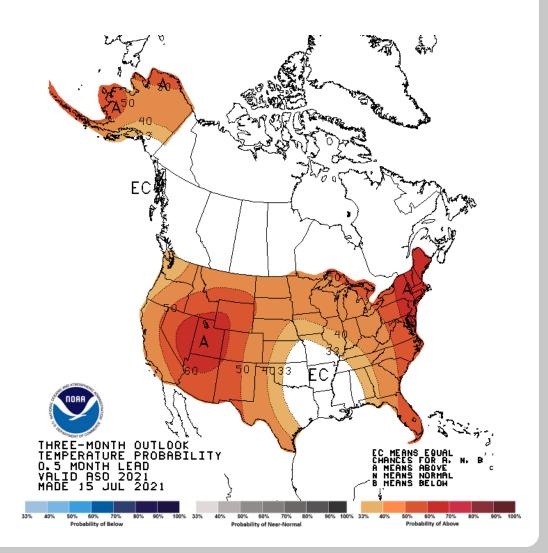


UPDATED CONDITIONS



Considerations for operations moving forward

- Climate Prediction Center (CPC) outlook as of July 15th above average temperatures for the next 90 days
- Doble testing (temperature impacts)
 - Aug 9th 13th & Aug 16th 17th (no generation from 0600 1900, except for station power of 5 kcfs, units are in service at night)
- Lower Granite's inflow is slowly receding and is approaching less than 20 kcfs, this will have an impact on RSW operations
- Actions implemented (or going to be implemented) under various approved SORs have extended water from DWR by ~10 days
 - Gap at the end of Aug. has been reduced from 15 to 5 days



ALTERNATIVE DESCRIPTIONS

Based on conditions and suggested alternatives as of <u>Wednesday</u>, <u>July 21st 2021</u>, all dates are approximate and could slide 1-2 days in either direction based on observed conditions.



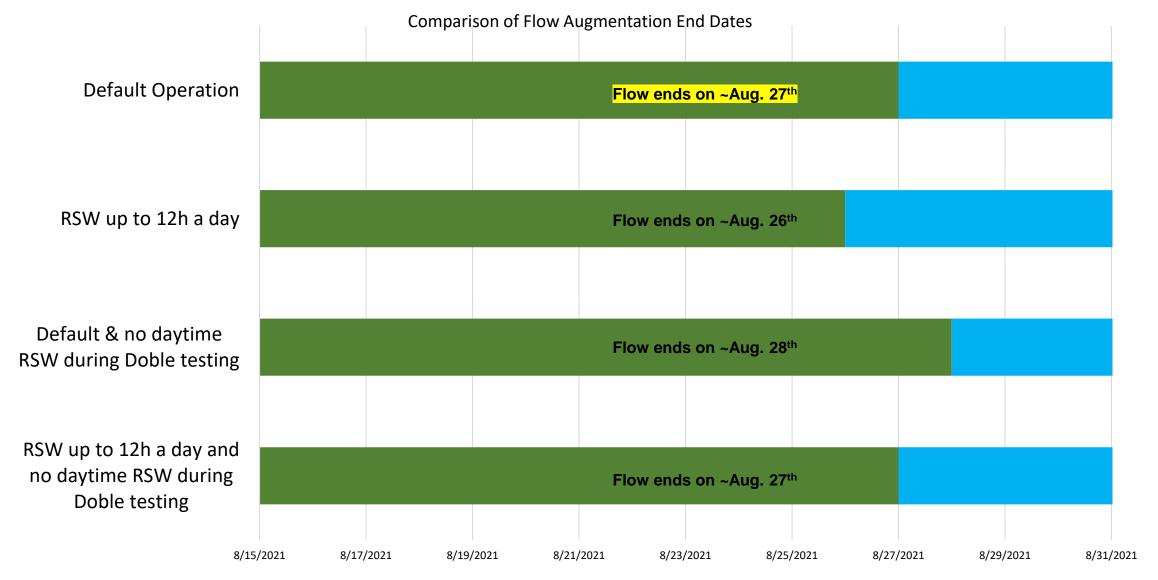
Based on low flow conditions, many previous alternatives are all converging on the same date, alternatives listed below are to show how adjustments could alter the extension of water from DWR. *All alternatives take into consideration current CPC forecast, doble testing, a higher tailwater temperature during the approved time window and water needed to cool the river back down to 68°, and targeting the adult fish trap at 69° F.*

- 1. <u>Default operation</u> Summer Spill operations as defined in the 2020 BA. Minimum generation, spill up to 18kcfs. Spill is through the RSW unless daily inflow is under 21kcfs, then all spill is put released through the conventional spill bays (deep spill).
 - Flow Augmentation Ends: ~Aug. 27th
- 2. <u>Alternative operation</u> Have the RSW remain open for up to 12hours a day (daylight hours) and then conduct less spill during the other 12hours through the conventional spill bays (deep spill).
 - Flow Augmentation Ends: ~Aug. 26th
- 3. <u>Alternative operation</u> In combination with option 1 or 2. During doble testing, when units are not available from 0600-1900, close the RSW and have all spill occur through the conventional spill bays (deep spill), then have the RSW open again at night.
 - Flow Augmentation Ends: ~1 day later with this operation
- 4. Requested operation Draft Dworshak up to 10 feet deeper than the typical 1,535 ft elevation target by September 1st to provide additional flow augmentation water. DWR board / SRPA releases of 200 KAF through September will be measured based on the observed elevation on midnight August 31st.



COMPARISON OF FLOW AUGMENTATION END DATES







REVIEW OF DWR DRAFT



	Flow	Days short	Additional					
	Augmentatio	of End of	Volume Needed	End of Aug.	End of Sept.	Refill Probability	Refill Probability	Refill Probability
Alternative	n Ending	Aug	(kaf)	Elevation (ft)	Elevation (ft)	by July 1st	by June 25th	by June 20th
Default Operation*	~Aug. 27 th	5	85	1,529	1,513	94.5%	94.0%	94.0%
RSW up to 12h a day	~Aug. 26 th	6	102	1,528	1,512	94.0%	94.0%	93.5%
Default and no daytime RSW during Doble testing	~Aug. 28 th	4	68	1,531	1,515	95.0%	94.5%	94.0%
RSW up to 12h a day and no daytime RSW during Doble testing	~Aug. 27 th	5	85	1,529	1,513	94.5%	94.0%	94.0%

^{*} Current operations that are being implemented under SOR

Note: Updated and in-depth analysis completed on refill, preliminary numbers have been updated. Standard refill probabilities for July 1st and June 25th are 95.5% and Jun. 20th is 95.0%

- SRBA's 200 KAF is drafted between the end of August elevation and the end of September elevation.
- USACE continues to investigate the feasibility of drafting Dworshak below 1,535 ft before the end of August (as of 19 July 2021).
- % Chance of refill is rounded down to the nearest 0.5%



REVIEW OF DWORSHAK DRAFT



31 Aug Elevation [ft]	30 Sept Elevation [ft]	% Chance of Refill By 1 July	% Chance of Refill By 25 June	% Chance of Refill By 20 June
1,535	1,520	95.5%	95.5%	95.0%
1,534	1,519	95.0%	95.0%	95.0%
1,533	1,517	95.0%	95.0%	94.5%
1,532	1,516	95.0%	95.0%	94.5%
1,531	1,515	95.0%	94.5%	94.0%
1,530	1,514	94.5%	94.5%	94.0%
1,529	1,513	94.5%	94.0%	94.0%
1,528	1,512	94.0%	94.0%	93.5%
1,527	1,511	94.0%	94.0%	93.5%
1,526	1,510	94.0%	93.5%	93.0%
1,525	1,509	93.5%	93.5%	93.0%
1,524	1,508	93.5%	93.0%	92.5%
1,523	1,507	93.0%	93.0%	92.5%
1,522	1,506	93.0%	92.5%	92.0%
1,521	1,504	92.5%	92.5%	92.0%
1,520	1,503	92.5%	92.0%	91.5%
1,519	1,502	92.0%	91.5%	91.5%

- SRBA's 200 KAF is drafted between the end of August elevation and the end of September elevation.
- USACE continues to investigate the feasibility of drafting Dworshak below 1,535 ft before the end of August (as of 19 July 2021).
- % Chance of refill is rounded down to the nearest 0.5%