

May 15, 2023

Seasonal water supply forecast for the Owyhee river below dam

Figure 1. Basin snowpack (SWE)
owyhee_r_bl_owyhee_dam , issue date: 2023-05-15

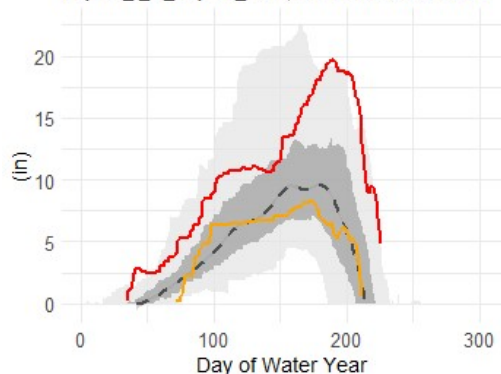


Figure 2. Accumulated precipitation
owyhee_r_bl_owyhee_dam , issue date: 2023-05-15

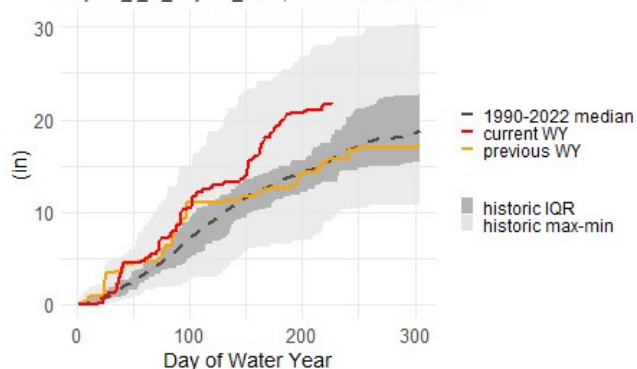


Figure 3. Antecedent flow (red) vs
historic monthly flow (boxplots)
owyhee_r_bl_owyhee_dam , issue date: 2023-05-15

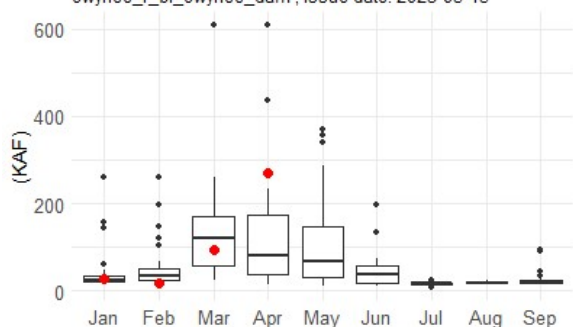
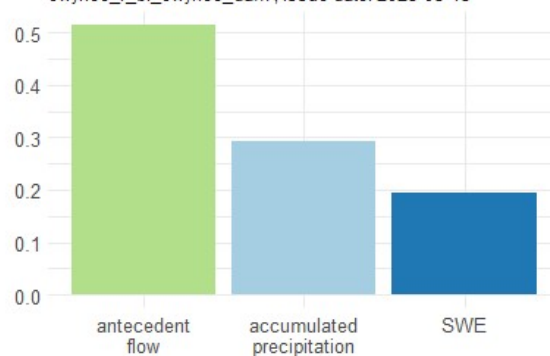


Figure 4. Relative importance of model predictors
owyhee_r_bl_owyhee_dam , issue date: 2023-05-15



Snowpack

The 2023 WY snowpack in the basin has been significantly higher than the historic average. Although the basin snowpack is usually melted off by mid-May, the basin still contains unmelted snowpack as of 15 May 2023.

Precipitation

Accumulated precipitation exceeds climatological normal, being of 139% of median for 1990 to 2022.

Antecedent river streamflow

The antecedent streamflow during February and March has been slightly below historic averages. The active snowmelt period in the basin starts in the second half of April. Given the significantly higher snowpack accumulation in the current water year, the streamflow in May has been exceptionally high, exceeding the 95th percentile of observations from 1990 to 2022.

Seasonal streamflow forecast

At this issue date the underlying forecast model relies more on antecedent flow and accumulated, with a smaller contribution from basin snowpack conditions (see Figure 4). The forecast for the April through July

streamflow in the basin suggests that it will likely exceed historic median by almost 250% and constitute around 508 KAF.

90% exceedance forecast	50% exceedance forecast	10% exceedance forecast	Historic mean	Last WY
392.7	508.5	624.3	194.8	154.3