

Basin-Wide Plan for Joint Integrated Water Resources Management of Overappropriated Portions of the Upper Platte River Basin Report on 2024 Activities

Upper Platte River Basin-Wide Plan Annual Meeting
August 7, 2025

Caitlin Kingsley, Water Planning Division

NEBRASKA

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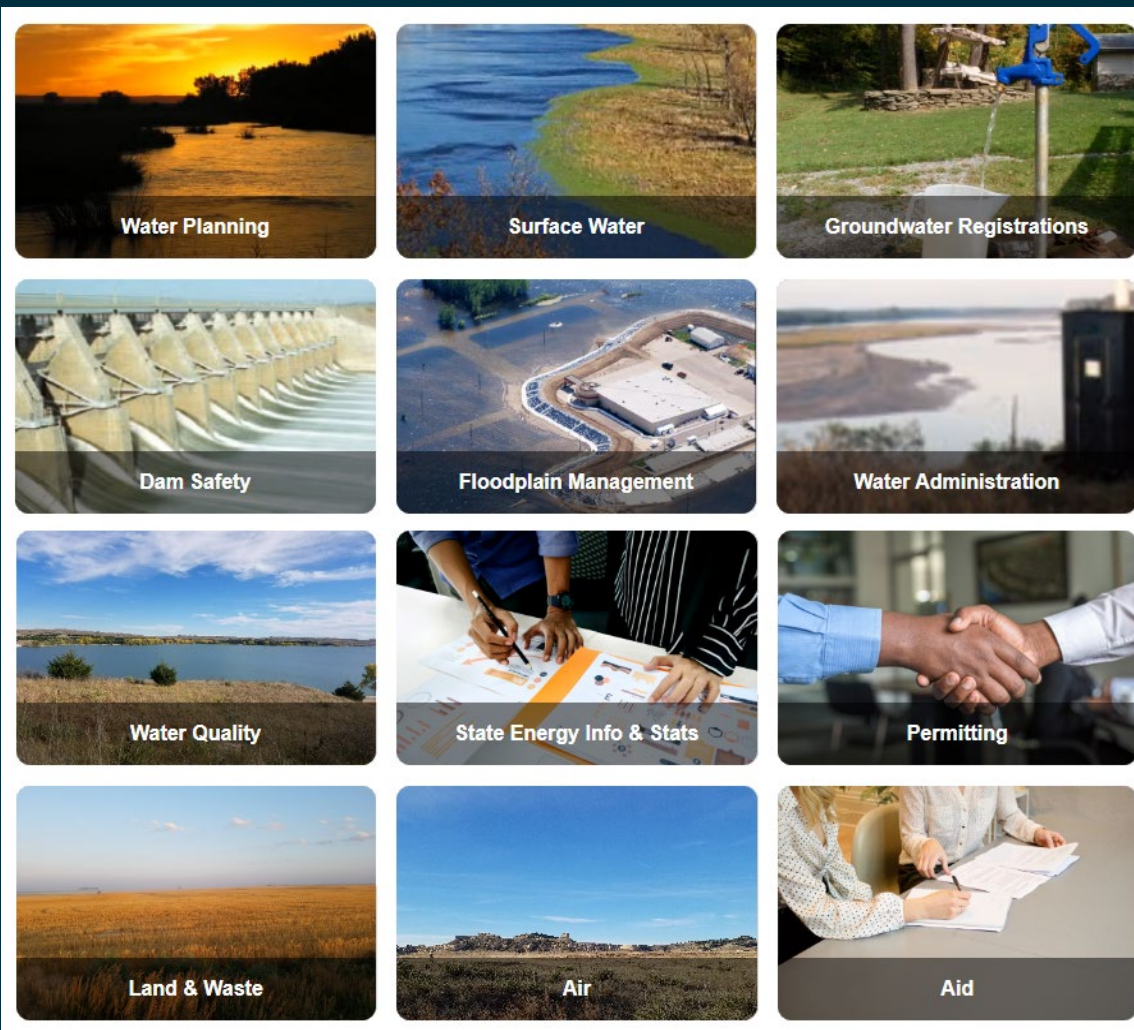
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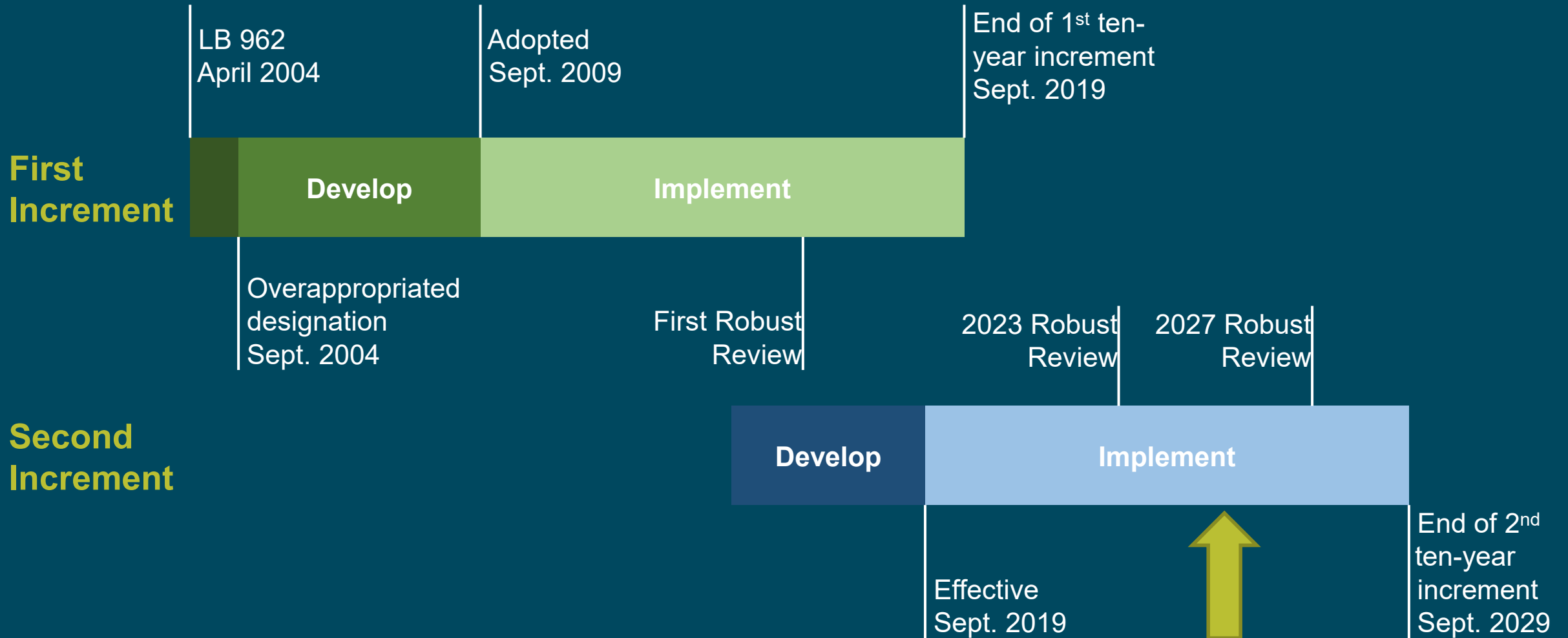
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Protecting and enhancing
Nebraska's water, energy, and
environmental resources through
science-based decision-making,
strong partnerships, and
cooperative efforts.



Upper Platte Basin-Wide Plan Timeline



Report on 2024 Permitted Activities

Summary of 2024 Department Permitted Activities in the Upper Platte River Basin

- Twenty (20) new surface water permits approved
 - All temporary permits for excess flow recharge
- No new net depletions to the basin

Surface Water Permits Approved in 2024

Appropriation Number	Approval Date	S-T-R W	Source or Canal	Use	Grant in CFS	Surface Water or Groundwater Mitigation	Associated Variance
A-19974	3/4/2024	S18-T14-R36W	Keith-Lincoln Canal	Temporary Recharge	80.56	*	VAR-10128
A-19975	3/4/2024	S14-T12-R43W	Western Canal	Temporary Recharge	176.26	*	VAR-10129
A-19976	3/4/2024	S18-T14-R33W	Paxton-Hershey Canal	Temporary Recharge	102.78	*	VAR-10130
A-19977	3/4/2024	S13-T14-R34W	North Platte Canal	Temporary Recharge	201	*	VAR-10131
A-19978	3/4/2024	S12-T14-R33W	Suburban Canal	Temporary Recharge	77.47	*	VAR-10132
A-19980	3/7/2024	S18-T10-R23W	Dawson County Canal	Temporary Recharge	100	*	VAR-10138
A-19981	3/7/2024	S19-T12-R26W	Gothenburg Canal	Temporary Recharge	100	*	VAR-10139
A-19979	3/4/2024	S8-T13-R29W	Tri-County Canal	Temporary Recharge	950	*	VAR-10140

*Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 § 001.03

Surface Water Permits Approved in 2024

Appropriation Number	Approval Date	S-T-R W	Source or Canal	Use	Grant in CFS	Surface Water or Groundwater Mitigation	Associated Variance
A-19987	4/17/2024	S8-T13-R36W	Korty Canal - South Platte River Supply Canal	Temporary Recharge	1,200	*	VAR-10175
A-19999	7/10/2024	S3-T21-R54W	Castle Rock Canal	Temporary Recharge	88	*	VAR-10196
A-20000	7/10/2024	S28-T22-R55W	Central Canal	Temporary Recharge	33	*	VAR-10197
A-20001	7/10/2024	S1-T20-R53W	Chimney Rock Canal	Temporary Recharge	60	*	VAR-10198
A-20002	7/10/2024	S27-T23-R57W	Enterprise Canal	Temporary Recharge	40	*	VAR-10199
A-20003	7/10/2024	S10-T23-R58W	Tri-State Canal	Temporary Recharge	500	*	VAR-10200
A-20004	7/10/2024	S10-T23-R60W	Gering (via Mitchell-Gering) Canal	Temporary Recharge	75	*	VAR-10201
A-20005	7/10/2024	S14-T18-R47W	Lisco Canal	Temporary Recharge	40	*	VAR-10202

*Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 § 001.03

Surface Water Permits Approved in 2024

Appropriation Number	Approval Date	S-T-R W	Source or Canal	Use	Grant in CFS	Surface Water or Groundwater Mitigation	Associated Variance
A-20006	7/10/2024	S32-T22-R54W	Minatare Canal	Temporary Recharge	40	*	VAR-10203
A-20007	7/10/2024	S10-T23-R60W	Mitchell-Gering Canal	Temporary Recharge	100	*	VAR-10204
A-20008	7/10/2024	S10-T23-R58W	Northport (via Tri-State) Canal	Temporary Recharge	150	*	VAR-10205
A-20009	7/10/2024	S17-T22-R55W	Winters Creek Canal from North Platte River	Temporary Recharge	50	*	VAR-10206

*Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 § 001.03

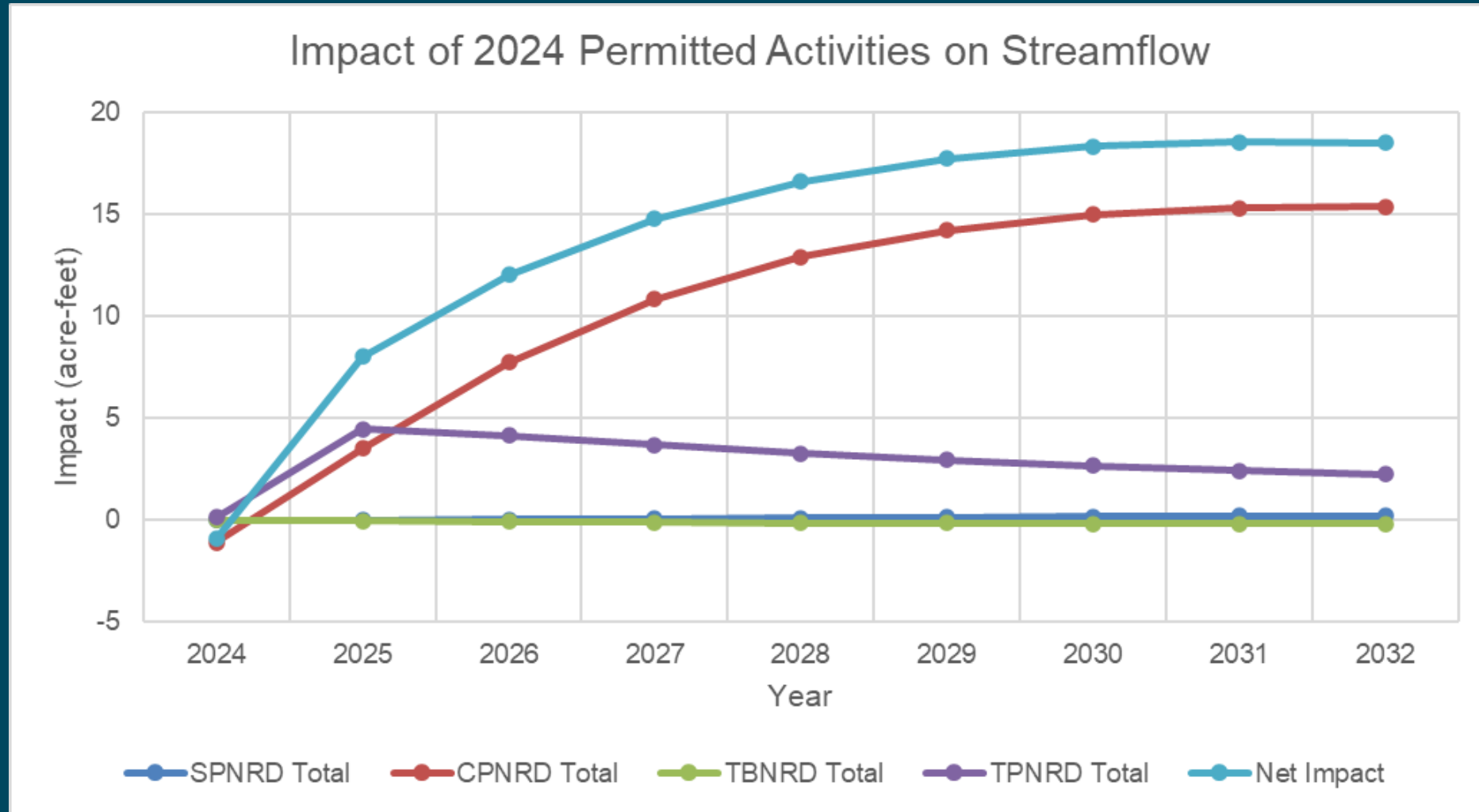
Analysis of 2024 NRD Permitted Transfers

	CPNRD (102 Permits)			NPNRD (1 Permit)*			SPNRD (6 Permits)			TBNRD (7 Permits)			TPNRD (8 Permits)			All NRDs
Year	New uses	Mitigations	Net impact	New uses	Mitigations	Net impact	New uses	Mitigations	Net impact	New uses	Mitigations	Net impact	New uses	Mitigations	Net impact	Net impact
2024	-12	11	-1	N/A	N/A	N/A	0	0	0	0	0	0	-6	6	0	-1
2025	-24	27	4	N/A	N/A	N/A	0	0	0	-2	2	0	-30	34	4	8
2026	-34	41	8	N/A	N/A	N/A	-1	1	0	-2	2	0	-40	44	4	12
2027	-43	53	11	N/A	N/A	N/A	-1	1	0	-3	3	0	-46	50	4	15
2028	-51	63	13	N/A	N/A	N/A	-2	2	0	-4	3	0	-50	53	3	16
2029	-58	72	14	N/A	N/A	N/A	-2	3	0	-4	4	0	-54	56	3	17
2030	-65	80	15	N/A	N/A	N/A	-3	3	0	-4	4	0	-56	59	3	18
2031	-72	87	15	N/A	N/A	N/A	-4	4	0	-4	4	0	-58	61	2	17
2032	-78	94	15	N/A	N/A	N/A	-4	4	0	-5	4	0	-60	62	2	17

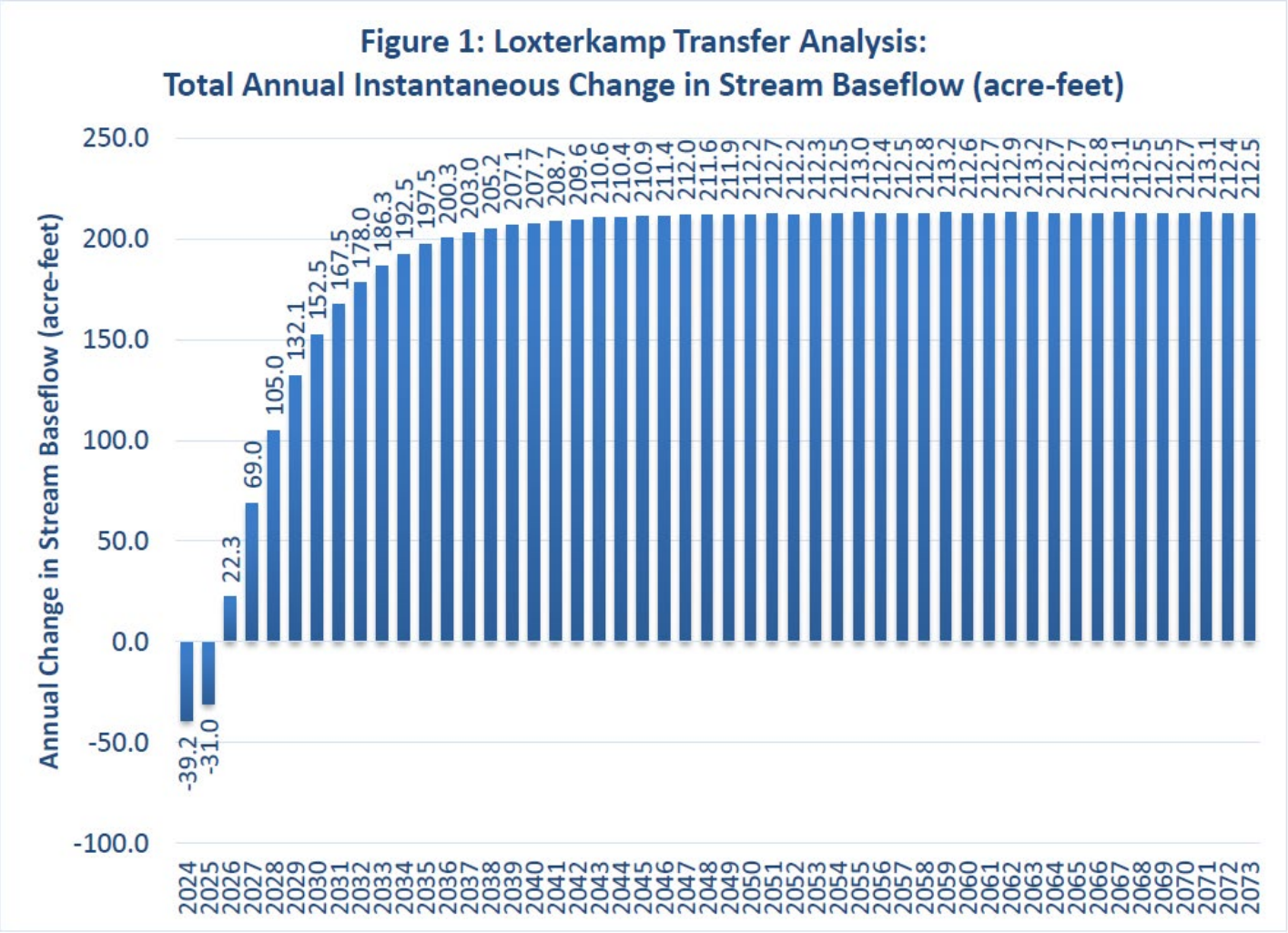
*See the report for additional information on this transfer.

All values in acre-feet (AF). Positive values indicate accretions and negative values indicate depletions.
Values rounded to the nearest AF.

Impacts of 2024 Activities on Streamflow



Impact of NPNRD 2024 Transfer on Streamflow



Project Updates

Robust Review

➤ Purpose:

1. An evaluation of the impact of pre- and post-July 1, 1997, development, and progress towards Plan goals/objectives/action items

➤ Outcomes:

1. A 50-year estimate of the **streamflow depletions** associated with pre- and post-1997 levels of water use development within the hydrologically connected area of the overappropriated basin within each NRD and within the entirety of each NRD.
2. A 50-year estimate of **streamflow accretions** associated with management actions implemented by each NRD and Department within the hydrologically connected area of the overappropriated basin within each NRD and within the entirety of the NRD.
3. A summary of the net streamflow depletions within the overappropriated basin resulting from groundwater pumping within each NRD.

Robust Review Updates

- 2023 Robust Review report is nearing completion
- Updates from prior Robust Review:
 - MMA updated the COHYST model
 - ARI updated the WWUM model
 - TFG completed the Conservation Study and used results to update CROPSIM
 - Updated:
 - Land use
 - Municipal and Industrial pumping calculations
 - Excess flow recharge events & amounts

<https://dnr.nebraska.gov/water-planning/upper-platte-river-presentations>

Drought Plan Development in the Basin

- Action Item 1.3.4: Develop a Basin drought contingency plan for management of supplies during times of shortage.
 - Basin-wide Drought Contingency Plan to be completed within the first 3 to 5 years of 2nd increment and address conditions under a basin-wide or regional drought condition.
 - The Basin-wide Drought Contingency plan will serve as a guide for plans to be developed by individual Upper Platte NRDs as part of this action item.



Drought Contingency Planning – 2022-2023

July 2022	Oct	Jan 2023	April	July	Oct
Engage Drought Task Force and Draft Plan				PBC Review Period	
Meeting 1 July 21, 2022 Vulnerabilities Drought Impacts		Meeting 2 March 29, 2023 Mitigation and Response Actions Monitoring	Meeting 3 May 23, 2023 Monitoring Mitigation Response Scenarios	Meeting 4 June 27, 2023 Feedback on Monitoring, Mitigation & Response	WaterSMART Grant Extension September 14, 2023

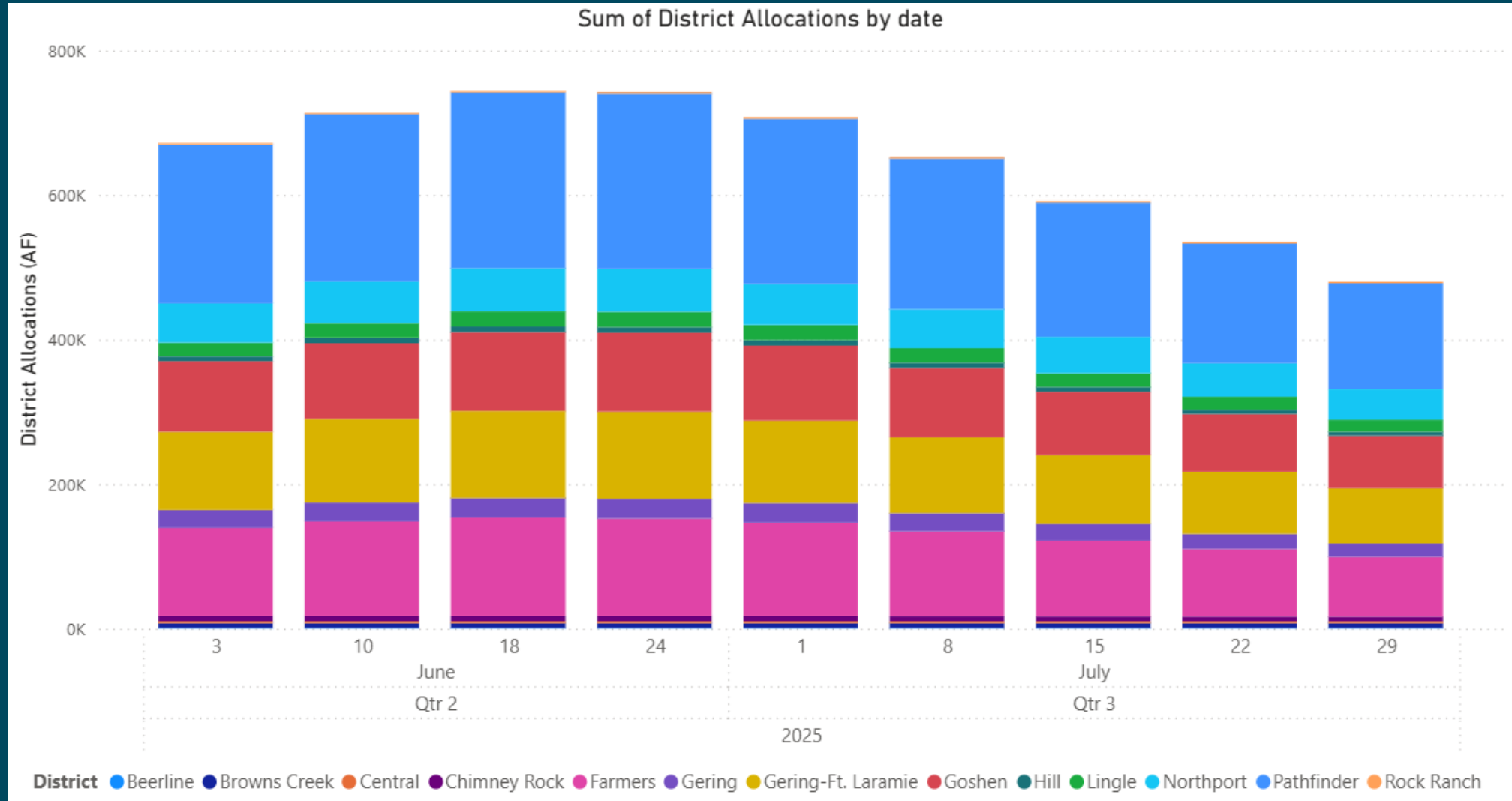
Project website: <https://dnr.nebraska.gov/water-planning/drought-planning/upperplattebasin>

Drought Contingency Planning – 2024-2025

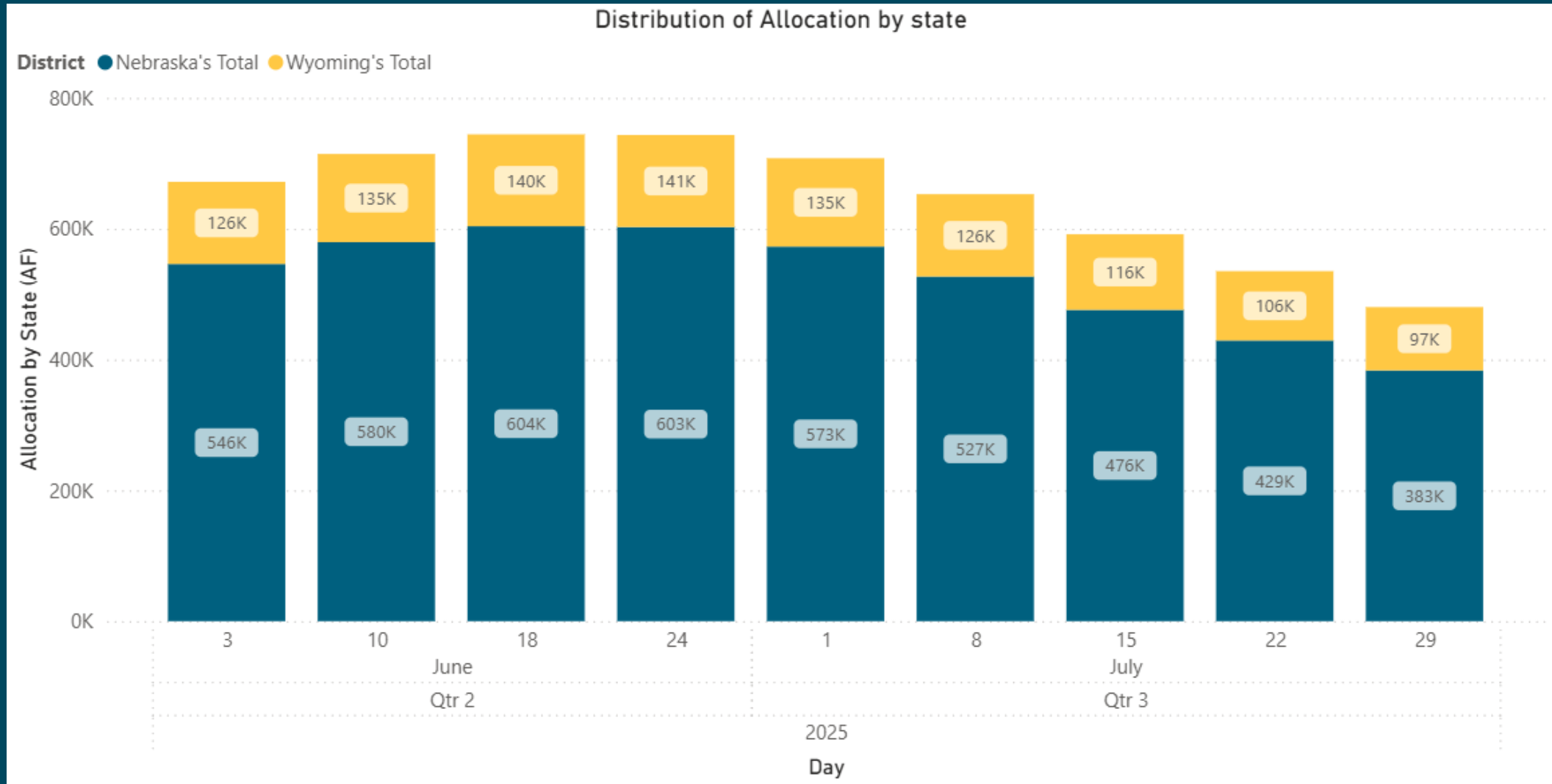


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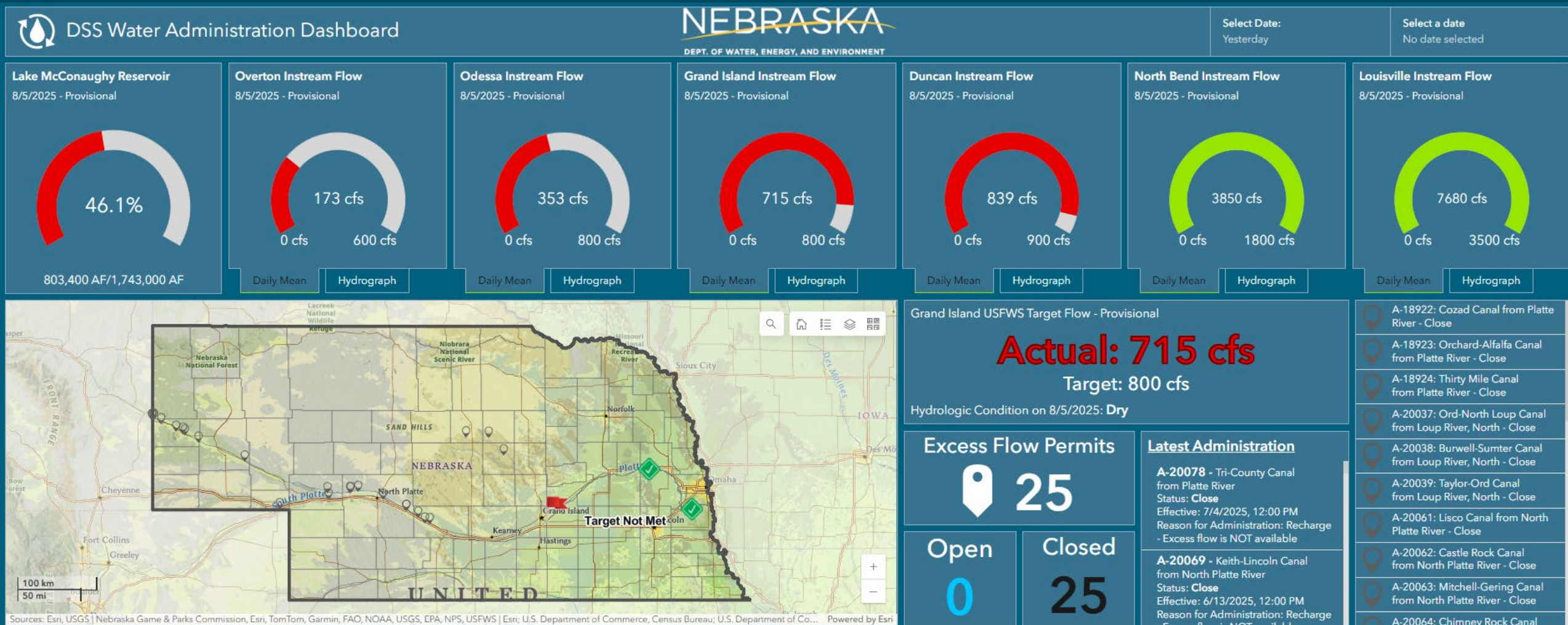
North Platte Allocations – District Allocations



North Platte Allocations – Total Balance



Decision Support System for Excess Flows



Lake McConaughy Reservoir

8/5/2025 - Provisional

46.1%

803,400 AF/1,743,000 AF

Overton Instream Flow

8/5/2025 - Provisional

173 cfs

0 cfs600 cfs

Daily Mean

Hydrograph

Odessa Instream Flow

8/5/2025 - Provisional

353 cfs

0 cfs800 cfs

Daily Mean

Hydrograph

Grand Island Instream Flow

8/5/2025 - Provisional

715 cfs

0 cfs800 cfs

Daily Mean

Hydrograph

Duncan Instream Flow

8/5/2025 - Provisional

839 cfs

0 cfs900 cfs

Daily Mean

Hydrograph

North Bend Instream Flow

8/5/2025 - Provisional

3850 cfs

0 cfs1800 cfs

Daily Mean

Hydrograph

Louisville Instream Flow

8/5/2025 - Provisional

7680 cfs

0 cfs3500 cfs

Daily Mean

Hydrograph

Grand Island USFWS Target Flow - Provisional

Actual: 715 cfs

Target: 800 cfs

Hydrologic Condition on 8/5/2025: Dry

Excess Flow Permits

25

Open

0

Closed

25

Latest Administration

A-20078 - Tri-County Canal from Platte River

Status: Close

Effective: 7/4/2025, 12:00 PM

Reason for Administration: Recharge - Excess flow is NOT available

A-20069 - Keith-Lincoln Canal from North Platte River

Status: Close

Effective: 6/13/2025, 12:00 PM

Reason for Administration: Recharge - Excess flow is NOT available

A-18922: Cozad Canal from Platte River - Close

A-18923: Orchard-Alfalfa Canal from Platte River - Close

A-18924: Thirty Mile Canal from Platte River - Close

A-20037: Ord-North Loup Canal from Loup River, North - Close

A-20038: Burwell-Sumter Canal from Loup River, North - Close

A-20039: Taylor-Ord Canal from Loup River, North - Close

A-20061: Lisco Canal from North Platte River - Close

A-20062: Castle Rock Canal from North Platte River - Close

A-20063: Mitchell-Gering Canal from North Platte River - Close

A-20064: Chimney Rock Canal

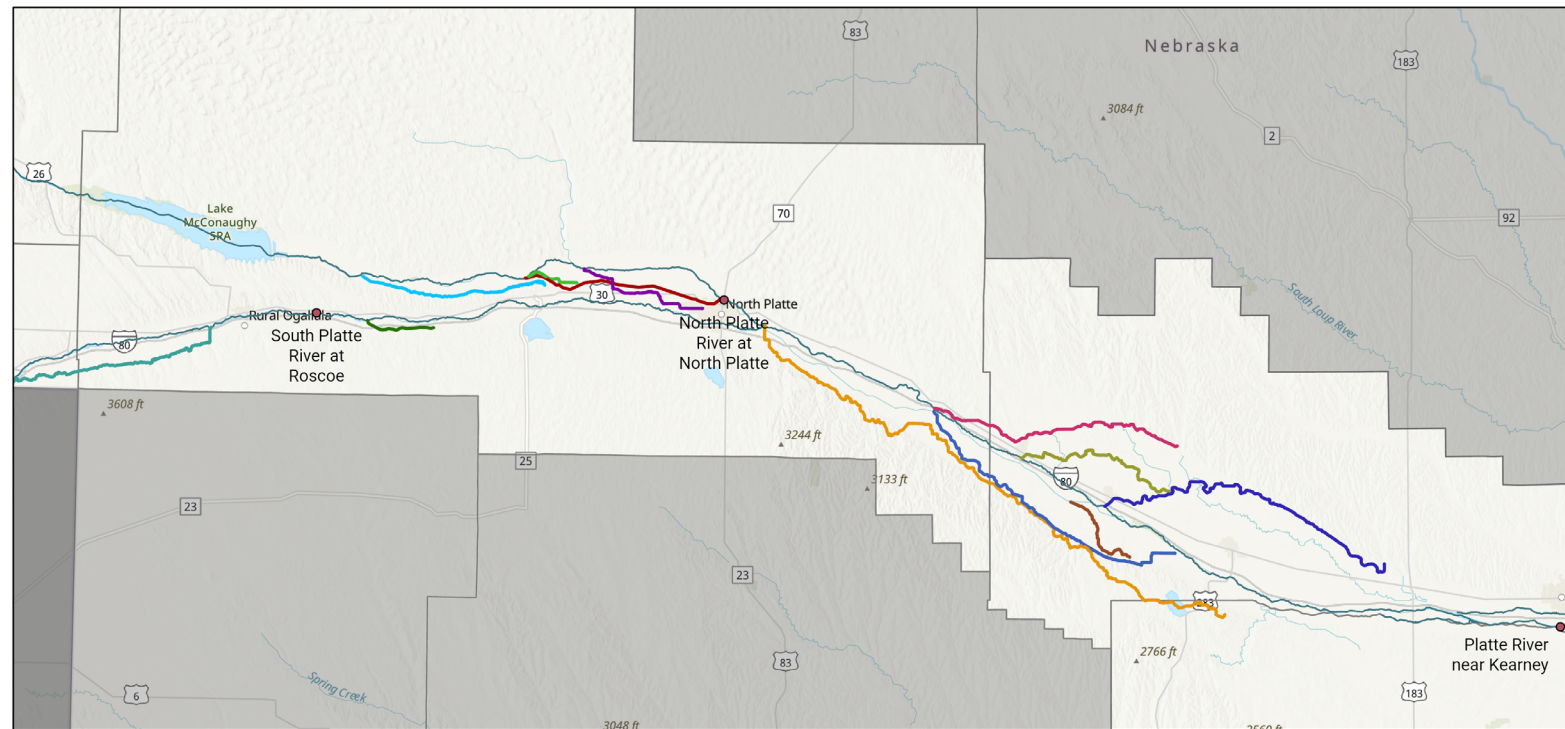
Sources: Esri, USGS | Nebraska Game & Parks Commission, Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, NPS, USFWS | Esri; U.S. Department of Commerce, Census Bureau; U.S. Department of Co... Powered by Esri

Excess Flow Communications

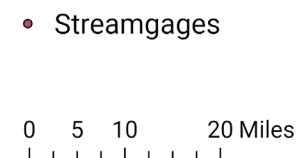
- When excess flows are available, Water Administration sends notice to the owner/operator of the recharge appropriation
 - Open effective date & time
 - Allowed diversion rate in cfs
 - Water source & carrier
- When excess flows are no longer available, Water Administration issues a closing notice
- DSS contains the latest administration for each active excess flow permit

Excess Flow Permits		Latest Administration
 25		A-20078 - Tri-County Canal from Platte River Status: Open Effective: 6/25/2025, 12:00 PM Reason for Administration: Recharge - Excess flow is available
Open 1	Closed 24	A-20069 - Keith-Lincoln Canal from North Platte River Status: Close Effective: 6/13/2025, 12:00 PM Reason for Administration: Recharge

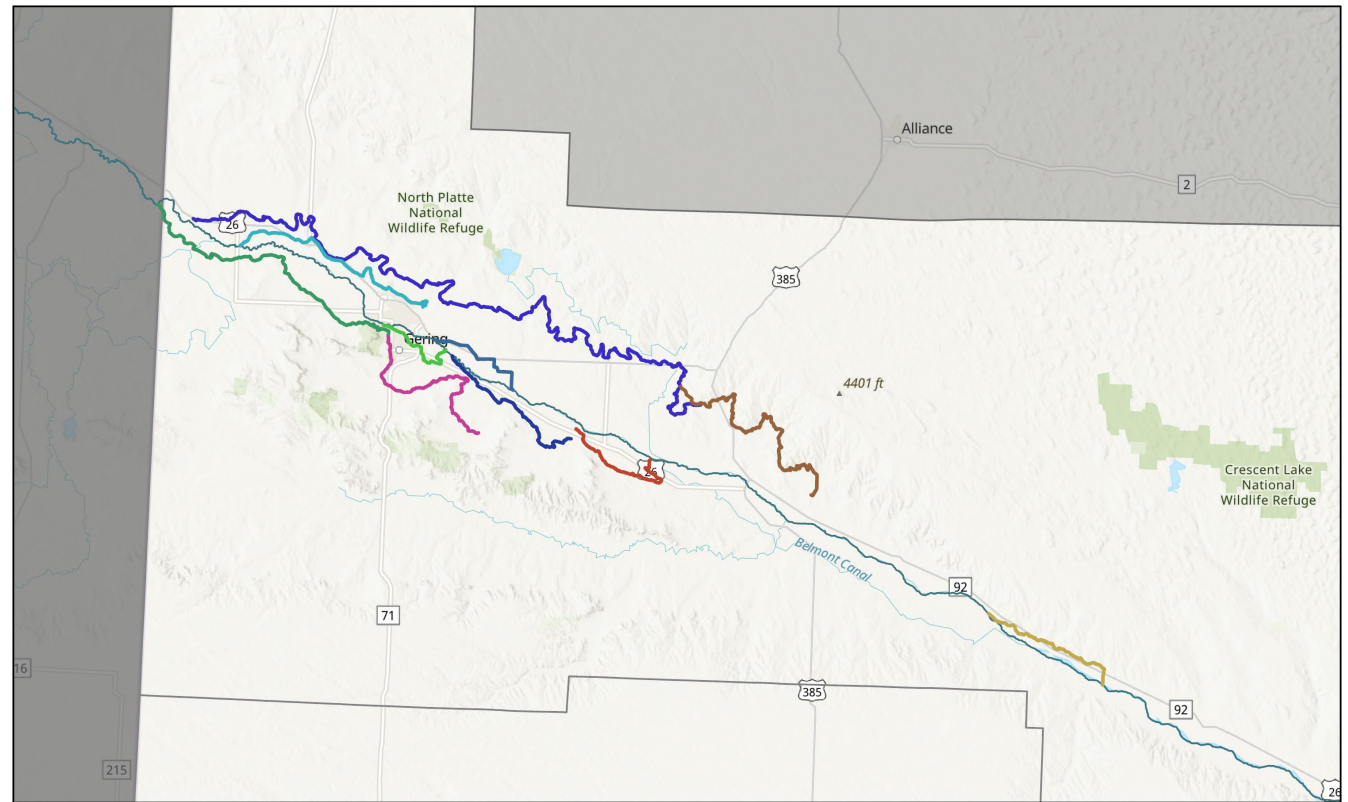
Canals With Active Excess Flow Permits in 2025



- | | | |
|-----------------------|-------------------------|---------------------|
| — Cozad Canal | — North Platte Canal | — Thirty Mile Canal |
| — Dawson County Canal | — Orchard-Alfalfa Canal | — Tri-County Canal |
| — Gothenburg Canal | — Paxton-Hershey Canal | — Western Canal |
| — Keith-Lincoln Canal | — Suburban Canal | — Kory Canal |



Canals With Active Excess Flow Permits in 2025



Canals

Mitchell and Gering Canal

Tri-State Canal

Enterprise Canal

Central Canal

Minatare Canal

Castle Rock Canal

Gering Canal

Chimney Rock Canal

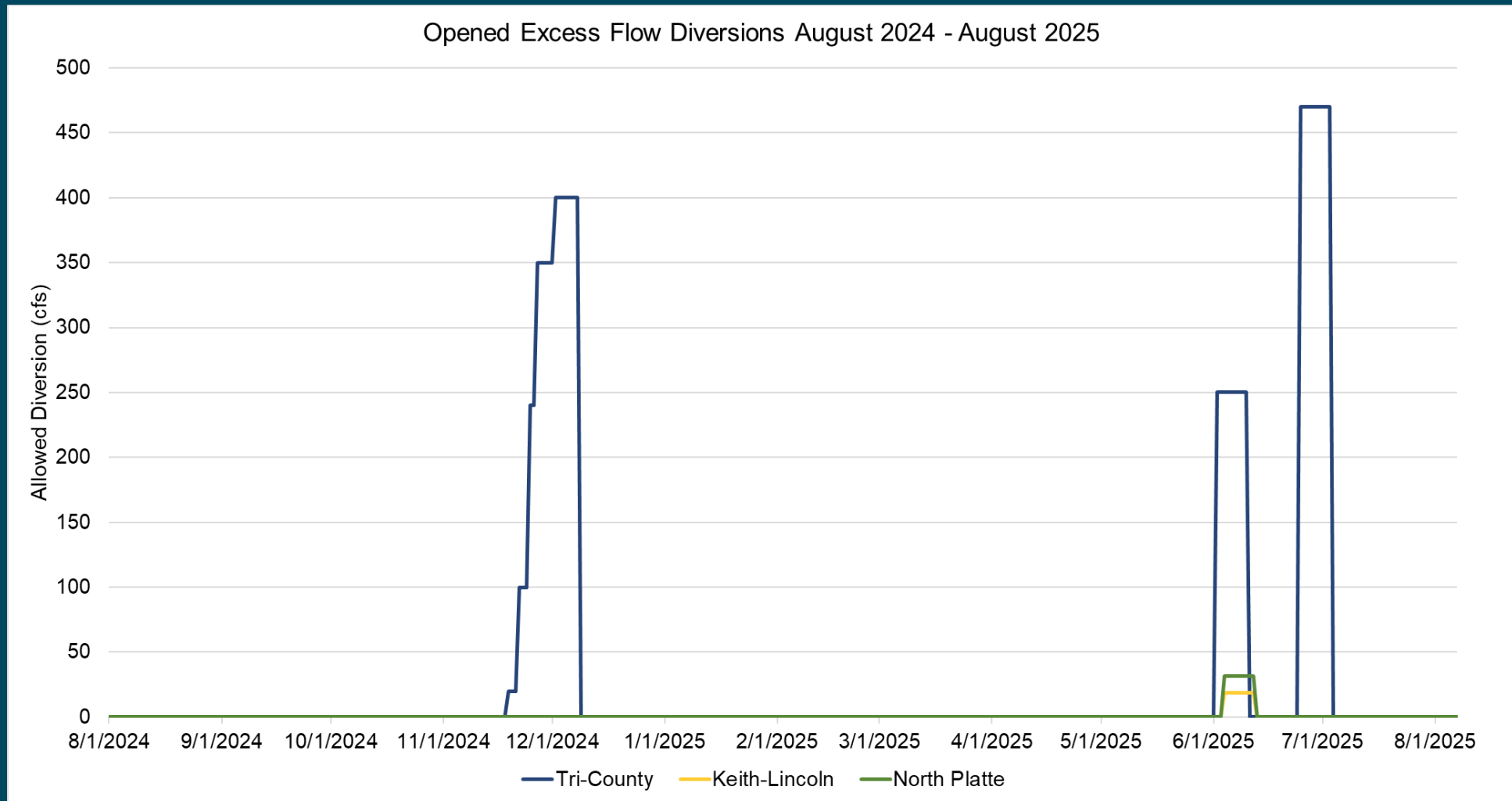
Northport Canal

Lisco Canal

0 2.5 5 10 Miles



Recent Excess Flow Events



Communication for Platte River Augmentation

- Twin Platte NRD Streamflow Augmentation Pipeline

- Department Water Administration notifies TPNRD and Pipeline Operator when there is administration for water rights and/or State-protected flows occurring at or below Tri-County Canal
- Pipeline Operator notifies Department and TPNRD when they begin pumping
- Daily pumping reports – values get added to PWAP
- Department Water Administration notifies TPNRD and Pipeline Operator again when administration actions end
- Public dashboard:
<https://gis.ne.gov/portal/apps/dashboards/79df9f0c0ceb4ca19ded2f436d9cd8e6>



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THANK YOU

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