	24	12	W	5.25

NRD Permit	Permit Type	Year Implemented*	Permit Date	Range	Section	Township	E/W	Acres
	New Use**	2022	11/23/2022	24	24	12	W	5.16
	New Use**	2022	11/23/2022	24	24	12	W	4.90
	New Use**	2022	11/23/2022	24	24	12	W	6.04
	Mitigation	2022	11/23/2022	24	28	11	W	3.02
2368	New Use	2022	11/23/2022	23	26	11	W	0.14
	New Use	2022	11/23/2022	23	26	11	W	4.27
	Mitigation	2022	11/23/2022	23	26	11	W	4.27
2373**	New Use**	2022	12/5/2022	24	26	12	W	5.49
	New Use**	2022	12/5/2022	24	26	12	W	12.78
	New Use**	2022	12/5/2022	24	27	12	W	39.39
	Mitigation	2022	12/5/2022	24	34	11	W	12.75
2374	New Use	2022	12/5/2022	20	2	8	W	4.99
	Mitigation	2022	12/5/2022	20	2	8	W	4.99
2376**	Mitigation**	2022	12/5/2022	16	10	9	W	13.16
	Mitigation**	2022	12/5/2022	16	10	9	W	3.84
	New Use	2022	12/5/2022	15	1	8	W	6.57
	New Use	2022	12/5/2022	15	1	8	W	5.02
2381**	New Use**	2022	12/15/2022	6	6	13	W	1.70
	Mitigation	2022	12/15/2022	15	30	9	W	2.23
2382	New Use	2022	12/15/2022	25	36	12	W	1.03
	Mitigation	2022	12/15/2022	25	36	12	W	1.03
2383	New Use	2022	12/15/2022	22	20	10	W	3.00
	Mitigation	2022	12/15/2022	22	20	10	W	1.12
	Mitigation	2022	12/15/2022	22	20	10	W	0.99
	Mitigation	2022	12/15/2022	22	20	10	W	0.89
2385	New Use	2022	12/16/2022	8	10	11	W	0.25

NRD Permit	Permit Type	Year Implemented*	Permit Date	Range	Section	Township	E/W	Acres
	New Use	2022	12/16/2022	8	10	11	W	0.70
	Mitigation	2022	12/16/2022	8	10	11	W	0.63
	Mitigation	2022	12/16/2022	8	10	11	W	2.17
	Mitigation	2022	12/16/2022	8	10	11	W	1.20
	New Use	2022	12/16/2022	8	10	11	W	3.04
2388**	Mitigation**	2022	12/30/2022	24	11	8	W	0.34
	Mitigation**	2022	12/30/2022	24	11	8	W	5.23
	Mitigation	2022	12/30/2022	24	22	9	W	2.77
	New Use**	2022	12/30/2022	24	11	8	W	10.61
TBNRD								
TBAT-0399	New Use	2023	6/14/2022	17	21	7	W	20.16
	Mitigation	2023	6/14/2022	17	27	8	W	30.00
TBAT-0401	New Use**	2022	7/12/2022	23	26	8	W	5.00
	Mitigation**	2022	7/12/2022	20	18	7	W	5.00
TBAT-0402	New Use	2023	10/11/2022	18	1	6	W	17.57
	Mitigation	2023	10/11/2022	17	25	7	W	17.57
TBAT-0403	New Use	2023	10/11/2022	18	1	6	W	16.73
	Mitigation	2023	10/11/2022	17	25	7	W	16.73
TPNRD								
TP-TRANS-22.04	New Use	2022	2/17/2022	34	7	13	W	19.40
	Mitigation	2022	2/17/2022	37	10	13	W	6.30
	Mitigation	2022	2/17/2022	37	10	13	W	9.20
	Mitigation	2022	2/17/2022	37	10	13	W	3.90
TP-TRANS-22.07	Mitigation	2022	3/10/2022	39	17	13	W	24.75
	New Use	2022	3/10/2022	36	24	13	W	24.75
	New Use	2022	3/10/2022	34	7	13	W	10.11

NRD Permit	Permit Type	Year Implemented*	Permit Date	Range	Section	Township	E/W	Acres
TP-TRANS-22.08	Mitigation	2022	3/10/2022	39	17	13	W	10.11
TP-TRANS-22.09	New Use	2022	3/10/2022	40	6	12	W	2.30
	Mitigation	2022	3/10/2022	40	6	12	W	2.30
TP-TRANS-22.10	New Use	2022	3/10/2022	34	8	13	W	13.00
	Mitigation	2022	3/10/2022	39	17	13	W	13.00
TP-TRANS-22.11	Mitigation	2022	3/10/2022	26	11	12	W	0.34
	Mitigation	2022	3/10/2022	26	11	12	W	0.34
	Mitigation	2022	3/10/2022	26	12	12	W	1.55
	Mitigation	2022	3/10/2022	26	12	12	W	11.69
	Mitigation	2022	3/10/2022	26	12	12	W	22.90
	Mitigation	2022	3/10/2022	26	12	12	W	1.58
	Mitigation	2022	3/10/2022	26	12	12	W	1.02
	Mitigation	2022	3/10/2022	26	12	12	W	1.11
	New Use	2022	3/10/2022	26	12	12	W	12.40
	New Use	2022	3/10/2022	26	12	12	W	31.60
Mitigation	2022	3/10/2022	26	12	12	W	3.47	
TP-TRANS-22.13	New Use	2022	3/10/2022	28	4	12	W	59.00
	Mitigation	2022	3/10/2022	27	10	12	W	55.96
	Mitigation	2022	3/10/2022	27	10	12	W	2.79
	New Use	2022	3/10/2022	27	10	12	W	2.00
	Mitigation	2022	3/10/2022	27	10	12	W	2.25
TP-TRANS-22.14	Mitigation	2022	7/14/2022	37	22	13	W	5.85
	New Use	2022	7/14/2022	37	23	13	W	5.85
TP-TRANS-22.15	New Use	2022	10/13/2022	38	18	13	W	5.10
	Mitigation	2022	10/13/2022	38	18	13	W	5.10

NRD Permit	Permit Type	Year Implemented*	Permit Date	Range	Section	Township	E/W	Acres
TP-TRANS-22.16	Mitigation	2022	11/10/2022	37	17	13	W	5.20
	Mitigation	2022	11/10/2022	37	17	13	W	4.65
	Mitigation	2022	11/10/2022	37	17	13	W	20.20
TP-TRANS-22.17	New Use	2022	10/13/2022	41	1	12	W	2.00
	Mitigation	2022	11/10/2022	41	1	12	W	2.00

*All permits were issued in the 2022 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	NDNR Well Registration	Notes	Year Implemented*
CPNRD	Replacement Permit	CPRP24-22-001	1/5/2022	29	11	23	W	G-046151		2022
CPNRD	Replacement Permit	CPRP24-22-002	1/17/2022	29	11	23	W	A-005372		2022
CPNRD	Replacement Permit	CPRP24-22-003	2/9/2022	13	9	22	W	G-022282		2022
CPNRD	Replacement Permit	CPRP10-22-001	3/4/2022	33	9	14	W	G-037144		2022
CPNRD	Replacement Permit	CPRP24-22-005	3/17/2022	10	9	21	W	G-019989		2022
CPNRD	Replacement Permit	CPRP10-22-002	3/22/2022	29	9	15	W	G-194128		2022
CPNRD	Replacement Permit	CPRP24-22-007	5/2/2022	23	11	23	W	A-005269		2022
CPNRD	Supplemental to GW	CPSG24-22-008	5/2/2022	23	11	23	W	G-195075		2022
CPNRD	Replacement Permit	CPRP24-22-010	5/3/2022	26	11	23	W	G-022548		2022
CPNRD	Replacement Permit	CPRP24-22-011	6/28/2022	18	10	21	W	G-018356		2022
CPNRD	Replacement Permit	CPRP24-22-013	7/25/2022	23	9	22	W	G-030528		2022
CPNRD	Dewatering	CPDW10-22-011A	8/2/2022	36	9	16	W	G-195062	Temporary de-watering well - water returned to Platte River	2022
CPNRD	Dewatering	CPDW10-22-011B	8/2/2022	36	9	16	W	G-195063	Temporary de-watering well - water returned to Platte River	2022

NRD	Permit Type	NRD Permit	Permit Date	S	T	R	D	NDNR Well Registration	Notes	Year Implemented*
CPNRD	Dewatering	CPDW10-22-011C	8/2/2022	36	9	16	W	G-195064	Temporary de-watering well - water returned to Platte River	2022
CPNRD	Dewatering	CPDW10-22-011D	8/2/2022	30	9	16	W	G-195065	Temporary de-watering well - water returned to Platte River	2022
CPNRD	Dewatering	CPDW10-22-011E	8/2/2022	30	9	16	W	G-195066	Temporary de-watering well - water returned to Platte River	2022
CPNRD	Dewatering	CPDW10-22-011F	8/2/2022	30	9	16	W	G-195067	Temporary de-watering well - water returned to Platte River	2022
CPNRD	Dewatering	CPDW10-22-011G	8/2/2022	30	9	16	W	G-195068	Temporary de-watering well - water returned to Platte River	2022
CPNRD	Dewatering	CPDW10-22-011H	8/2/2022	30	9	16	W	G-195069	Temporary de-watering well - water returned to Platte River	2022
CPNRD	Supplemental to GW	CPSG40-22-011	9/12/2022	18	9	11	W	G-196147		2023
CPNRD	Replacement Permit	CPRP24-22-014	9/21/2022	34	10	22	W	G-012249		2023

NRD	Permit Type	NRD Permit	Permit Date	S	T	R	D	NDNR Well Registration	Notes	Year Implemented*
CPNRD	Replacement Permit	CPRP24-22-015	10/17/2022	20	10	22	W	G-020426		2023
CPNRD	Replacement Permit	CPRP24-22-016	10/17/2022	18	9	21	W	G-006306		2023
CPNRD	Supplemental to GW	CPSG10-22-013	10/28/2022	9	8	15	W	G-197117		2023
CPNRD	Replacement Permit	CPRP10-22-014	11/9/2022	27	9	18	W	G-018009		2023
CPNRD	Replacement Permit	CPRP24-22-022	12/13/2022	6	11	24	W	G-065084		2023
CPNRD	Replacement Permit	CPRP24-22-023	12/29/2022	28	9	23	W	G-069982		2023
NPNRD	Replacement	RP-22001	2/1/2022	25	21	52	W	G-024477		2022
NPNRD	Replacement	RP-22004	4/5/2022	9	21	51	W	G-095205		2022
NPNRD	Replacement	RP-22005	4/12/2022	21	24	57	W	G-084274		2022
NPNRD	Replacement	TP-NP-22.06	5/24/2022	35	22	53	W	A-006618		2022
TBNRD	Supplemental	TBSG-1540	1/11/2022	21	8	14	W	G-194313		2022
TBNRD	Replacement	TBRP-G067831-R1	2/18/2022	34	8	14	W	G-067831		2022
TBNRD	Replacement	TBRP-G123804-R1	6/13/2022	32	7	18	W	G-123804		2022
TBNRD	Supplemental	TBSG-1542	6/14/2022	18	8	19	W	G-197342		2022
TBNRD	Replacement	TBRP-G067980-R1	8/29/2022	35	8	18	W	G-067980		2023
TBNRD	Replacement	TBRP-G007597-R1	11/7/2022	16	8	18	W	G-067980		2023
TBNRD	Replacement	TBRP-G011188-R1	11/22/2022	24	8	15	W	G-011188		2023

NRD	Permit Type	NRD Permit	Permit Date	S	T	R	D	NDNR Well Registration	Notes	Year Implemented*
TPNRD	Irrigation	TP-NP-22.03***	10/14/2022	25	13	30	W	G-195765	Consumptive use will be reported in 2023	2023
TPNRD	Irrigation	TP-NP-22.04**	10/14/2022	11	13	30	W	G-196325	Permitted as Industrial – Will be covered by industrial analysis	2023
TPNRD	Supplemental	TP-SG-22.01	10/14/2022	22	13	39	W	G-198371		2023
TPNRD	Supplemental	TP-SG-22.02	10/14/2022	23	13	39	W	G-198431		2023
TPNRD	Irrigation	TP-NP-22.05**	11/10/2022	10	14	36	W	G-197351	Fire protection well - consumed water will be covered by municipal analysis	2023
TPNRD	Irrigation	TP-NP-22.06	11/10/2022	9	13	40	W	G-197083C	P-3 - Monitoring - See definition from statue in appendix	2023
TPNRD	Irrigation		11/10/2022	9	13	40	W	G-197083A	P-1 - Monitoring - See definition from statue in appendix	2023
TPNRD	Irrigation		11/10/2022	9	13	40	W	G-197083D	P-4 - Monitoring - See definition from statue in appendix	2023
TPNRD	Irrigation		11/10/2022	9	13	40	W	G-197083B	P-2 - Monitoring - See definition from statue in appendix	2023

*All permits in the table were issued in the 2022 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.

***Permits in this category will be analyzed during Upper Platte Robust Reviews in the Livestock Analysis.

Table 7: Variance Permits

NRD	NRD Permit	DNR Well Registration	Permit Date	S	T	R	D	Type of Variance	Notes	Year implemented	Associated Well Permits	Associated Transfers
NPNRD	VAR-2021-002	G-018143	4/14/2022	29	19	48	W	Exemption to Allocation	Acres Provided as Offset	2022		
NPNRD	VAR-2022-003	G-155320	4/14/2022	4	21	53	W	Exemption to Allocation	Acres Provided as Offset	2022		
NPNRD	VAR-2022-004	G-044201	4/14/2022	34	23	55	W	Exemption to Allocation	Acres Provided as Offset	2022		
NPNRD	VAR-2022-005	G-074135	4/14/2022	21	23	57	W	Exemption to Allocation	Acres Provided as Offset	2022		
NPNRD		G-075810	4/14/2022	21	23	57	W	Exemption to Allocation	Acres Provided as Offset	2022		
NPNRD		G-000797	4/14/2022	21	23	57	W	Exemption to Allocation	Acres Provided as Offset	2022		
NPNRD	VAR-2022-006	G-016967	4/14/2022	28	23	57	W	Exemption to Allocation	Acres Provided as Offset	2022		

NRD	NRD Permit	DNR Well Registration	Permit Date	S	T	R	D	Type of Variance	Notes	Year implemented	Associated Well Permits	Associated Transfers
NPNRD	VAR-2022-007	G-018144	4/14/2022	29	19	48	W	Exemption to Allocation	Acres Provided as Offset	2022		
NPNRD	VAR-2022-008	G-061839	4/14/2022	11	16	44	W	Exemption to Allocation	Acres Provided as Offset	2022		
NPNRD	VAR-2022-009	G-002883	4/14/2022	5	21	54	W	Exemption to Allocation	Acres Provided as Offset	2022		
NPNRD	VAR-2022-010	G-147831	4/14/2022	4	22	55	W	Exemption to Allocation	Acres Provided as Offset	2022		
NPNRD	VAR-2022-011	G-006042	4/14/2022	23	19	49	W	Exemption to Allocation	Acres Provided as Offset	2022		
NPNRD	VAR-2022-012	G-132433	4/14/2022	21	22	54	W	Exemption to Allocation	Acres Provided as Offset	2022		
NPNRD	VAR-2022-013	G-015400	4/14/2022	16	23	58	W	Exemption to Allocation	Acres Provided as Offset	2022		

NRD	NRD Permit	DNR Well Registration	Permit Date	S	T	R	D	Type of Variance	Notes	Year implemented	Associated Well Permits	Associated Transfers
NPNRD	VAR-2022-014	G-018875	4/14/2022	34	23	56	W	Exemption to Allocation	Acres Provided as Offset	2022		
NPNRD	VAR-2022-015	G-147831	4/14/2022	4	22	55	W	Exemption to Allocation	Acres Provided as Offset	2022		
NPNRD	VAR-2022-016	G-146398	4/14/2022	16	23	58	W	Exemption to Allocation	Acres Provided as Offset	2022		
NPNRD	VAR-2022-017	G-082685	4/14/2022	9	23	58	W	Exemption to Allocation	Acres Provided as Offset	2022		

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-19801	1/14/2022	30-15-38	Temp Manufacturing		2	Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.06	VAR-9469
A-19807	3/1/2022	19-12-26W	Temporary RC - Recharge	100		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.03	VAR-9543
A-19808	3/1/2022	18-10-23W	Temporary RC - Recharge	100		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.03	VAR-9544
A-19816	3/14/2022	12-14-33W	Temporary RC - Recharge	77		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.03	VAR-9565
A-19817	3/14/2022	18-14-33W	Temporary RC - Recharge	103		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.03	VAR-9567
A-19813	3/14/2022	18-14-36W	Temporary RC - Recharge	81		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.03	VAR-9561
A-19814	3/14/2022	13-14-34W	Temporary RC - Recharge	201		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.03	VAR-9569
A-19815	3/14/2022	14-12-43W	Temporary RC - Recharge	176		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.03	VAR-9563
A-19831	4/25/2022	8-13-29W	Temporary RC - Recharge	950		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 001.03	VAR-9610

Table 9: Effects to streamflow from 2022 to 2033 in the Platte River resulting from all groundwater and surface water permitting activities in 2022. A positive for the net effect indicates that the permitted activities have an overall positive effect on the streamflow. Values are in acre-feet.

Year	Upstream of Associated Habitat Reach			Within Associated Habitat Reach			Aggregate Net Effect from Both Reaches
	Effect of Mitigations	Effect of New Uses	Net Effect	Effect of Mitigations	Effect of New Uses	Net Effect	Total Net Effect
2022	26.82	-20.26	6.56	22.41	-3.79	18.63	25.19
2023	39.88	-30.60	9.28	39.23	-17.14	22.10	31.37
2024	48.43	-38.03	10.39	52.05	-28.96	23.09	33.49
2025	54.76	-43.91	10.85	61.55	-38.76	22.79	33.64
2026	59.77	-48.79	10.98	68.98	-47.04	21.94	32.92
2027	63.89	-52.96	10.94	75.03	-54.17	20.86	31.80
2028	67.37	-56.59	10.78	80.10	-60.41	19.69	30.48
2029	70.36	-59.79	10.57	84.43	-65.93	18.50	29.07
2030	72.98	-62.66	10.32	88.19	-70.86	17.33	27.65
2031	75.29	-65.24	10.05	91.50	-75.31	16.19	26.24
2032	77.35	-67.58	9.77	94.44	-79.35	15.09	24.86
2033	79.21	-69.72	9.49	97.09	-83.05	14.04	23.53

*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.