

WAP Projects and Other Brief Water updates

PRRIP Water Advisory Committee

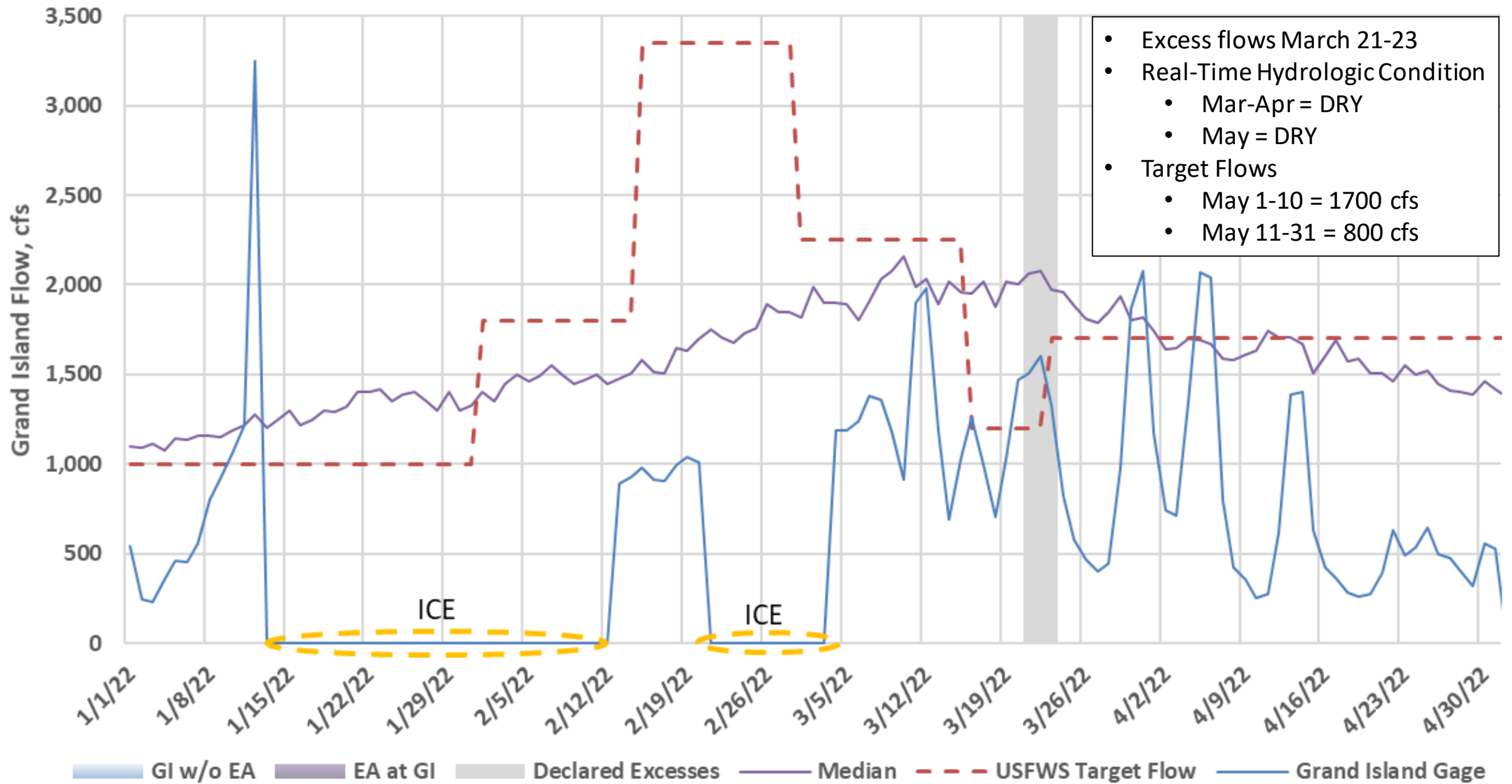
May 3, 2022

Seth M Turner, PE

Leasing and Recharge Projects

- Phelps Recharge: 856 AF excess flow diversions March 21-23, 400 AF recharged through canal
- Cottonwood Ranch BSR: Delivered 456 AF from Phelps, March 30-April 5.
- Cook Well:
 - Pumped 116.8 AF from March 1-April 11
 - Approved amendment to Water Augmentation Agreement with TBNRD
 - Pump, flowmeter replaced
 - TBNRD took over operations (well back on April 19)

Platte Basin Hydrology



U.S. Drought Monitor

High Plains

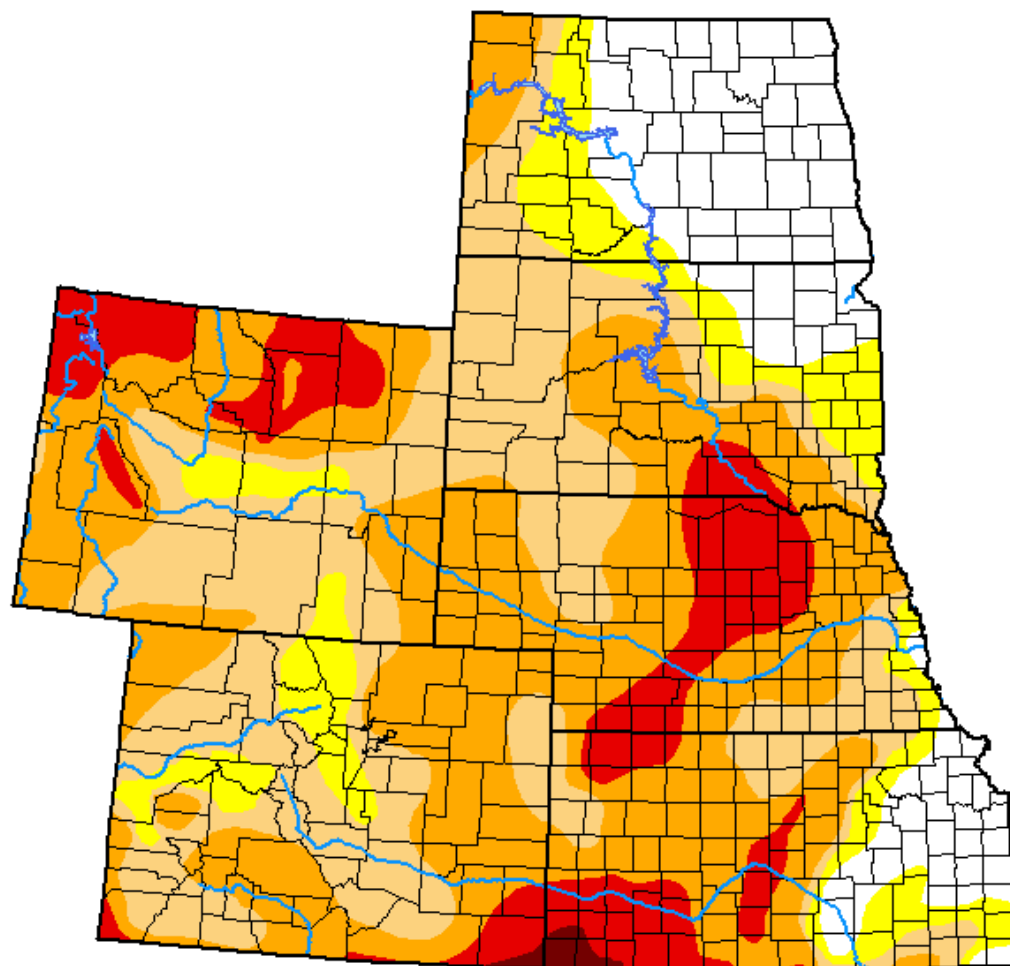
April 26, 2022

(Released Thursday, Apr. 28, 2022)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	14.33	85.67	75.36	47.03	11.67	0.44
Last Week 04-19-2022	13.67	86.33	77.63	47.96	11.97	0.44
3 Months Ago 01-25-2022	9.71	90.29	65.88	36.28	7.37	0.00
Start of Calendar Year 01-04-2022	12.84	87.16	64.81	34.56	8.63	0.00
Start of Water Year 09-28-2021	14.24	85.76	63.58	43.69	18.57	0.86
One Year Ago 04-27-2021	18.35	81.65	63.52	40.57	22.13	3.41



Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

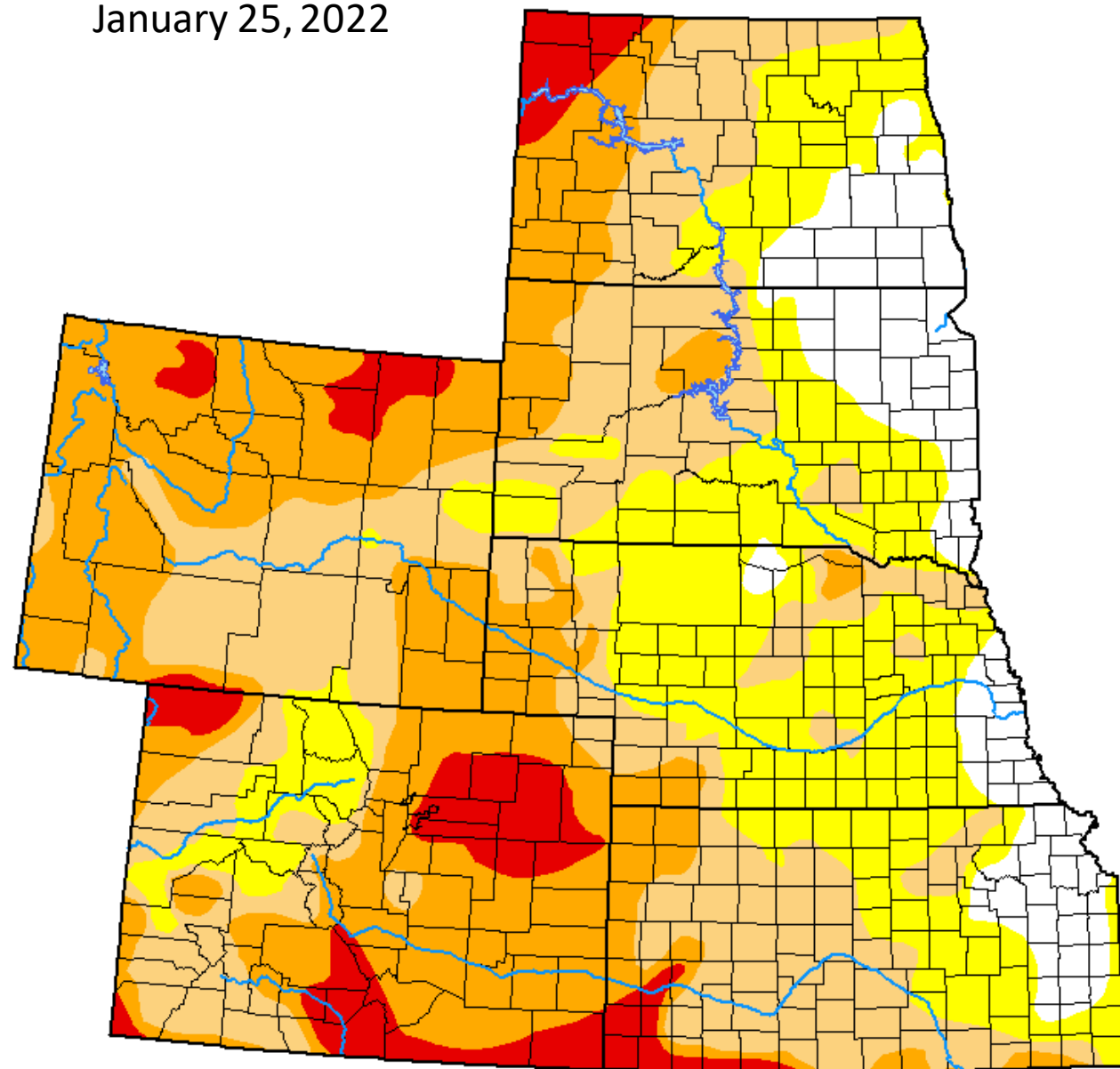
Author:

Brad Rippey
U.S. Department of Agriculture

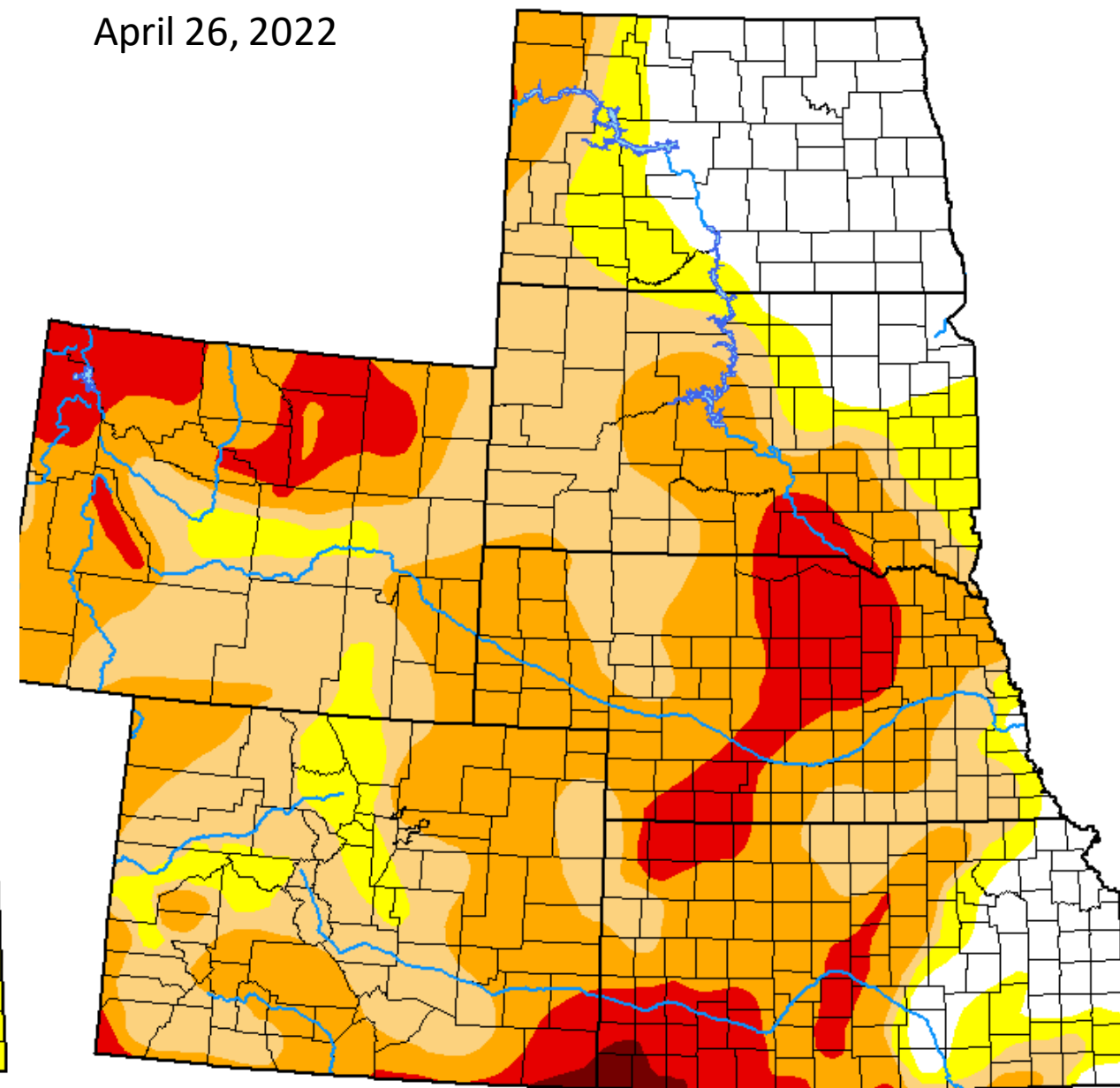


droughtmonitor.unl.edu

January 25, 2022



April 26, 2022



SIWY
1887 cfs

MBWY
116 cfs

SEMINOE RESERVOIR (SEMR)
Top 1017273 af, 6357.0 ft
Current 327642 af, 6306.4 ft
To fill 689631 af, 50.6 ft
Computed Inflow 2347 cfs

SWWY
74 cfs

KORTES RESERVOIR (KORR)
Top 4739 af, 6142.0 ft
Current 4720 af, 6141.8 ft
To fill 19 af, 0.2 ft
Computed Inflow 1518 cfs
Total Outflow 1512 cfs

PATHFINDER RESERVOIR (PATR)
Top 1070000 af, 5852.5 ft
Current 653190 af, 5830.9 ft
To fill 416810 af, 21.6 ft
Computed Inflow 1469 cfs

CAWY
0 cfs

PAWY
77 cfs

ALCOVA RESERVOIR (ALCR)
Top 184405 af, 5500.0 ft
Current 180327 af, 5498.3 ft
To fill 4078 af, 1.7 ft
Computed Inflow 761 cfs

GRAY REEF RESERVOIR (GRAR)
Top 1800 af, 5332.0 ft
Current 1574 af, 5330.7 ft
To fill 226 af, 1.3 ft
Computed Inflow 504 cfs
Total Outflow 503 cfs

ORWY
1495 cfs

GLENDO RESERVOIR (GLER)
Top 492022 af, 4635.0 ft
Current 427891 af, 4629.3 ft
To fill 64131 af, 5.7 ft
Computed Inflow 1643 cfs
Total Outflow 27 cfs

GUERNSEY RESERVOIR (GUER)
Top 45612 af, 4420.0 ft
Current 5336 af, 4395.0 ft
To fill 40276 af, 25.0 ft
Computed Inflow 40 cfs
Total Outflow 1 cfs

ICWY
0 cfs

WHWY
2 cfs

FCWY
0 cfs

NORTH PLATTE RIVER BASIN
Data as of 04/30/2022

Pathfinder Ownership

- 34 Account (Pathfinder EA)
 - Jan 29 = 3,465 AF
 - Apr 30 = 8,645 AF
- 20 Account (Municipal Account)
 - Jan 29 = 13,018 AF
 - Apr 30 = 16,044 AF

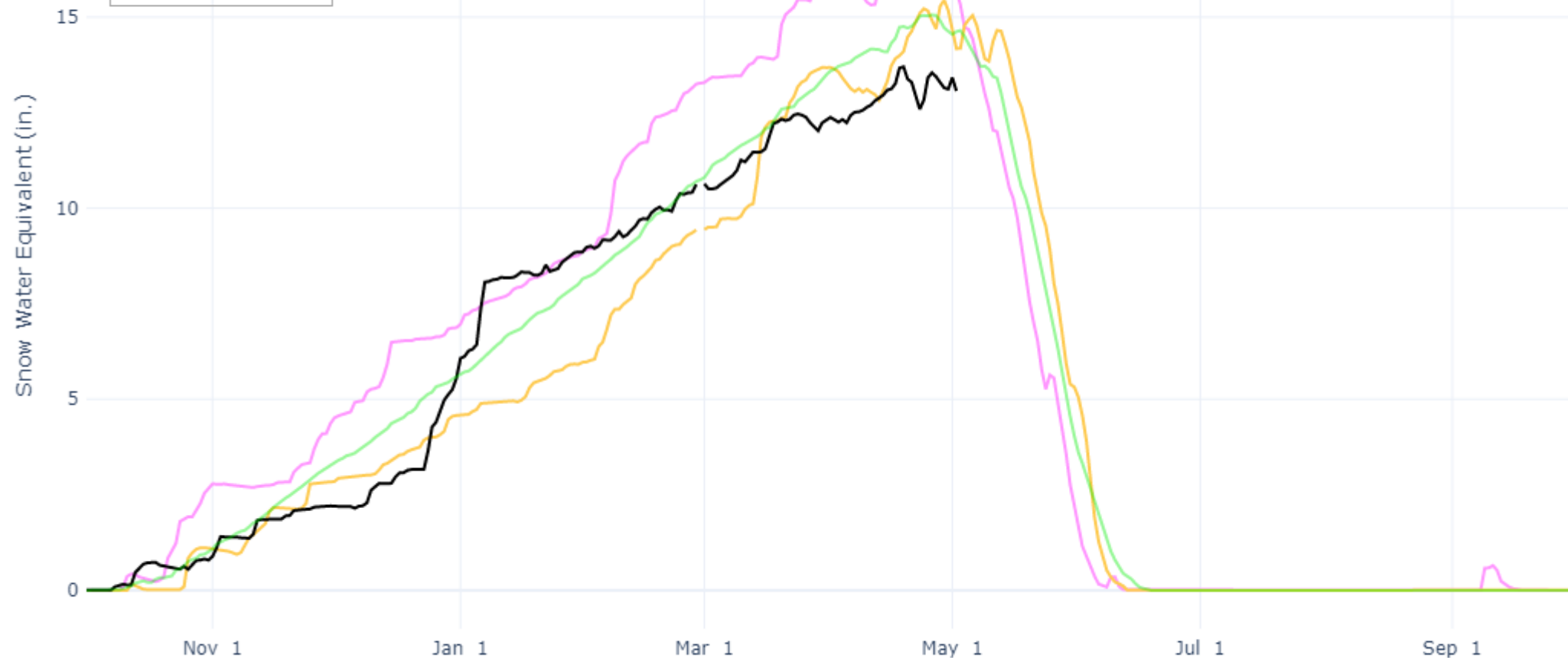
SNOW WATER EQUIVALENT IN SOUTH PLATTE

Reset Range

[Link to data: CSV / JSON](#)

Station List

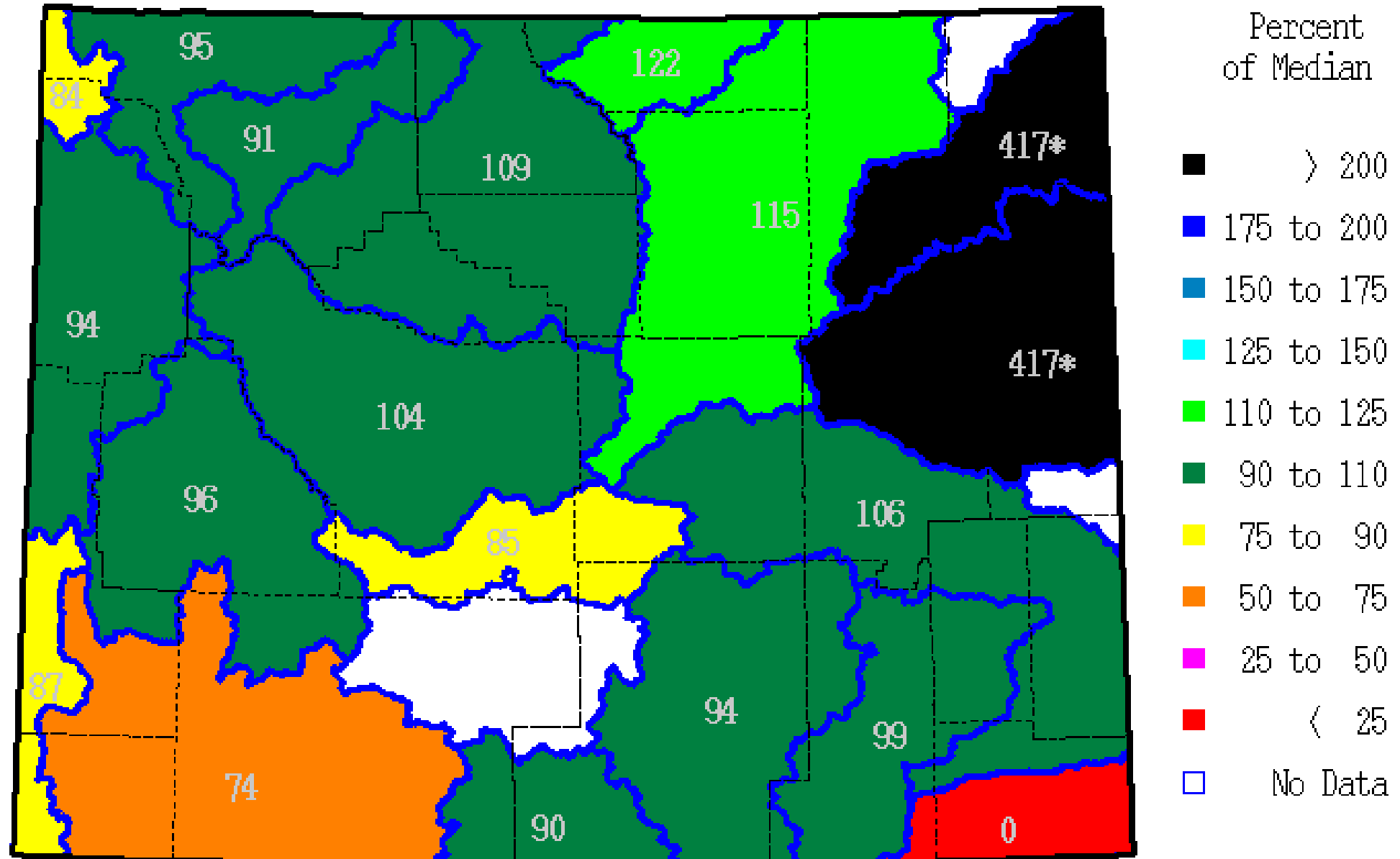
Current as of 05/02/2022:
% of Median - 89%
% Median Peak - 77%
Days Since Median Peak - 7
Percentile - 25



- ✖ Median Peak SWE
- Max
- Median (POR)
- Median ('91-'20)
- Min
- Stats. Shading
- 2022 (21 sites)
- 2021 (21 sites)
- 2020 (21 sites)
- 2019 (21 sites)
- 2018 (21 sites)
- 2017 (21 sites)
- 2016 (21 sites)
- 2015 (21 sites)
- 2014 (21 sites)
- 2013 (21 sites)
- 2012 (21 sites)
- 2011 (21 sites)
- 2010 (20 sites)
- 2009 (19 sites)
- 2008 (18 sites)
- 2007 (18 sites)
- 2006 (18 sites)
- 2005 (17 sites)
- 2004 (17 sites)
- 2003 (17 sites)



SWE % of Median as of Sunday, 01 May 2022



Produced by the Wyoming Water Resources Data System: <http://www.wrds.uwyo.edu>

* = Data may not provide a valid measure of conditions

North Platte Chokepoint

- Disking
 - Intended to disk same areas that were sprayed last fall (~43 acres)
 - Worked with PVWMA and Lincoln County Weed Superintendent
 - Needed permission from 8 landowners, only 5 responded
 - Gaps limited feasible area to about 15 acres
- Bypass Canal
 - Discussion with GC was tabled until June meeting

Recapture Network Construction

- Wells
 - Installation of pumps completed week of April 11
 - 5 of 7 wells currently operational
- Pipelines
 - All pipeline installed
 - Discharge structures, pump outs, most surface fittings completed
 - Numerous leaks identified during pressure testing, repairs underway
- Possibly a couple months until completion

Upcoming EA Release

- Lake McConaughy EA
 - 149,110 AF as of 3/31
- Germination Suppression Release
 - 1,500 cfs at Grand Island
 - June 1-30 (releases to start ~May 25)
 - Better idea of expected conditions after EAC/RCC meeting
 - Planning regular coordination calls (USFWS, CNPPID, EDO, etc)

Nebraska New Depletion Plan Update

PRRIP Water Advisory Committee Meeting
May 3, 2022

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NEBRASKA

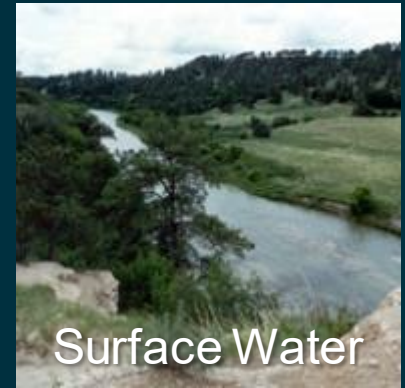
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Providing the sound science and support for managing Nebraska's most precious resource



Water Planning
and Integrated
Management



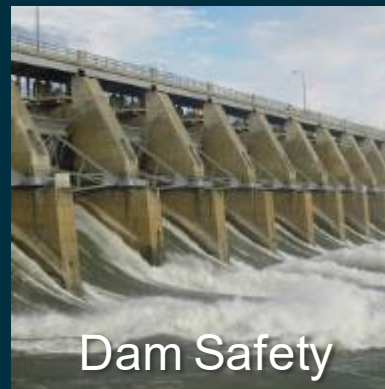
Surface Water



Groundwater



Floodplain
Management



Dam Safety



Field Offices

Update on Nebraska's New Depletion Plan

- 2020 Permitted Activities
- Estimated Depletions
- Offsets and Accretions
- Update on other activities



2020 Permitted Water Uses

- Permits issued by the NRDs and the Department

Type	Total
Groundwater Transfers	23
Groundwater Wells	33
Groundwater Variances	11
Surface Water Permits	9

2020 Groundwater Transfer Permits

	Upstream of CHR	Within CHR	Total
Groundwater Transfers	16	7	23

2020 Groundwater Well Permits

Type	Upstream of CHR	Within CHR	Below CHR	Total
Municipal	1	-	-	1
Industrial/ Commercial	1	-	-	1
Transfer/ New Well	5	2	-	7
Replacement	8	15	-	23
Supplemental Groundwater	-	1	-	1
Total	15	18	--	33

2020 Groundwater Variance Permits

Type	Upstream of CHR	Within CHR	Total
Exemption to Allocation	11	-	11
Total	11	-	11

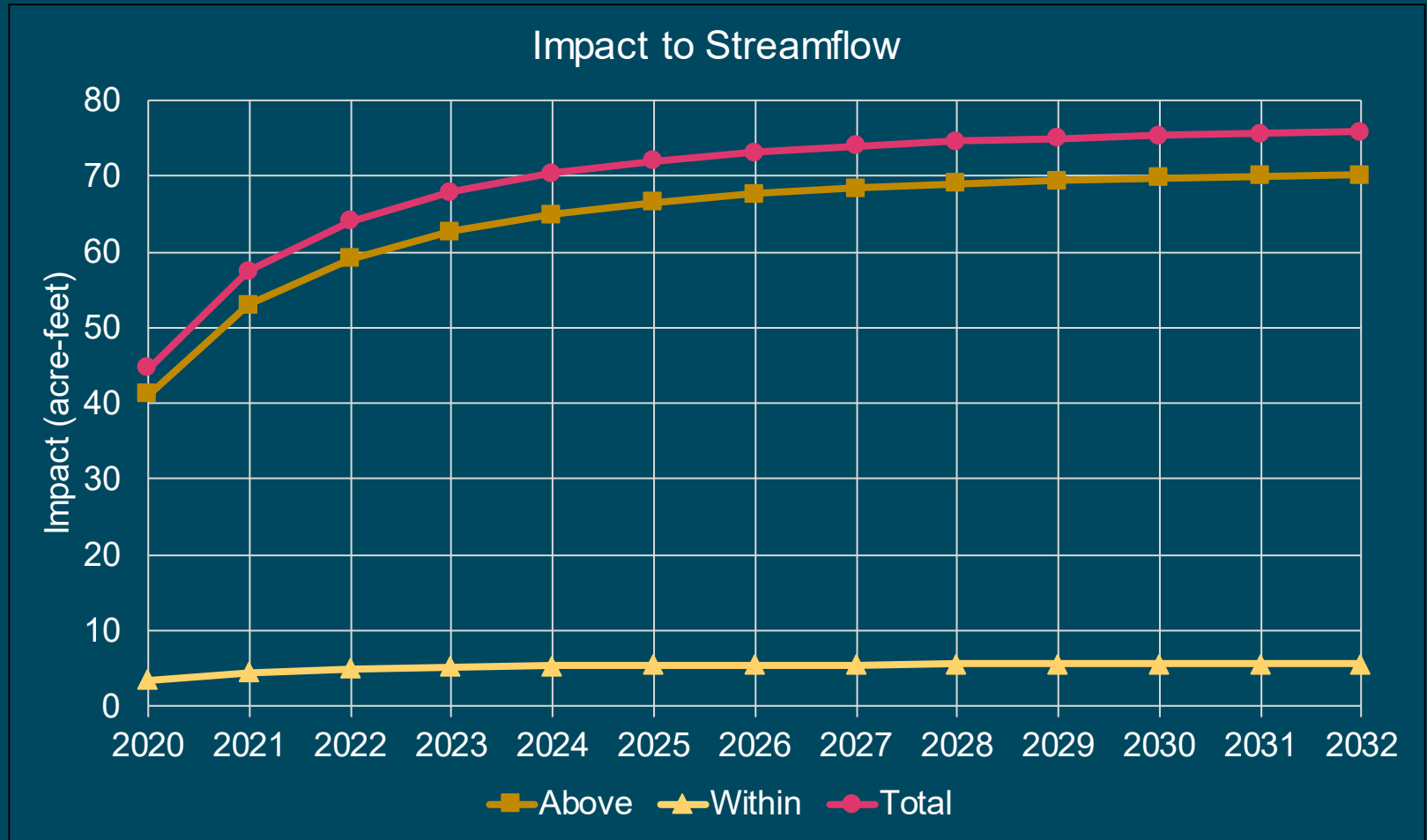
2020 Surface Water Permits

Type	Upstream of CHR	Within CHR	Total
Recharge (Temporary)	9	-	9
Total	9	-	9

Effects to Streamflow from 2020 Permitted Activities

Year	Upstream of CHR			Within CHR			Both Reaches
	Mitigations	New Uses	Net Effect	Mitigations	New Uses	Net Effect	Net Effect
2020	51.70	-10.43	41.27	5.47	-1.99	3.48	44.75
2021	76.11	-23.09	53.02	9.81	-5.31	4.51	57.52
2022	91.92	-32.88	59.04	13.07	-8.10	4.96	64.01
2023	103.55	-40.9	62.64	15.56	-10.35	5.20	67.85
2024	112.66	-47.70	64.96	17.54	-12.19	5.35	70.31
2025	120.10	-53.57	66.53	19.15	-13.71	5.44	71.97
2026	126.33	-58.71	67.62	20.50	-15.00	5.50	73.13
2027	131.66	-63.25	68.41	21.65	-16.10	5.54	73.95
2028	136.28	-67.29	68.99	22.64	-17.07	5.57	74.56
2029	140.34	-70.93	69.41	23.51	-17.91	5.59	75.00
2030	143.94	-74.21	69.73	24.28	-18.67	5.61	75.33
2031	147.17	-77.21	69.97	24.96	-19.35	5.62	75.58
2032	150.09	-79.94	70.14	25.58	-19.96	5.62	75.77

Net Effect to Streamflow from 2020 Permitted Activities



Other Basin-Wide Activities

- Second increment Upper Platte Basin-Wide Plan and Integrated Management Plans between the Natural Resources Districts and Nebraska Department of Natural Resources effective in September 2020
- 2020 report was first under the second increment of NeDNR and Upper Platte NRDs integrated water management plans
- 2023 Robust Review
- Updating COHYST and WWUM models
- Updating depletions/accretions analysis with updated datasets

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Questions?

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THANK YOU

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North Platte River Basin

Colorado's Annual Report for 2021

Platte River Recovery Implementation Program

Kara Scheel, Endangered Species Recovery Program Manager
Colorado Water Conservation Board

May 3, 2022



COLORADO
Colorado Water
Conservation Board
Department of Natural Resources

II.C. Existing Water Related Activities

- Jackson County: Small quantity of water
 1. Irrigation as high as **134,467 acres** in any one year
 2. Small population: **Baseline = 2022 people**
 3. Limited industry
 4. Piscatorial, wildlife, and other environmental uses



II.D. New Water Related Activities

1. Irrigation as high as **134,467 acres** in any one year
2. Municipal & Industrial Uses:
 - **Population exceeds baseline of 2022 people**
 - **Post-1997 industrial uses**
3. Piscatorial, wildlife, and other environmental uses:
 - **Post-1997 uses**



NORTH PLATTE RIVER BASIN

USE OF WATER IN COLORADO

WATER YEAR 2021

The State of Colorado reports the following use of water from the North Platte River Basin for the period October 1, 2020 to September 30, 2021. This report is made pursuant to Paragraph IX of the decree of the Supreme Court of the United States, entered October 8, 1945, in the case of State of Nebraska vs. Wyoming and Colorado, as amended.

Total area of land irrigated in Jackson County, Colorado	89,105 Acres
Total amount of water stored for irrigation in Jackson County, Colorado	8,283 AF
Amount of water exported from the North Platte River Basin, Jackson County, Colorado by:	
Michigan Ditch	2,235 AF
Cameron Pass Ditch	<u>56 AF</u>
Annual Total	2,291 AF
10-Year Cumulative Total	34,966 AF

State Demographer: Population

Counties	SDO Jan 2021	SDO Jan 2022 Forecast	Pop. Change 2021-22
Boulder	331,879	333,457	1,579
Broomfield 55%	41,456	42,483	1,027
Larimer	361,159	364,899	3,740
Logan	21,371	21,386	15
Morgan	29,094	29,220	126
Phillips	4,540	4,547	7
Sedgwick	2,404	2,401	-3
Washington	4,825	4,831	6
Weld	335,601	343,939	8,338
Total Northern Region	1,132,327	1,147,163	14,835
Arapahoe 90%	590,998	595,542	4,545
Adams	521,864	526,773	4,909
Broomfield 45%	33,919	34,759	840
Clear Creek	9,384	9,393	10
Denver	721,371	729,195	7,824
Gilpin	5,811	5,815	4
Jefferson	582,880	584,741	1,861
Park	17,390	17,435	45
Total Central Region	2,483,615	2,503,653	20,038
Arapahoe 10%	65,666	66,171	505
Douglas	364,450	371,298	6,849
Elbert	26,331	26,868	537
Total Southern Region	456,446	464,337	7,891
South Platte River Basin Total	4,072,389	4,115,153	42,764
Jackson	1,372	1,360	-12
SDO - State Demography Office, November 2021			



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**Colorado Water
 Conservation Board**
 Department of Natural Resources

NORTH PLATTE ANNUAL ACCOUNTING FORM FOR YEAR 2021

1. Irrigated acres during year:	89,105 acres	X	0.83 acre-feet (af)/acre*	=	73,957 af
2. Population during year:	1,372 people	X	0.088 af/person**	=	121 af
3. Total new post-1997 industrial uses:				=	0 af
a) Oil and gas well development and operations by SandRidge Energy equaled 0 acre-feet of consumptive depletions for 2019.					
4. Total new post-1997 piscatorial, wildlife and environmental uses (PWEUs), not incidental to agriculture:				=	25 af
a) The decree issued in case number 10CW57 is for an absolute instream flow water right held by the CWCB to preserve the natural environment for 4.0 cfs (April 1 – July 15) and 0.7 cfs (July 16 – March 31). The CU is 0 af.					
b) The decree issued in case number 10CW48 is for an absolute surface water right to maintain a 4.0-acre fish pond owned by Donald Right for 1 cfs. The diversion will occur during the irrigation season (June 1 to October 31). The CU is estimated from information from the court application and is 5.92 af for evaporation.					
c) The decree issued in case number 13CW3018 is for an absolute instream flow water right held by the CWCB to preserve the natural environment for 3.6 cfs (May 1 – July 31), 1.0 cfs (August 1 – September 30) and 0.5 cfs (October 1 – April 30). The CU is 0 af.					
d) The decree issued in case number 17CW3019 is for an absolute surface water right of 38.6 acre-feet for the Lake Creek Wetlands over 18.5 acres for wildlife propagation. Evaporative loss, CU, is 19.2 acre-feet.					
				TOTAL CU	= 74,103 af
				BASELINE CU	= 111,785 af
				ANNUAL CU UNDERRUN(-)	= -37,682 af

THANK YOU
kara.scheel@state.co.us



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