

RECLAMATION

Managing Water in the West

Upper Snake Water Supply Outlook and Reservoir Operations 2017

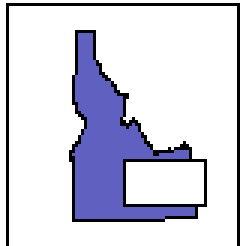
(Jackson and Palisades)

Jackson, Wyoming
May 18, 2017

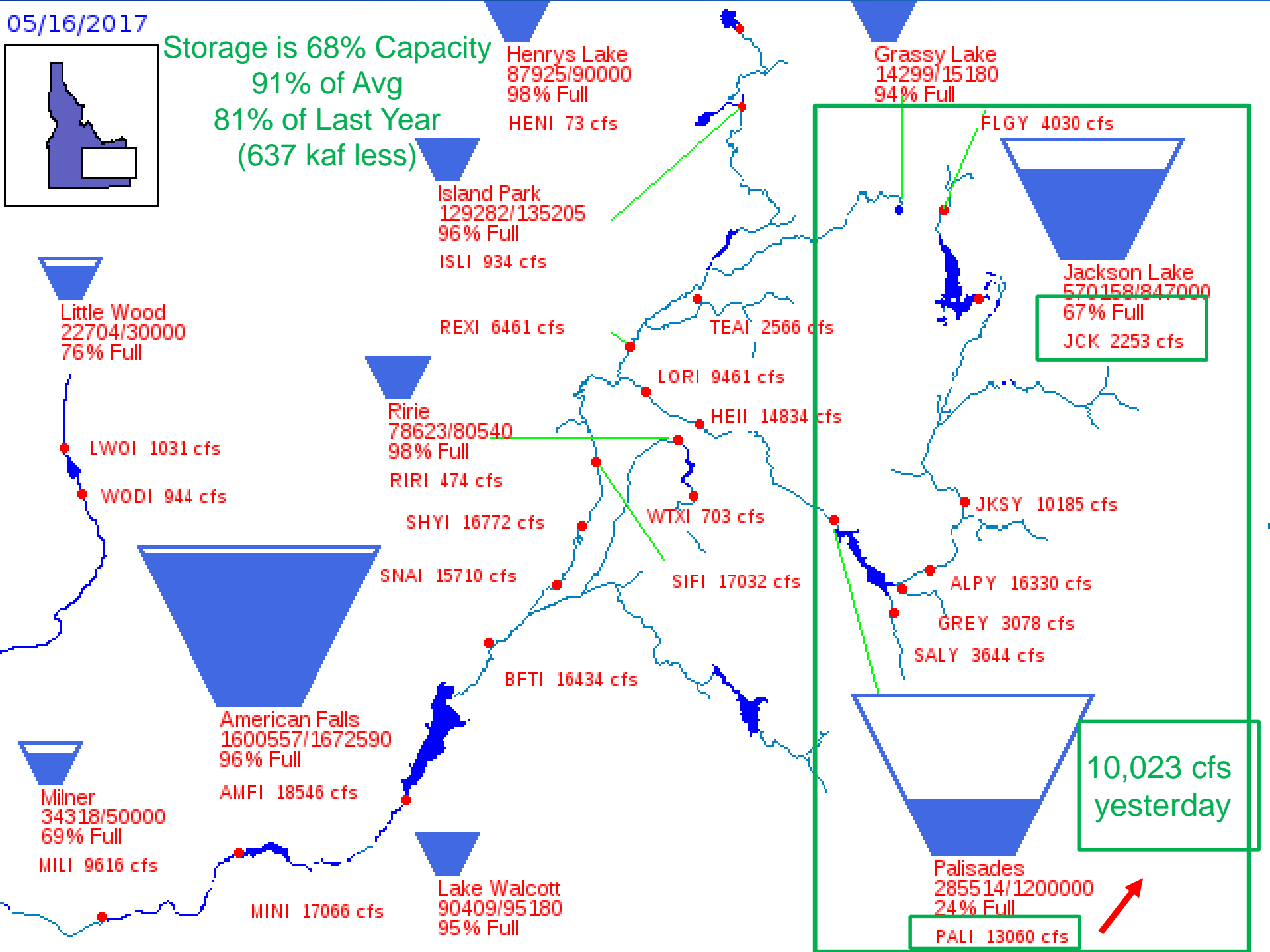


U.S. Department of the Interior
Bureau of Reclamation

05/16/2017



Storage is 68% Capacity
91% of Avg
81% of Last Year
(637 kaf less)



Henry's Lake
87925/90000
98% Full
HENI 73 cfs

Grassy Lake
14299/15180
94% Full

Island Park
129282/135205
96% Full
ISLI 934 cfs

FLGY 4030 cfs



Jackson Lake
570158/847000
67% Full
JCK 2253 cfs

Little Wood
22704/30000
76% Full

REXI 6461 cfs

TEAI 2566 cfs

LWOI 1031 cfs

LORI 9461 cfs

WODI 944 cfs

Ririe
78623/80540
98% Full
RIRI 474 cfs

HEII 14834 cfs



American Falls
1600557/1672590
96% Full

SHYI 16772 cfs

WTXI 703 cfs

SNAI 15710 cfs

SIFI 17032 cfs

BFTI 16434 cfs

JKSY 10185 cfs

ALPY 16330 cfs

GREY 3078 cfs

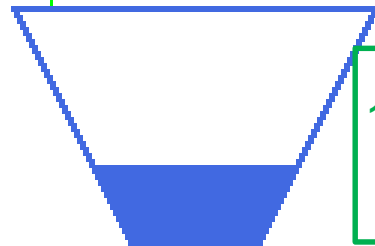
SALY 3644 cfs

Milner
34318/50000
69% Full
MILI 9616 cfs

AMFI 18546 cfs

MINI 17066 cfs

Lake Walcott
90409/95180
95% Full



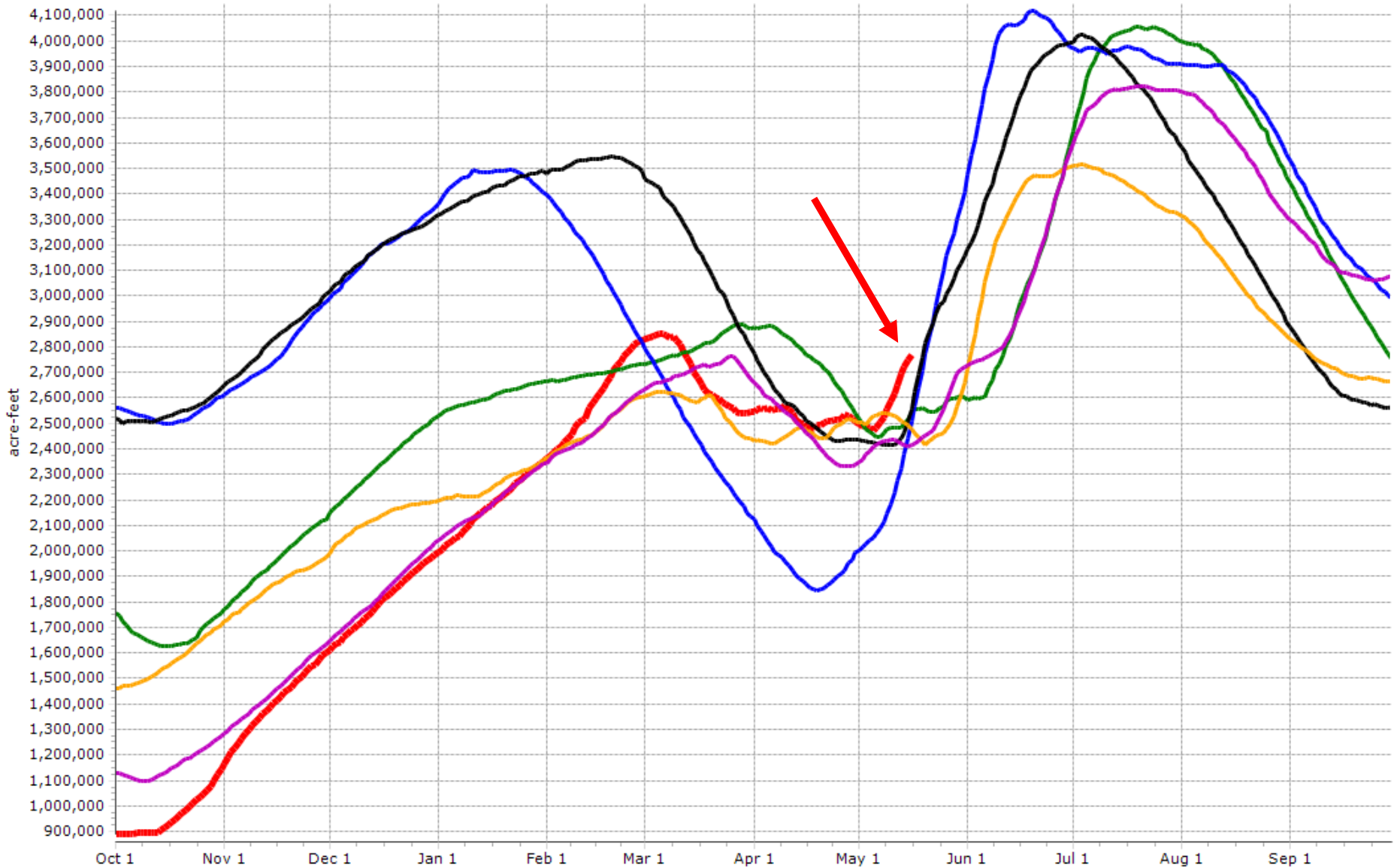
Palisades
28514/1200000
24% Full
PALI 13060 cfs

10,023 cfs
yesterday



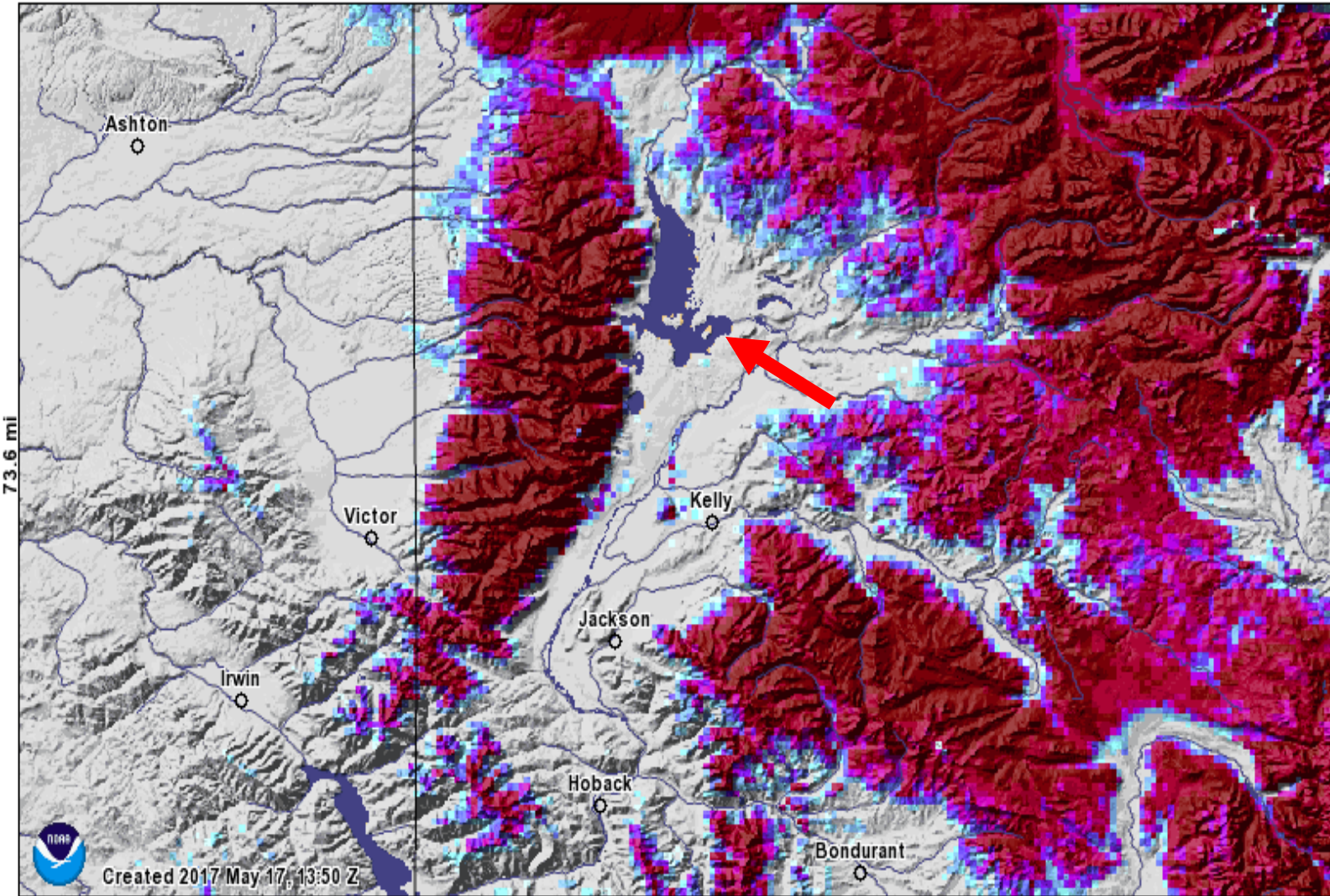
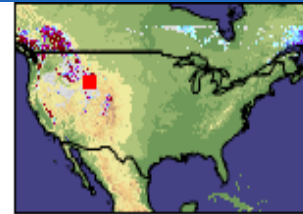
Total Upper Snake Storage

2017 2011 1997 1996 1986 1982

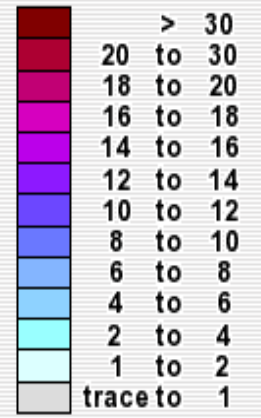


Modeled Snow Water Equivalent forecasted for 2017 May 17, 16:00 UTC

93.9 mi

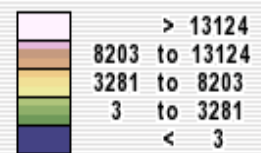


Inches of water equivalent



Not Estimated

Elevation in feet

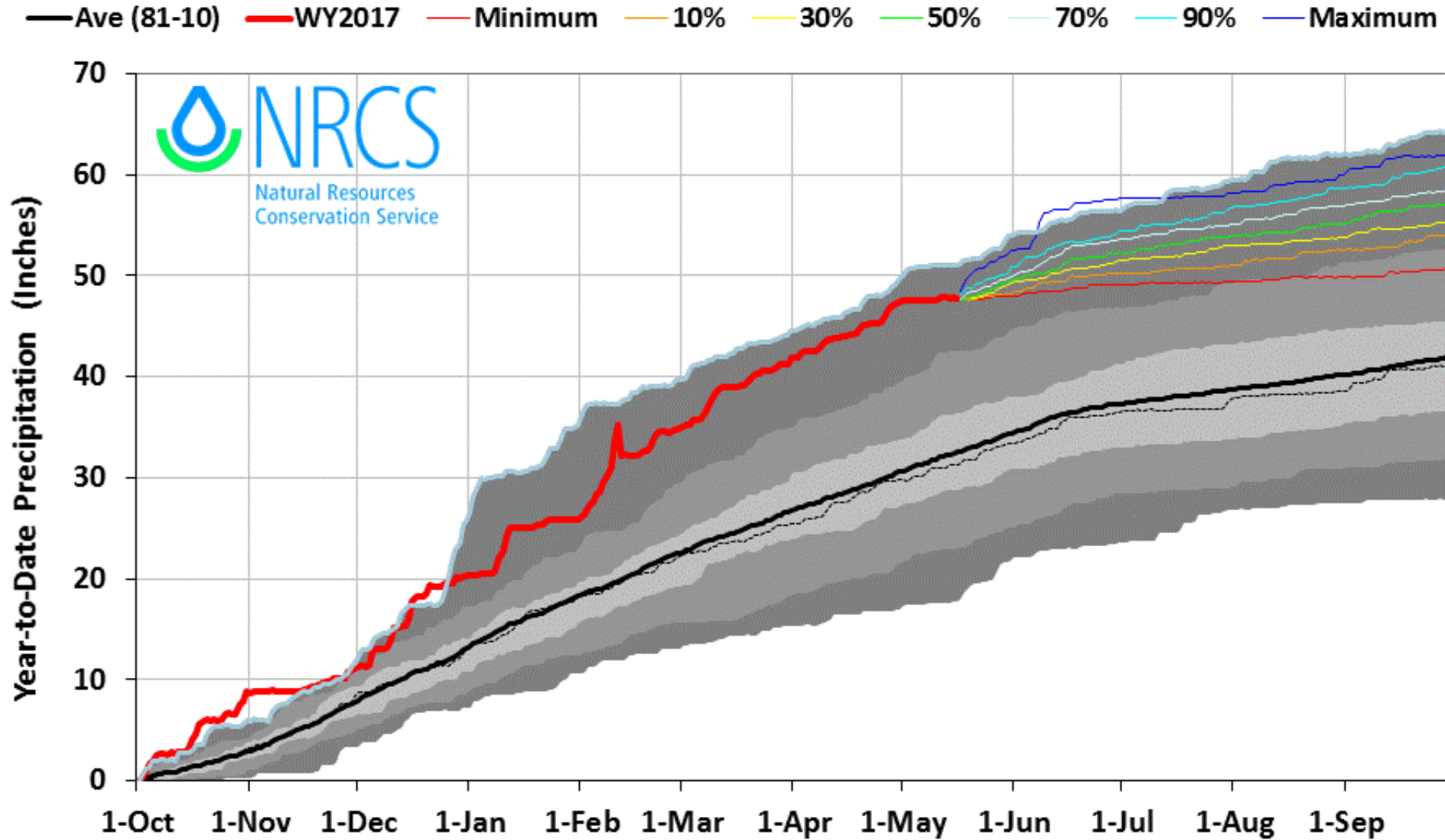


Created 2017 May 17, 13:50 Z



Snake Basin above Jackson Lake 2017 Precipitation with Non-Exceedence Projections (5 sites)

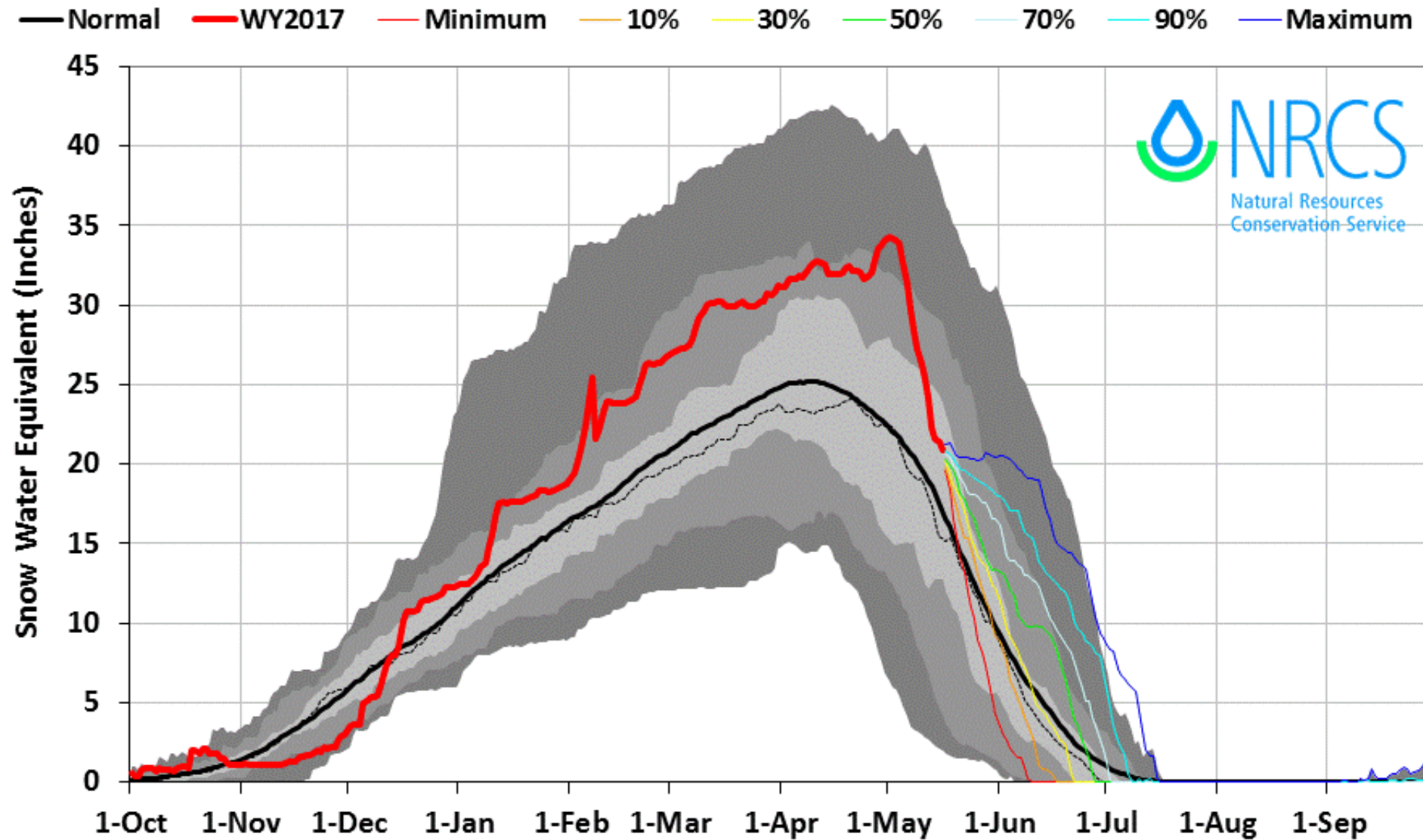
Based on Provisional SNOTEL data as of May 16, 2017



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Snake Basin above Jackson Lake 2017 Snow Water with Non-Exceedence Projections (5 sites)

Based on Provisional SNOTEL data as of May 16, 2017

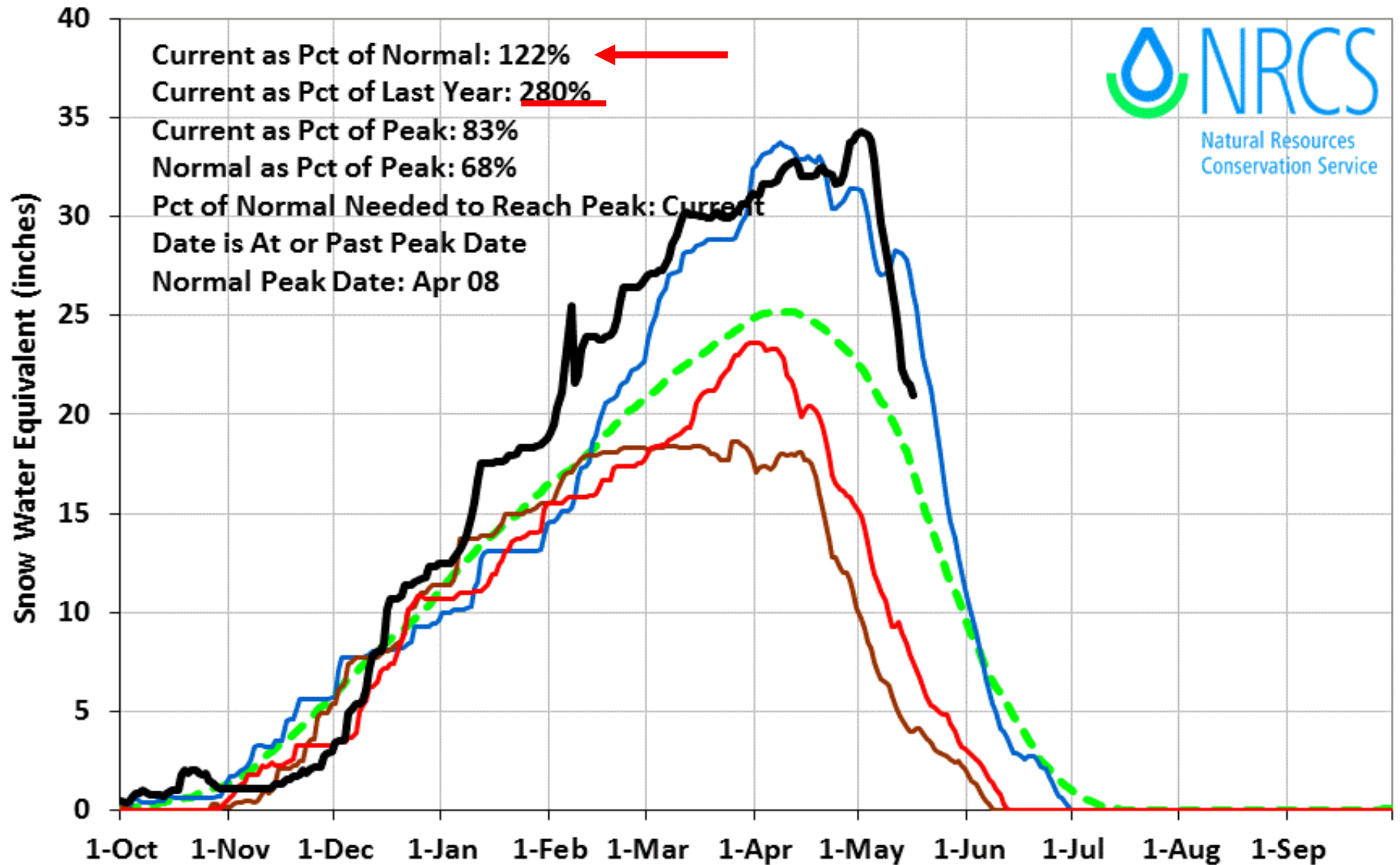


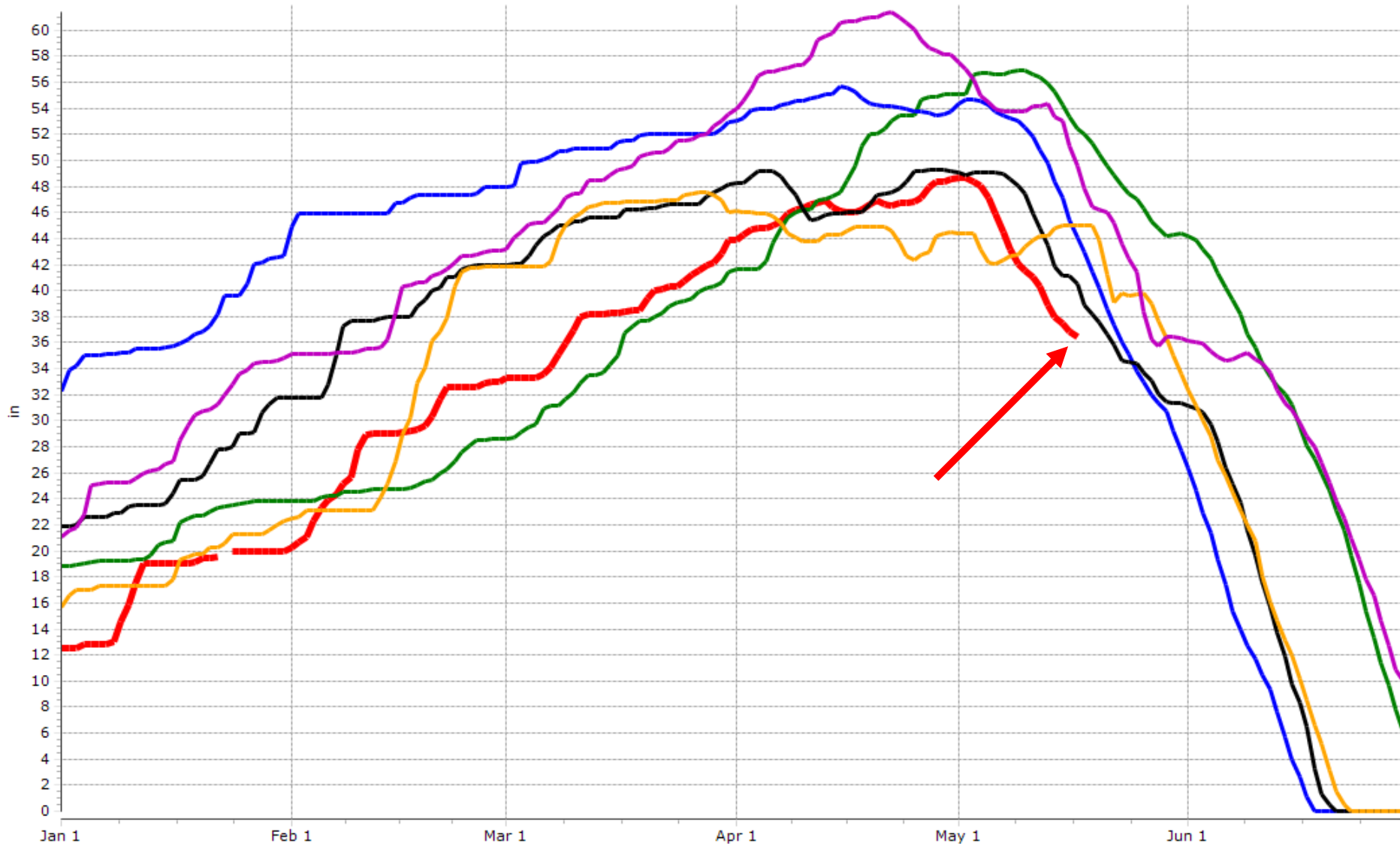
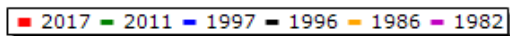
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Snake Basin above Jackson Lake 2017 Snowpack Comparison Graph (5 sites)

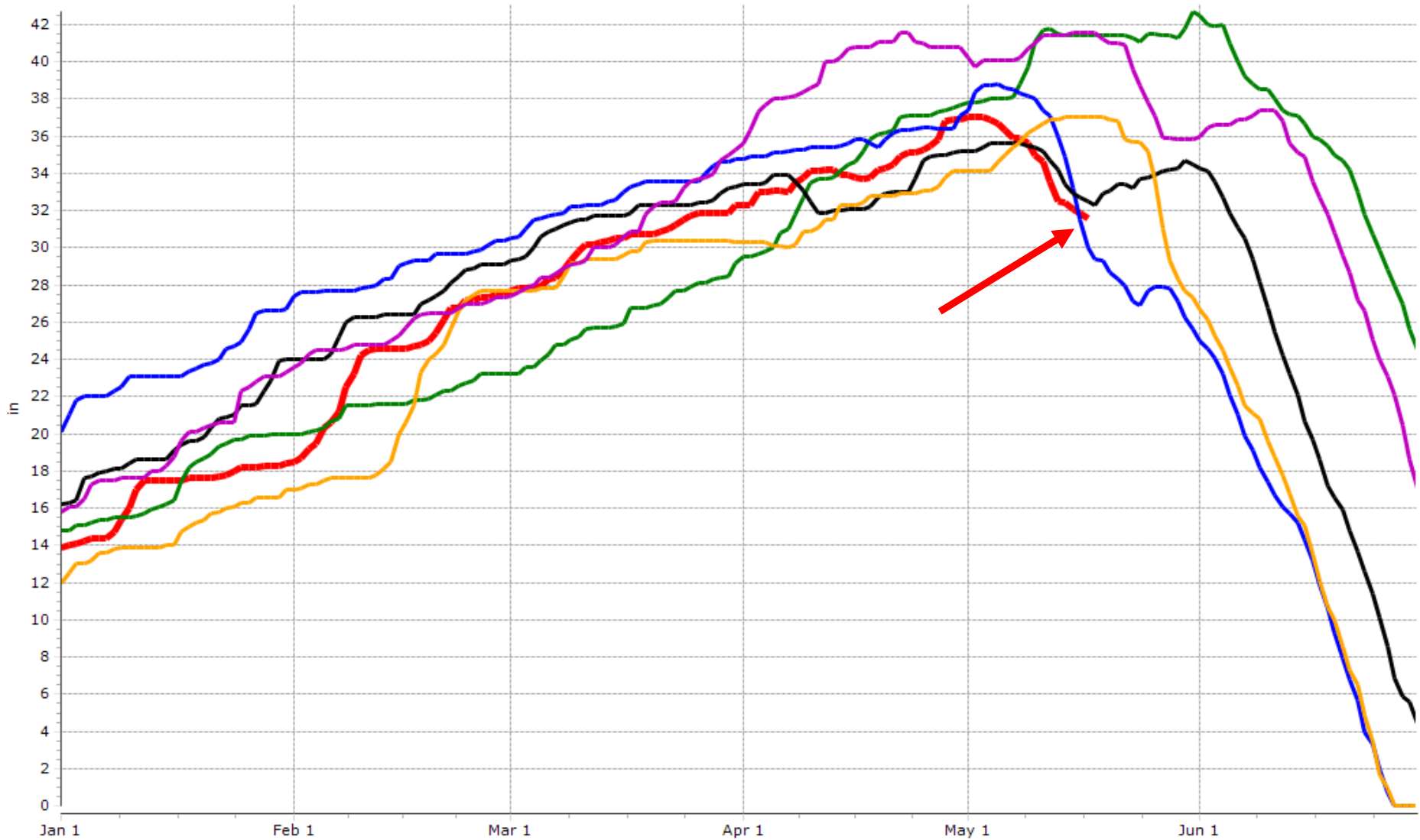
Based on Provisional SNOTEL data as of May 16, 2017

Normal WY2014 WY2015 WY2016 WY2017

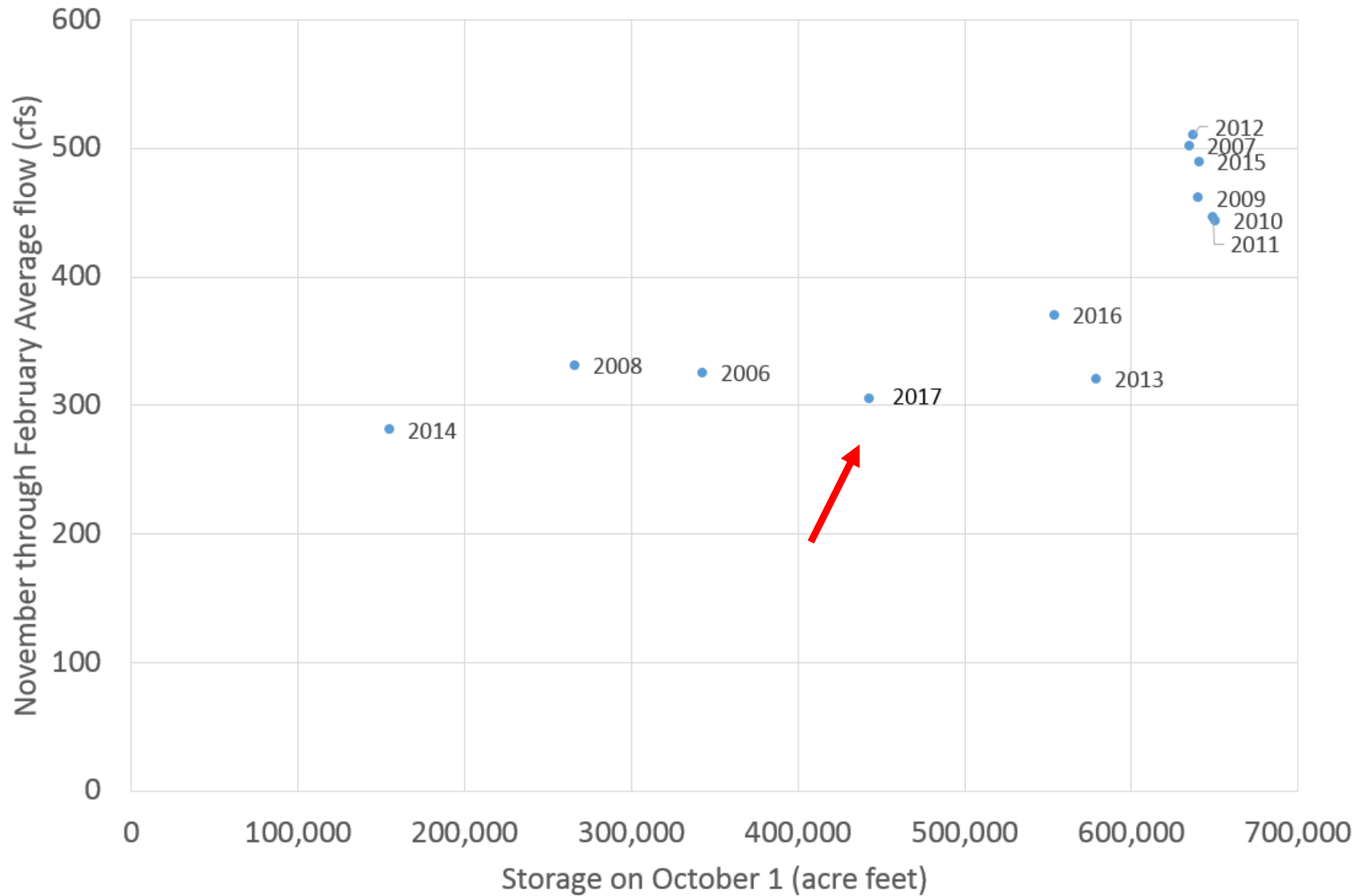




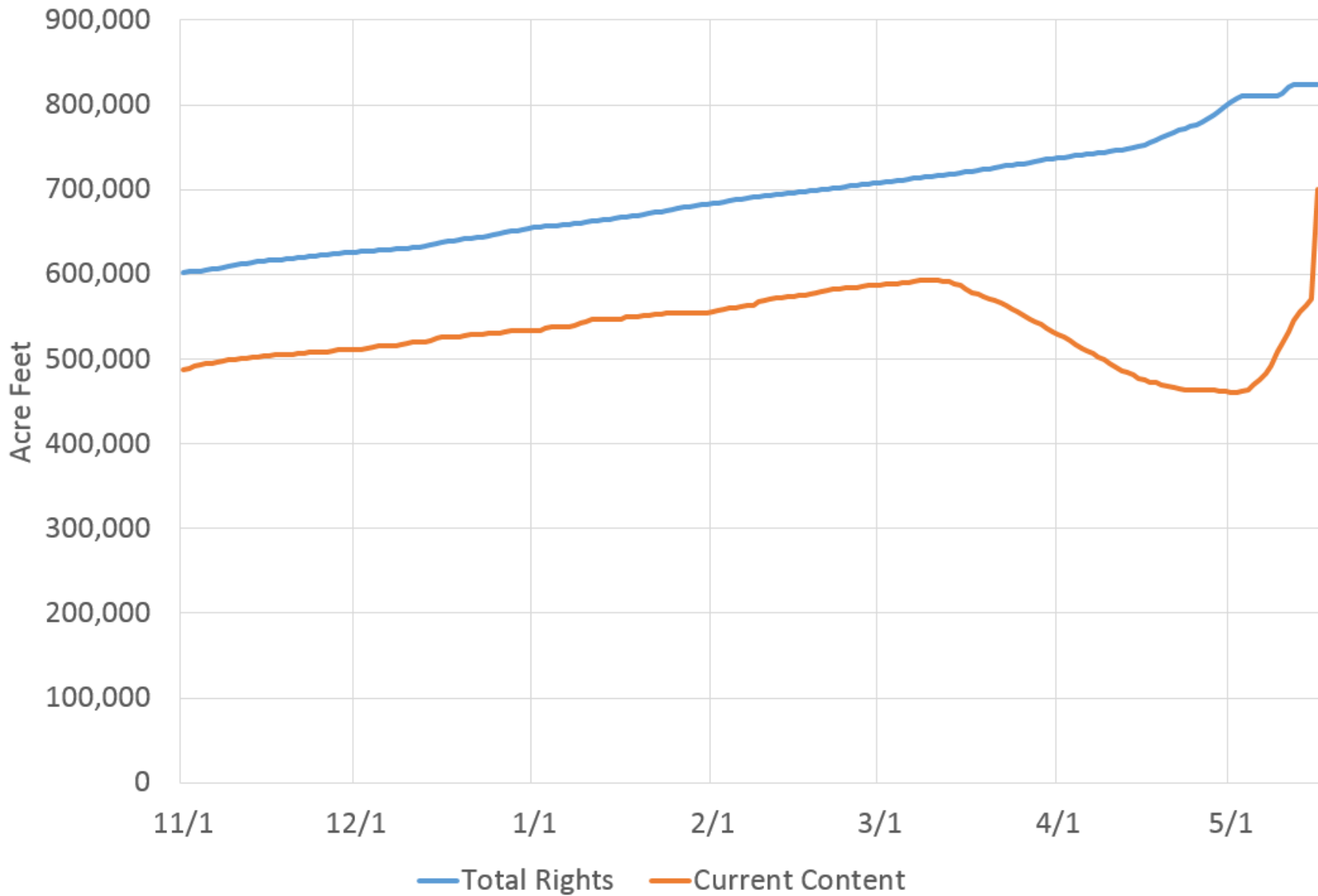
2017 2011 1997 1996 1986 1982



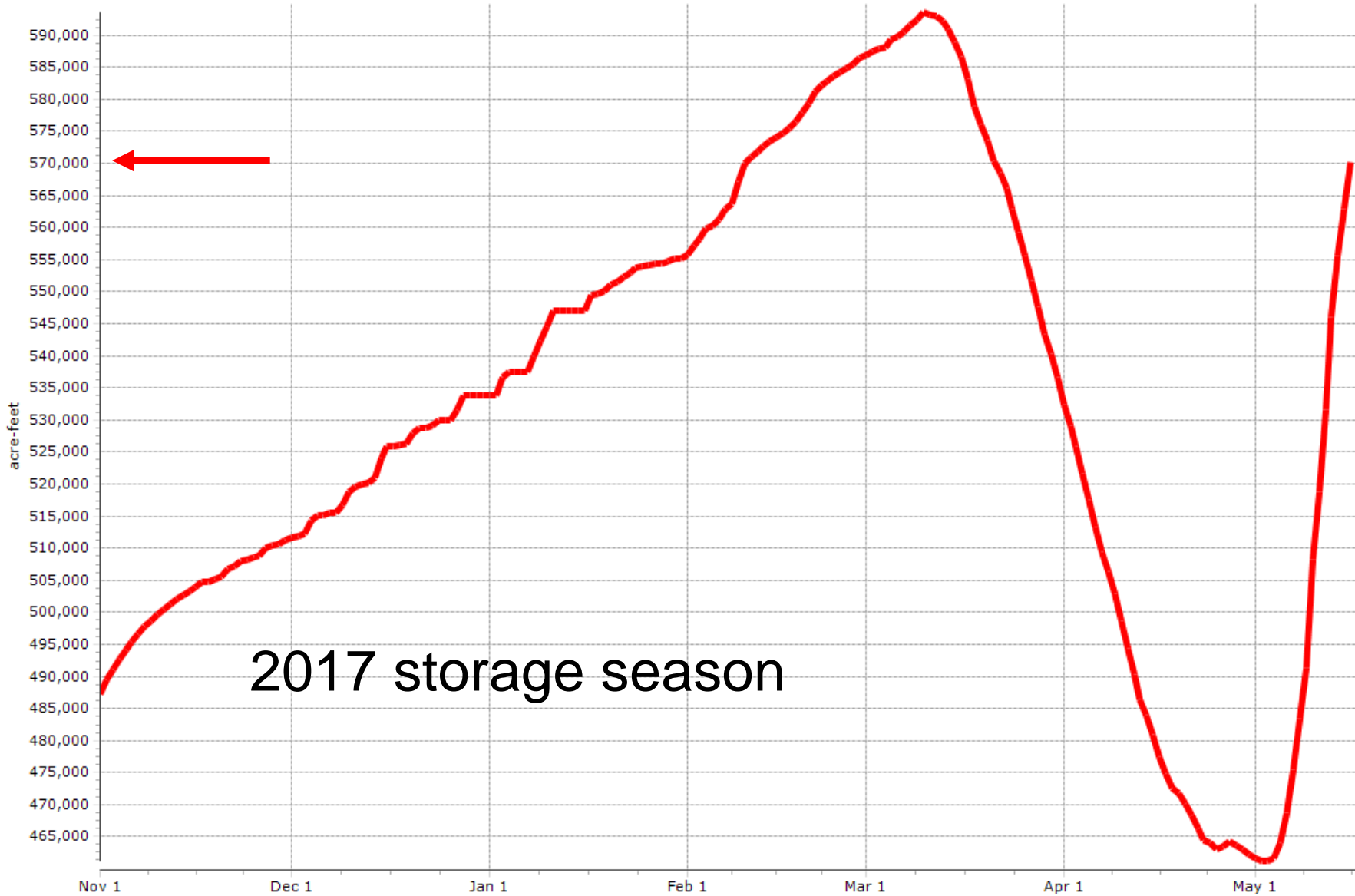
Jackson Lake Winter Flow



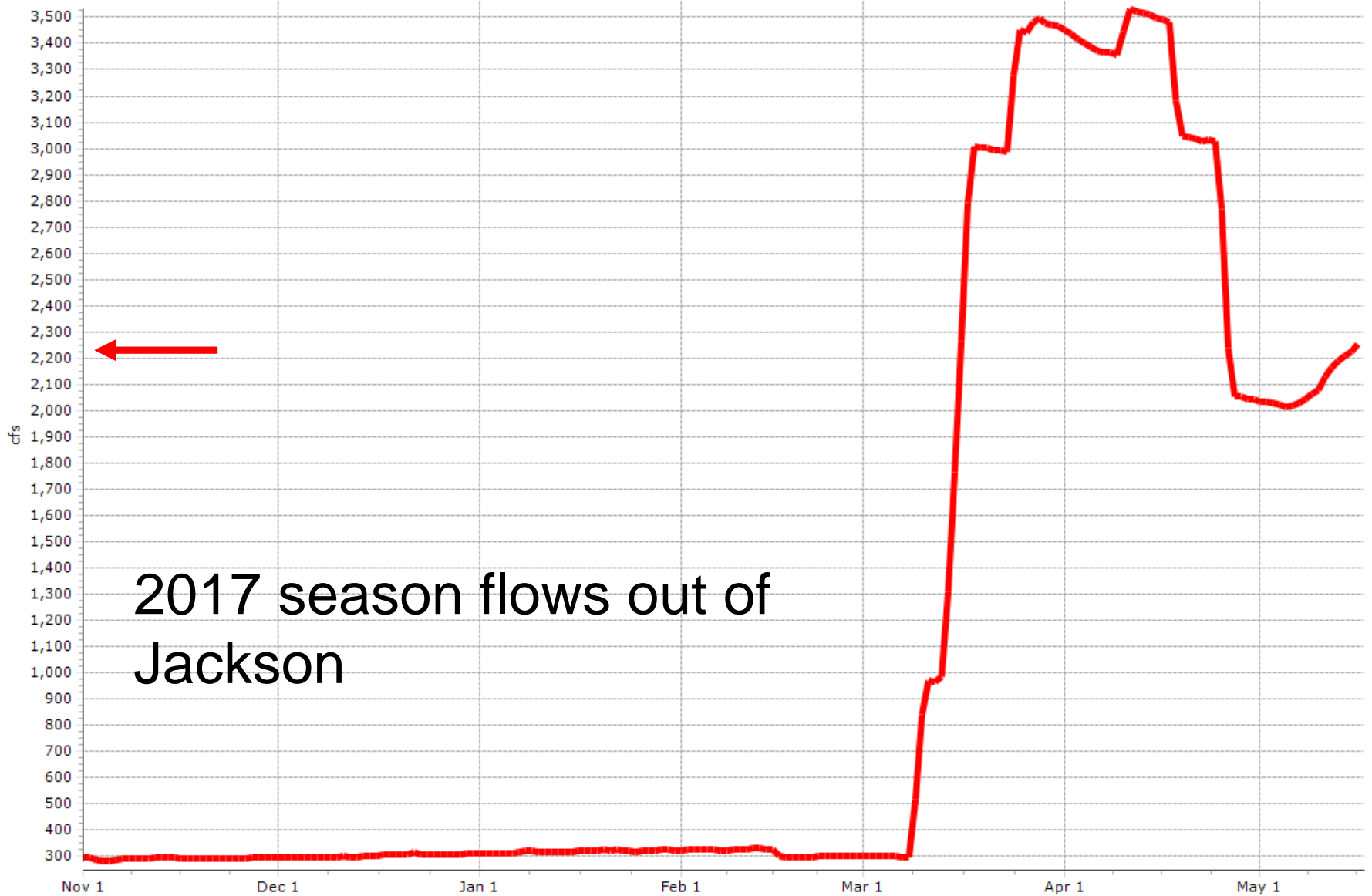
Jackson Lake Storage



Jackson Lake at Dam on Snake River near Moran, WY Elevation:6789.000



Jackson Lake at Dam on Snake River near Moran, WY Elevation:6789.000

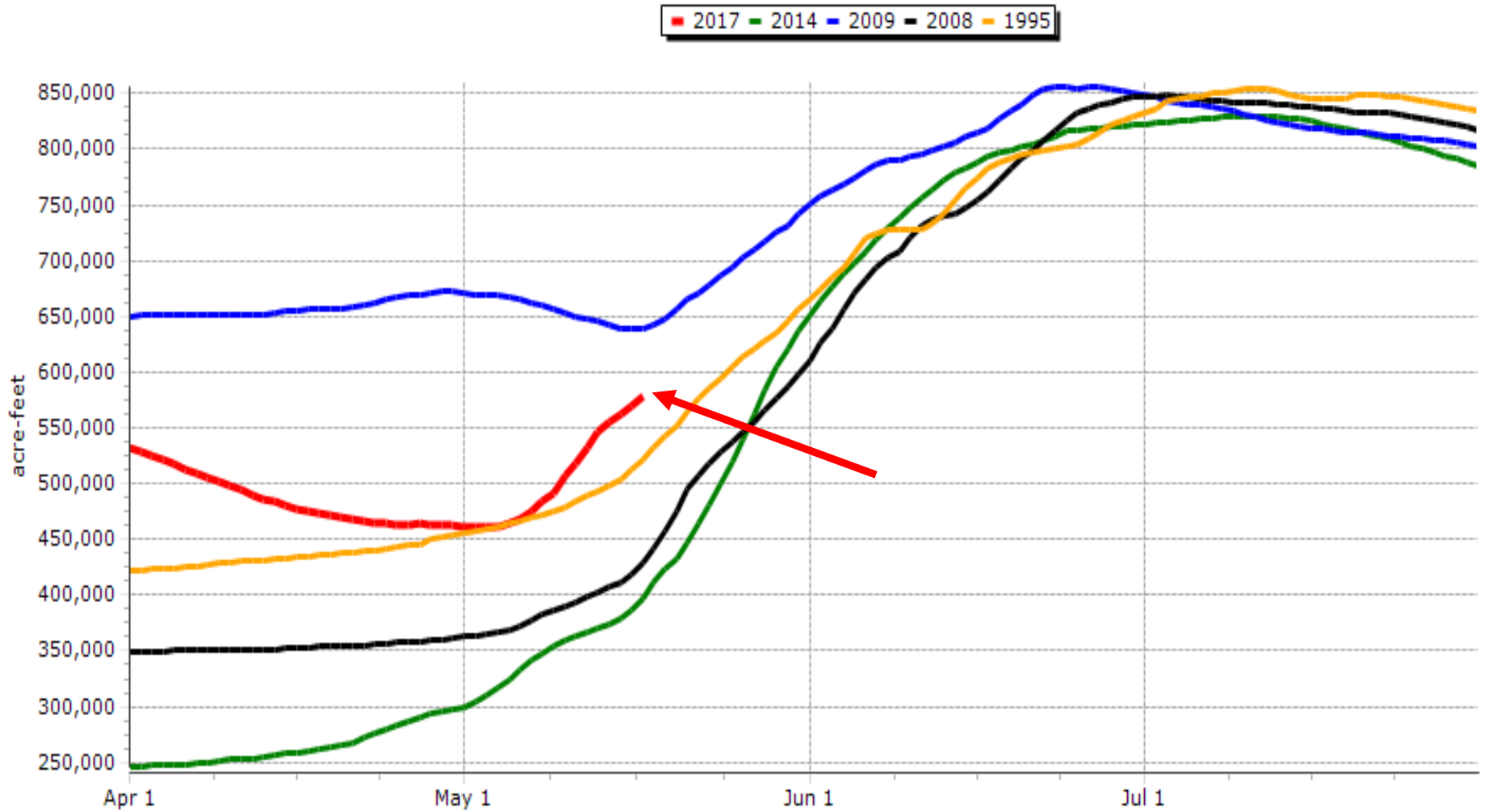


2017 season flows out of Jackson

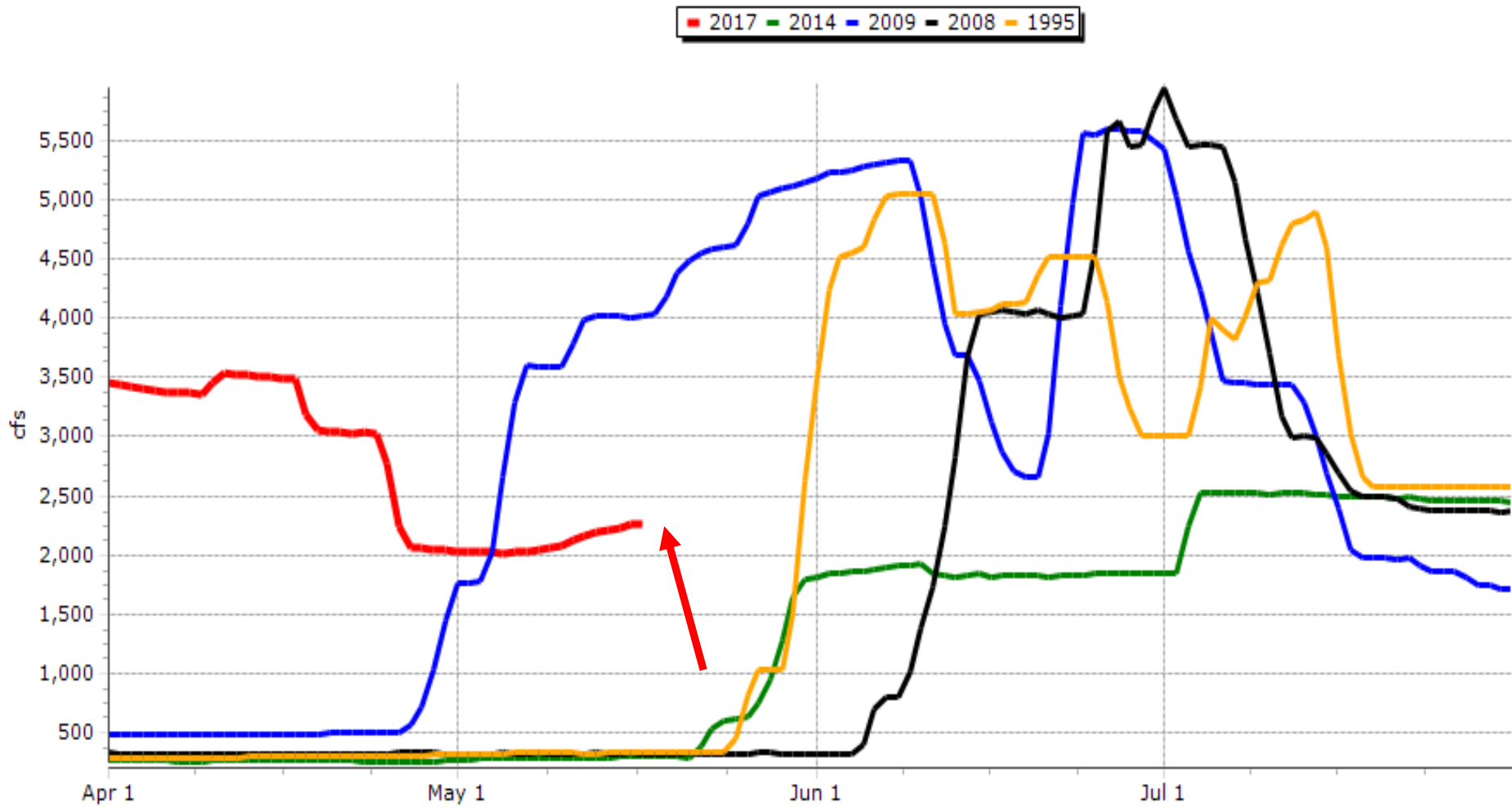
Jackson Lake discharge was decreased to 2,000 cfs in late April due to the projections showing that we would have more space than required on May 1st.

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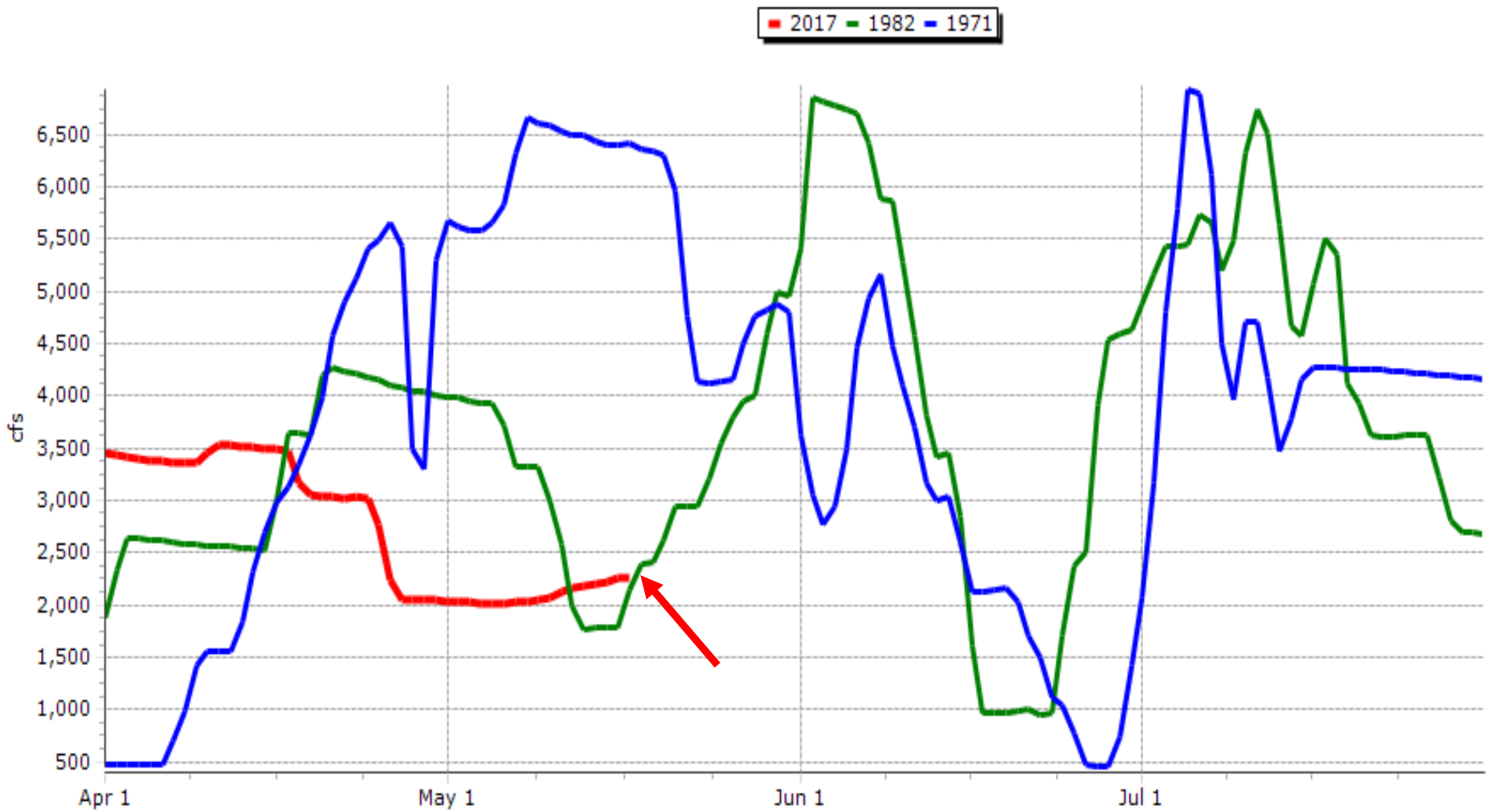
Jackson Lake at Dam on Snake River near Moran, WY Elevation:6789.000



Jackson Lake at Dam on Snake River near Moran, WY Elevation:6789.000



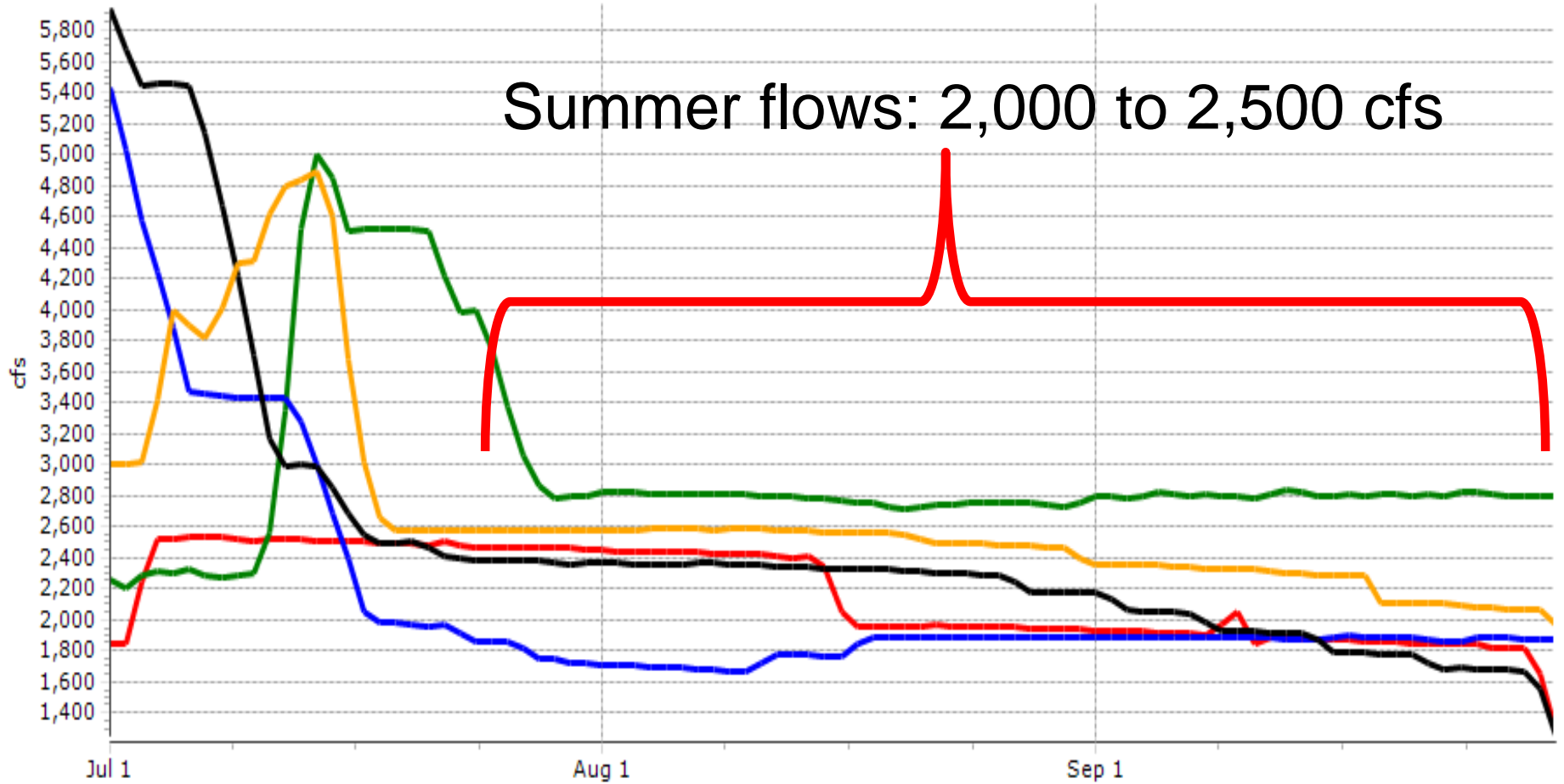
Jackson Lake at Dam on Snake River near Moran, WY Elevation:6789.000



RECLAMATION

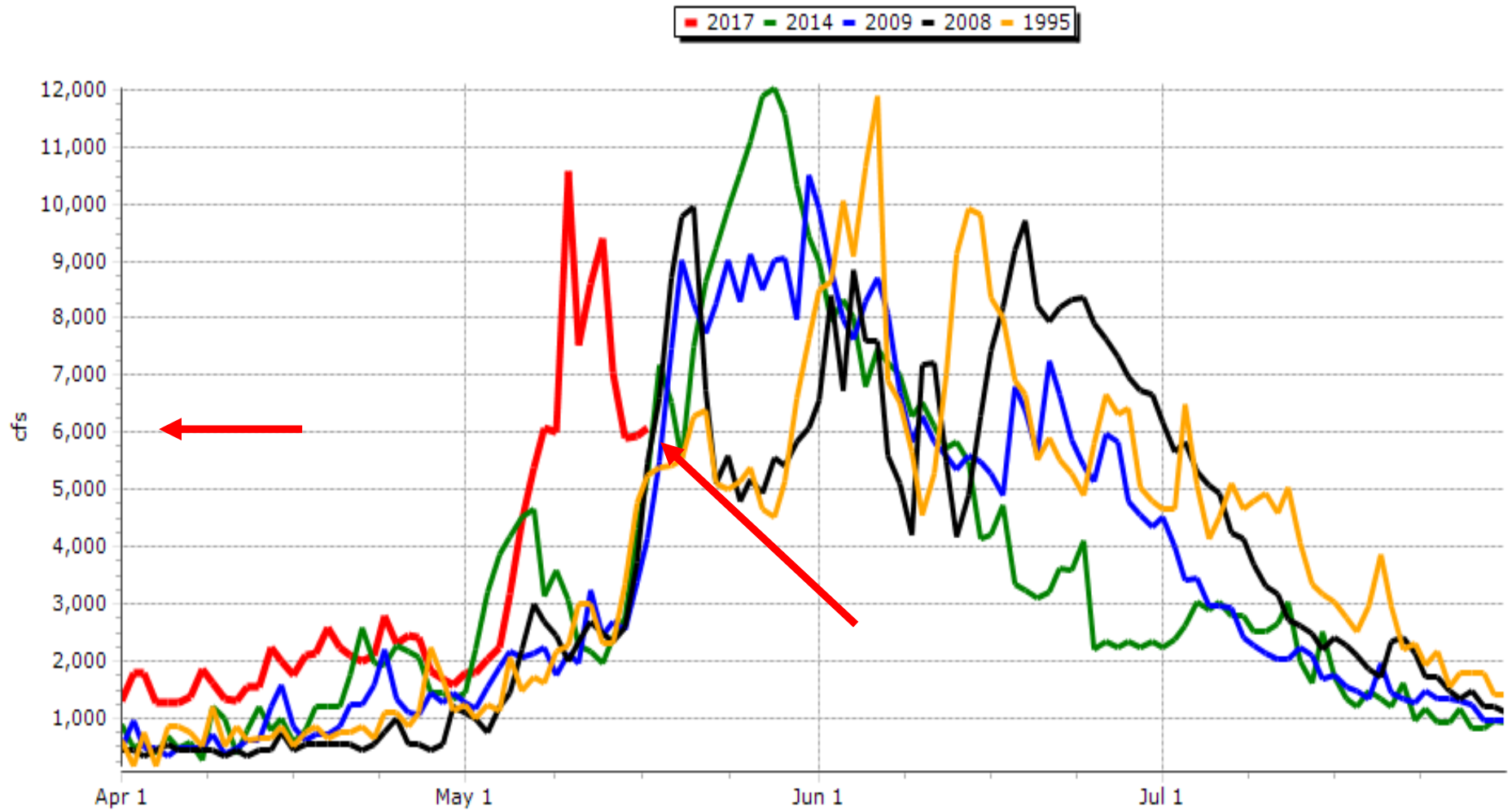
Jackson Lake at Dam on Snake River near Moran, WY Elevation:6789.000

2014 2011 2009 2008 1995



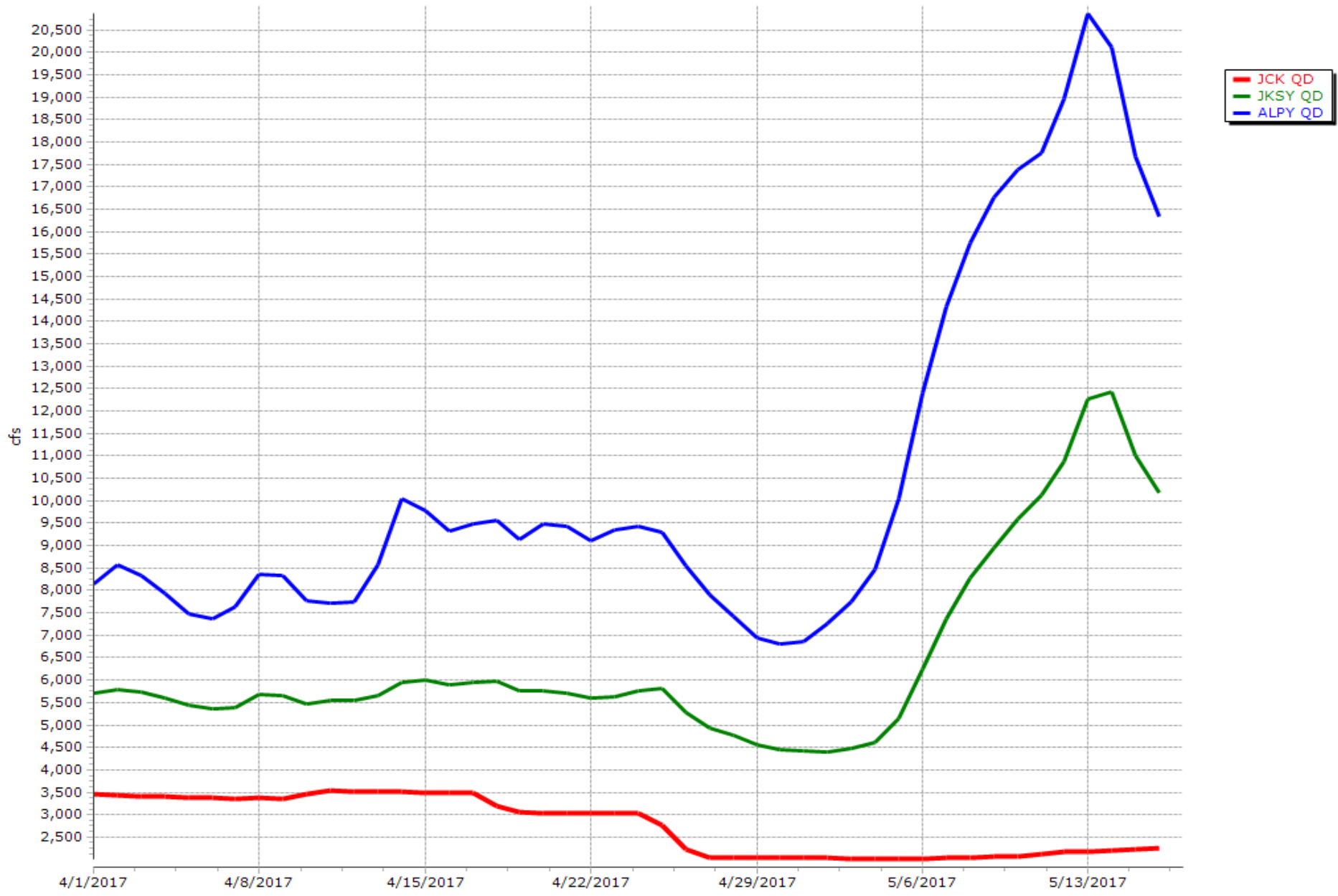
RECLAMATION

Jackson Lake at Dam on Snake River near Moran, WY Elevation:6789.000

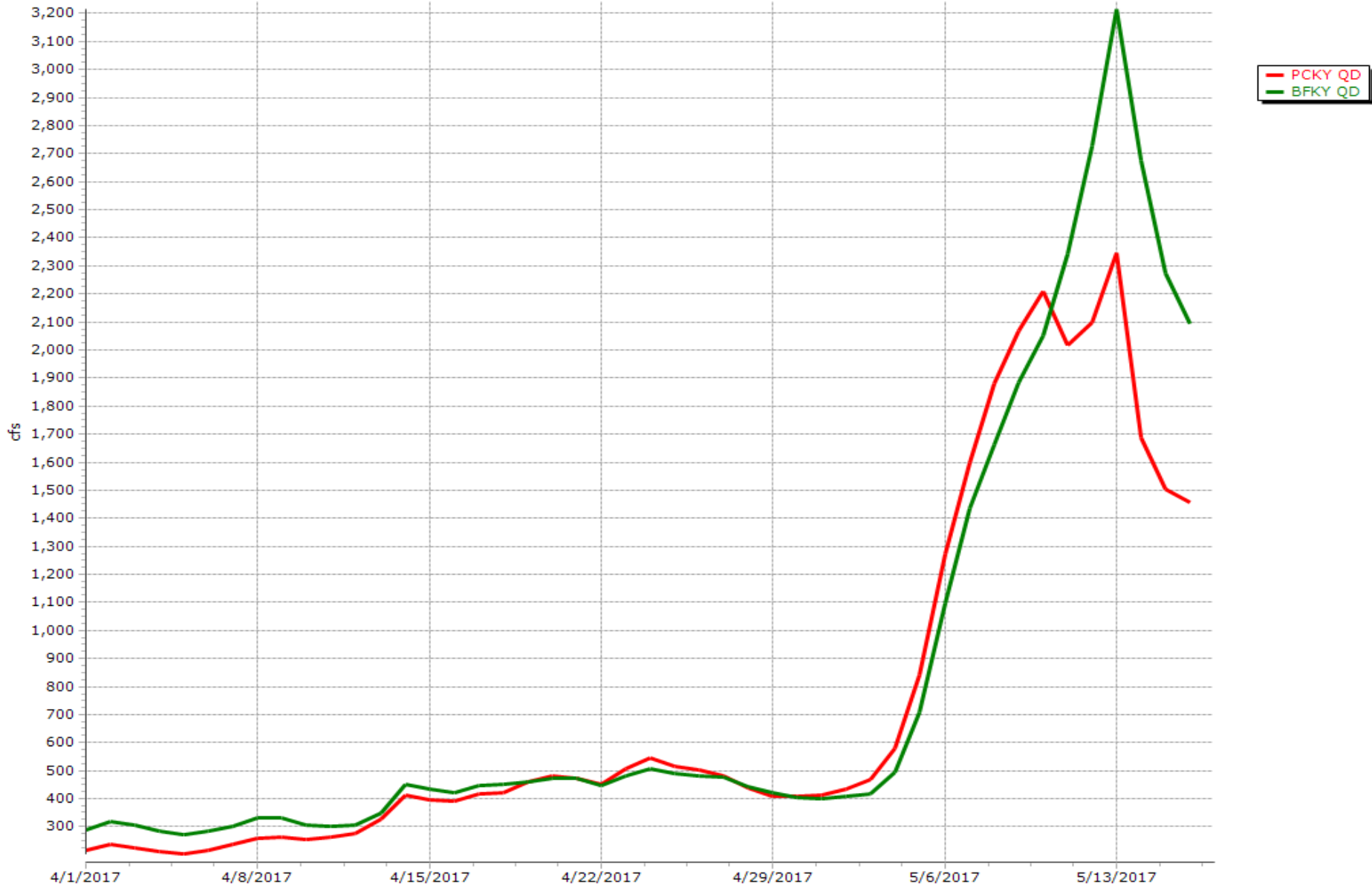


Unregulated flow

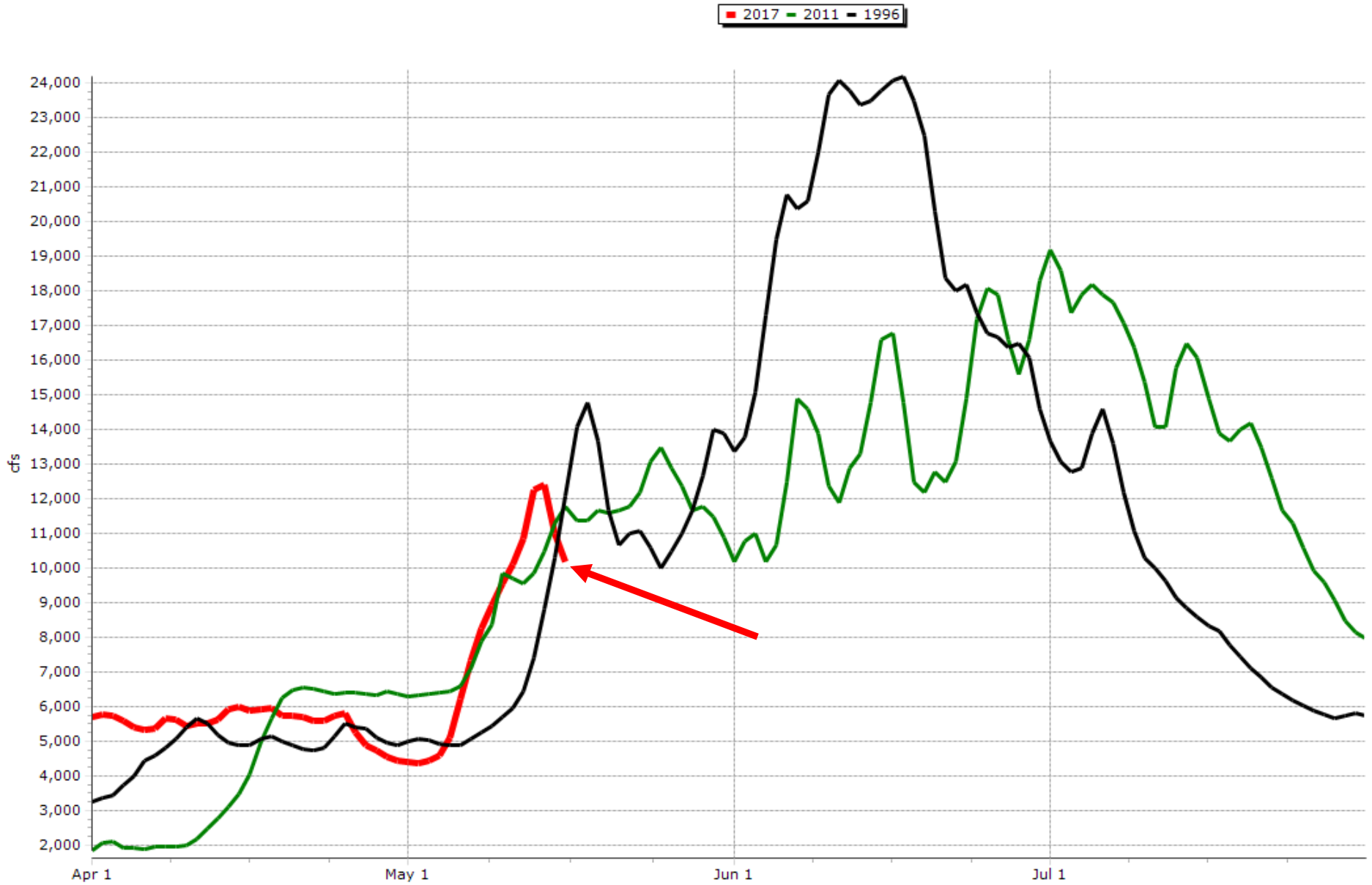
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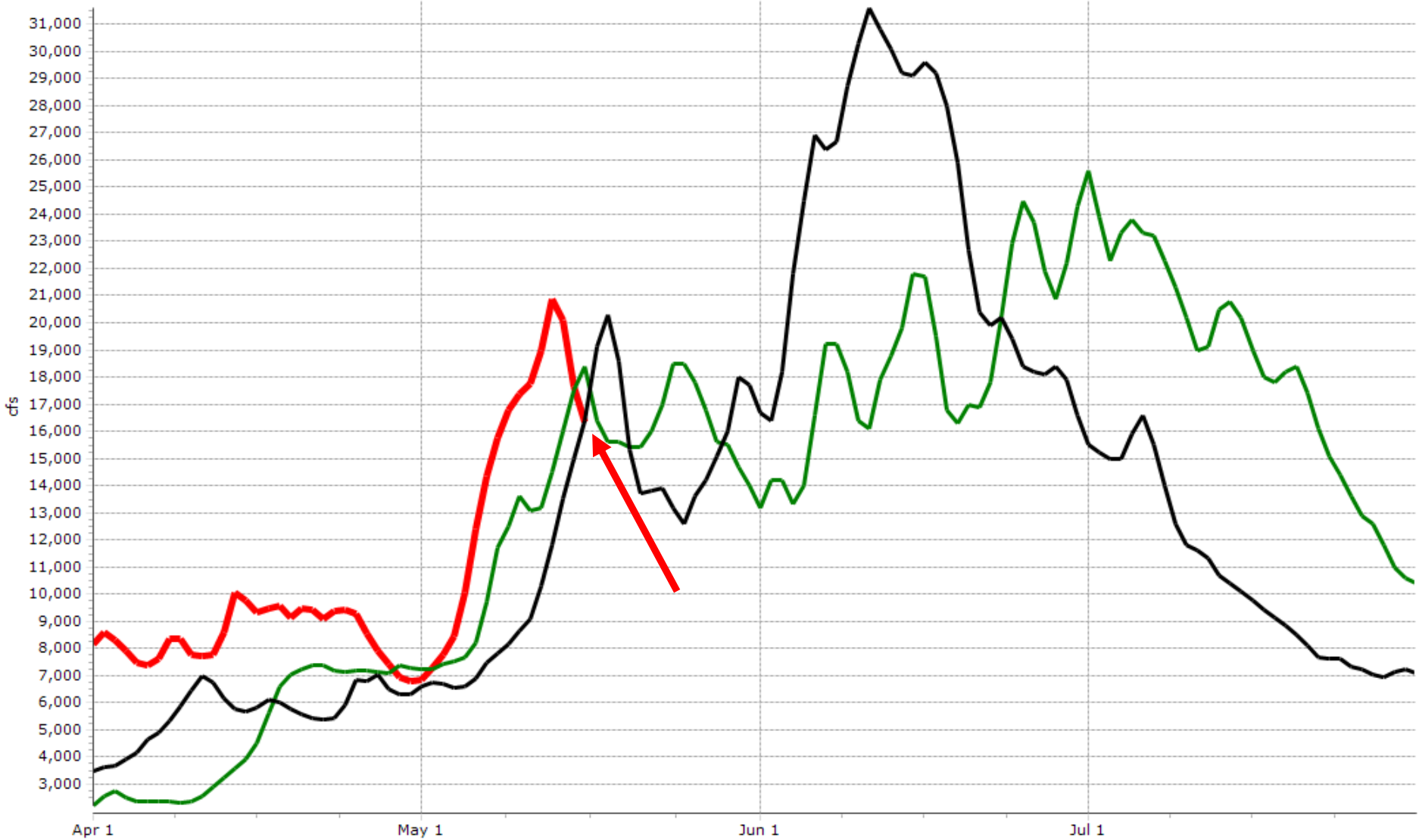
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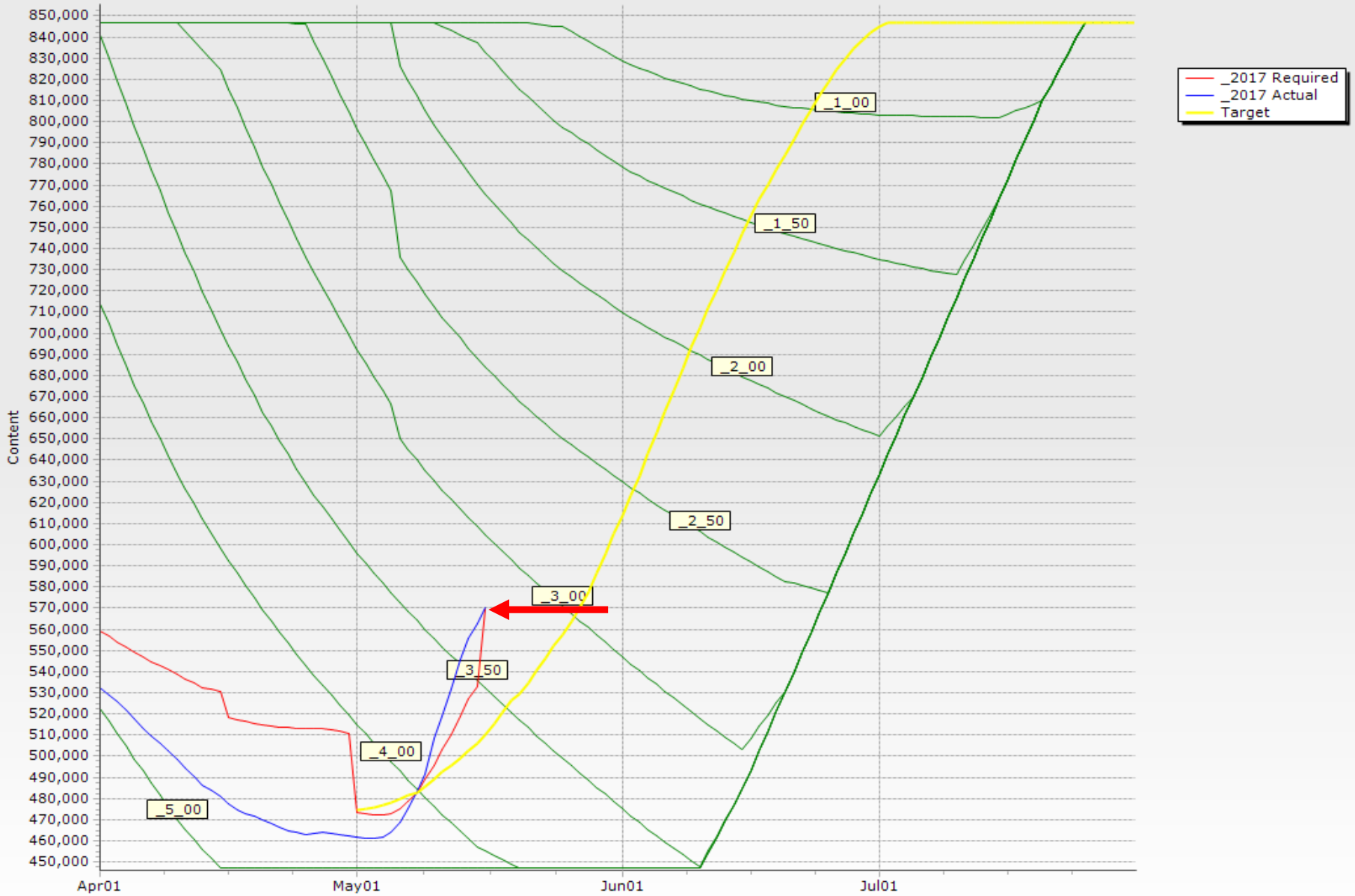
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2017 2011 1996

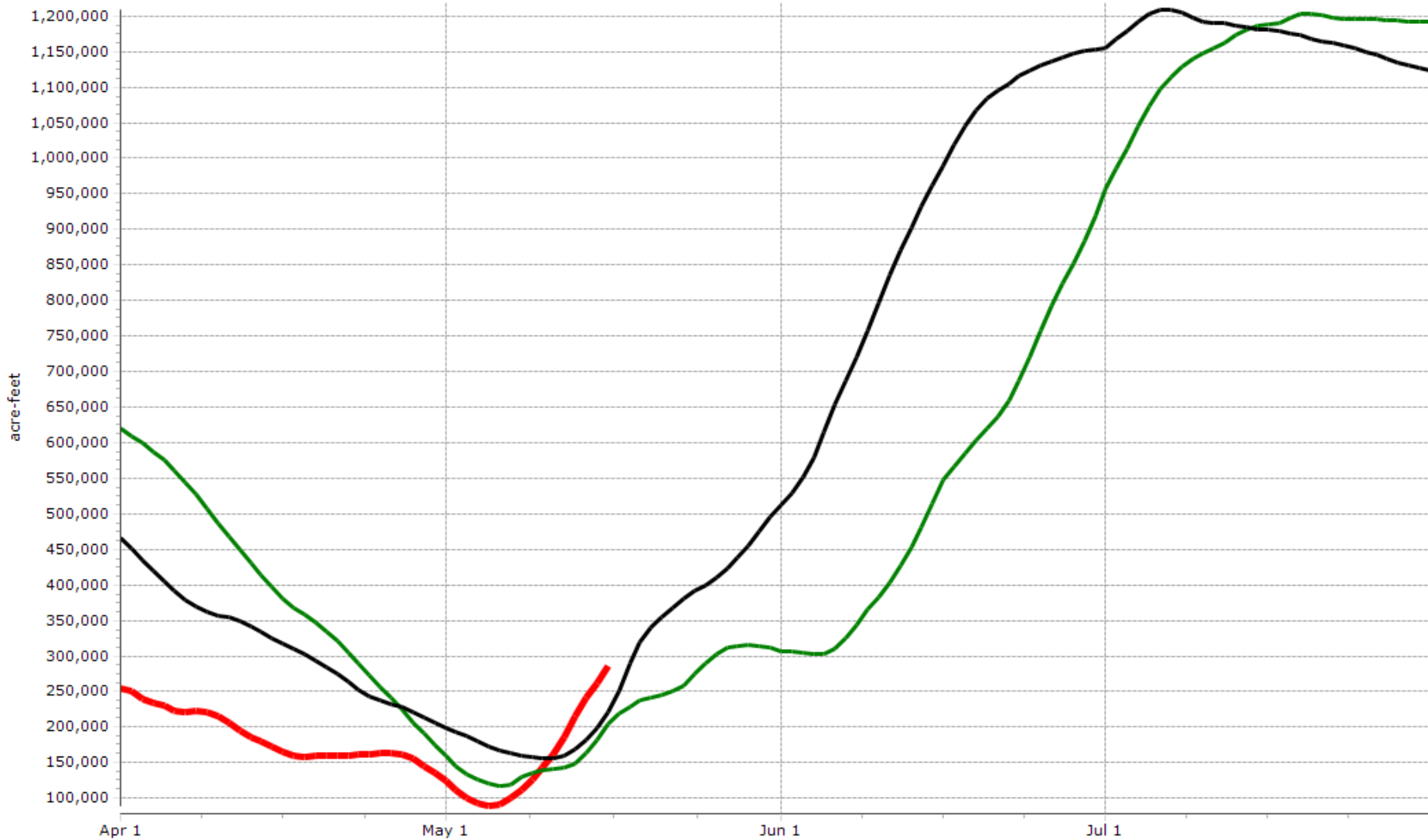


JCK - Jackson Lake

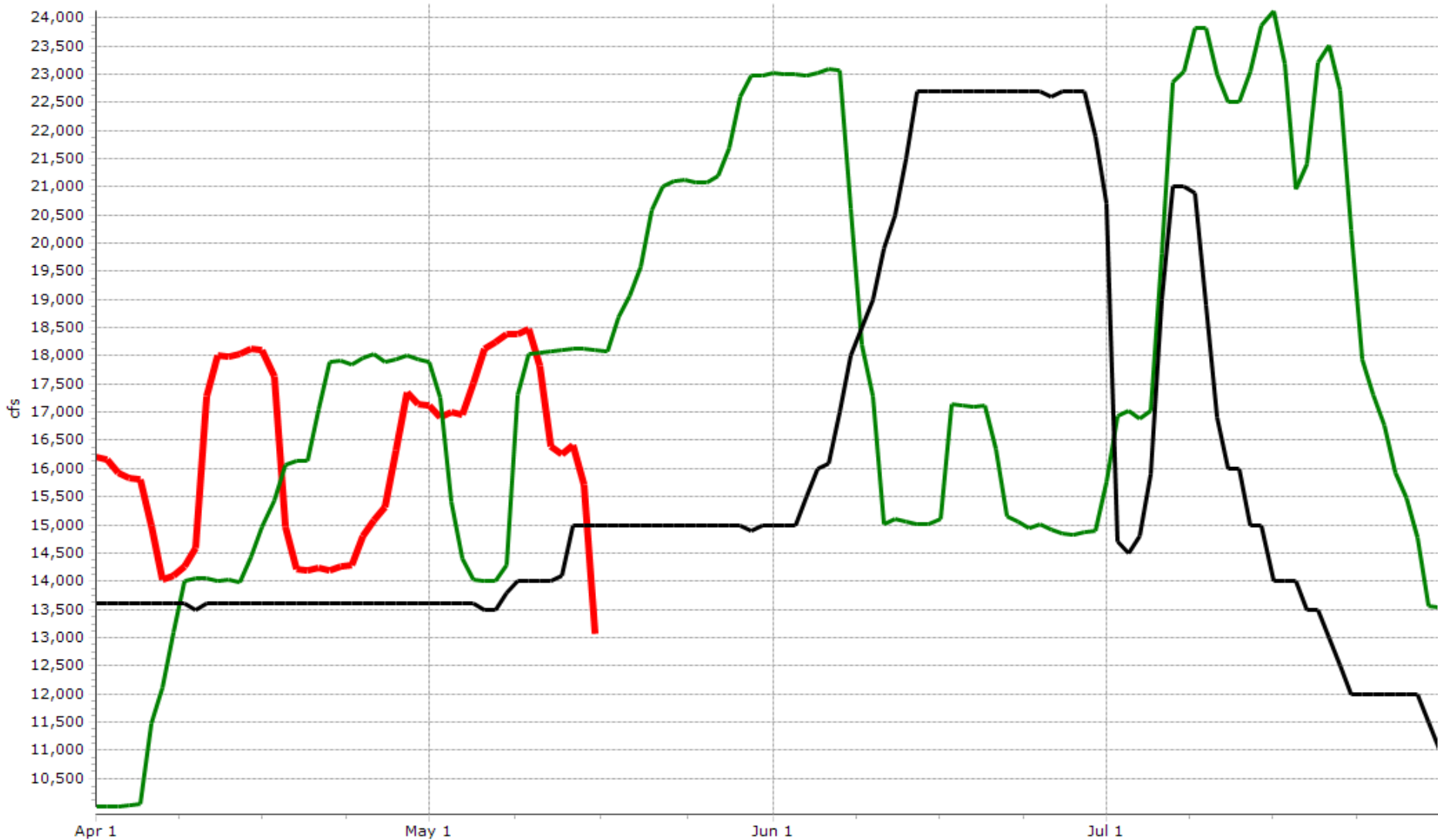


- Northwest River Forecast Center is projecting inflows into Jackson Lake to go to around 5,000 cfs early next week.
- Based on inflows and the projected residual from our Mid-month forecast, we will probably increase Jackson outflows in the 4,000 to 6,000 cfs range in early June.
- Flows at Pacific Creek at Moran have been above bankfull stage since May 8th (approx. 1,380 cfs). The Salt River above Palisades near Etna has been in Minor flood stage (approx. 3,536 cfs) since the 10th.
- Should be able to capture the runoff peaks at Jackson Dam.

2017 2011 1996

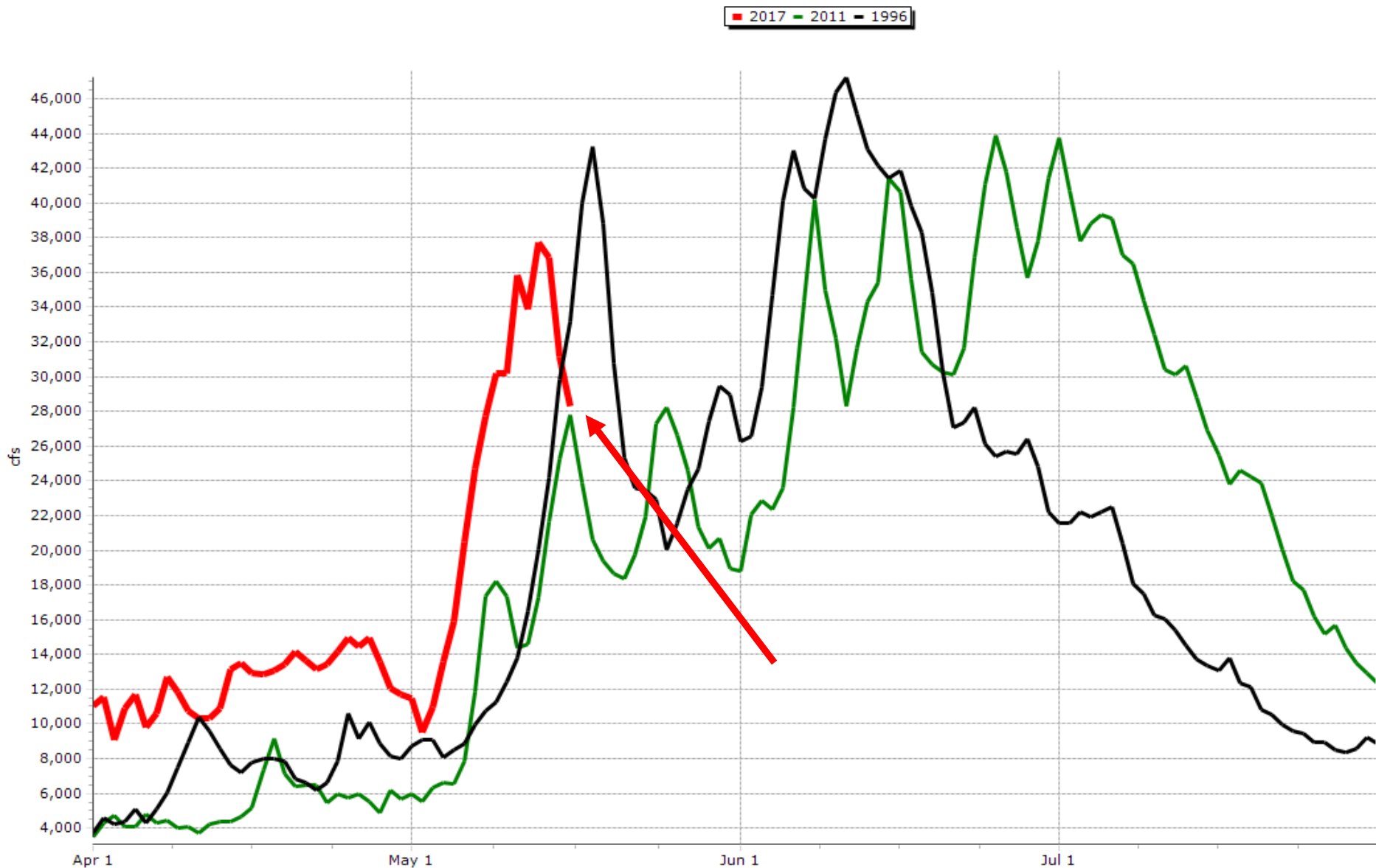


2017 2011 1996



Regulated flow

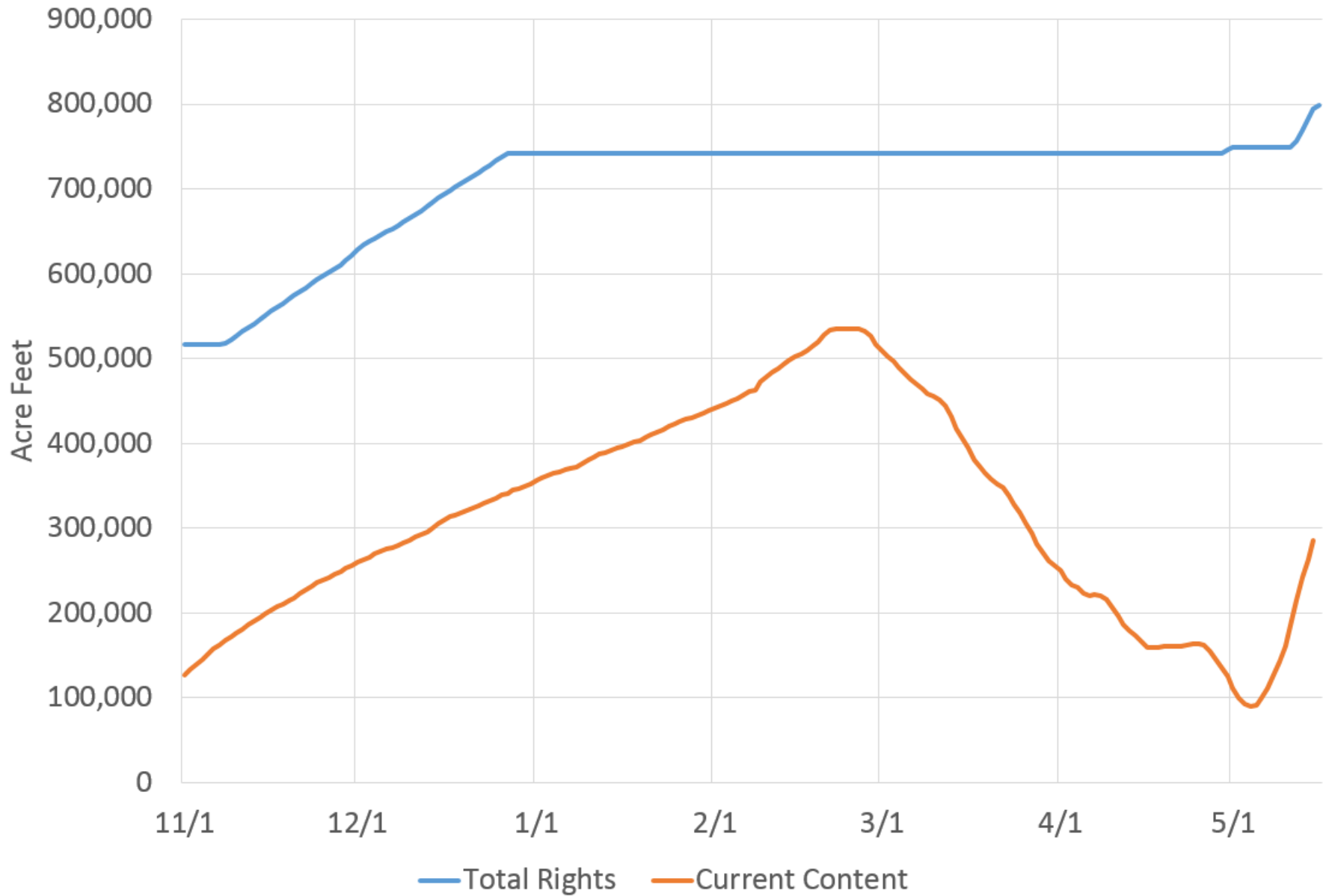
RECLAMATION



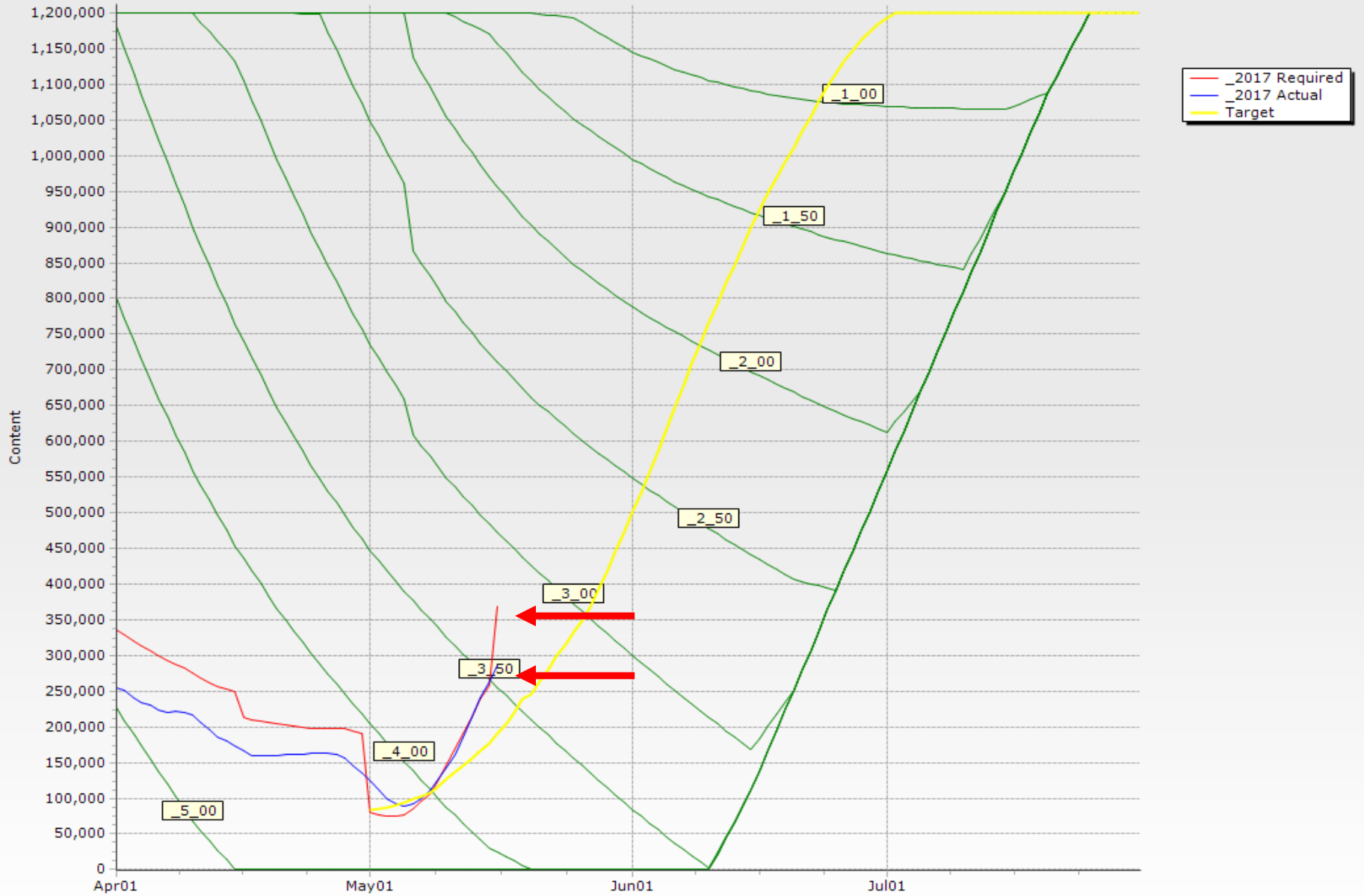
Unregulated flow

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Palisades Storage

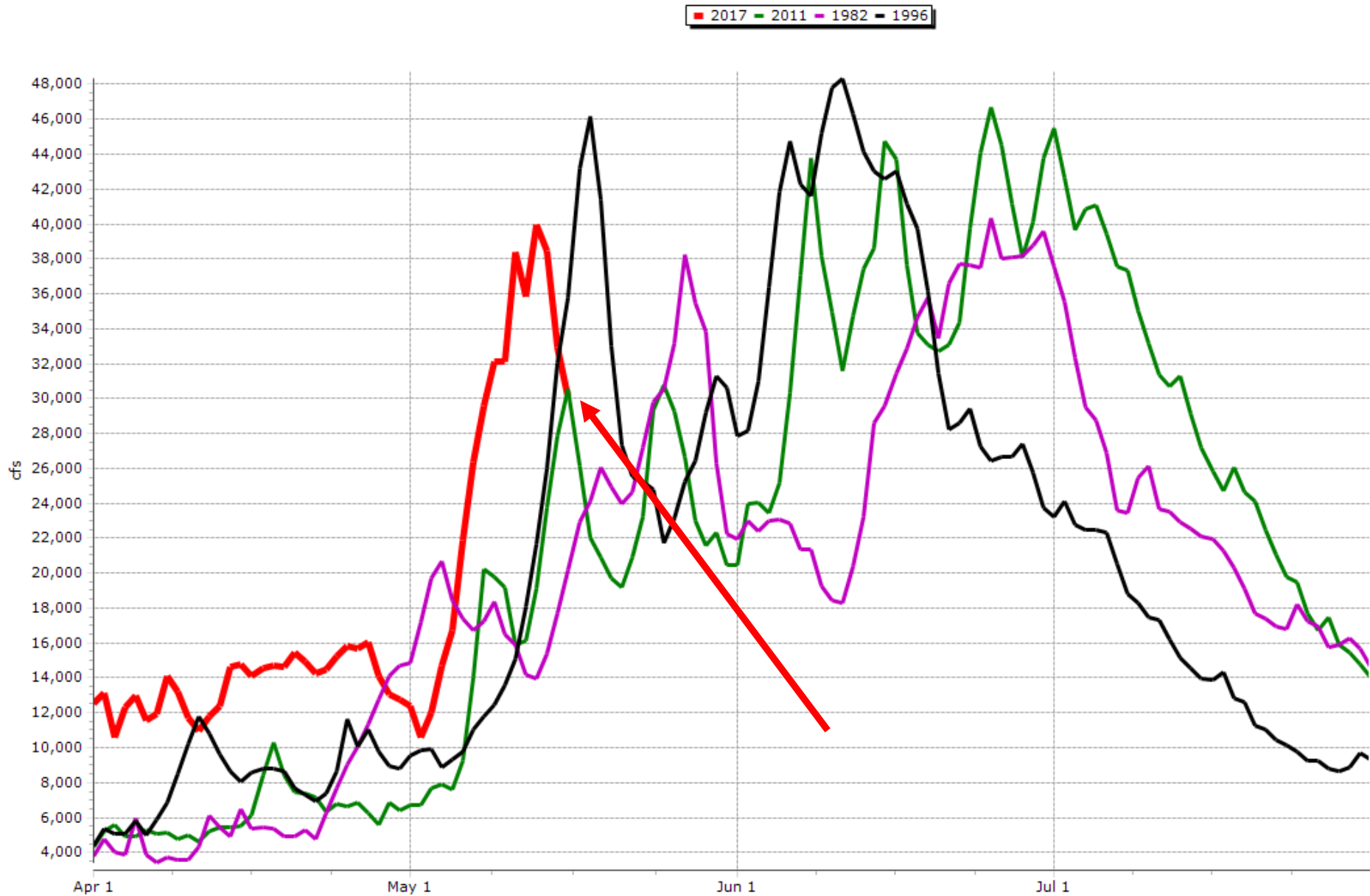


PAL - Palisades



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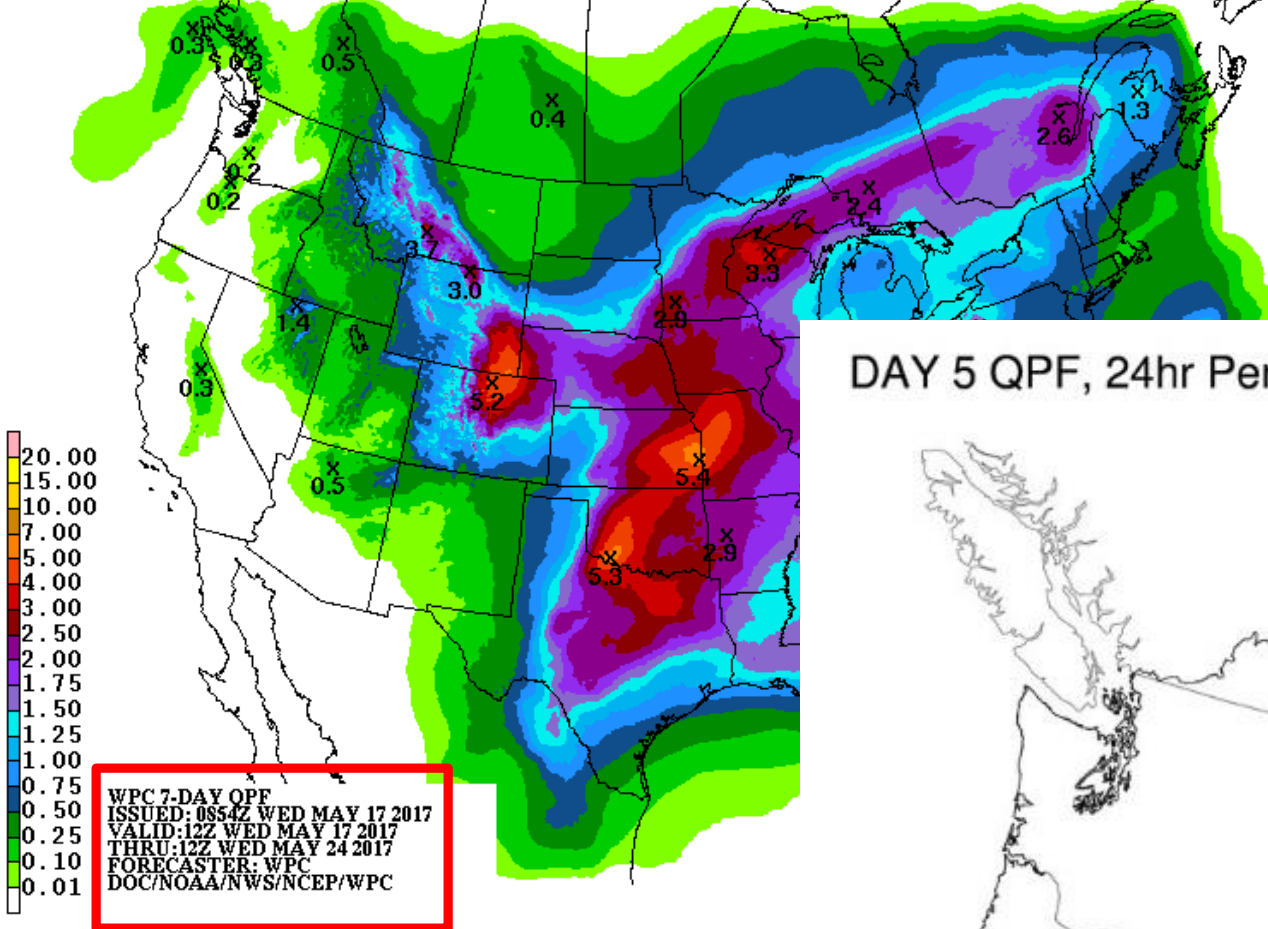
Snake River near Heise, ID Unregulated Flow



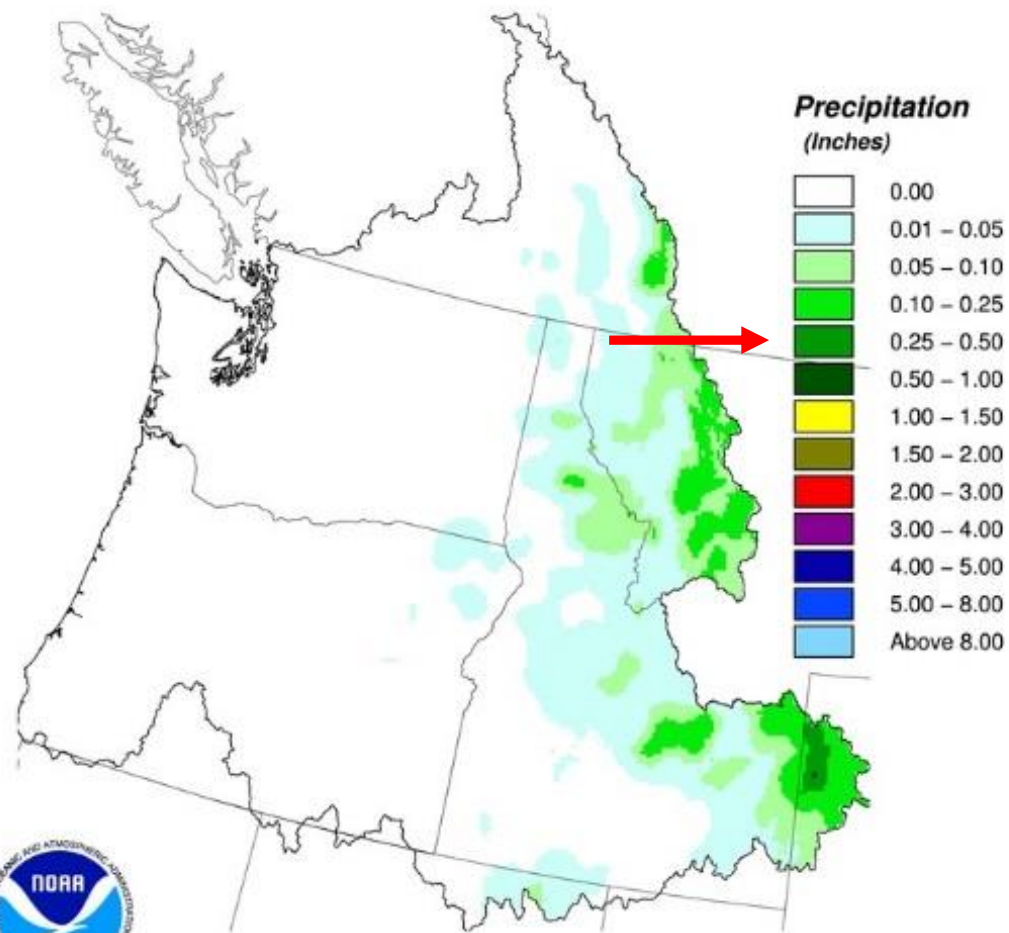
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Unregulated Flow Rankings Within the Last 40 Years

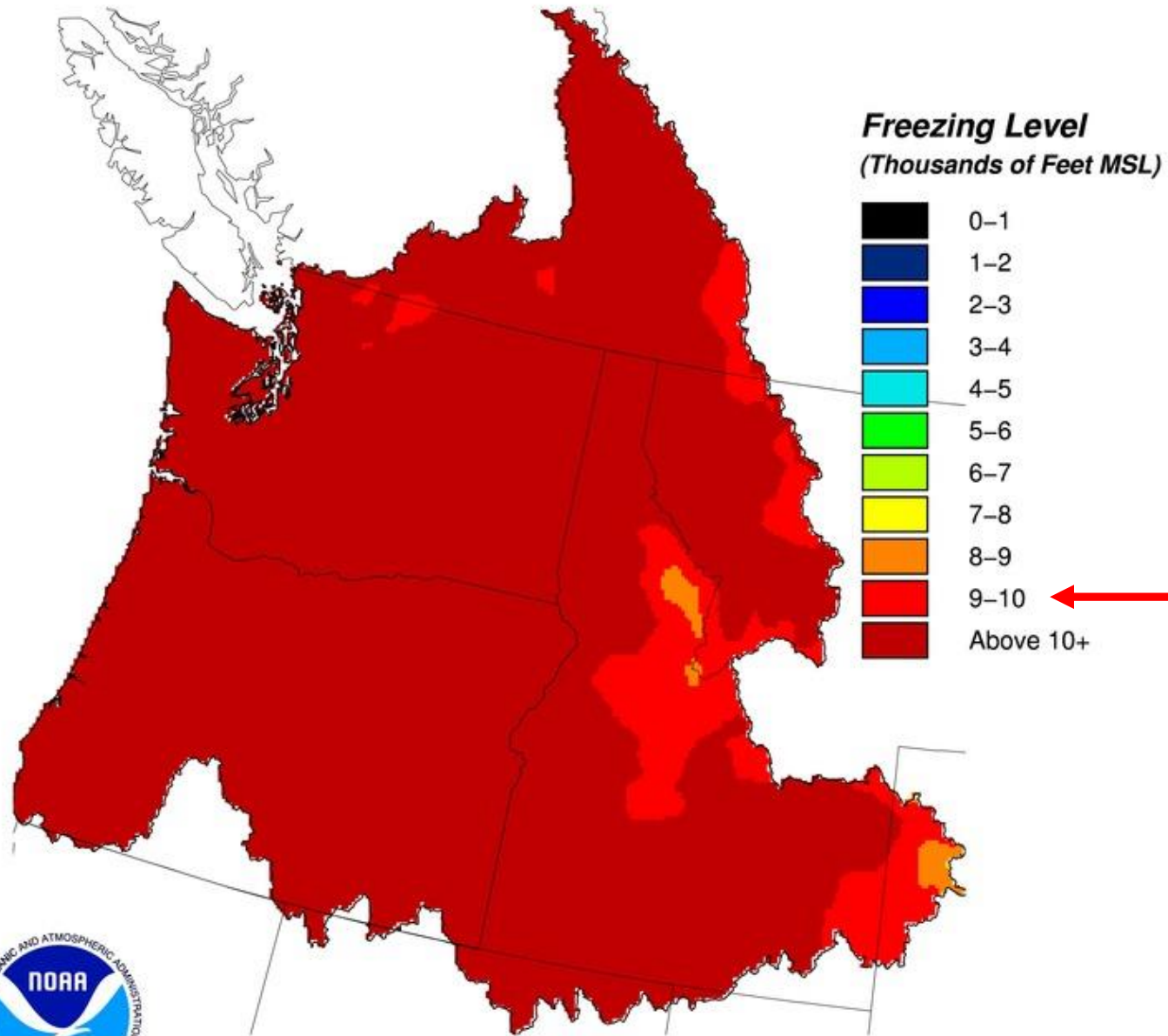
Year	Runoff Volume at Heise	Peak Flow at Heise	Runoff Volume at Jackson Lake	Peak Flow at Jackson Lake
1997	1	2	1	2
1986	2	1	3	1
2011	3	4	5	5
1971	4	5	4	4
1996	5	3	2	3
2017	?	?	?	?
Anomolies:				
#3 Peak Flow Heise - June 18, 1974				
#3 Peak Flow Jackson Lake - June 7, 2010				
#4 Peak Flow Jackson Lake - June 17, 1974				



DAY 5 QPF, 24hr Period Ending 12Z, 05/22/2017

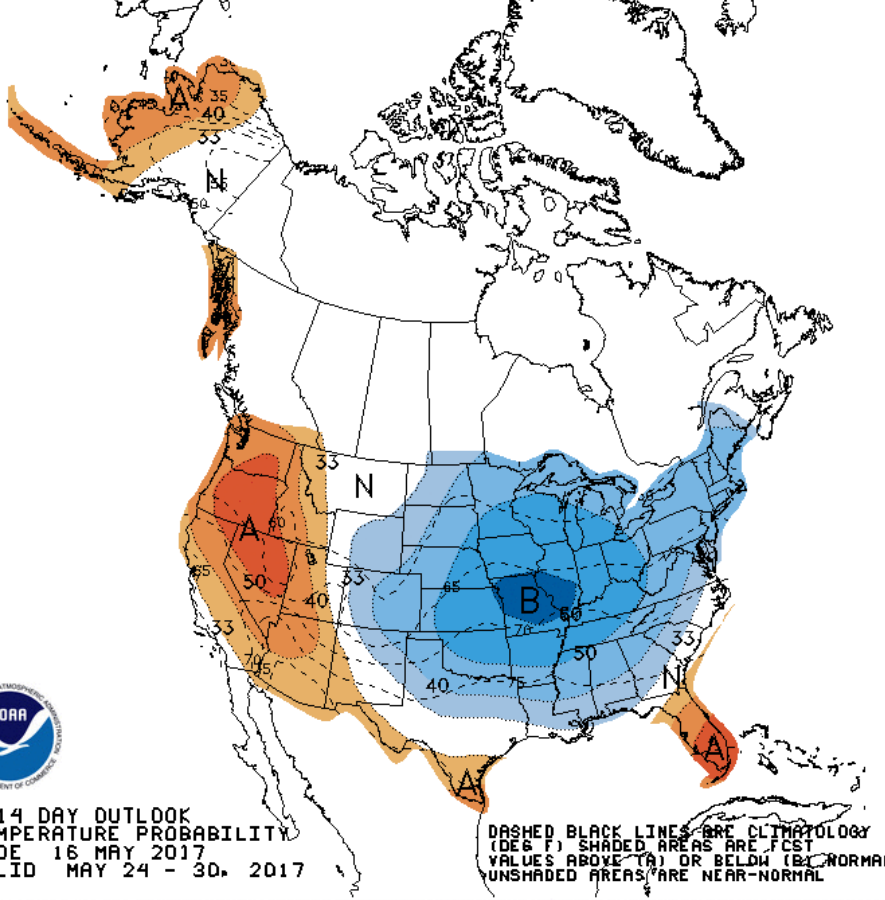


Forecast Freezing Level , Ending 12Z, 05/20/2017



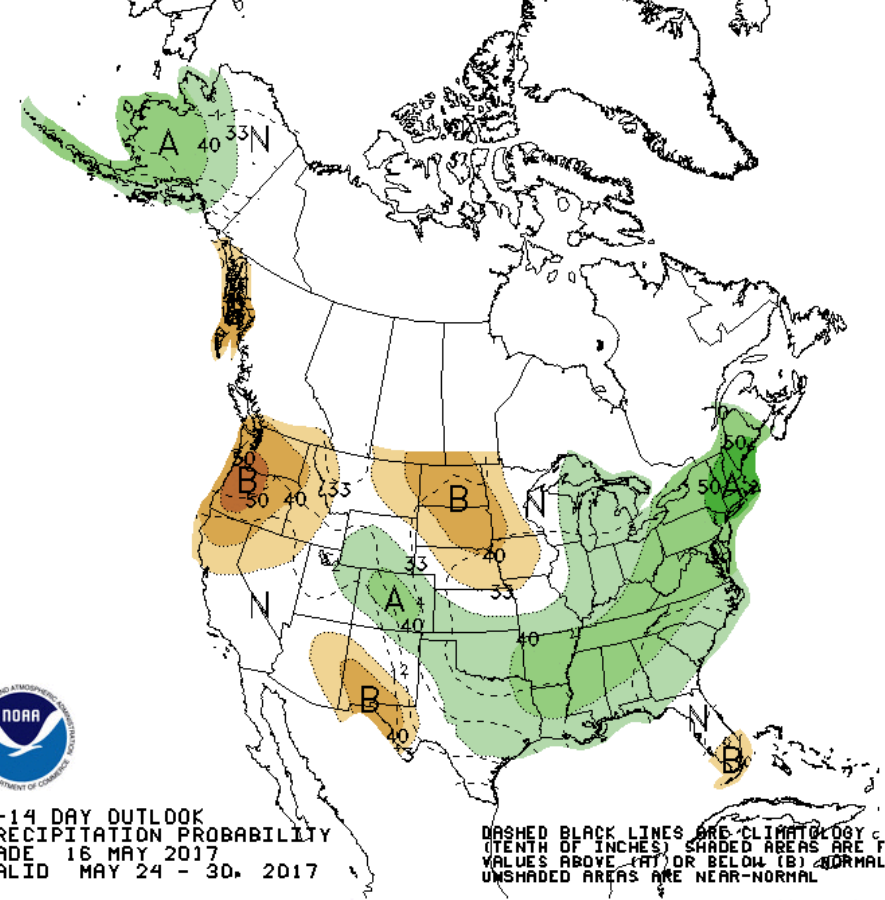
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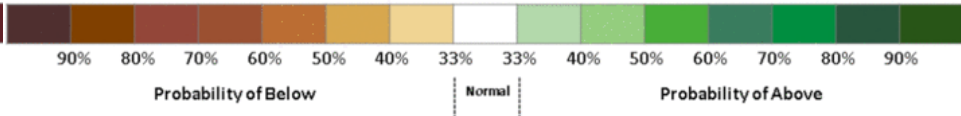
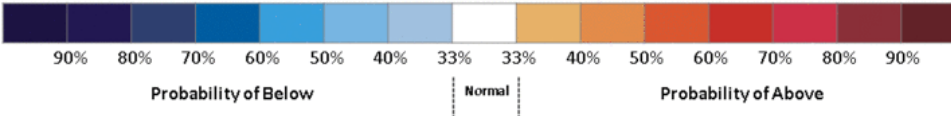
8-14 DAY OUTLOOK
TEMPERATURE PROBABILITY
MADE 16 MAY 2017
VALID MAY 24 - 30, 2017

DASHED BLACK LINES ARE CLIMATOLOGY
(DEG F) SHADED AREAS ARE FCST
VALUES ABOVE (A) OR BELOW (B) NORMAL
UNSHADED AREAS ARE NEAR-NORMAL

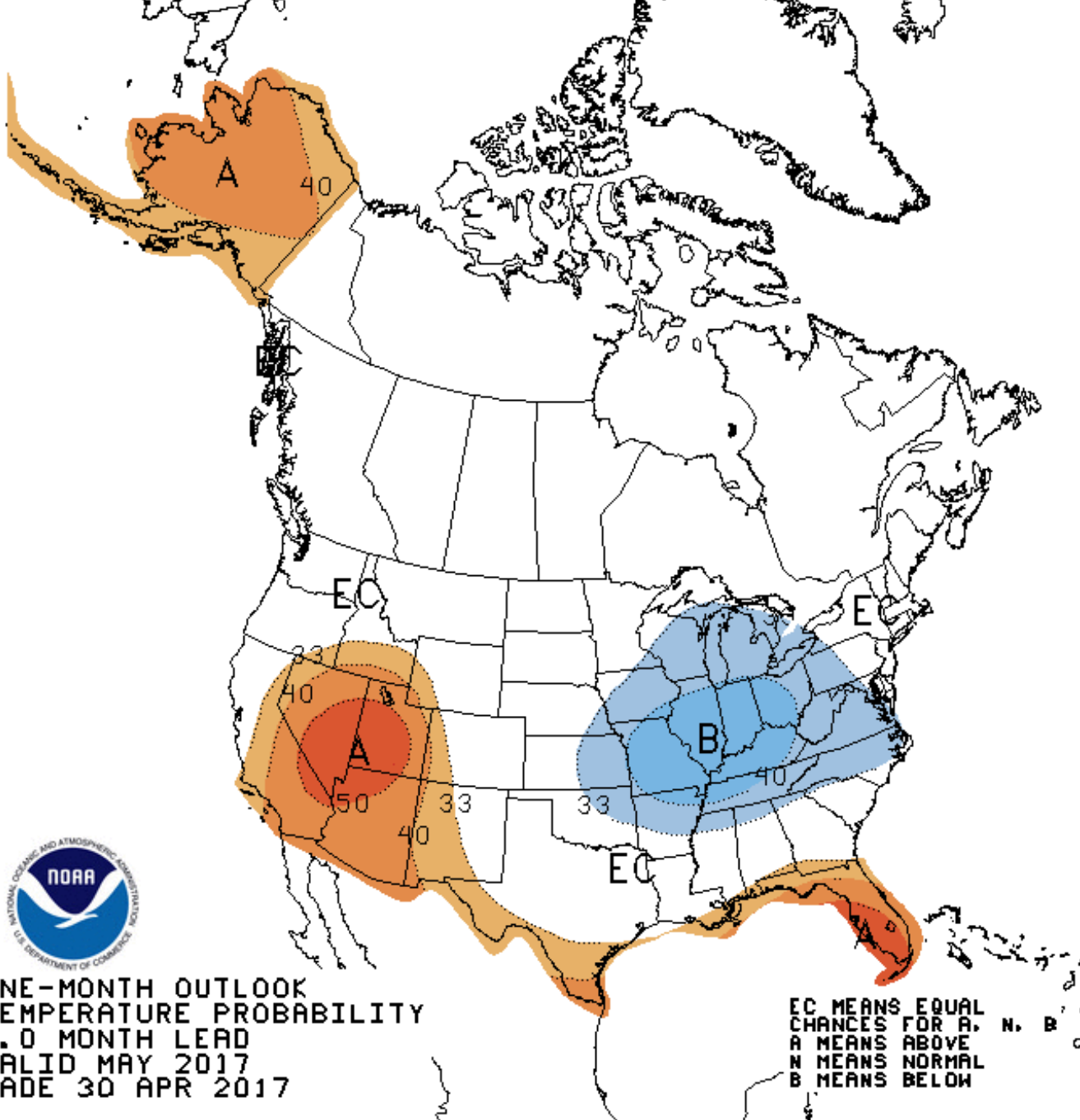


8-14 DAY OUTLOOK
PRECIPITATION PROBABILITY
MADE 16 MAY 2017
VALID MAY 24 - 30, 2017

DASHED BLACK LINES ARE CLIMATOLOGY
(TENTHS OF INCHES) SHADED AREAS ARE FCST
VALUES ABOVE (A) OR BELOW (B) NORMAL
UNSHADED AREAS ARE NEAR-NORMAL

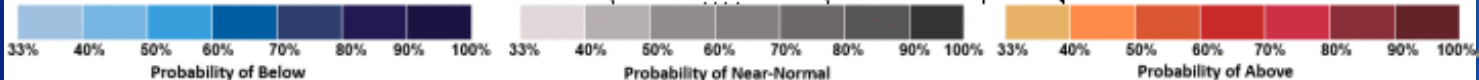


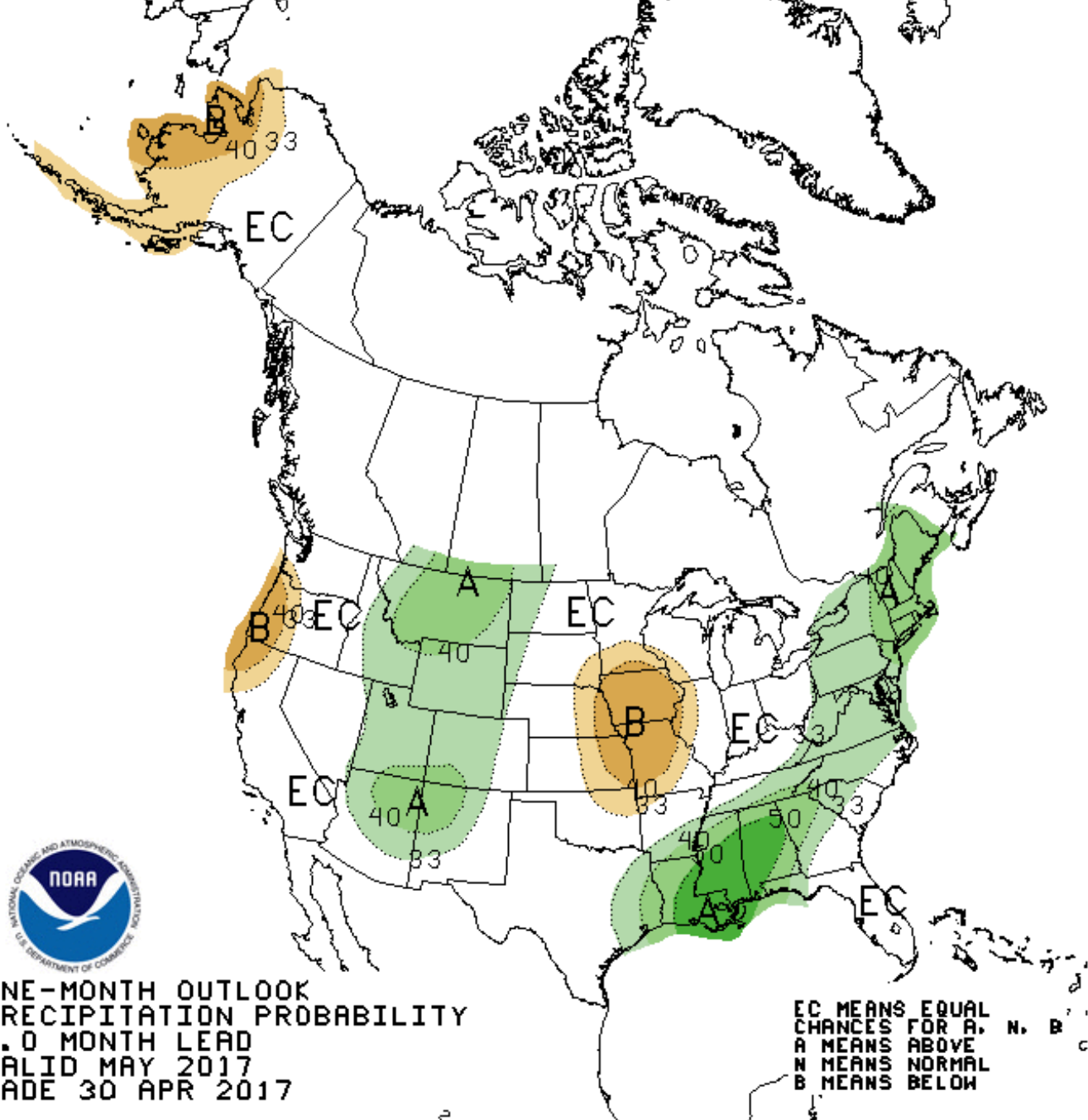
RECLAMATION



ONE-MONTH OUTLOOK
 TEMPERATURE PROBABILITY
 0.0 MONTH LEAD
 VALID MAY 2017
 MADE 30 APR 2017

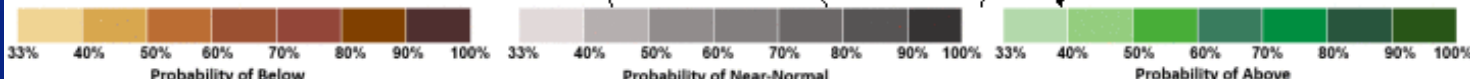
EC MEANS EQUAL
 CHANCES FOR A, N, B
 A MEANS ABOVE
 N MEANS NORMAL
 B MEANS BELOW

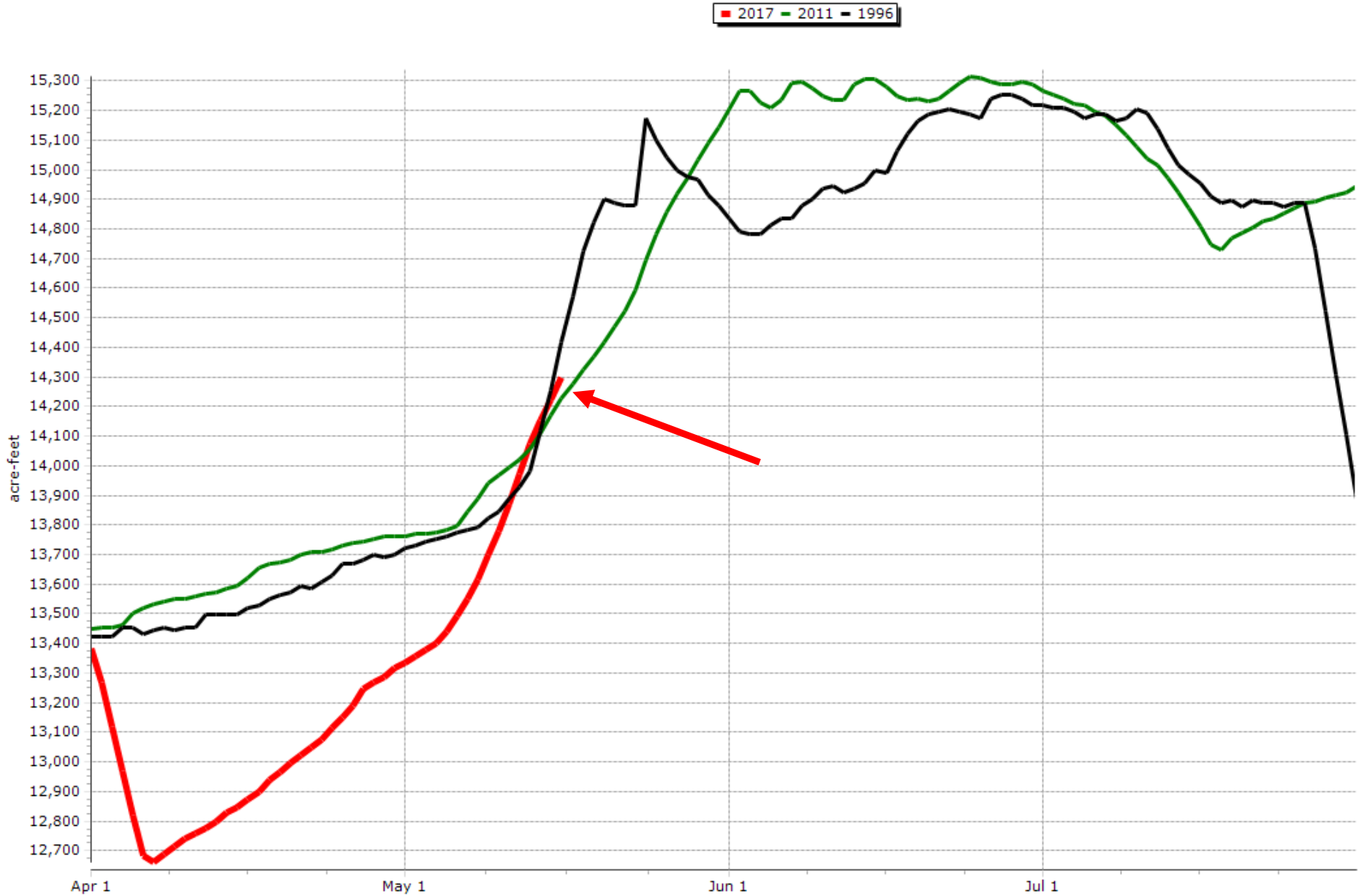




ONE-MONTH OUTLOOK
 PRECIPITATION PROBABILITY
 0.0 MONTH LEAD
 VALID MAY 2017
 MADE 30 APR 2017

EC MEANS EQUAL
 CHANCES FOR A, N, B
 A MEANS ABOVE
 N MEANS NORMAL
 B MEANS BELOW





Operations Release Plan (Summary)*

- Jackson – 2,200 cfs discharge, will likely get around the 4,000 to 6,000 cfs range in early June. Currently 67% full. Target to fill in early-June. Taper off to 2,000 to 2,500 cfs during the summer.
- Palisades – 10,000 cfs discharge ~3.3 MAF of residual remains to come into the system above Palisades Dam. 24% full. Targeting to fill in mid to late June.
- Note: At the very least, high flows below the dam from the tributaries is expected, if not flood flows, depending on the spring temperatures and potential rainfall. Tributary flows will be high if not near channel capacity as well.

*SUBJECT TO CHANGE

RECLAMATION

Contacts and More Information:

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bstevens@usbr.gov

Snake River Operations Web Sites

- New 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/>

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Questions?



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