#### DWORSHAK OPERATIONS FOR SPRING RUNOFF

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Date: Mar. 3rd, 2021



Ridgeline of the Clearwater Basin, 2020

Multimeters of the first of the

TANKISKGATE

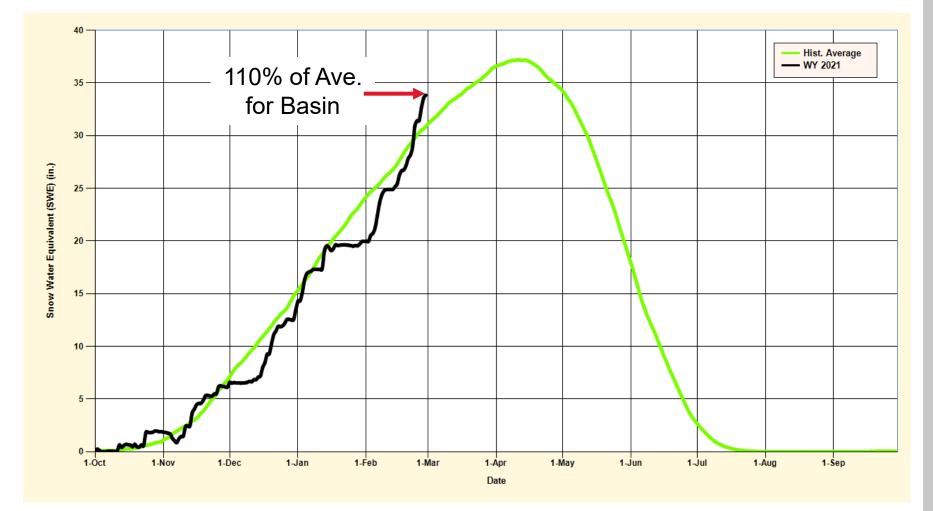




## **BASIN SNOW CONDITIONS**



- Current conditions
  - Low Elevation= ~ 25"
    SWE (well above normal)
  - Mid Elevation= ~35"
    SWE (above normal)
  - Upper Elevation =
    ~40" SWE (normal)
- Impacts
  - Low elevation snow
    will **runoff early**: late
    March / early April



### WATER SUPPLY FORECAST (WSF) AND FLOOD RISK MANAGEMENT (FRM) TARGETS



- Significant increase in WSF over last 10 days of Feb
  - $\circ$   $\;$  largely due to above average low elevation snow

	WSF	
March 1 <sup>st</sup>	2,855 KAF	
April 1 <sup>st</sup>	2,855 KAF	

	System FRM Target	Local FRM Target
March 31 <sup>st</sup>	1,494.6 ft	1516.0 ft
April 30 <sup>th</sup>	1,473.4 ft	1523.5 ft



### SHIFTING SYSTEM SPACE

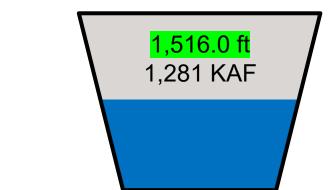
#### March 31<sup>st</sup> FRM Targets

# DWORSHAK 1,494.6 ft 1,534 KAF

NO SHIFT

SHIFT

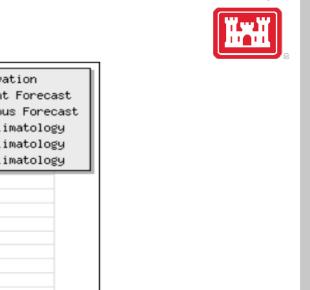
1,534 KAF - 1,281 KAF = 253 KAFof space reservation can be shifted to Grand Coulee

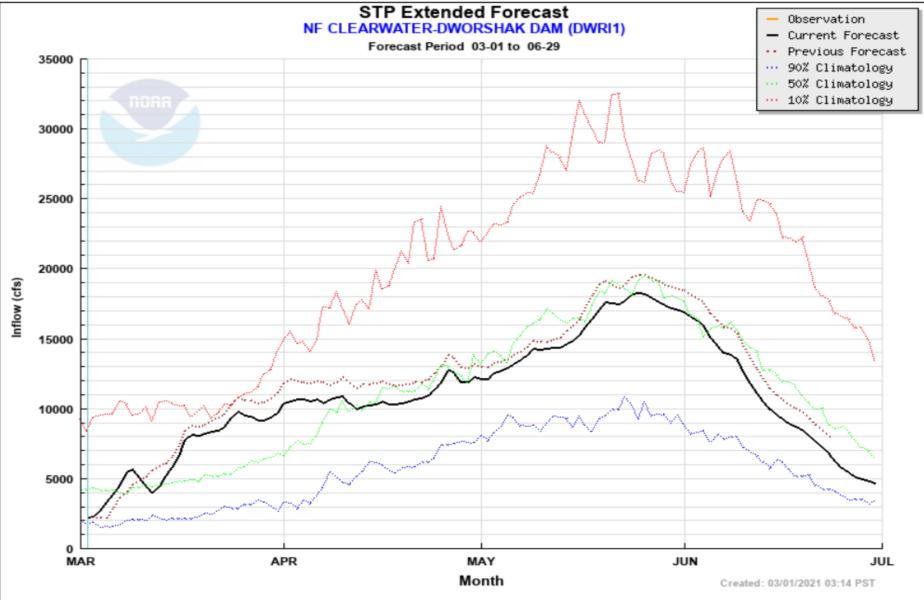


- Dworshak is **always** required to hold space to meet <u>local</u> flood control targets
- The difference between system flood control space and local flood control space may be shifted to Grand Coulee
  - NWW has submitted the request to shift
- Dworshak is required to meet its April
  **30**<sup>th</sup> target elevation, which is influenced by system FRM and FCRC



#### **CURRENT FORECAST**



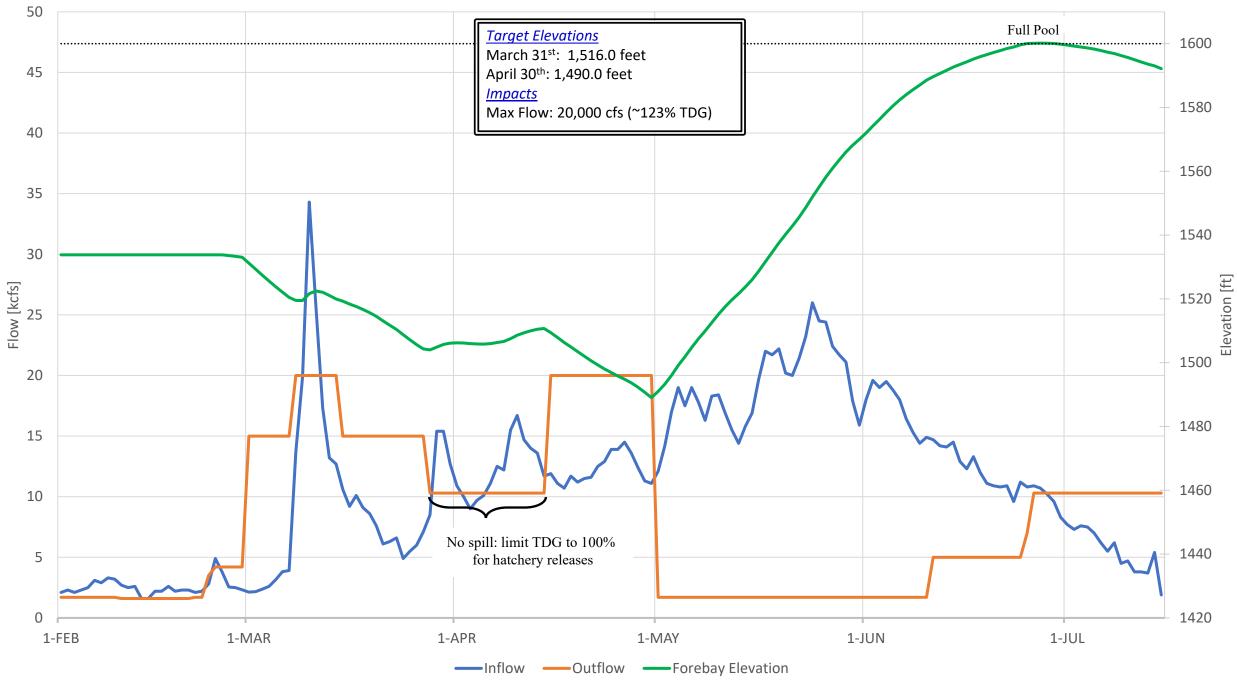




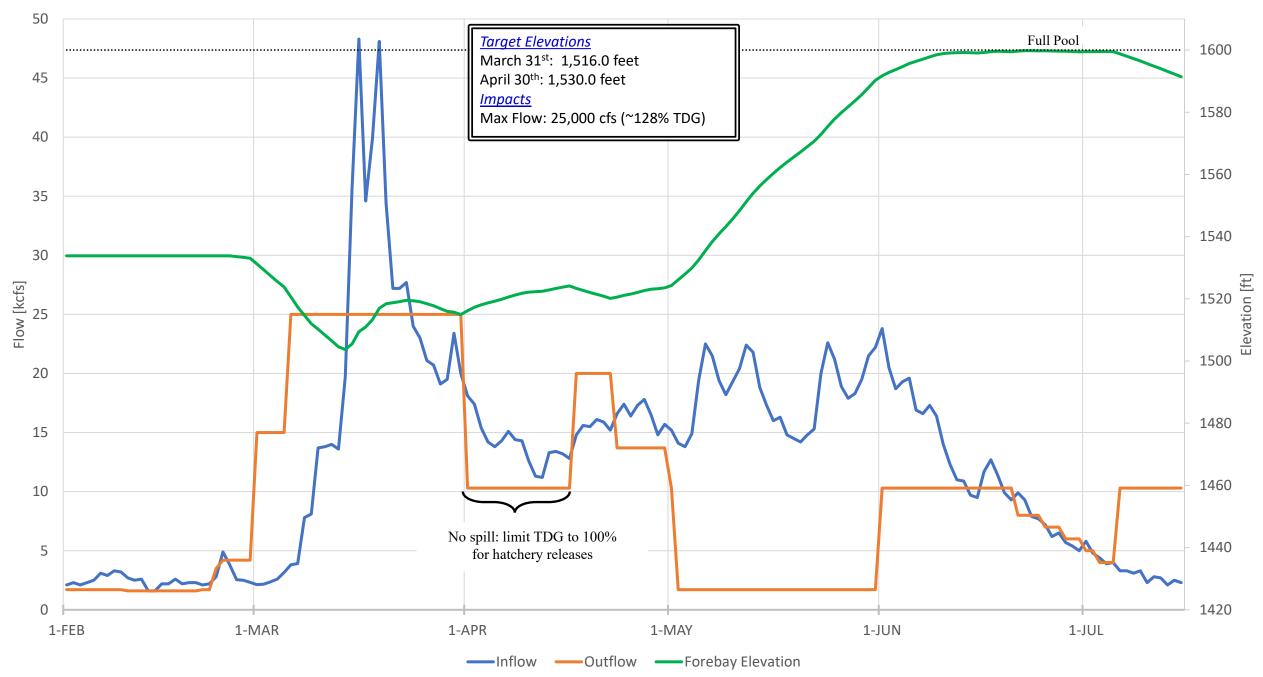


- Constantly evaluating operational plan based on the following scenarios
  - Early runoff due to low elevation snowpack late March and early April
    - Similar to water years 2014 and 2017
  - o STP
  - Falling forecast
    - Similar to water year 2000

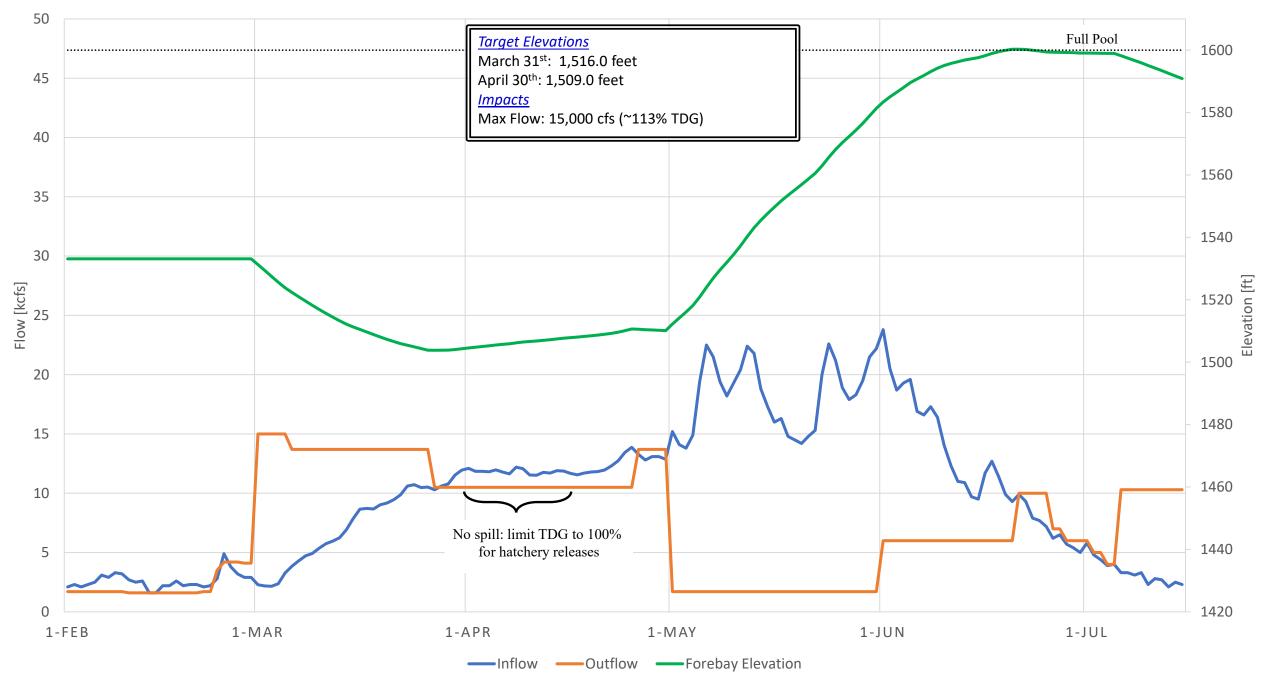
**DWORSHAK OPERATIONS IN EARLY RUNOFF SCENARIO - 2014 ANALOG YEAR** 

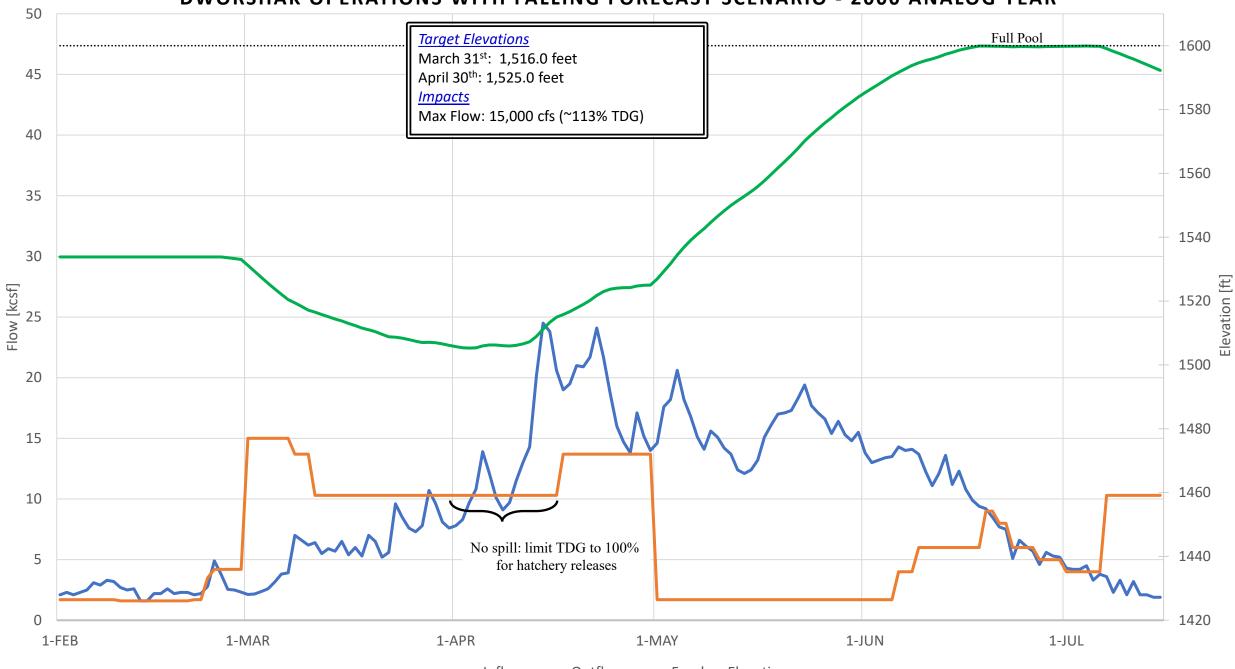


DWORSHAK OPERATIONS IN EARLY RUNOFF SCENARIO - 2017 ANALOG YEAR



#### **DWORSHAK OPERATIONS - STP**





#### **DWORSHAK OPERATIONS WITH FALLING FORECAST SCENARIO - 2000 ANALOG YEAR**

----Inflow -----Outflow -----Forebay Elevation





- Hatchery releases scheduled March 31st to April 14th
  - Targeting 100% TDG
- Limiting time above 110% TDG to minimize impacts to the hatchery and in-river fish while meeting March and April FRM targets
- Constantly analyzing the inflow forecast, snowpack, and April WSF for the opportunity to keep TDG below 110%
- Tentative flow schedule through mid-March
  - March 1<sup>st</sup> 5<sup>th</sup>: 15,000 cfs (~113% TDG)
  - March 6<sup>th</sup> -12<sup>th</sup>: 13,700 cfs (~110% or lower TDG)
    - Subject to change early next week based on forecast and basin conditions