

# Report on 2023 Activities Basin-Wide Plan for Joint Integrated Water Resources Management of Overappropriated Portions of the Upper Platte River Basin

Upper Platte Basin-Wide Annual Meeting  
August 1, 2024

Caitlin Kingsley, Environmental Specialist III

# NEBRASKA

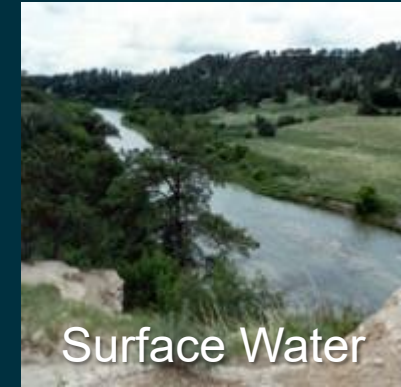
Good Life. Great Water.

DEPT. OF NATURAL RESOURCES

Providing the sound science and support for managing Nebraska's most precious resource



Water Planning  
and Integrated  
Management



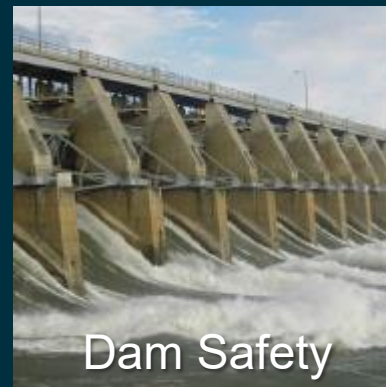
Surface Water



Groundwater



Floodplain  
Management



Dam Safety



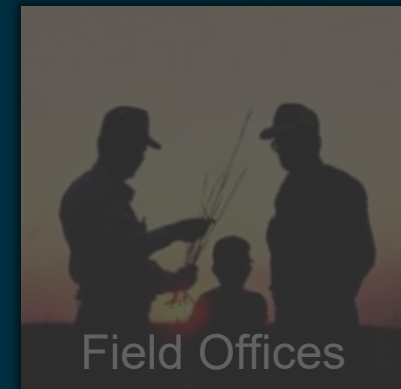
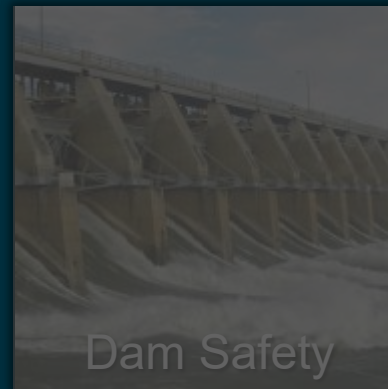
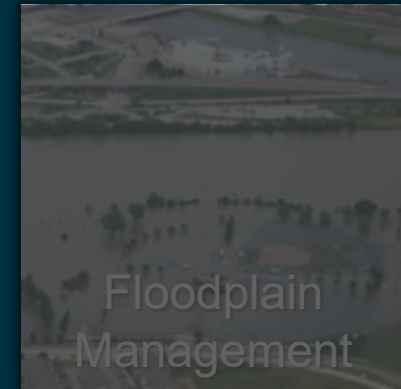
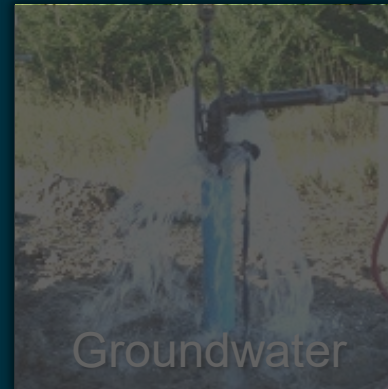
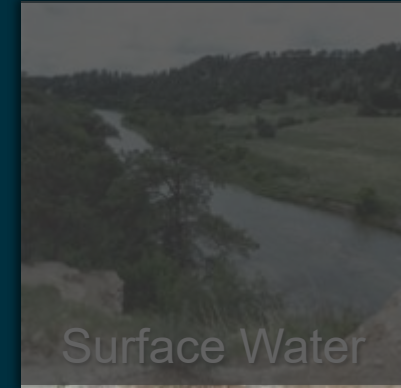
Field Offices

# NEBRASKA

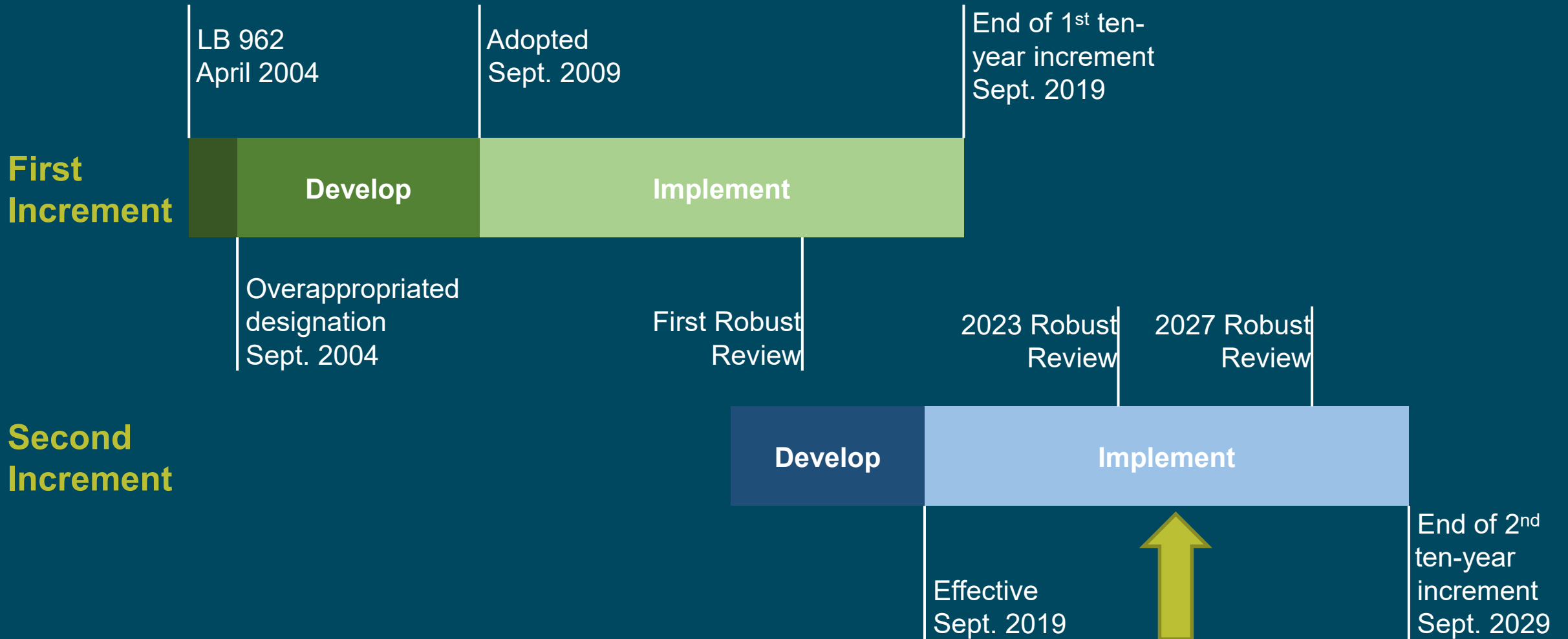
Good Life. Great Water.

DEPT. OF NATURAL RESOURCES

Providing the sound science and support for managing Nebraska's most precious resource



# Upper Platte Basin-Wide Plan Timeline



# Report on 2023 Permitted Activities

# Summary of 2023 Activities in the Upper Platte Basin

- Ten (10) new surface water permits approved
  - Eight (8) temporary permits for excess flow recharge
  - Two (2) temporary permits for construction
    - Temporary repurposing of water (< 10 AF) permitted & consumed under other appropriations
- No new net depletions to the basin

# Surface Water Permits Approved in 2023

Appropriation Number	Approval Date	S-T-R W	Source or Canal	Use	Grant in CFS	Grant in AF	Surface Water or Groundwater Mitigation	Associated Variance
A-19899	3/13/2023	08-13-29 W	Tri-County Canal	Temporary Recharge	950		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 § 001.03	VAR-9862
A-19900	3/13/2023	18-10-23 W	Dawson County Canal	Temporary Recharge	100		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 § 001.03	VAR-9853
A-19901	3/13/2023	19-12-26 W	Gothenburg Canal	Temporary Recharge	100		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 § 001.03	VAR-9854
A-19902	3/13/2023	18-14-33 W	Paxton-Hershey Canal	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	Keith-Lincoln Canal	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	North Platte Canal	Temporary Recharge	201		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 § 001.03	VAR-9857
A-19905	3/13/2023	12-14-33 W	Suburban Canal	Temporary Recharge	77.47		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 § 001.03	VAR-9858
A-19906	3/13/2023	14-12-43 W	Western Canal	Temporary Recharge	176.26		Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 § 001.03	VAR-9859
A-19925	6/8/2023	17-13-29 W	Tri-County Canal	Temporary Construction		10	Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 § 001.06	VAR-10008
A-19948	9/14/2023	30-08-22 W	Elwood Reservoir, A-2374R	Temporary Construction		9.99	Variance granted pursuant to 457 Neb. Admin. Code Ch. 23 § 001.06	VAR-10071

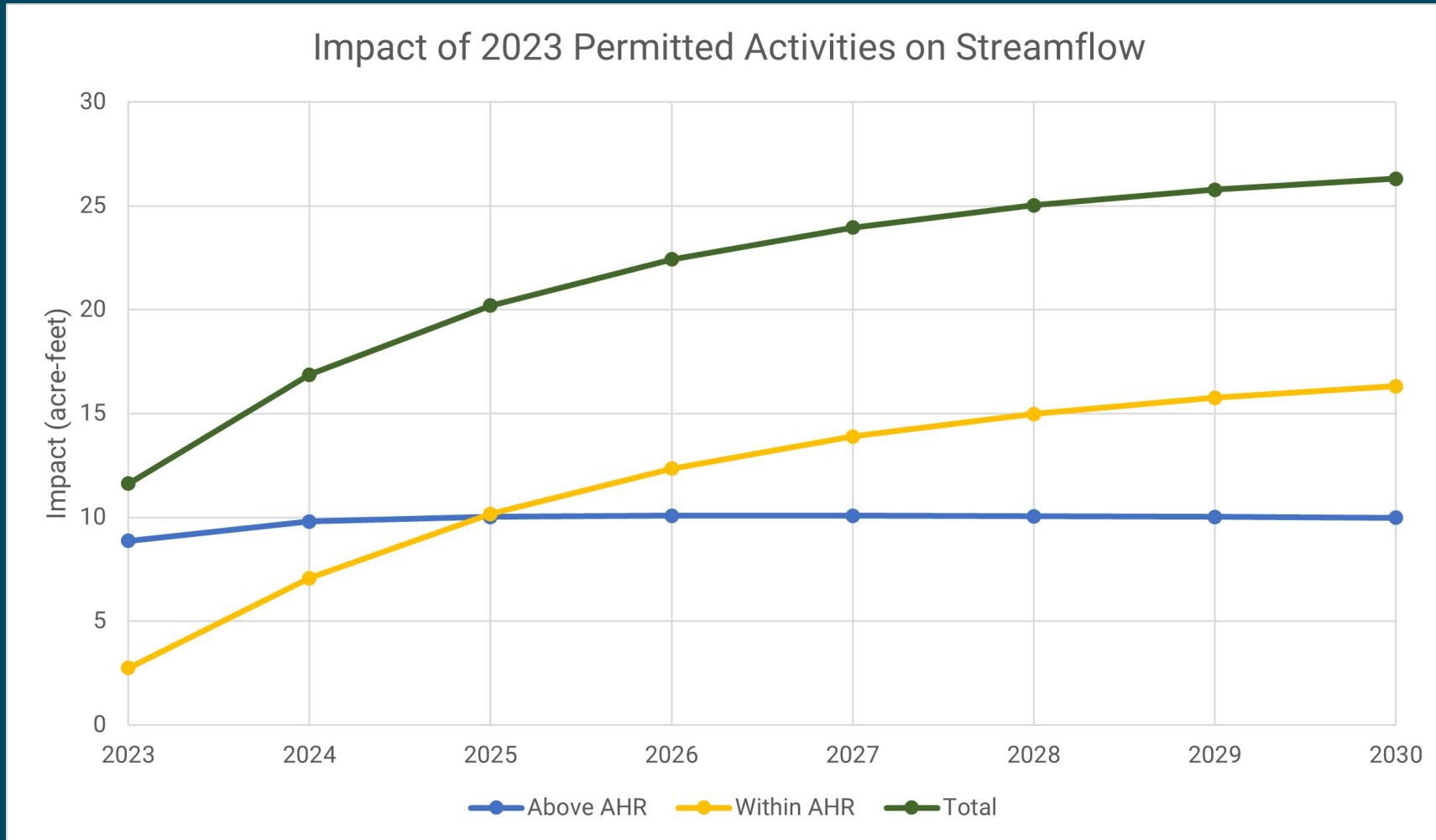
# 2023 Depletions and Accretions

	CPNRD (99 Permits)			NPNRD (0 Permits)			SPNRD (3 Permits)			TBNRD (7 Permits)			TPNRD (9 Permits)			All NRDs
Year	Depletion	Mitigation	Net Effect	Depletion	Mitigation	Net Effect	Depletion	Mitigation	Net Effect	Depletion	Mitigation	Net Effect	Depletion	Mitigation	Net Effect	Total Net Effect
2023	-10	12	1	0	0	0	0	0	0	-2	3	1	-21	30	9	12
2024	-23	29	6	0	0	0	0	0	0	-4	5	1	-29	38	10	17
2025	-34	43	9	0	0	0	0	0	0	-5	6	1	-33	43	10	20
2026	-44	55	11	0	0	0	0	0	0	-6	7	1	-37	47	10	22
2027	-52	65	13	0	0	0	0	0	0	-7	8	1	-39	49	10	24
2028	-60	73	14	0	0	0	0	0	0	-8	9	1	-41	51	10	25
2029	-66	80	14	0	0	0	0	0	0	-8	10	1	-43	53	10	26
2030	-72	87	15	0	0	0	0	0	0	-9	10	1	-45	55	10	26

All values in acre-feet



# Impacts of 2023 Activities 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:

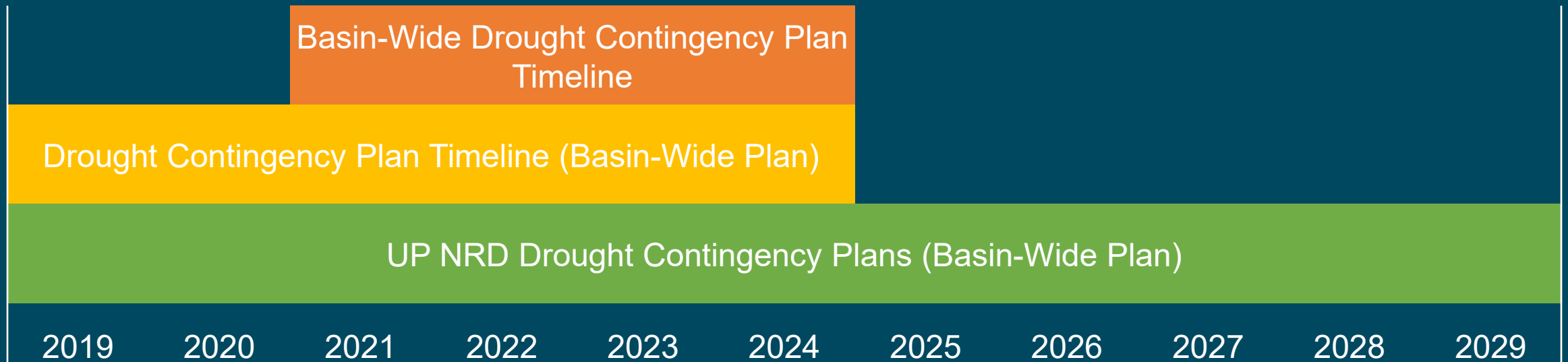
1. A 50-year estimate of the **streamflow depletions** associated with pre- and post-1997 levels of water use development within the hydrologically connected area of the overappropriated basin within each NRD and within the entirety of each NRD.
2. A 50-year estimate of **streamflow accretions** associated with management actions implemented by each NRD and NeDNR 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 to be completed by end of 2024
- Updates from prior Robust Review:
  - MMA updated the COHYST model
  - ARI updated the WWUM
  - Land use was updated
  - Municipal and Industrial pumping calculations were updated
  - Additional excess flow recharge amounts were calculated and included
  - TFG completed the Conservation Study and used results to update CROPSIM

# 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 2<sup>nd</sup> 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.

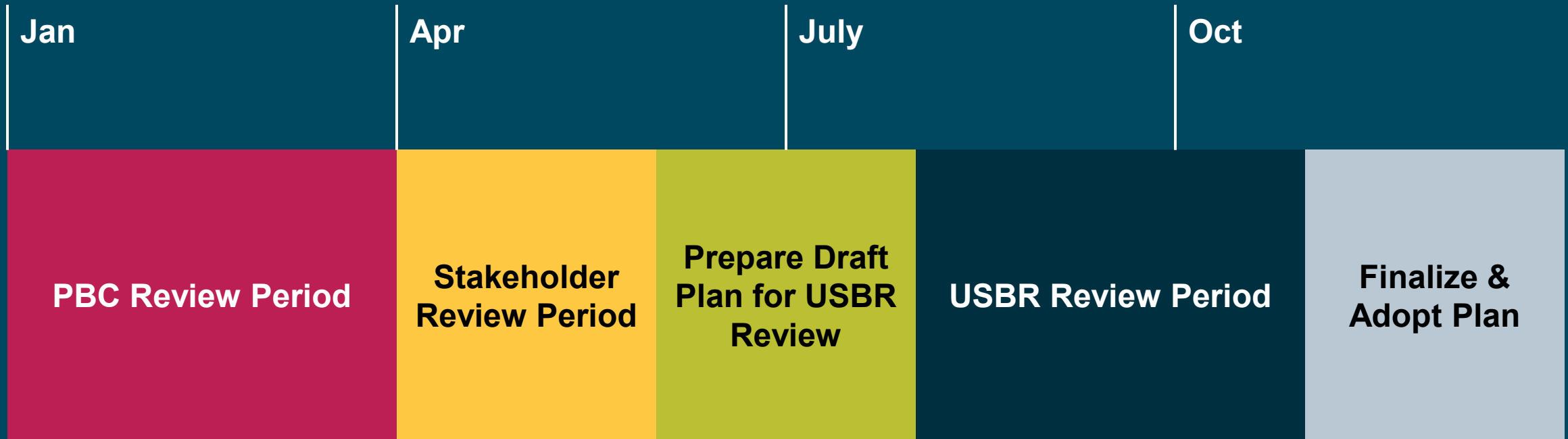


# Drought Contingency Planning – 2022-2023

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

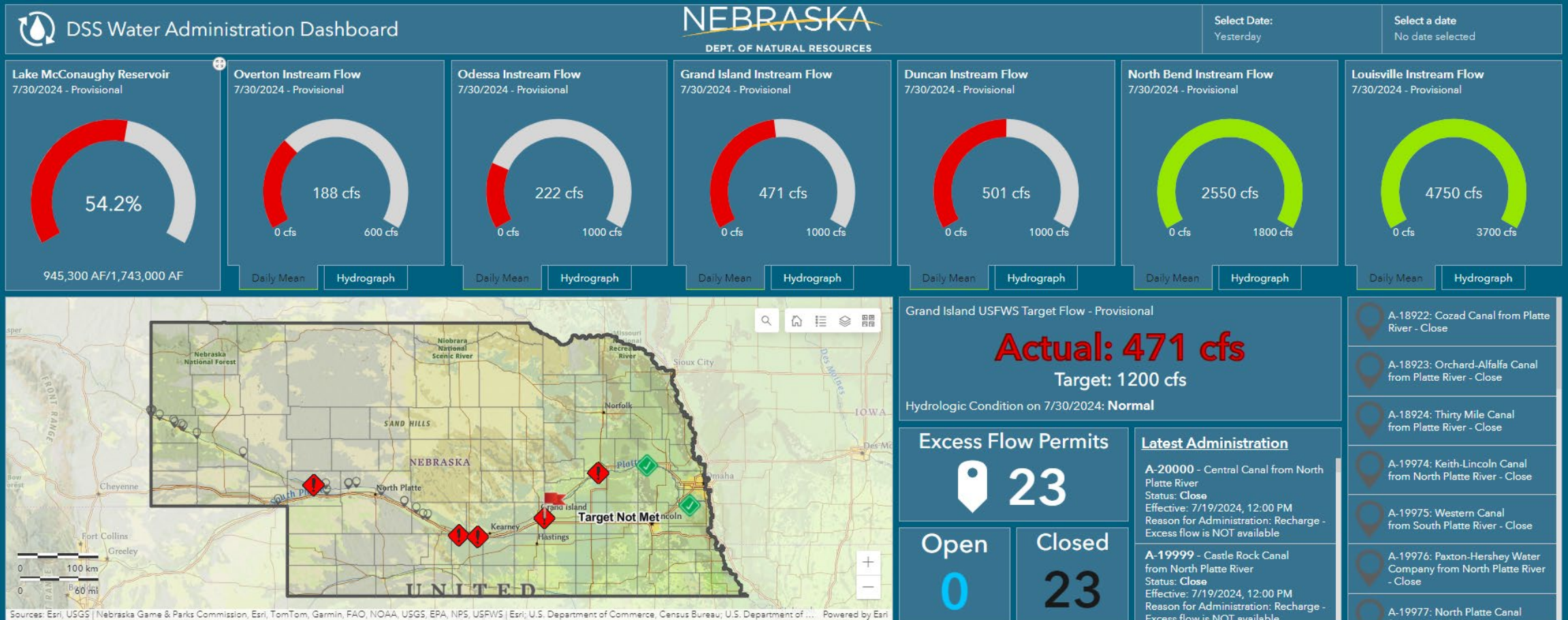
Project website: <https://dnr.nebraska.gov/water-planning/drought-planning/upperplattebasin>

# Drought Contingency Planning – 2024



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

# Decision Support System for Excess Flows



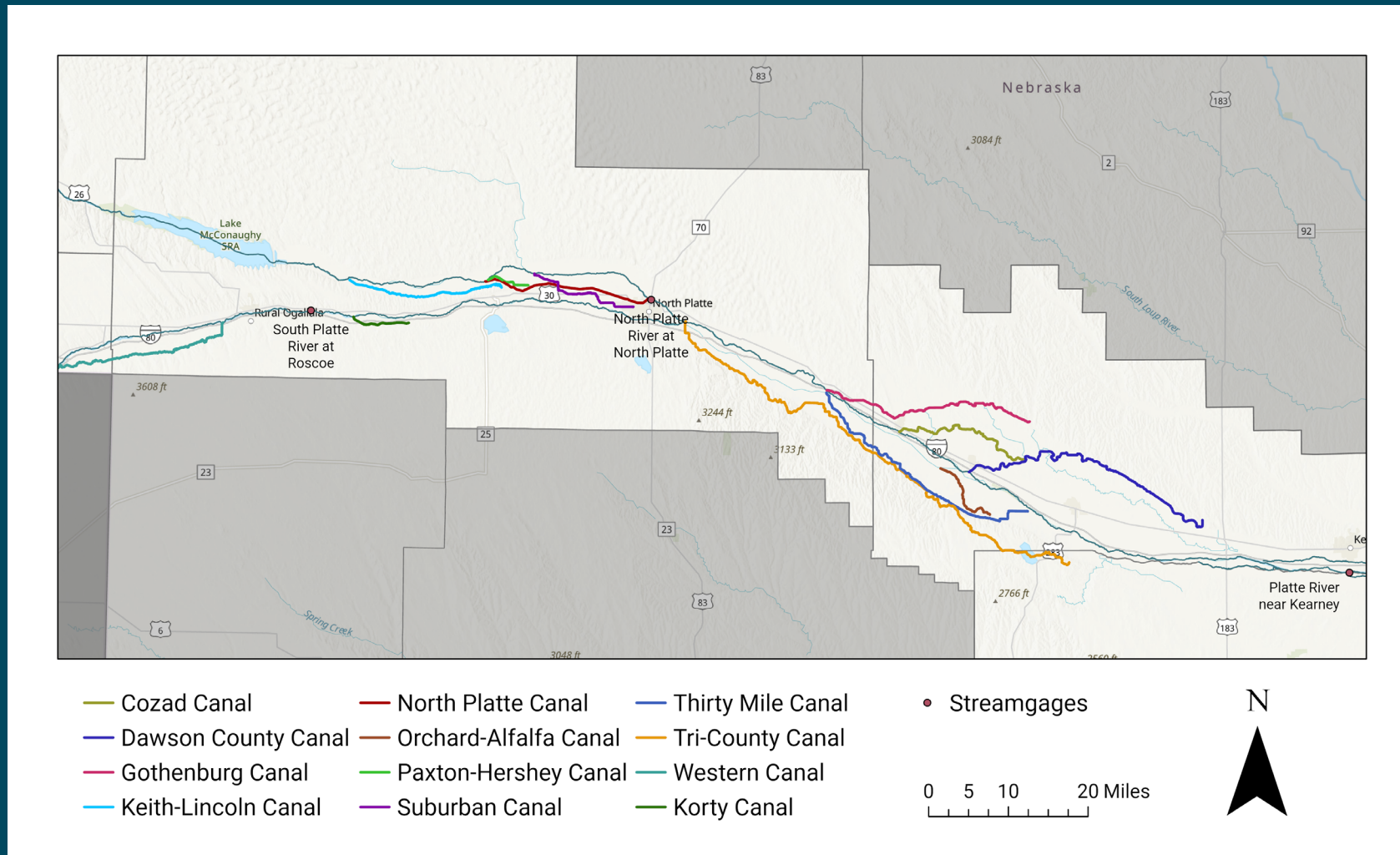


# Excess Flow Communications

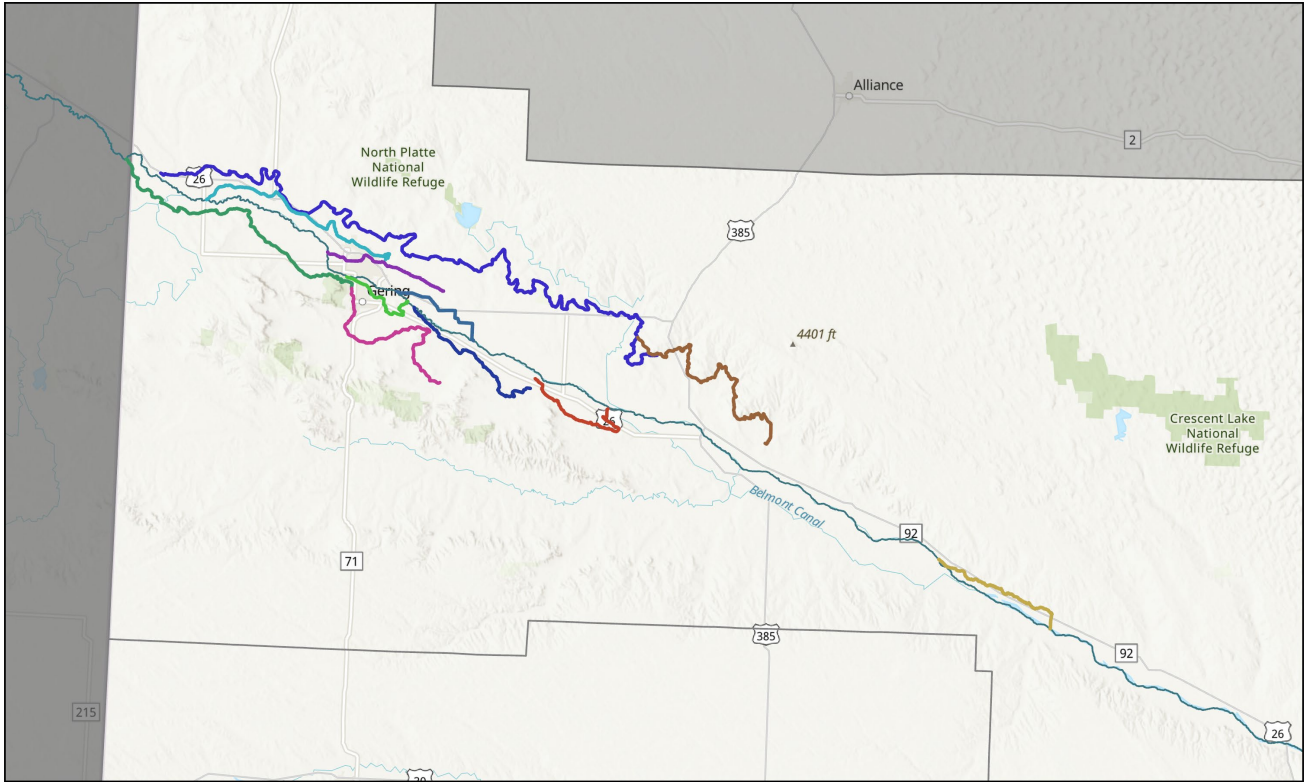
- When excess flows are available, NeDNR Water Administration sends notice to the owner/operator of the recharge appropriation
  - Open effective date & time
  - Allowed diversion rate in cfs
  - Water source & carrier
- When excess flows are no longer available, NeDNR Water Admin issues a closing notice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

<b>Excess Flow Permits</b>  <b>23</b>		<b>Latest Administration</b>
<b>Open</b> <b>0</b>	<b>Closed</b> <b>23</b>	A-20000 - Central Canal from North Platte River Status: <b>Close</b> Effective: 7/19/2024, 12:00 PM Reason for Administration: Recharge - Excess flow is NOT available
		A-19999 - Castle Rock Canal from North Platte River Status: <b>Close</b> Effective: 7/19/2024, 12:00 PM Reason for Administration: Recharge - Excess flow is NOT available

# Canals With Active Excess Flow Permits in 2024



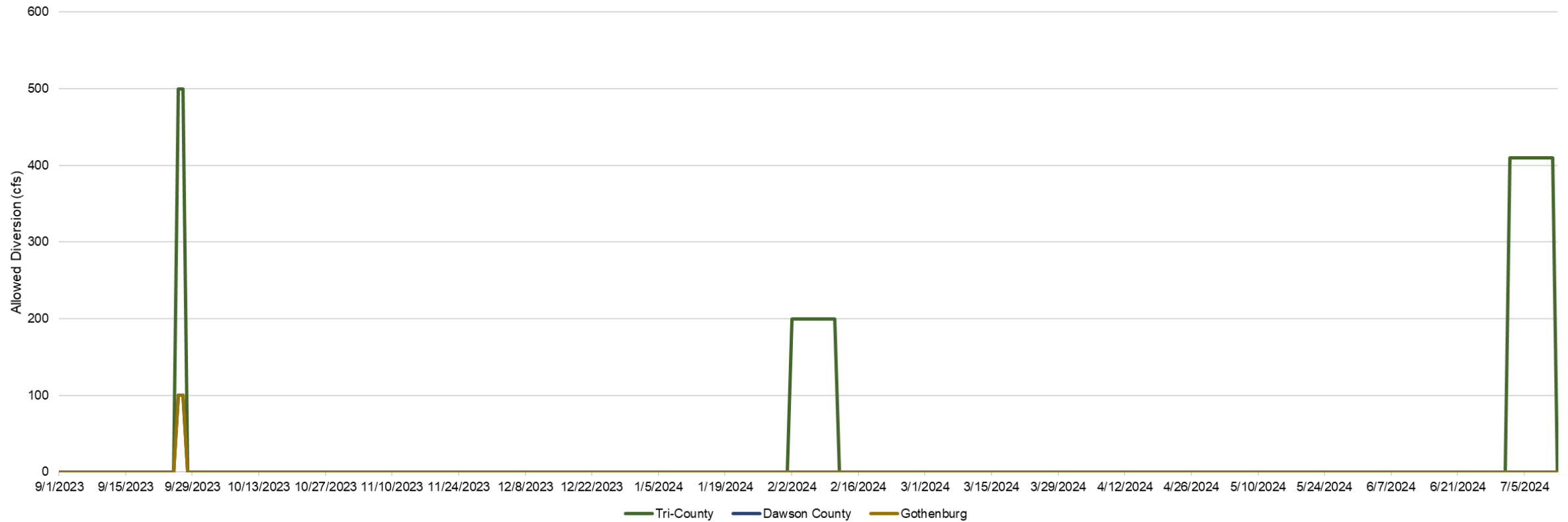
# Canals With Active Excess Flow Permits in 2024



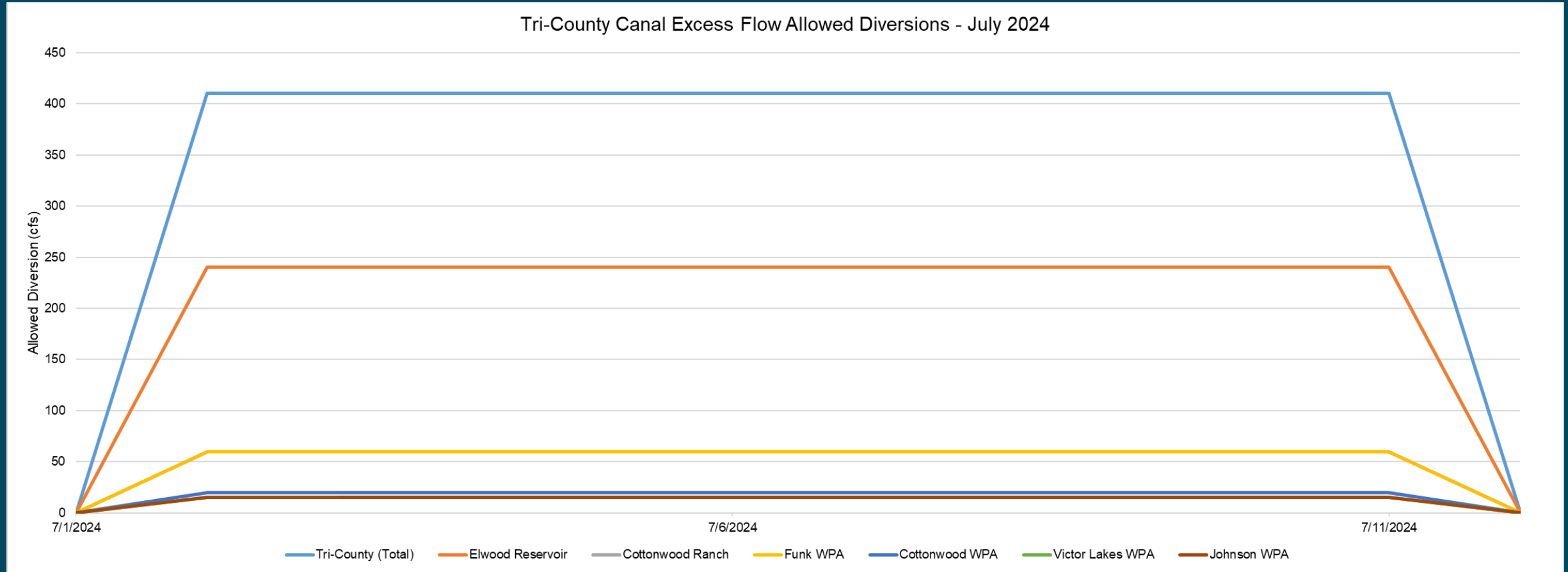
- |                             |                       |                      |
|-----------------------------|-----------------------|----------------------|
| Canals                      | — Winters Creek Canal | — Gering Canal       |
| — Mitchell and Gering Canal | — Central Canal       | — Chimney Rock Canal |
| — Tri-State Canal           | — Minatare Canal      | — Northport Canal    |
| — Enterprise Canal          | — Castle Rock Canal   | — Lisco Canal        |

# 2023-2024 Excess Flows

Excess Flow Allowed Diversions September 2023 - July 2024



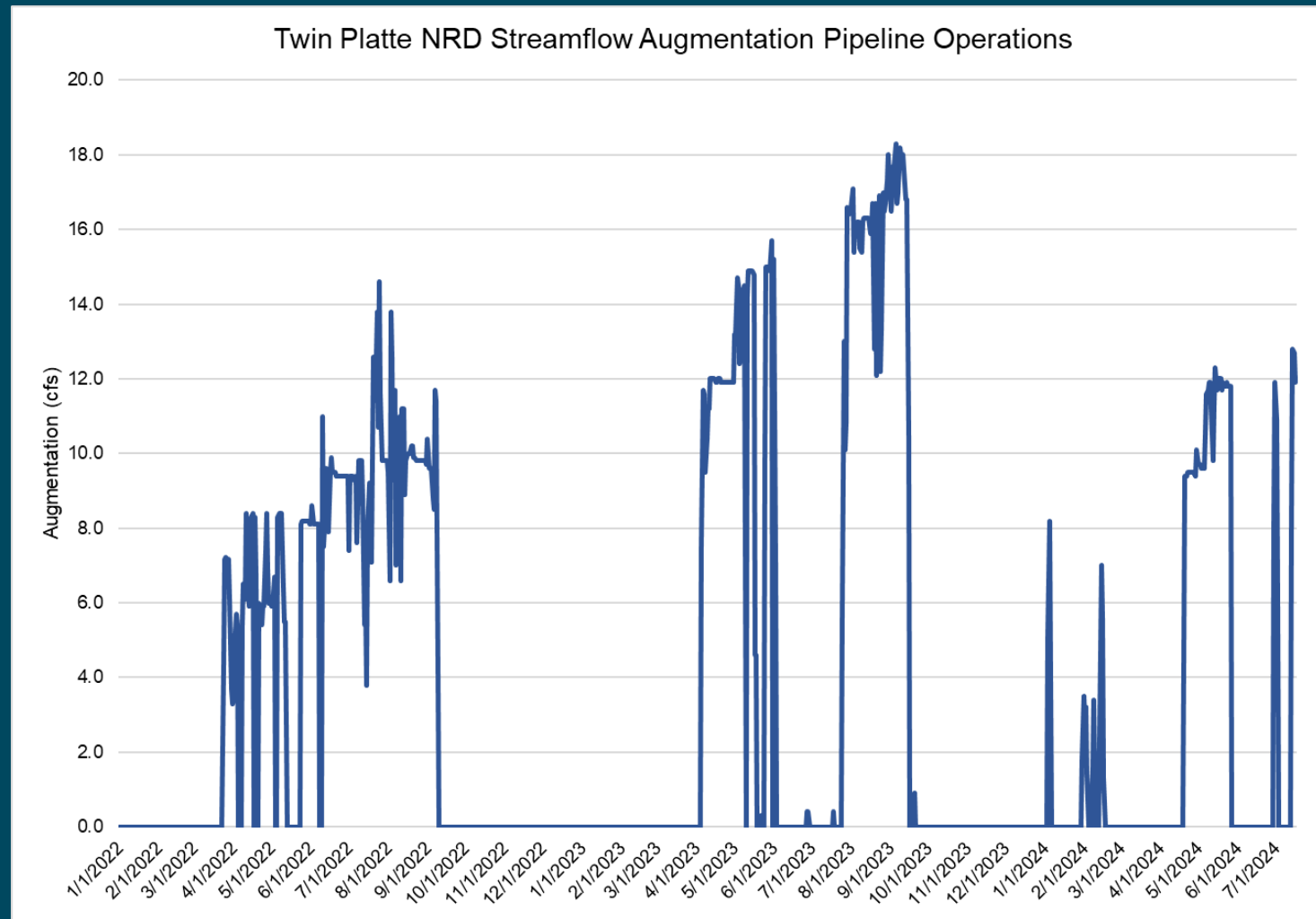
# July 2024 Excess Flows – Tri-County Canal



# NeDNR Communication for Platte River Augmentation - Twin Platte NRD Streamflow Augmentation Pipeline

- NeDNR 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 NeDNR and TPNRD when they begin pumping
- Daily pumping reports – values get added to PWAP
- NeDNR Water Administration notifies TPNRD and Pipeline Operator again when administration actions end

# TPNRD Platte Augmentation – 2022-2024



NEBRASKA

Good Life. Great Water.

DEPT. OF NATURAL RESOURCES

# THANK YOU

Jennifer Schellpeper, Water Planning Division Manager

Ryan Kelly, Integrated Water Management Coordinator

Caitlin Kingsley, Environmental Specialist III

[dnr.nebraska.gov](http://dnr.nebraska.gov)  