



— BUREAU OF —
RECLAMATION

Henrys Fork Watershed Council

May 11, 2021

Upper Snake Reservoir Operations

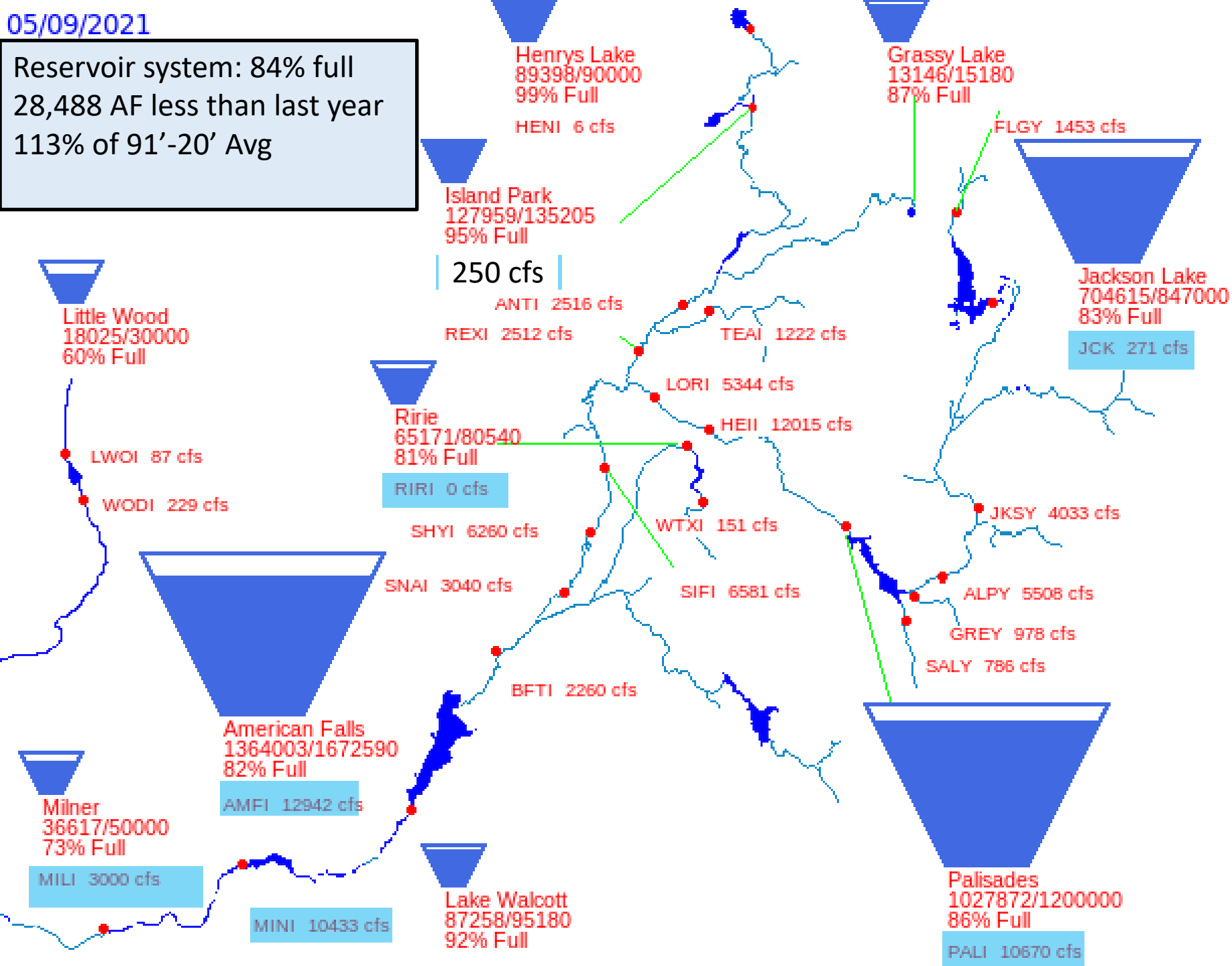
Overview

- Current storage
- Review hydrologic conditions
- Runoff forecasts
- Reservoir Projections
- Check on Storage Accounts filling
- Island Park operations
- Operational Outlook



05/09/2021

Reservoir system: 84% full
28,488 AF less than last year
113% of 91'-20' Avg



March 2021 Percent Normal Precipitation

Displaying March, 2021 Monthly Percent of Normal Precipitation
Valid on: April 01, 2021 12:00 UTC



Print this map

Permalink



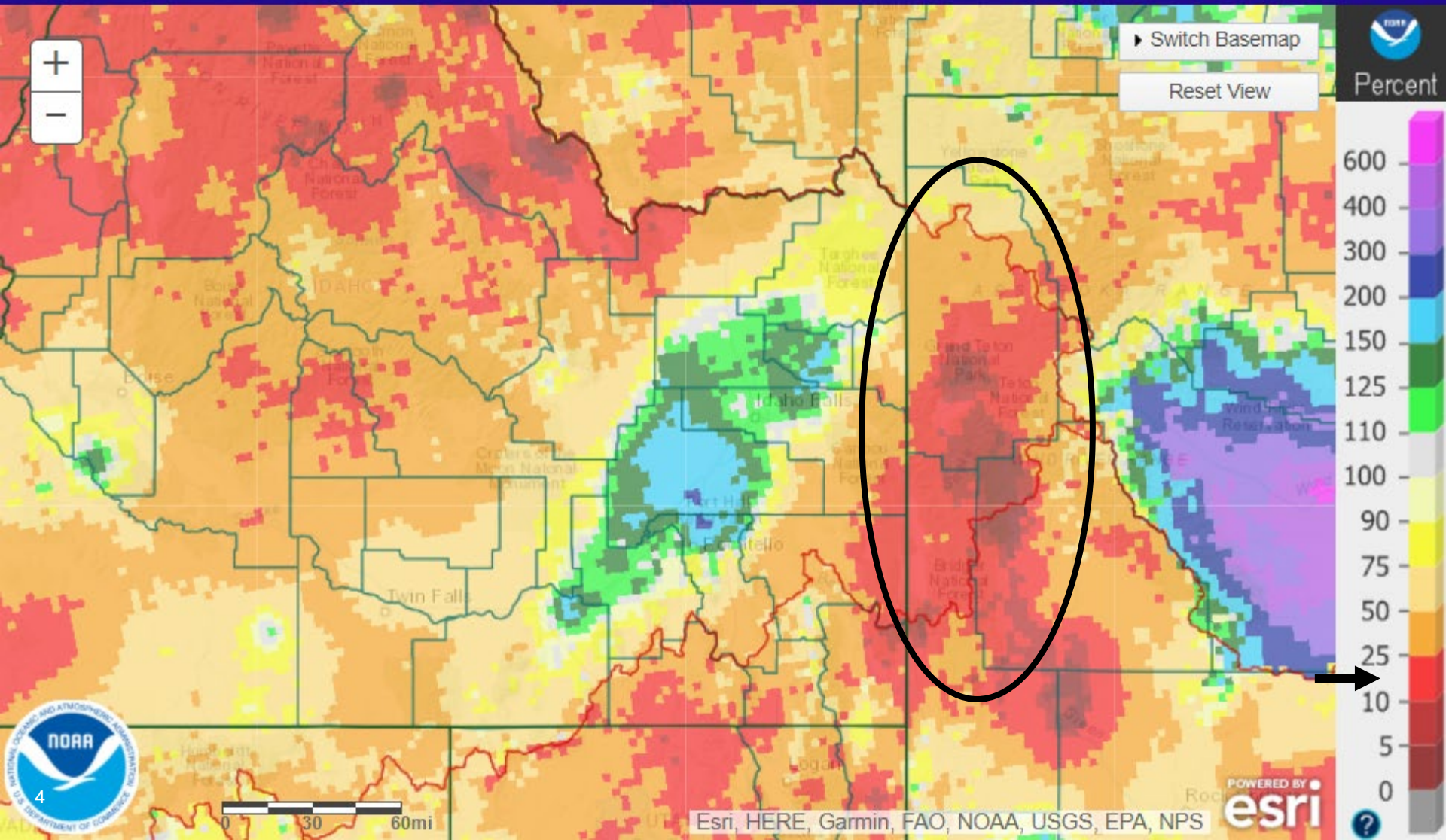
BOOKMARK



What is UTC time?

Map Help

Find address or location



April 2021 Percent Normal Precipitation

Displaying April, 2021 Monthly Percent of Normal Precipitation
Valid on: May 01, 2021 12:00 UTC



Print this map

Permalink

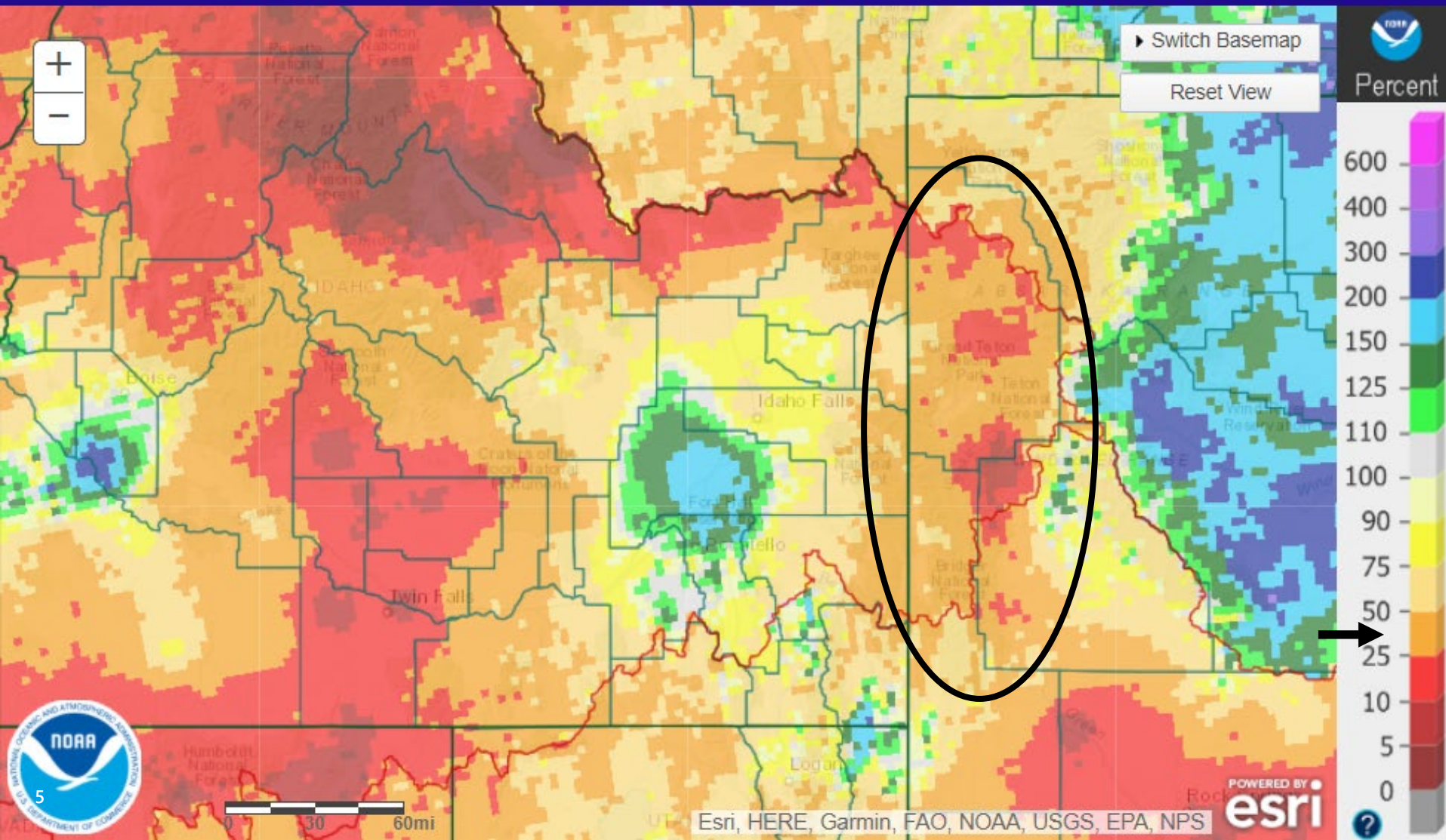
BOOKMARK



What is UTC time?

Map Help

Find address or location



Selected Stations: 1094

Water Year to Date Precipitation
Percent of POR Average
October 1, 2020 through May 9, 2021

≥ 200%
175%
150%
125%
100%
75%
50%
25%
≤ 0%
No basin value

Watershed Boundaries
— Subbasin (8-Digit HUC)
Sites with less than 10 years of data excluded

NRCS Natural Resources Conservation Service

30 km

Print/Export

Subbasins and their precipitation percentages (from left to right, top to bottom):

- Upper Middle Fork Salmon: 72%
- Upper Salmon: 70%
- North and Middle Forks Boise: 76%
- South Fork Boise: 72%
- Camas: 70%
- Big Wood: 64%
- Little Wood: 60%
- Upper Snake-Rock: 74%
- Twin Falls: 74%
- Snake Headwaters: 80%
- Grand Teton: 82%
- Gros Ventre: 84%
- Greys-Hoback: 78%
- Upper Green: 79%
- North Fork Shoshone: 90%
- South Fork Shoshone: 91%
- Upper Henrys: 72%
- Lower Henrys: 79%
- Teton: 82%
- Palisades: 89%
- Willow: 77%
- Blackfoot: 73%
- Salt: 78%
- Upper Green: 79%
- New Fork: 76%
- Portneuf: 69%
- American Falls: 70%
- Lake Walcott: 75%
- Big Lost: 59%
- Little Lost: 67%
- Birch: 69%
- Beaver-Camas: 62%
- Pahsimeroi: 73%
- South Fork Payette: 74%
- Red Rock: 74%

Date	Above Heise	Snake Headwaters	Gros Ventre	Greys-Hoback	Salt	Palisades	Upper Henrys	Lower Henrys	Teton	Willow Creek	Blackfoot	Portneuf	Little Wood
Mar 9	92%	88%	95%	91%	90%	108%	78%	89%	99%	85%	86%	72%	63%
Apr 6	89%	95%	91%	83%	84%	101%	78%	86%	92%	84%	81%	73%	60%
May 10	79%	80%	84%	78%	78%	89%	72%	79%	82%	77%	73%	69%	60%

Soil Moisture Trends

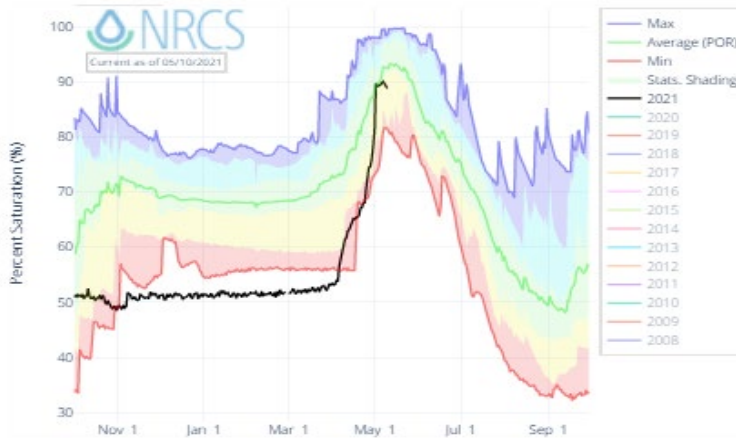
Crab Creek SNOTEL 6,900 ft.

Soil Moisture (8 in.)

91% of POR Average

May 9, 2021, end of day

Current Water Year



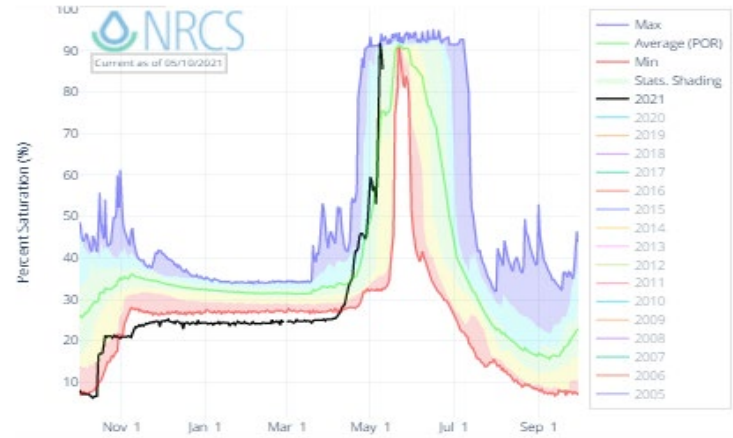
Lewis Lake Divide SNOTEL 7,850 ft.

Soil Moisture (8 in.)

106% of POR Average

May 9, 2021, end of day

Current Water Year



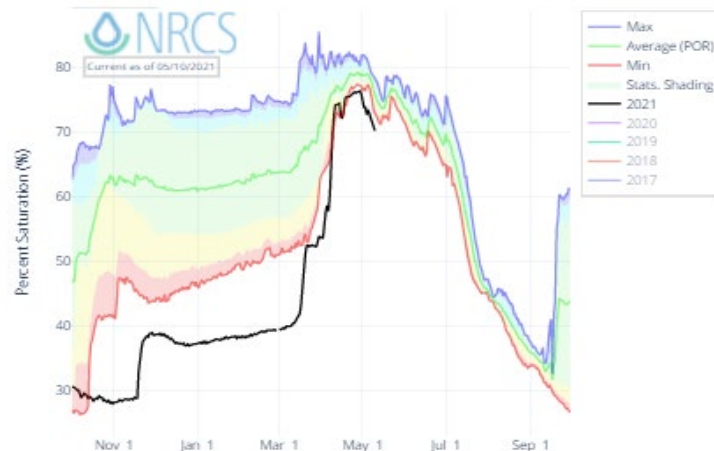
Island Park SNOTEL 6,290 ft.

Soil Moisture (8 in.)

91% of POR Average

May 9, 2021, end of day

Current Water Year



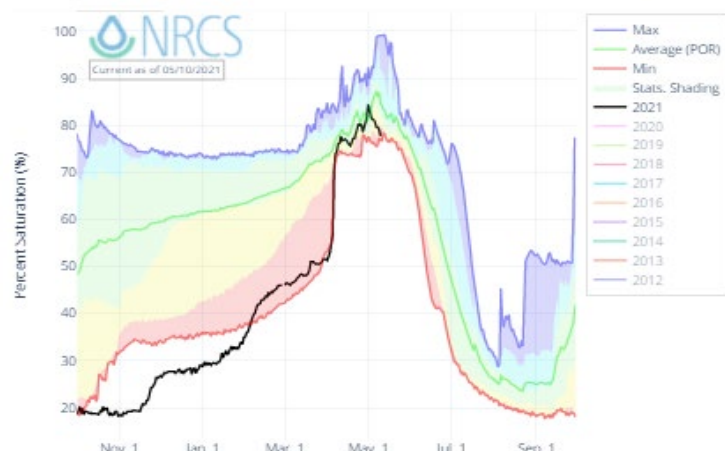
Salt River Summit SNOTEL 7,640 ft.

Soil Moisture (8 in.)

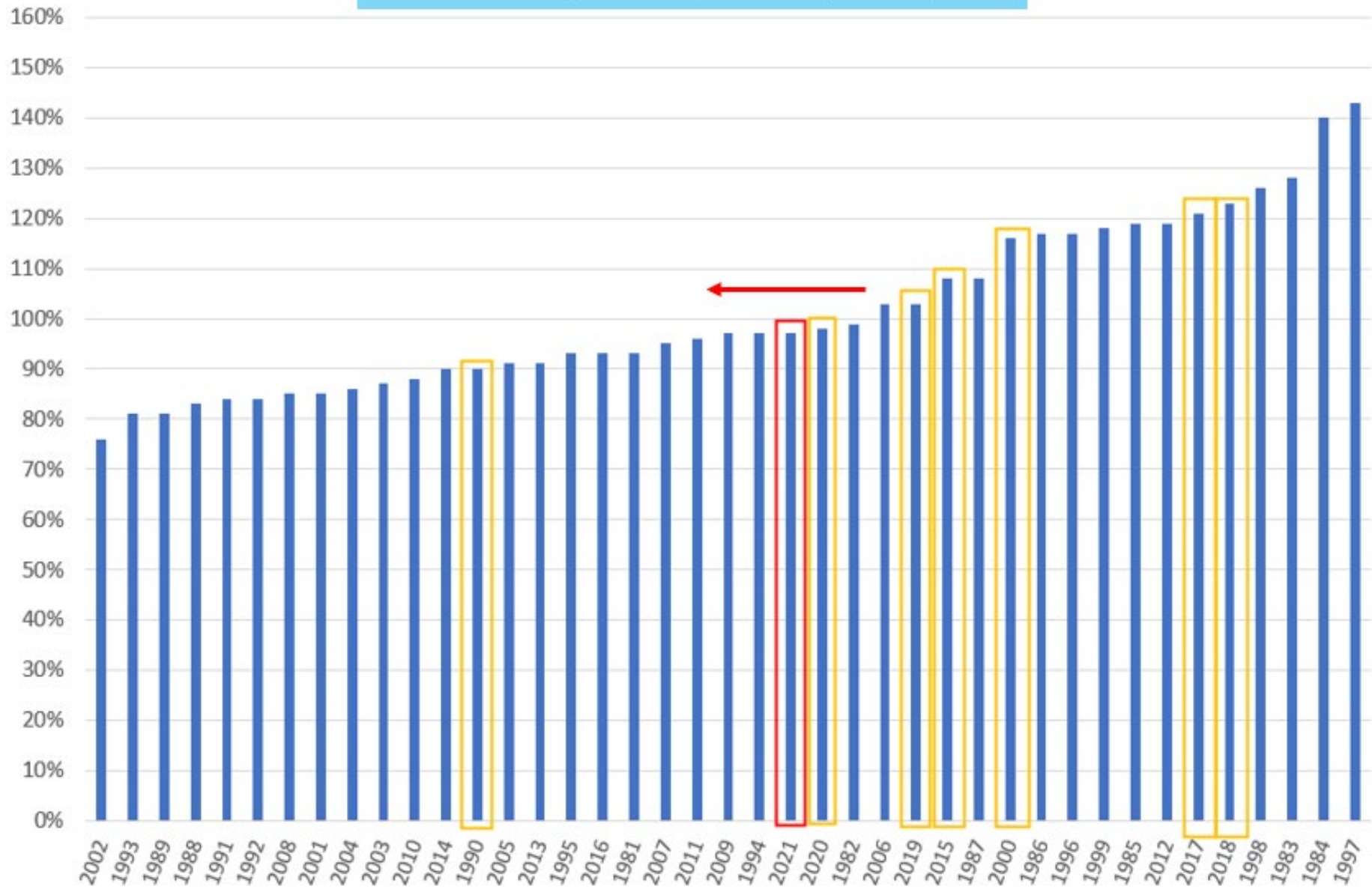
95% of POR Average

May 9, 2021, end of day

Current Water Year



December through February Baseflows, HEII QU, % Avg



2021 Forecasts

CURRENT MONTHLY FORECAST SUMMARY MAY 1, 2021

FORECAST POINT	FORECAST PERIOD	1981-2010 AVERAGE (KAF)	NORMAL SUBSEQUENT CONDITIONS	
			FORECAST (KAF)	PERCENT NORMAL
*** HEISE	MAY-JUL	2843	2100	74%
JACKSON LAKE	MAY-JUL	698	508	73%
ISLAND PARK	MAY-JUL	173	109	63%
** TETON	MAY-JUL	328	192	59%
*** RIRIE	MAY-JUN	43	12	28%
*** LITTLE WOOD	MAY-JUL	55	20	36%

* PCA Forecast

** Average of some or all of the following: PCA, MLR, RFC

*** Coordinated with USACE

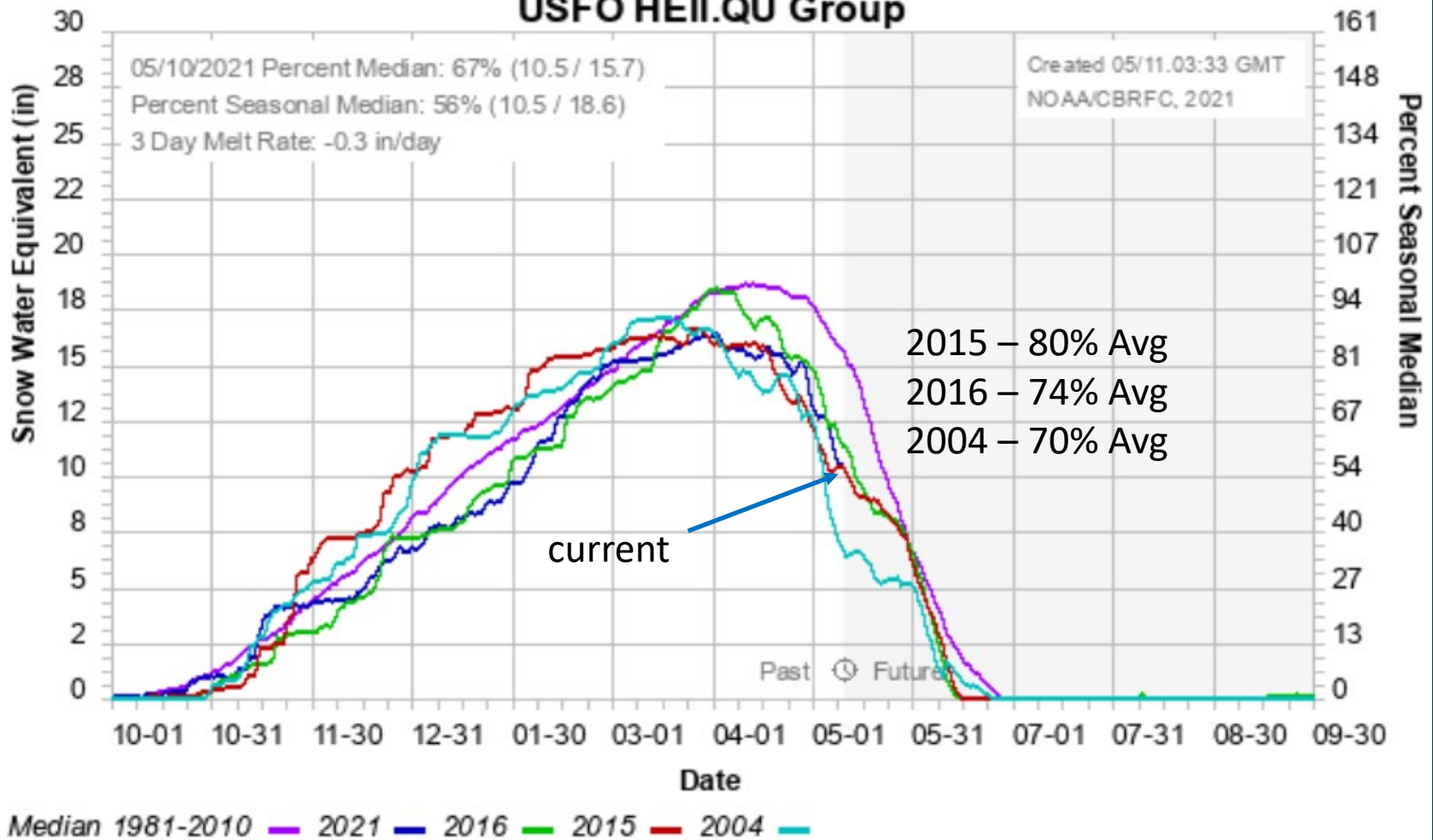
**** RFC or NRCS

2021 % of Normal Progression of Forecasts

Date	Heise	Jackson Lake	Island Park	Teton	Ririe	Little Wood
Mar	94%	90%	84%	89%	88%	61%
Apr	80%	80%	81%	83%	69%	41%
May	74%	73%	63%	59%	28%	36%



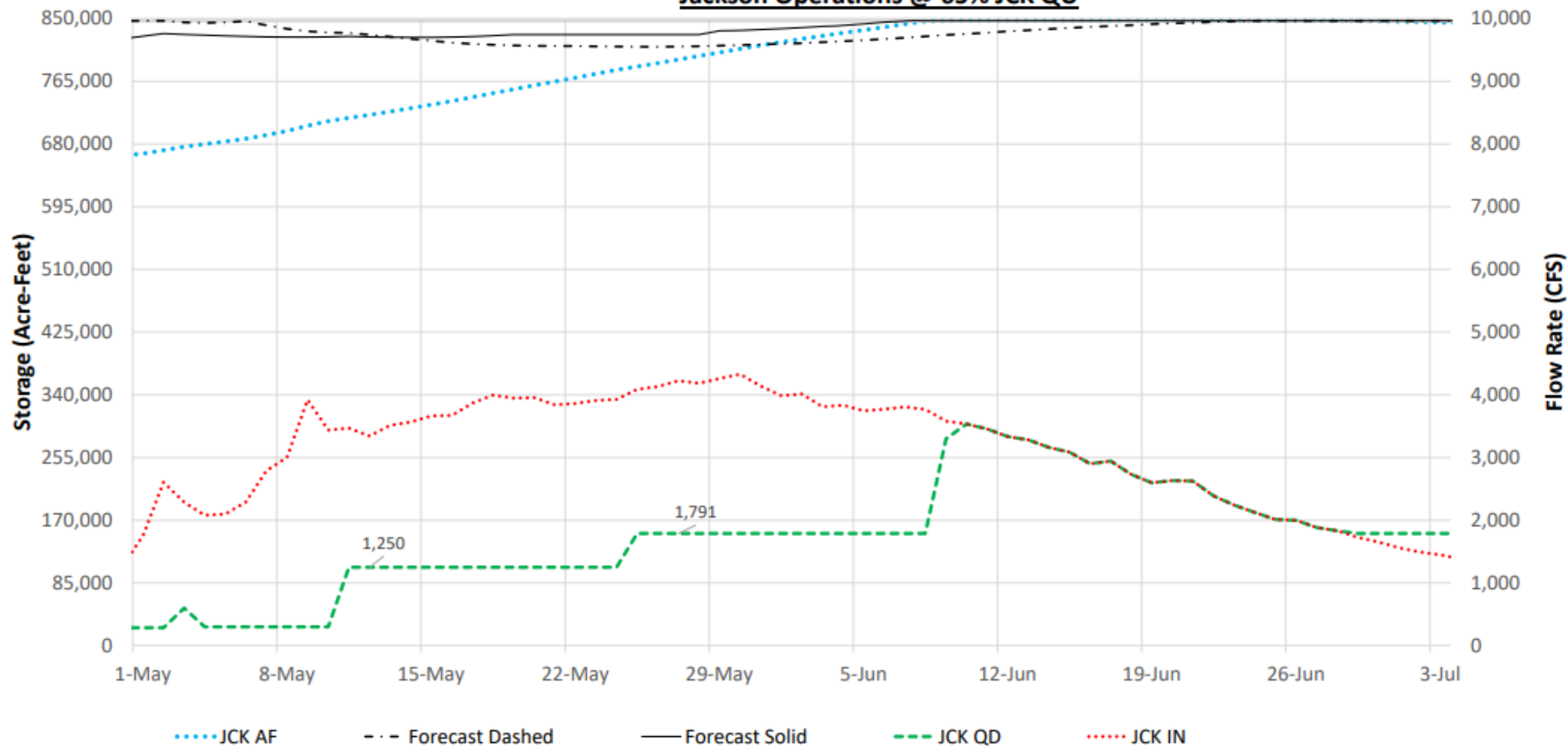
Colorado Basin River Forecast Center USFO HEILQU Group



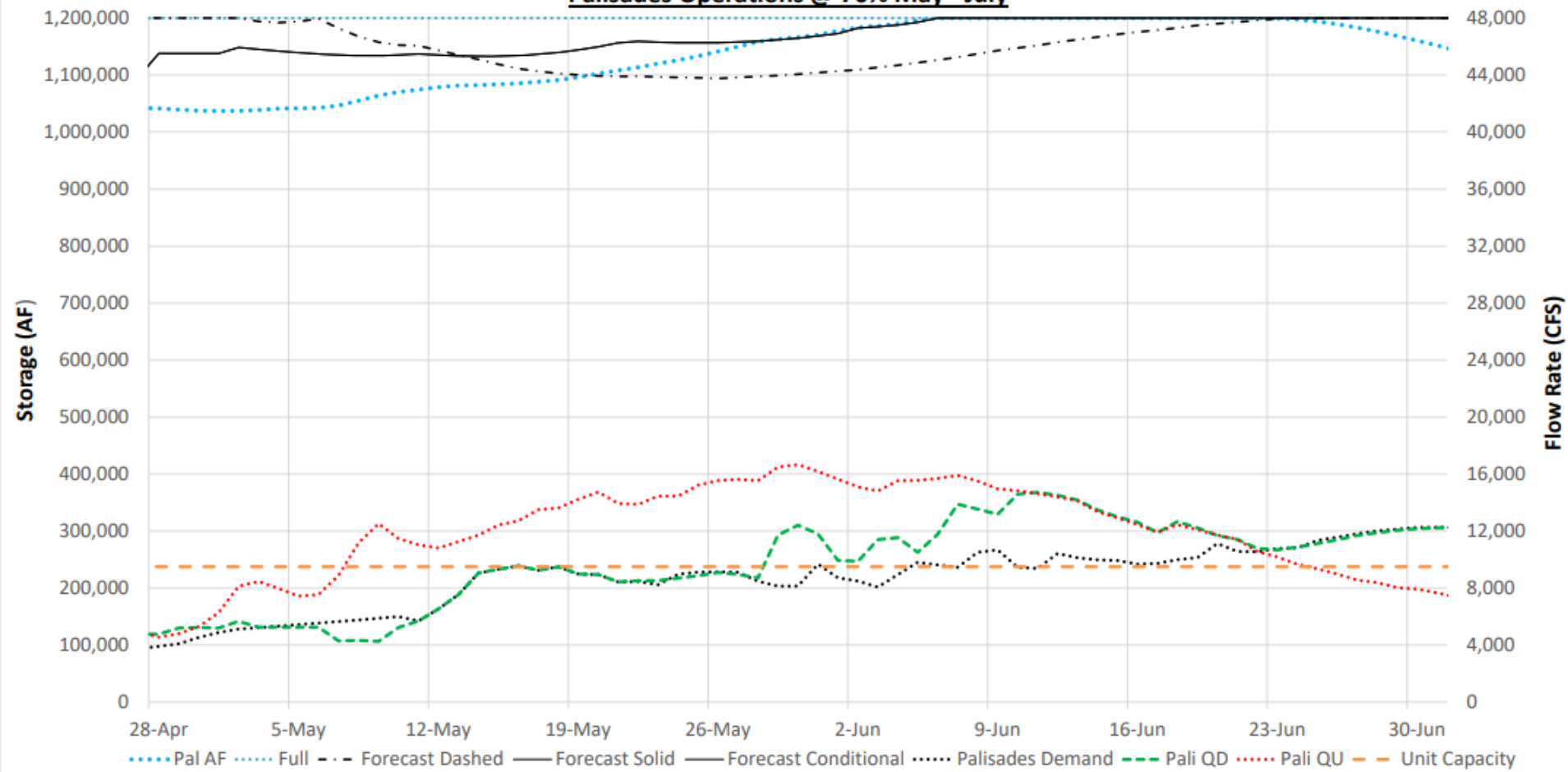
- *2015 type year – approximately 150 kaf space mid-May
- *2004 type year – approximately 0-50 kaf space mid-May
- *currently 325 kaf space



Jackson Operations @ 65% JCK QU



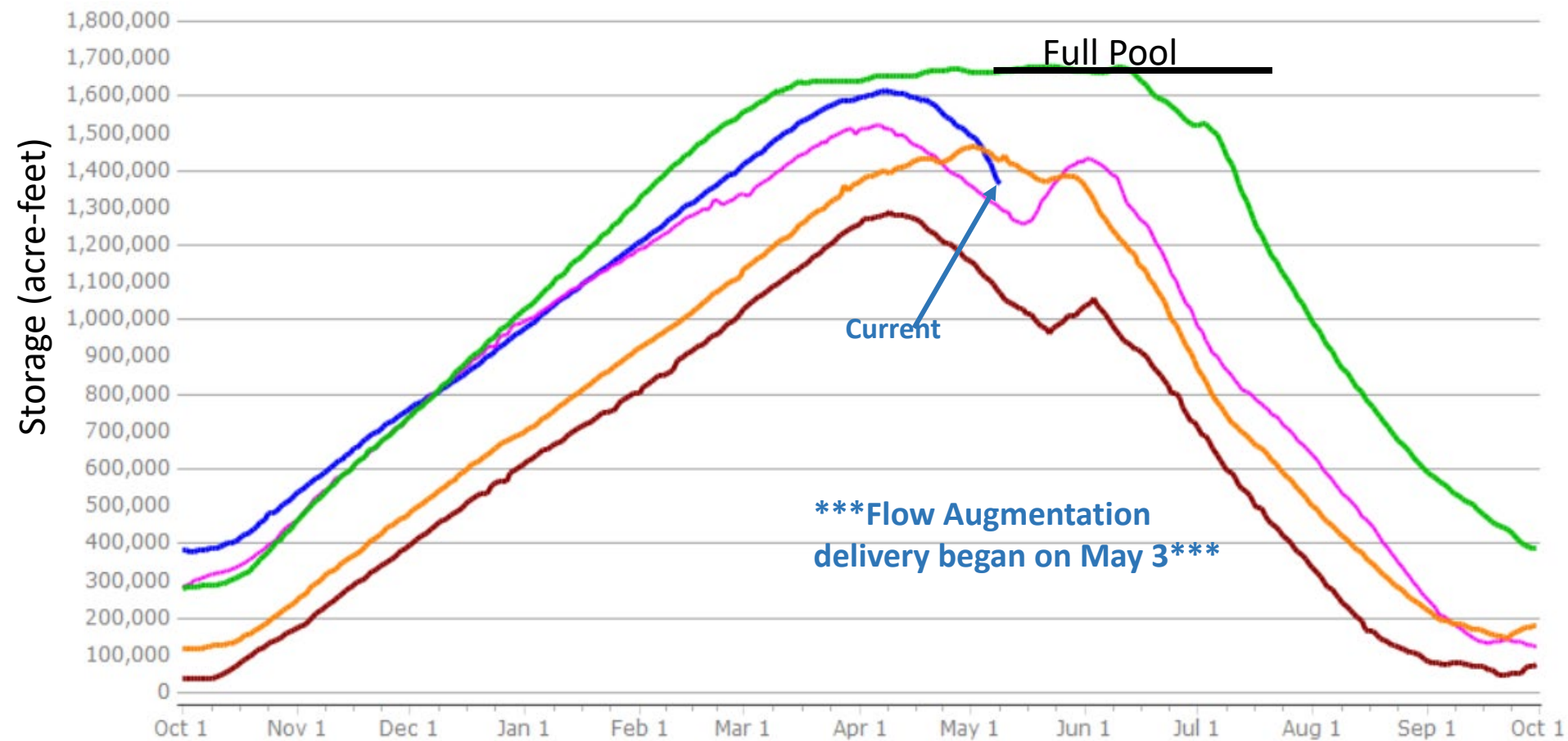
Palisades Operations @ 70% May - July



2004-01-29 794034.63

American Falls Reservoir at American Falls, ID Elevation:4370.000

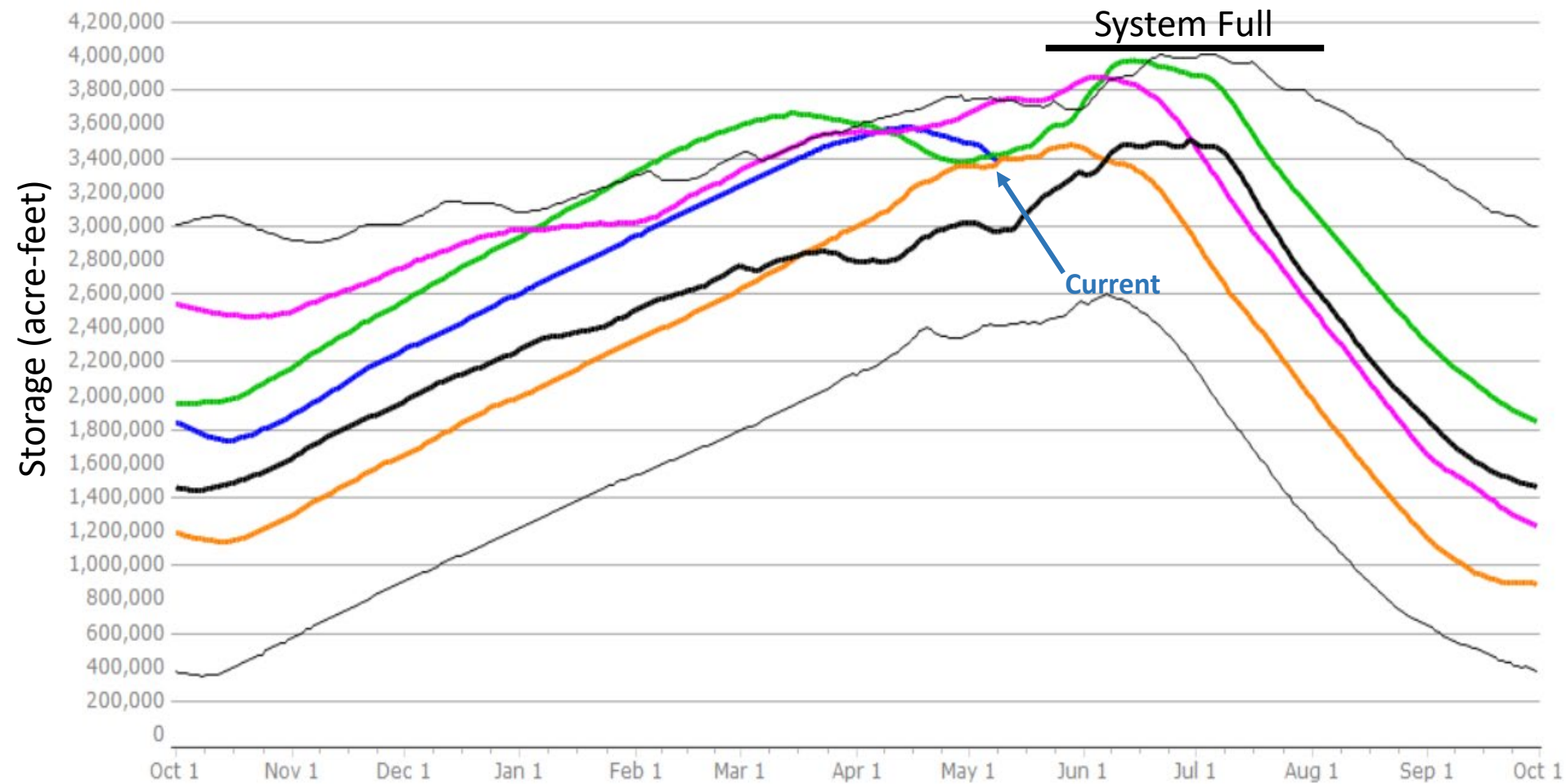
2021 2015 2016 2004 2020



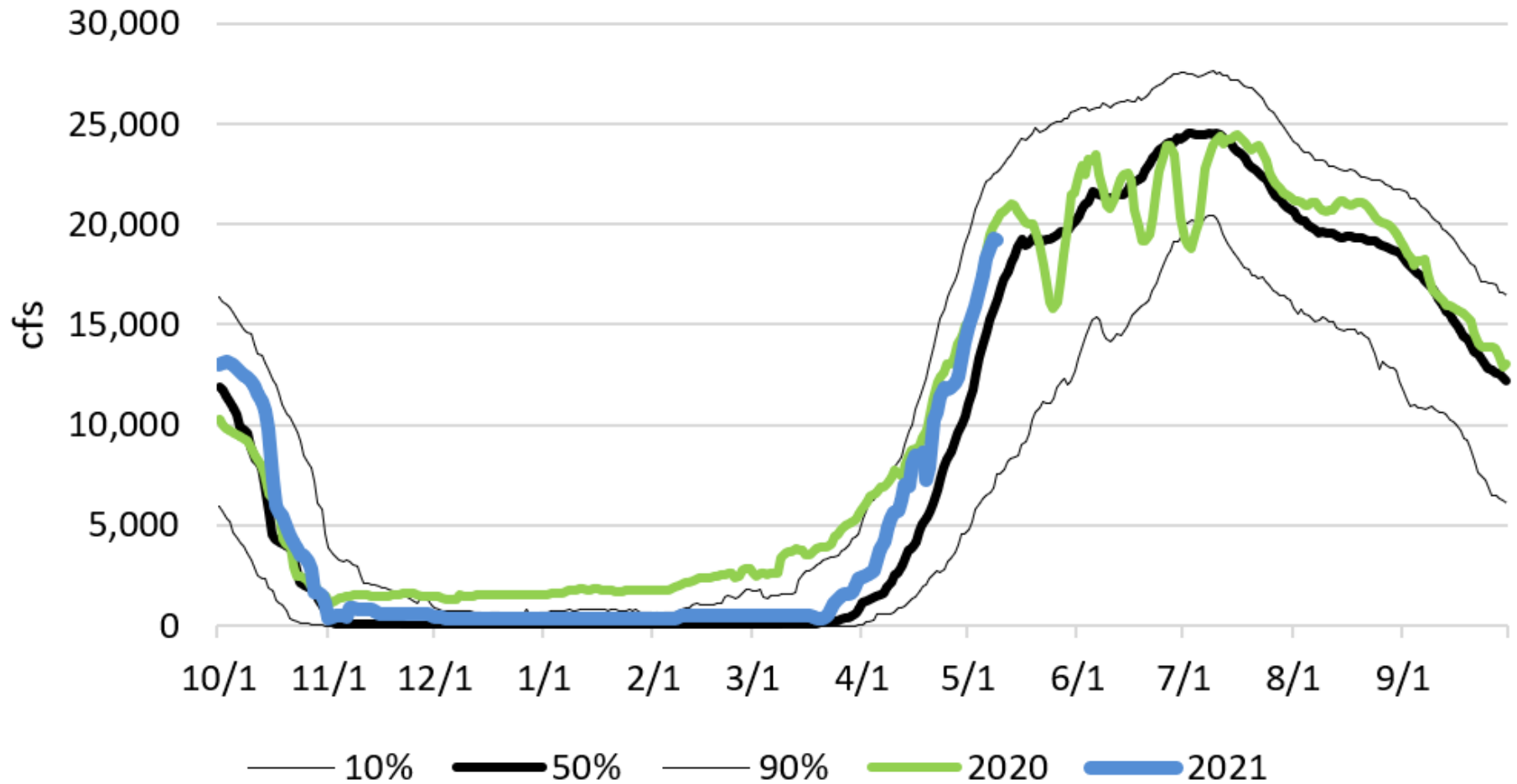
2021-04-14 3581239

Upper Snake Total System Storage

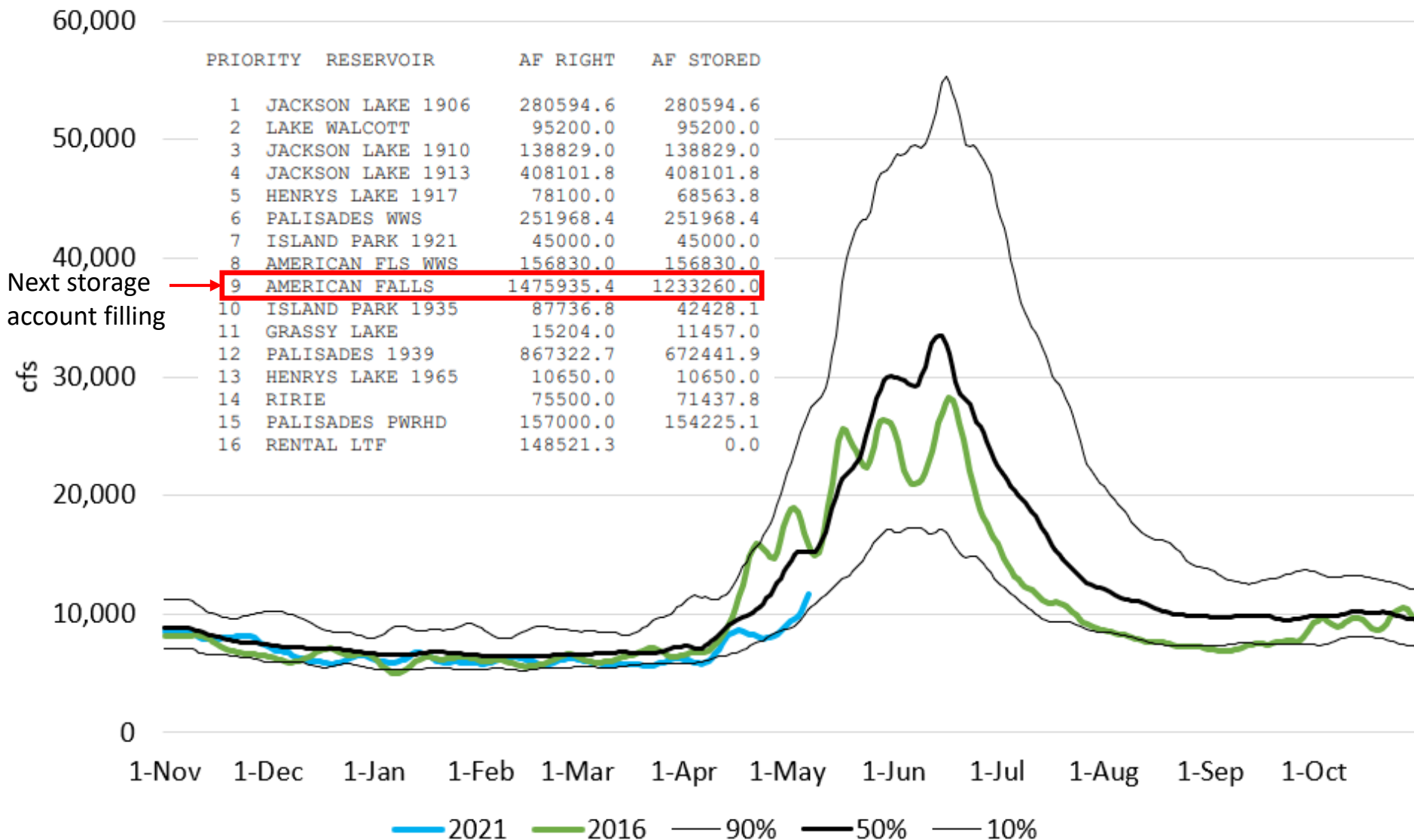
■ 2021 ■ 2020 ■ 2000 ■ 2016 — 10% — 50% — 90%



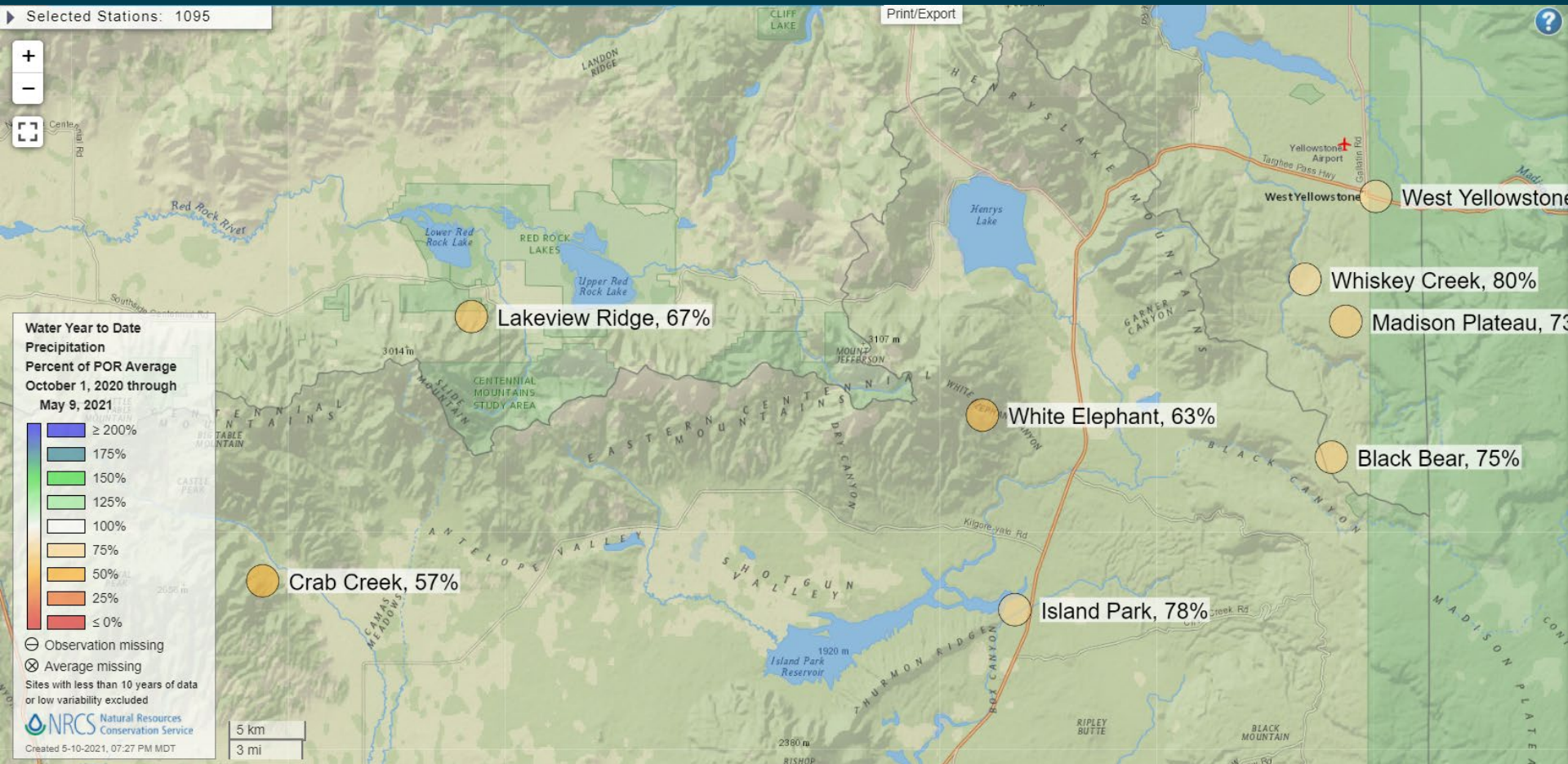
Upper Snake Diversions



Upper Snake Natural Flow



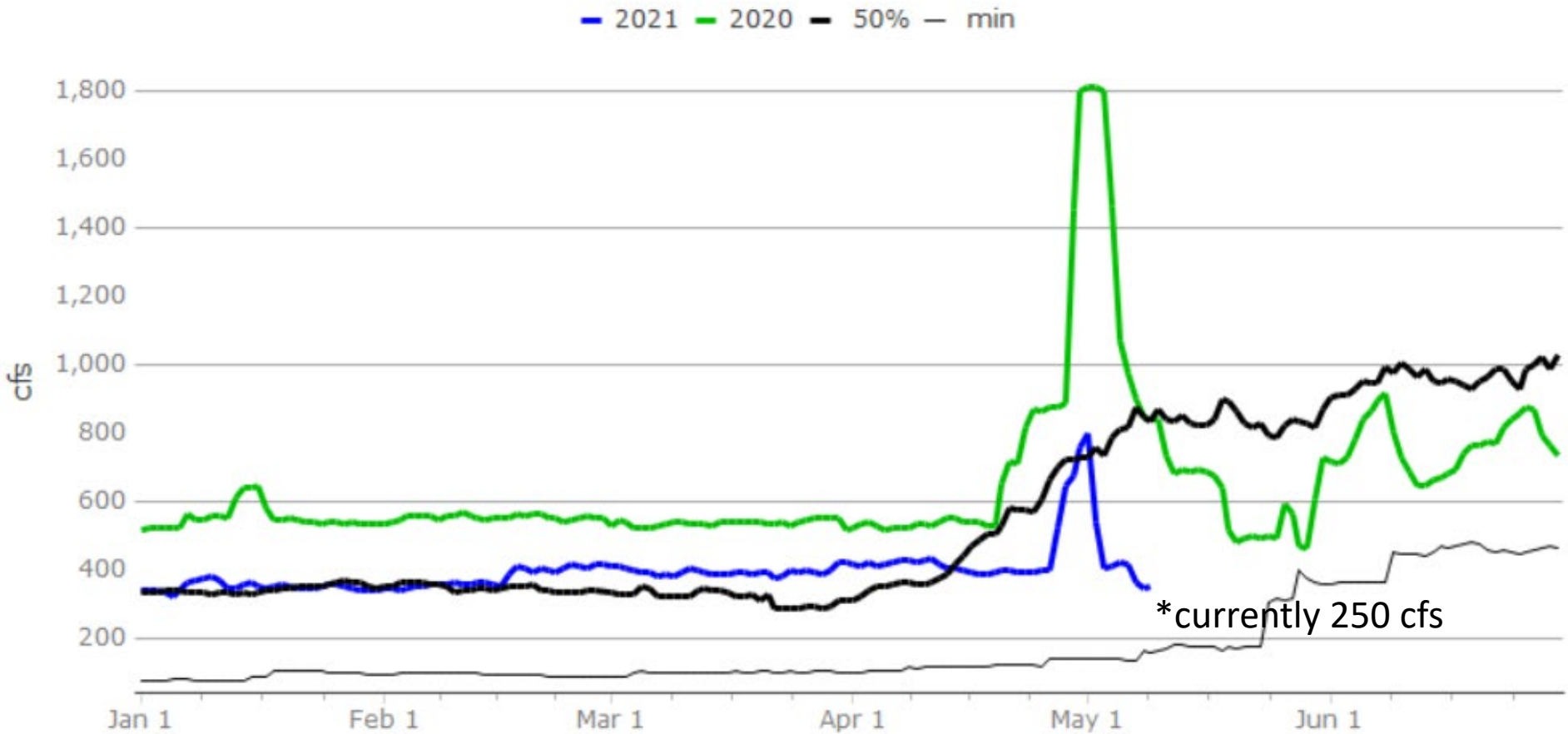
Island Park Operations



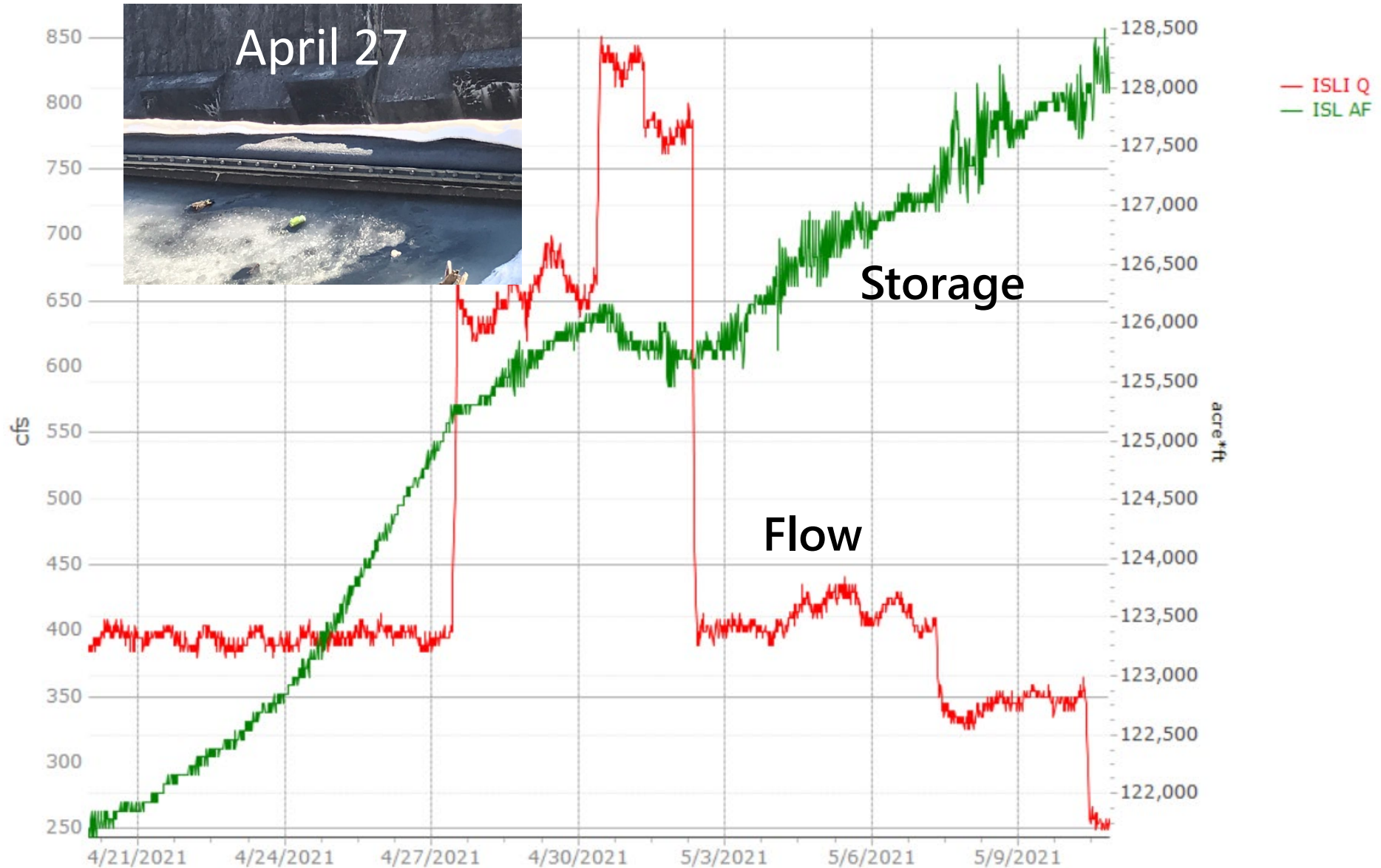
Island Park Outflow

min-03-09 98.1

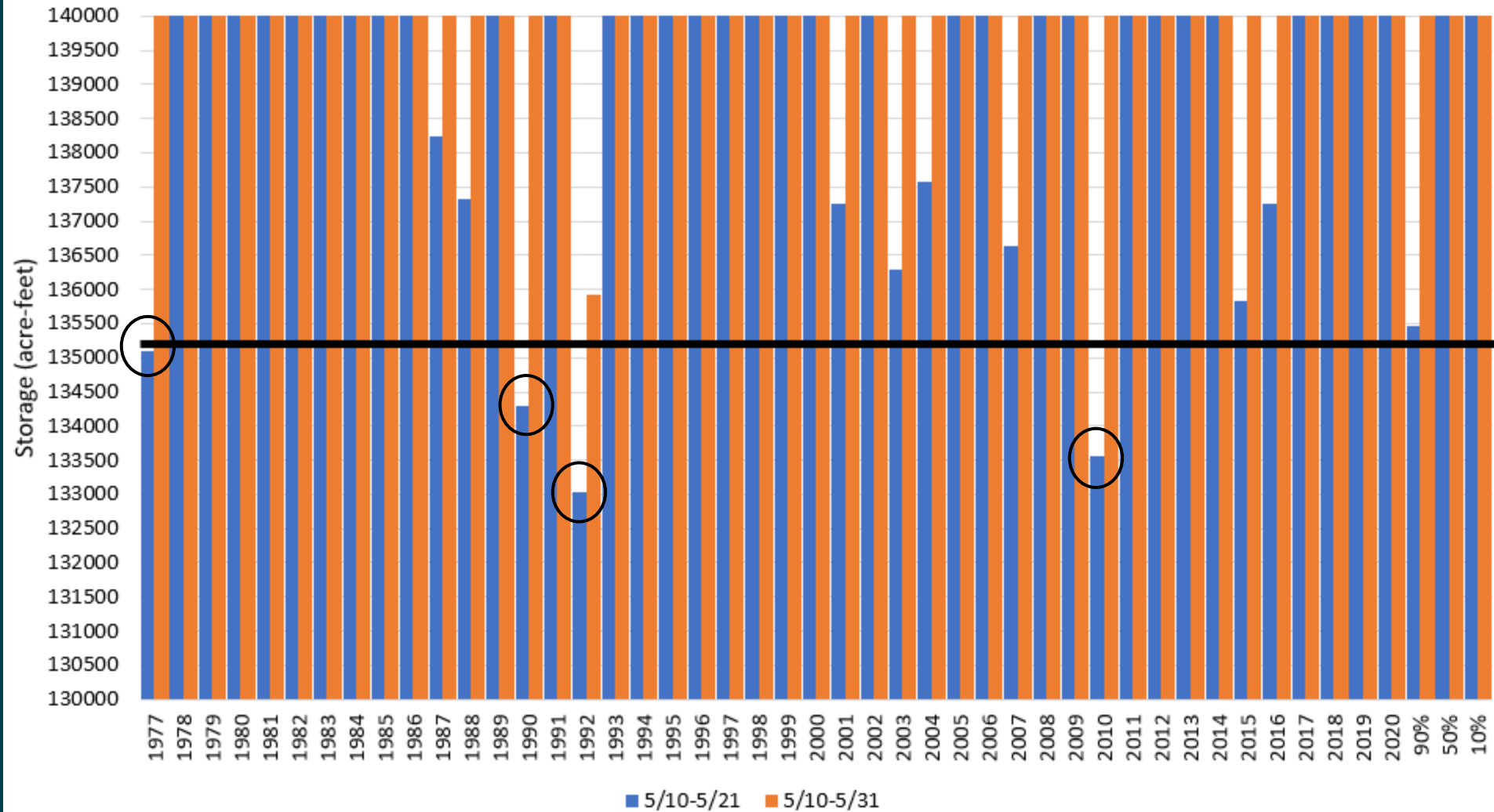
Henrys Fork near Island Park, ID Elevation:6225.000



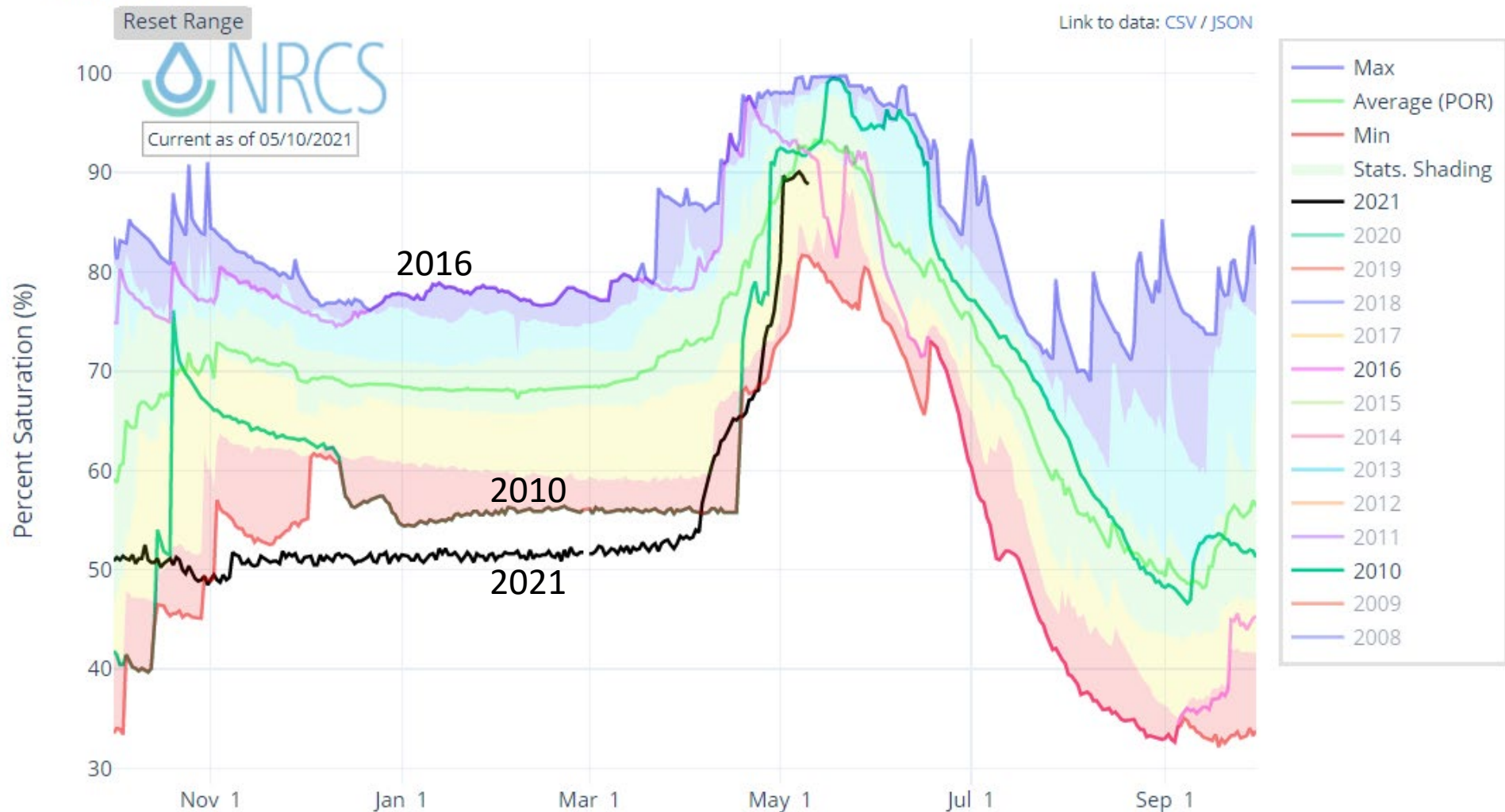
Icing Concerns



Island Park Fill at current outflow



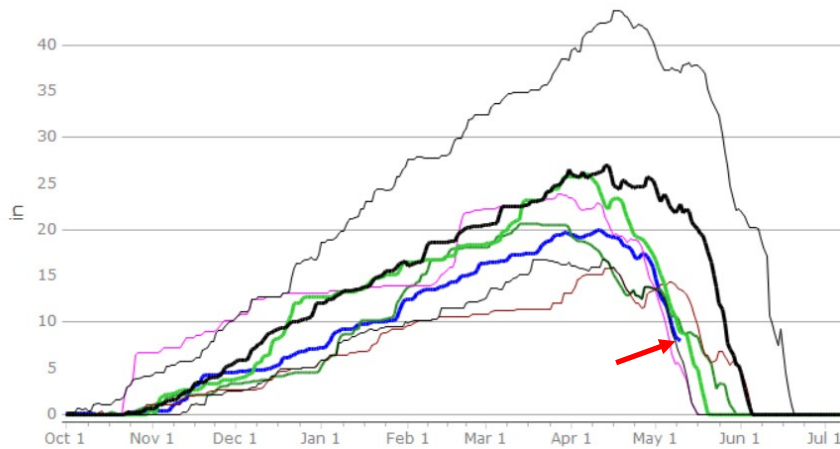
DEPTH AVERAGED SOIL SATURATION AT CRAB CREEK



2021-01-23 10.1

WHITE ELEPHANT Elevation:7710.000

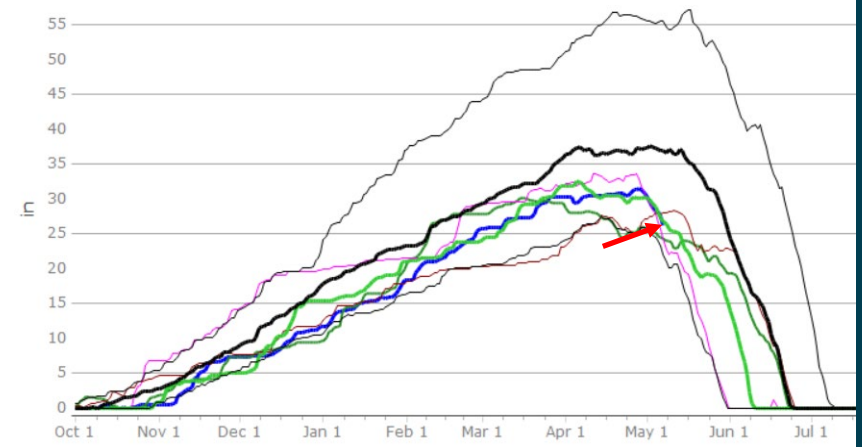
2021 1990 1992 2010 2016 10% 50% 90%



2010-03-11 20.5

BLACK BEAR Elevation:8150.000

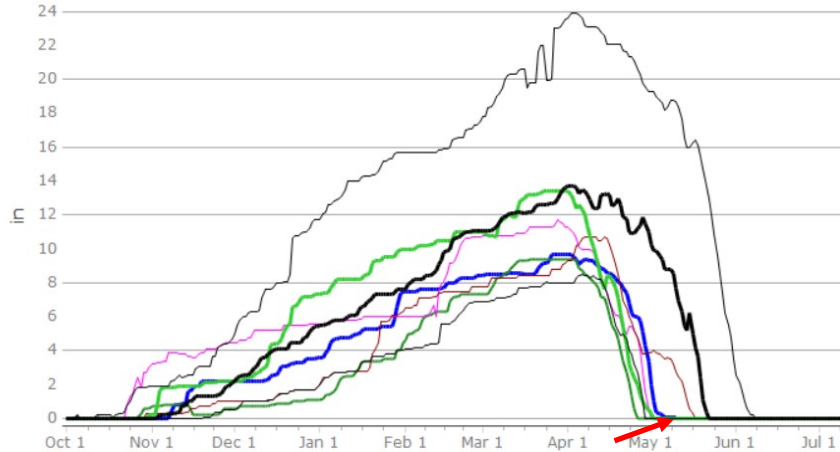
2021 1990 1992 2010 2016 10% 50% 90%



1990-03-07 8.3

CRAB CREEK Elevation:6860.000

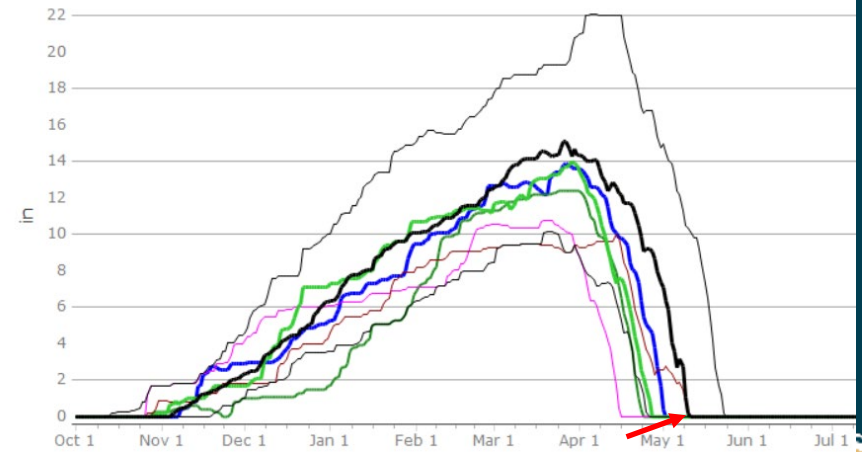
2021 1990 1992 2010 2016 10% 50% 90%



1990-06-27 0

ISLAND PARK Elevation:6290.000

2021 1990 1992 2010 2016 10% 50% 90%



Operational Outlook

- Jackson Lake likely to fill mid-June, outflow increasing until fill.
 - Jackson Lake drawdown this fall, 1 foot lower than maximum winter pool, for gate inspections.
- Palisades likely to fill mid-June, outflow increasing until fill.
- Ririe unlikely to fill, began discharging 50 cfs natural flow yesterday.
- Island Park targeting to fill later this month.
- American Falls likely to see low reservoir levels in the fall.
- Currently sending 3,000 cfs by Milner Dam for flow augmentation.



For More Information

Snake River Area Office

- Lanie Paquin - Area Manager
208-383-2246
mpaquin@usbr.gov

Upper Snake Field Office

- Mike Hilliard – Field Office Manager
208-678-0461 (x34)
mhilliard@usbr.gov
- (in process of being filled) – Resource Manager (x15)
- Brian Stevens – Water Operations Group Manager (x24)
bstevens@usbr.gov
- Jeremy Dalling - Reservoir Operations Lead (x25)
jdalling@usbr.gov
- Darrin Fredrickson - Staff Assistant (x17)
dfredrickson@usbr.gov

Snake River Operations Web Sites

- Upper Snake water information site -
<http://www.usbr.gov/pn/hydromet/uppersnake/index.html>
- USBR HydroMet - <http://www.usbr.gov/pn/hydromet/>
- Northwest River Forecast Center - <http://www.nwrfc.noaa.gov/rfc/>
- NRCS SNOTEL Data - <http://www.id.nrcs.usda.gov/snow/>

