



TO: PRRIP WATER ADVISORY COMMITTEE
FROM: PRRIP EXECUTIVE DIRECTOR'S OFFICE
SUBJECT: PLATTE RIVER HYDROLOGY UPDATE
DATE: MAY 1, 2020

I. INTRODUCTION

In the past the Executive Director's Office (EDO) has prepared an annual flow summary summarizing key aspects of the central Platte River hydrology for the previous year. In an effort to provide the Water Advisory Committee (WAC) with more current information, the EDO will be providing brief hydrology updates at each WAC meeting to give an overview of the current hydrology in the river and any other key hydrologic activities. The operations and performance of the PRRIP Water Action Plan (WAP) projects is now reported on an annual basis in the WAP Accounting Report is not part of these updates.

II. CURRENT RIVER CONDITIONS

The 2020 hydrograph for the Platte River at the USGS gage near Grand Island and target flows are shown in **Figure 1**. **Figure 1** includes:

- Daily maximum and minimum flows over the gage's period of record (04/01/1934 to Present)
- The 95, 75, 50 (median), 25, and 5 percentile of flow over the gage's period of record
- USFWS target flows based on the real time hydrologic condition
- Environmental account releases at Grand Island is also shown along with the Grand Island flow minus the environmental account release (the dashed blue line).

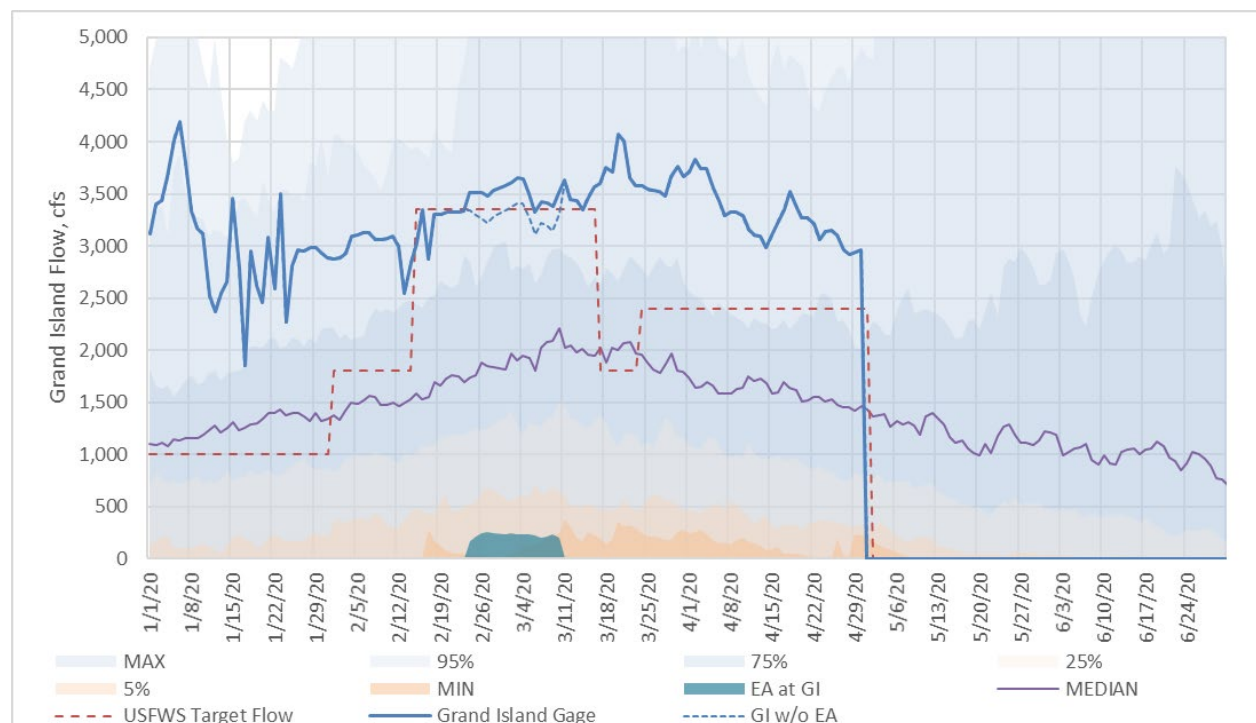


Figure 1. Daily flow at the USGS Grand Island gage with daily maximum, minimum, and 95, 75, 50, 25, and 5 percentiles. Environmental account releases at Grand Island and USFWS target flows are also shown.

As seen in **Figure 1**, flows in the first part of 2020 were consistently higher than normal and have not dropped below the 75 percentile of observed flows. The current cumulative volume of flow at Grand Island as of 4/29/2020 is 775,875 AF which is just shy of the 95% of cumulative volumes for this time of year. Flows are likely to remain high during spring runoff due to full upstream reservoirs and above average snowpack in both the South and North Platte basins.

The USFWS (Service) made a release from the Lake McConaughy Environmental Account (EA) in late February and into March. The Service began another release on April 29th that is expected to last until the middle of May.

III. LAKE MCCONAUGHY ENVIRONMENTAL ACCOUNT

The volume of Lake McConaughy Environmental Account has steadily increased over the past several years, as seen in **Figure 2**. The account had approximately 165,000 AF of storage at the end of February.

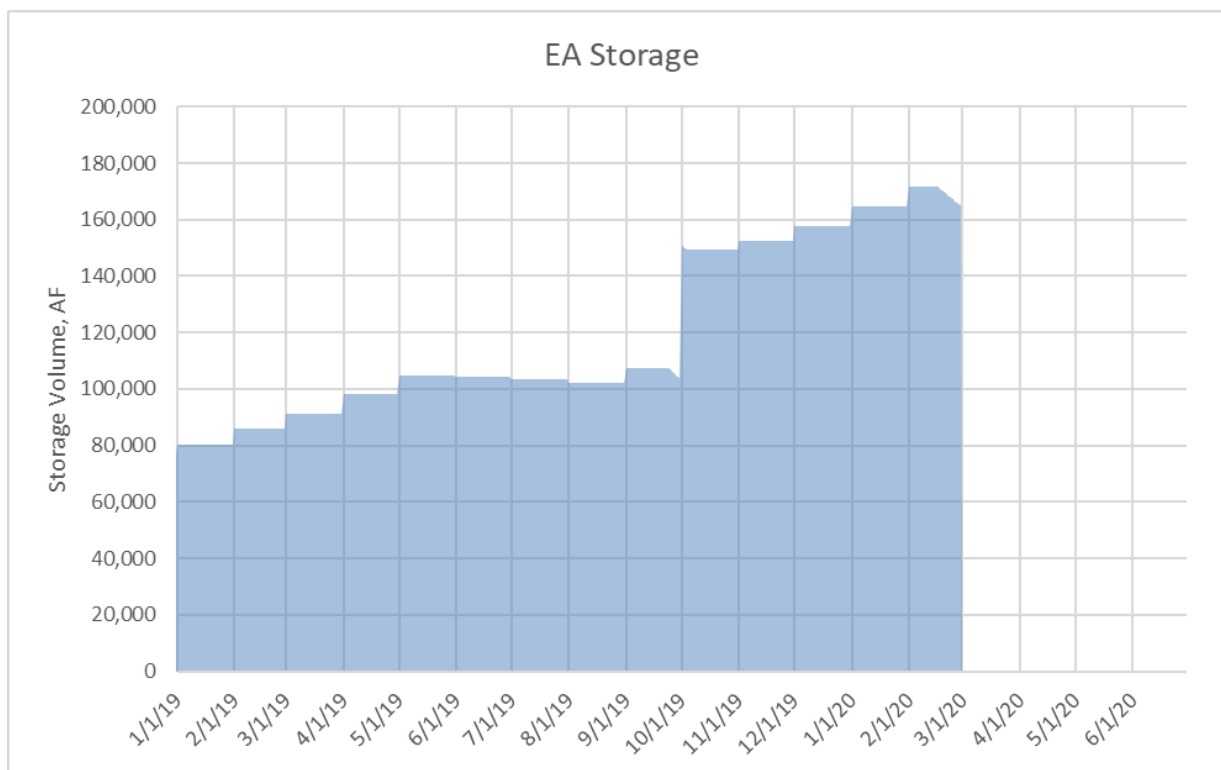


Figure 2. Lake McConaughy Environmental Account Volume

IV. CURRENT SNOWPACK CONDITIONS

2020 has been an above average year for snowpack in both the South and North Platte basins. Snowpack in the South Platte Basin peaked at 121% of normal and remains at 116% of normal on 4/29/2020 as shown in **Figure 3**. Warmer weather in the first part of May will likely lead to runoff and a spring peak in the South Platte at some point in mid to late May.

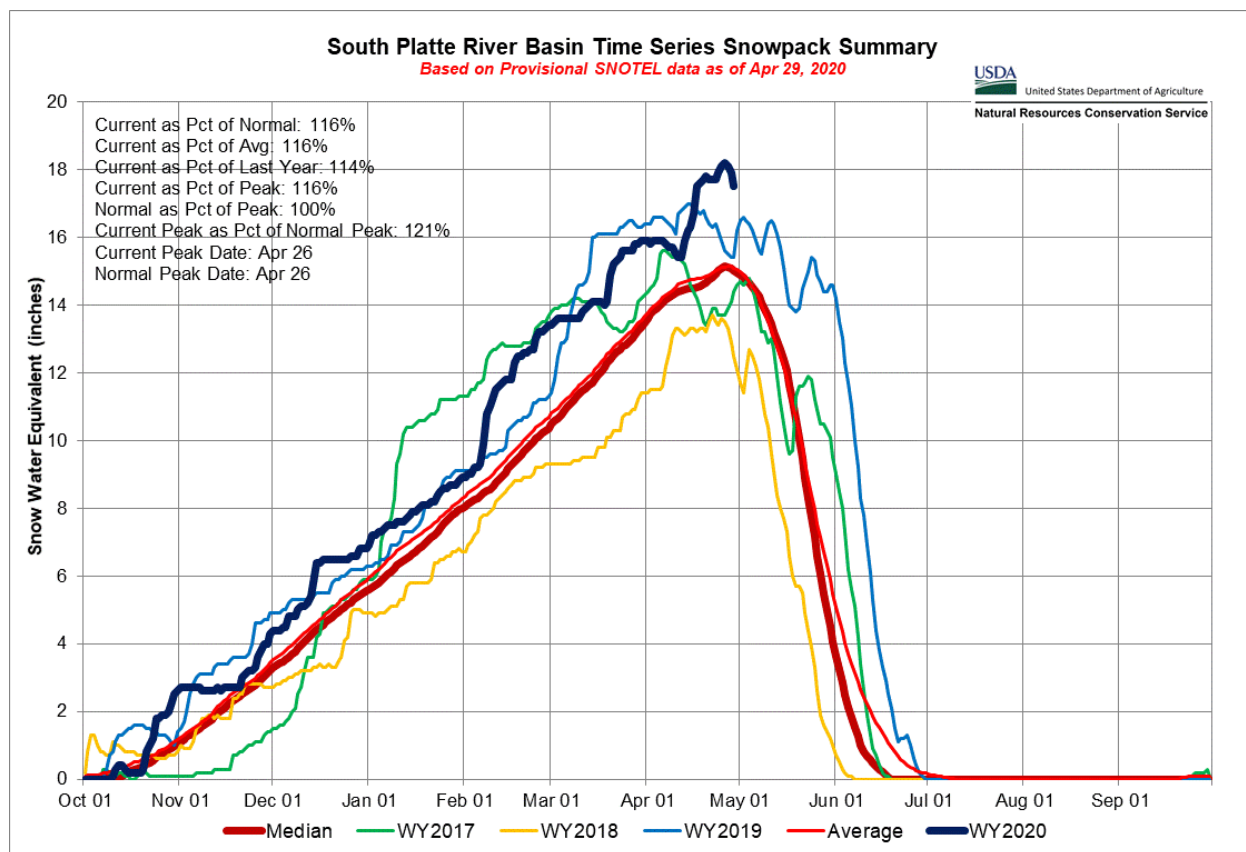
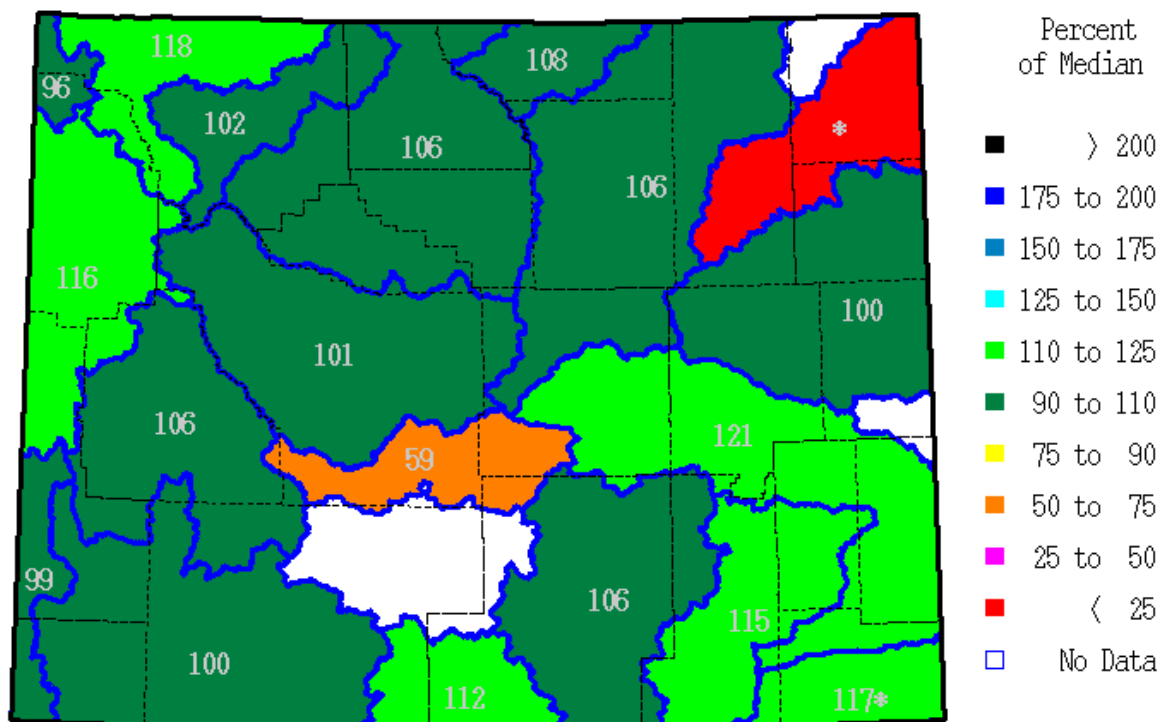


Figure 3. Snowpack in the South Platte Basin

The North Platte basin also has above normal snowpack, as seen in **Figure 4**, with the Upper North Platte at 106% of snow water equivalent, the Lower North Platte at 121%, and the Laramie River at 115%. Runoff in the North Platte basin is expected to be above average due to limited storage space left in the North Platte reservoirs.



SWE % of Median as of Thursday, 30 April 2020



Produced by the Wyoming Water Resources Data System: <http://www.wrds.uwyo.edu>
 * = Data may not provide a valid measure of conditions

Figure 4. Snowpack in the North Platte Basin