

Summary Document for Shasta/Keswick Operational Scenarios
 Prepared by the Southwest Fisheries Science Center on March 24th, 2021

Below are results for one USBR scenario ran March 23rd 2021. The scenario has hydrology (Input 90% exceedance) and air temperature (25% exceedance of L3MTO) as inputs. Inputs from the scenario are used to generate daily average Sacramento River water temperatures using the RAFT model and associated temperature-dependent egg mortality and survival estimates using the NMFS stage-independent temperature mortality model (Martin et al. 2017) for the 2021 temperature management season.

Further details of modeling methods are at: <https://oceanview.pfeg.noaa.gov/CVTEMP/>

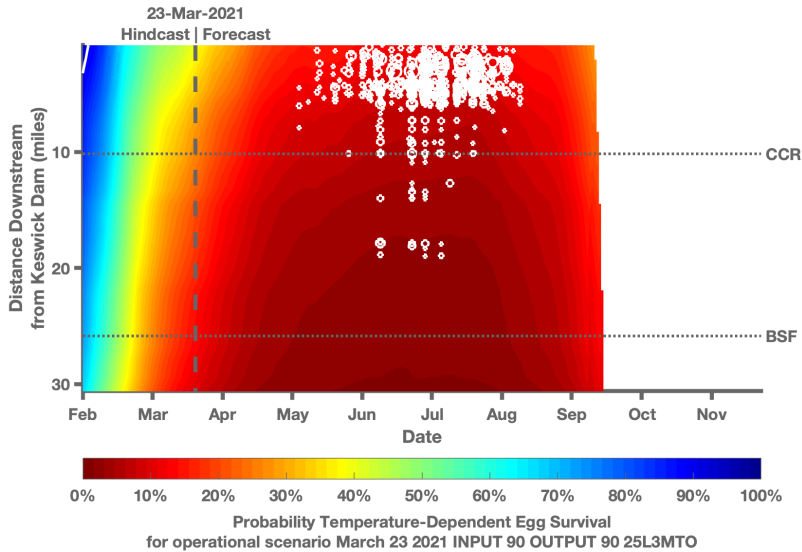


Figure1: Estimated temperature-dependent egg survival produced by the NMFS stage-independent temperature mortality model under the one March 23rd 2021 scenario. 2012-2019 redd distributions are used for all plots.

Table 1: Estimated temperature-dependent egg mortality under the one March 23rd 2021 scenario assuming a 2012-2019 spatial and temporal redd distribution using output from RAFT model.

Scenario	River Model	Mean (%)	Median (%)
March_23_2020_INPUT_90_OUTPUT_90_25L3MTO	RAFT	89	90