DWR TEMPERATURE ANALYSIS AND MOP

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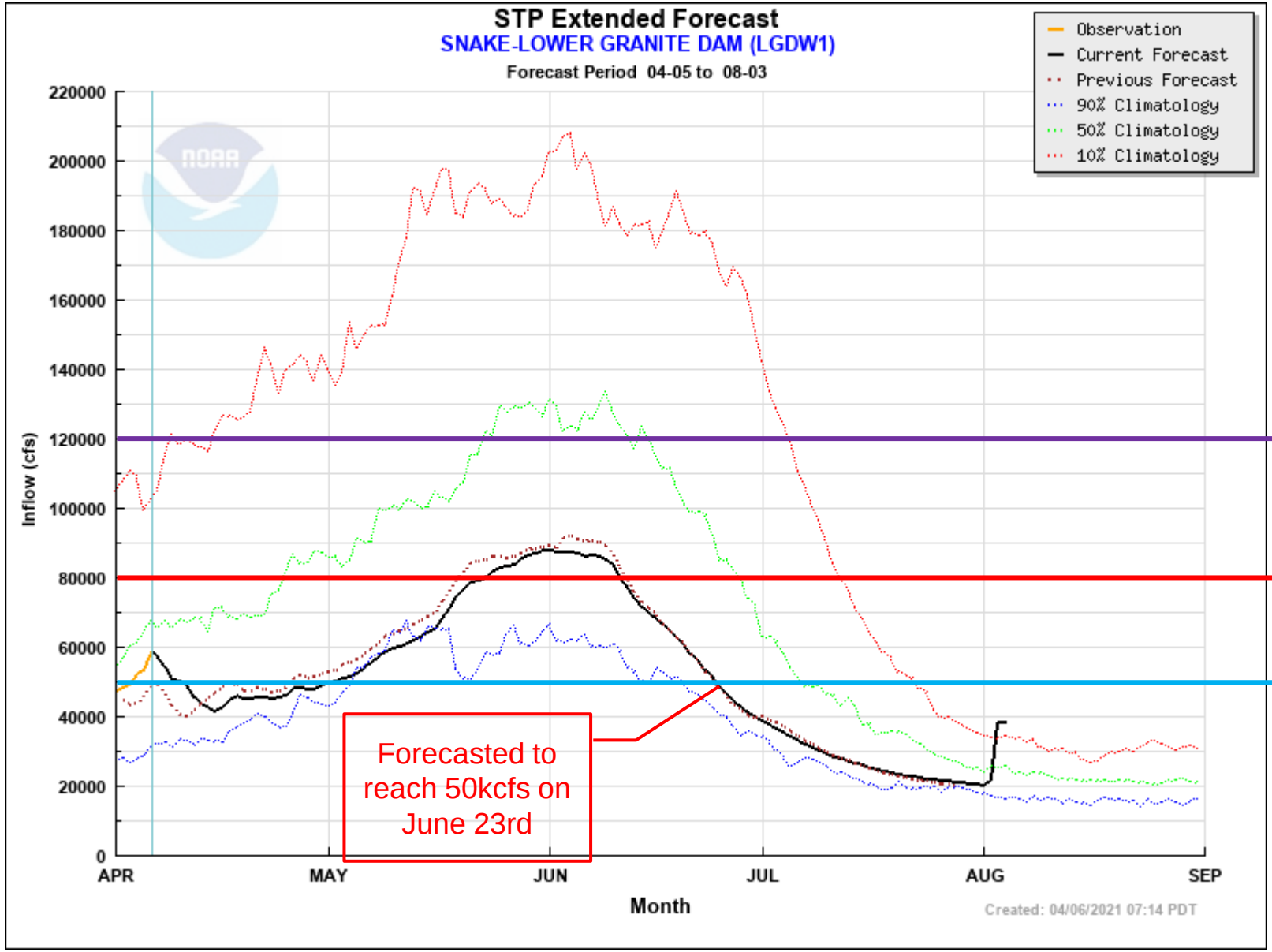
US Army Corps of Engineers®

Lower Granite Pool on the Clearwater River

2021 LOWER GRANITE MOP LEVELS



733.0-734.5ft (MOP)

734.0-735.5ft (1-ft Raised MOP)

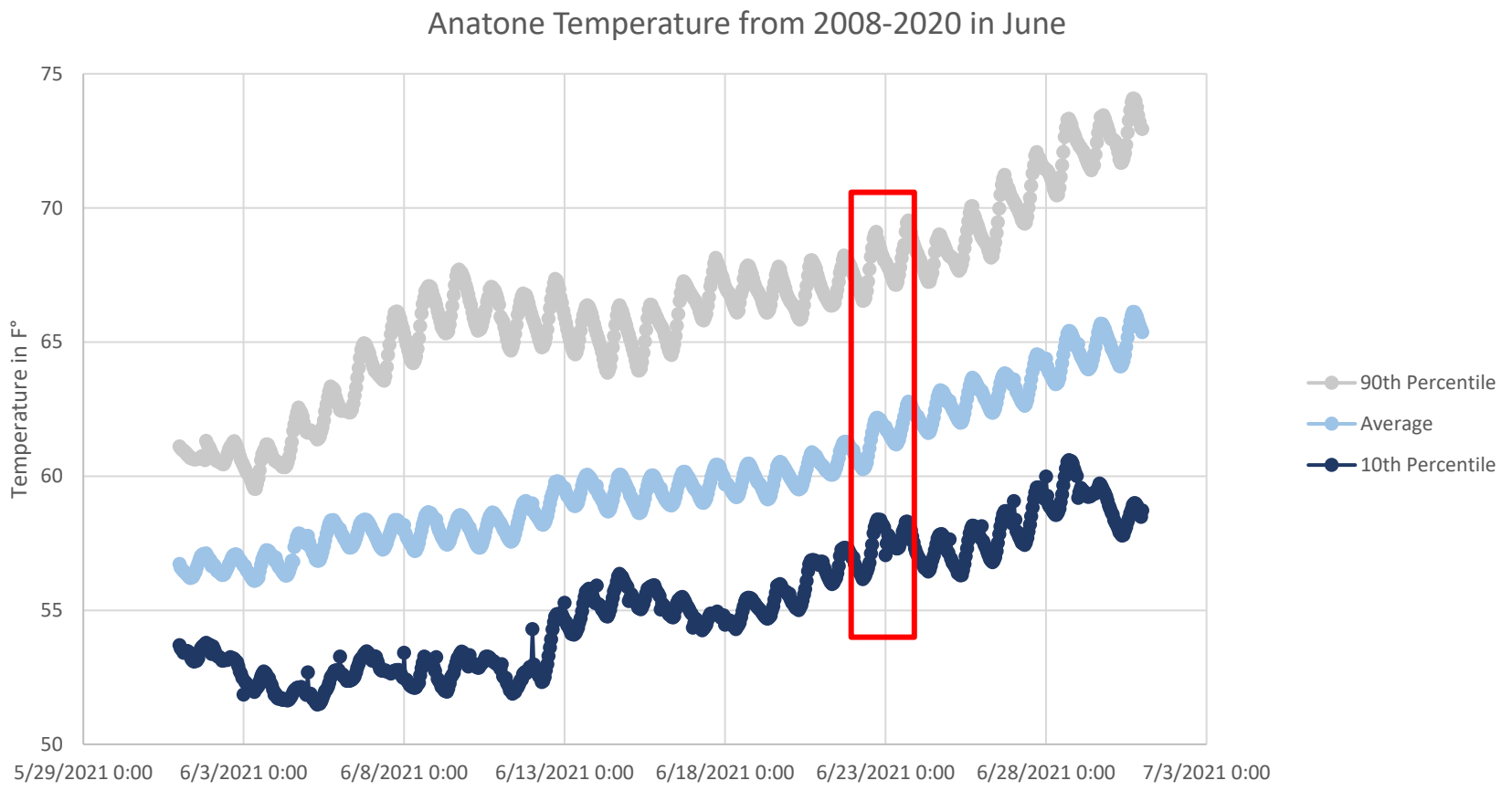
735.0-736.5ft (2-ft Raised MOP)

736.0-737.5ft (3-ft Raised MOP)

TEMPERATURE AT ANATONE

Temperatures for the Snake River on June 23rd

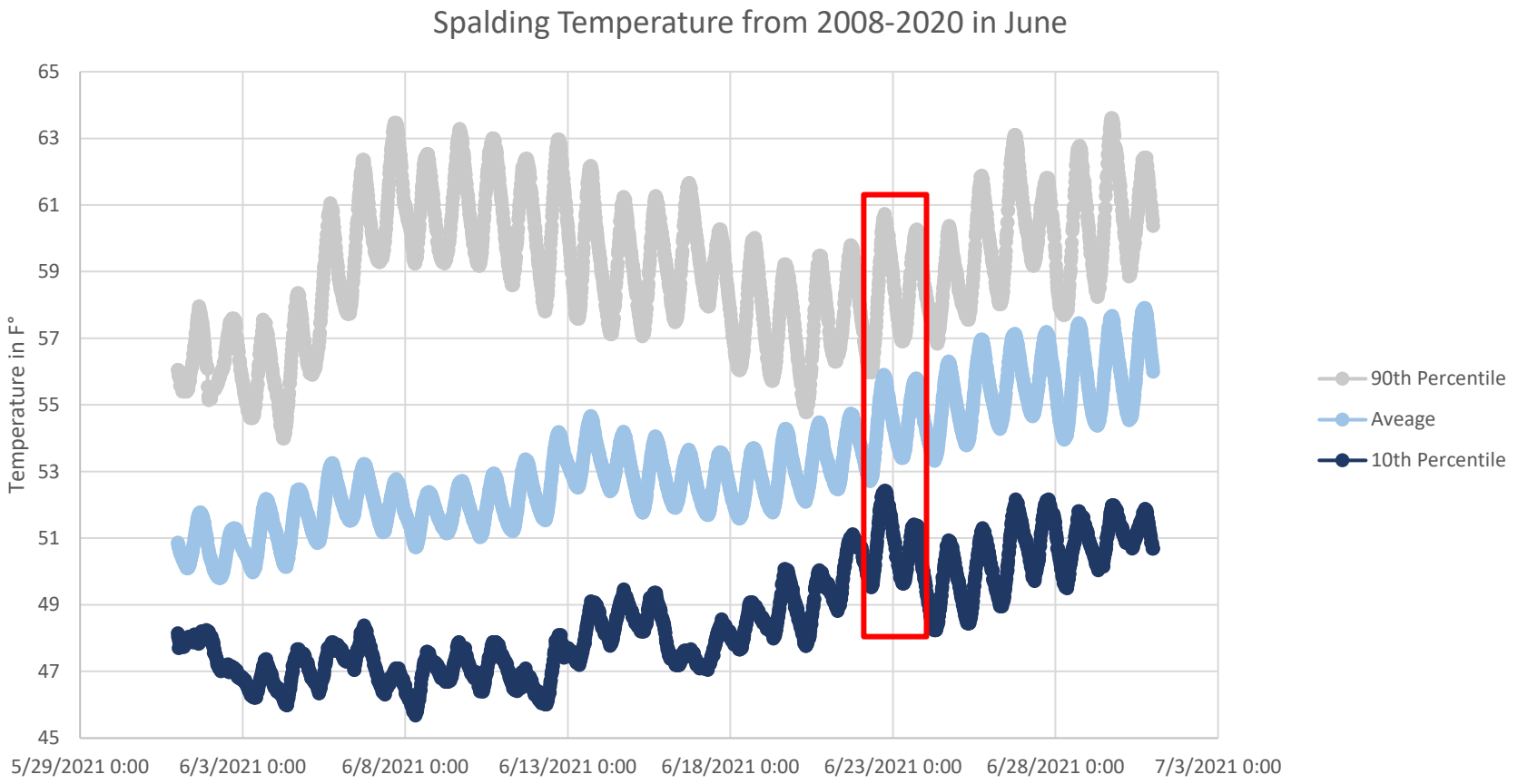
90th Percentile: 68° F
Average: 62° F
10th Percentile: 58° F



TEMPERATURE AT SPALDING

Temperatures for the Clearwater River on June 23rd

90th Percentile: 59° F
Average: 55° F
10th Percentile: 51° F



TEMPERATURE AT LOWER GRANITE FOREBAY

Raising the Forebay at Lower Granite requires roughly:

- 8,100 ac-ft from 733.0-734.0ft
- 8,300 ac-ft from 734.0-735.0ft
- 8,300 ac-ft from 735.0-736.0ft
- 8,500 ac-ft from 736.0-737.0ft
- 8,600 ac-ft from 737.0-738.0ft

Going from 2-ft raised MOP (735.0-736.5ft) to a 3-ft raised MOP (736.0-737.5ft) requires storing approximately 8,400ac-ft during June 20th-22nd when incoming temperatures are in the range of 58-68°F on the Snake River and 51-59°F on the Clearwater River.

Storing water for a raised MOP this early in the year when temperatures are this cold and stratification for the Lower Granite forebay has not fully developed cannot be modeled to a level of detailed that can determine an impact with the current CEQUAL-W2 model for real-time. However, filling with cool water in June is not expected to produce a temperature impact at Lower Granite, even into the summer months.

Note: CEQUAL-W2 model calibration is for temperatures above 62°F, stratification in the forebay, and flows less than 60,000cfs.