



MEMORANDUM

To: OBWB Directors
From: Sandra Schira, Water Science Specialist
Date: Oct. 27, 2025
Subject: Weather Update

Okanagan Basin Water Board
Regular meeting
Nov. 4, 2025
Agenda No: 7.4

Temperature

Temperatures cooled: after the September heatwave, October temperatures were at or below normal compared to the 1991-2020 average (Figure 1). There were no days with a maximum temperature above 30°C. Cooler temperatures for the Okanagan are consistent with the projected La Niña conditions discussed at last month's meeting.

Precipitation

As of Oct. 27, precipitation was lower than the 1991-2020 average but was an increase over the minimal precipitation received in September (Figure 2). Both Kelowna and Penticton are within the lower part of their normal range for the month, while Vernon is slightly below.

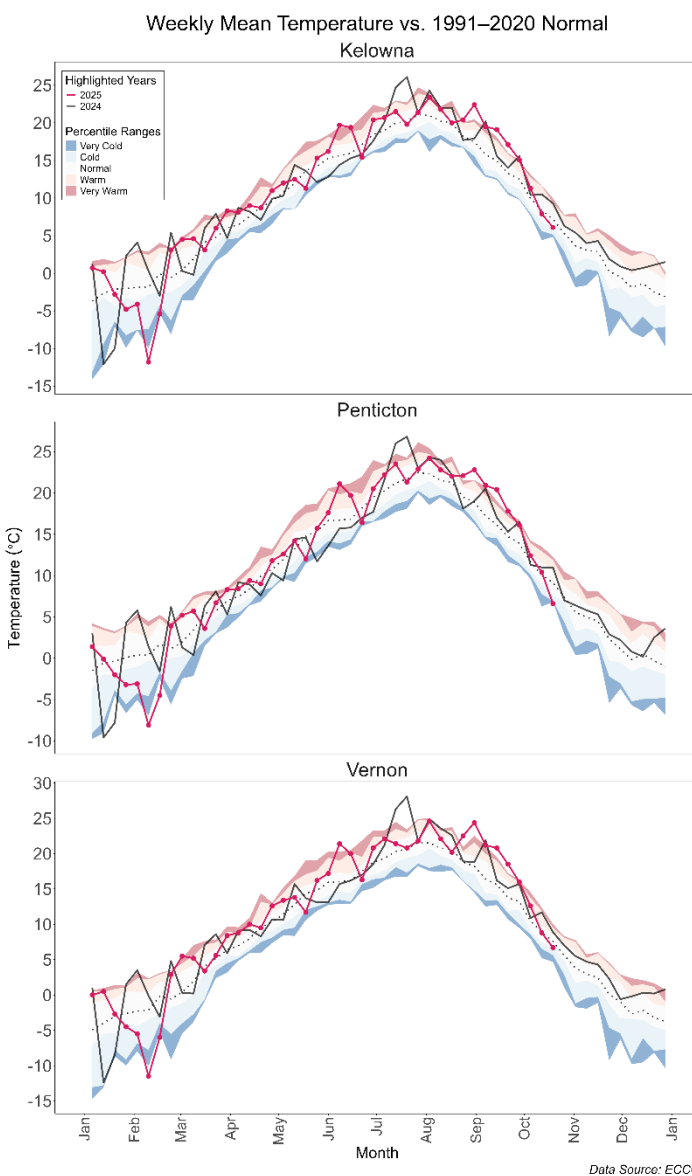


Figure 1: Weekly average temperature across the Okanagan as of Oct. 27, 2025. Compared to 1991 to 2020 range. Data retrieved from Environment and Climate Change Canada

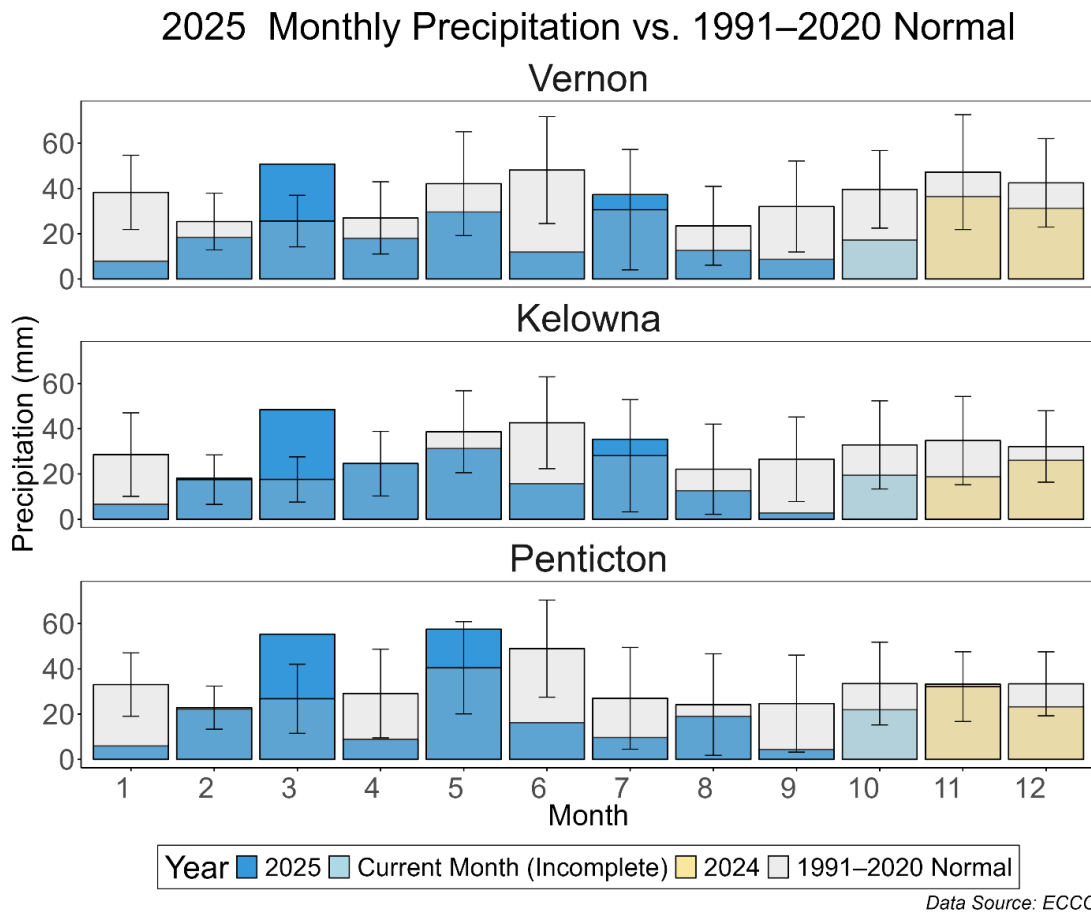


Figure 2: Monthly Precipitation in the Okanagan as of Oct. 27, 2025. Compared to 1991 to 2020 range. Data retrieved from Environment and Climate Change Canada.

The deficit in total accumulated precipitation so far this year is below the lower limit of the 1991-2020 range for both Vernon and Penticton (Figure 3). This graph highlights one of the challenges with the Province’s new drought rating system, which announced the Okanagan region was at drought level 0 on Aug. 21, 2025. The provincial drought level for the Okanagan has remained at level 3 for most of the fall. Reports suggest that the rain this month has not resulted in significant improvements in stream flow. This may be due to the water entering the soil and recharging it rather than flowing into surface water.

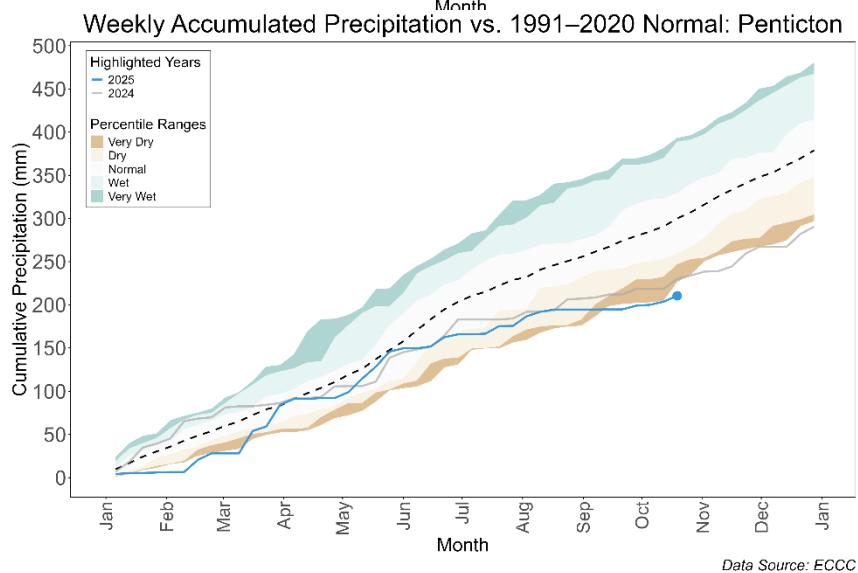
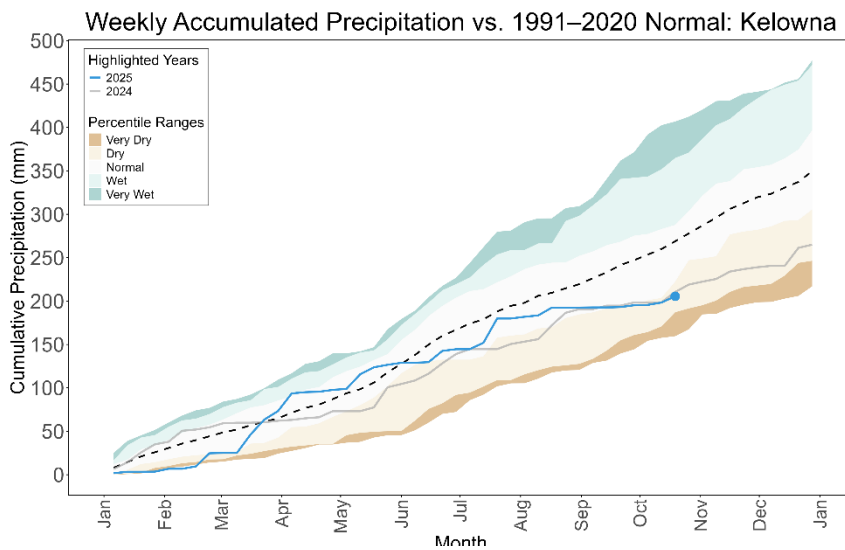
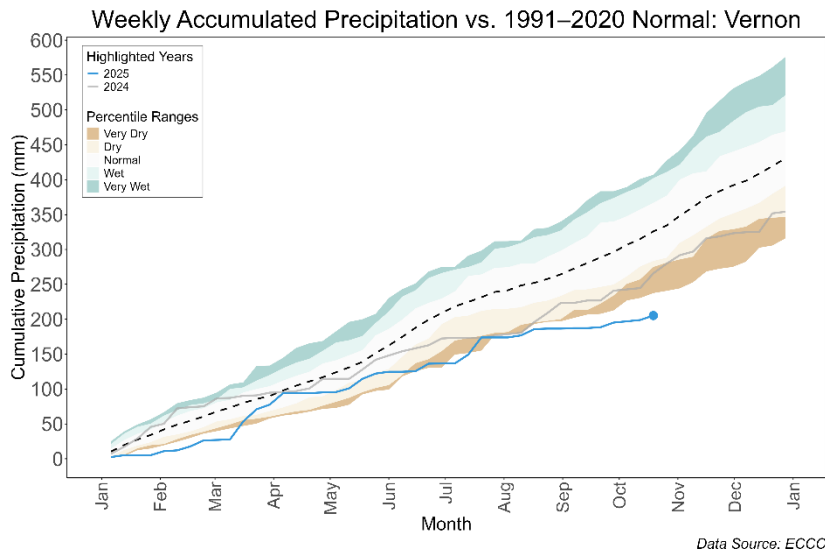


Figure 3: Cumulative weekly precipitation in the Okanagan as of Oct, 27, 2025. Compared to the 1991 to 2020 range. Data retrieved from Environment and Climate Change Canada,

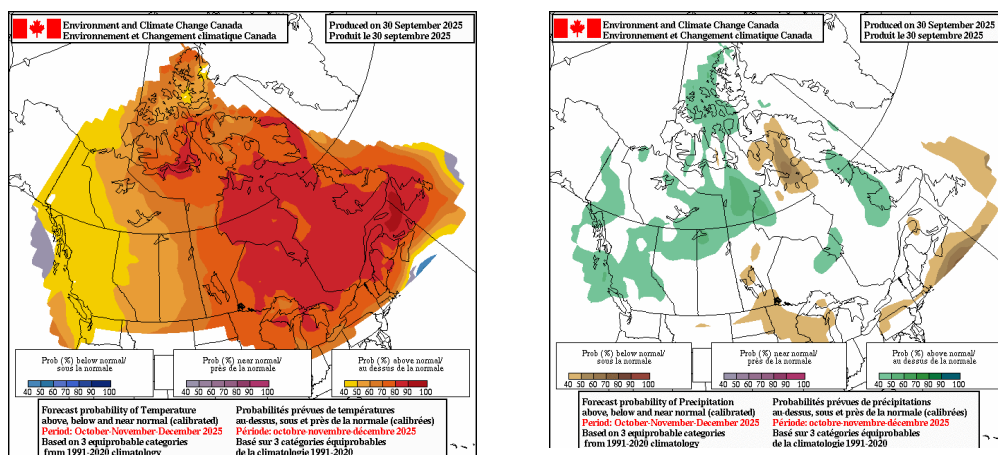


Figure 4: Three-Month Seasonal Forecast from ECCC¹ (Oct-Dec).

Seasonal forecasts indicate that October through December might be warmer than normal, but have no clear trend for precipitation. The Environment and Climate Change Canada¹ long-term seasonal forecast indicates a moderate likelihood of above-normal temperatures in the Okanagan over the next three months. Precipitation forecasts showed no clear trend (Figure 4). These results were also consistent with European models. Seasonal forecasting is highly challenging, so disagreement between models or variations from projections is not uncommon. The forecasts show the likelihood of above or below normal conditions and does not show by how much those conditions vary. Seasonal forecasts can be used to provide a sense of likely future conditions, but they should not be taken as 100 per cent certain.

Hydrology

Streamflow was variable across the valley, but many systems remain lower than normal, with the rain not translating into runoff. Okanagan Lake levels continued the trend of being low for this time of year, in part due to the early freshet seen this spring and likely as a result of the low precipitation over the summer (Figure 5).

Water supplies vary across the valley, with many reservoirs around normal, but many unregulated systems remain low, especially in the south. The province has not been holding drought calls due to the strike action, but it was still issuing drought levels for unregulated streams. The Okanagan was raised to level 4 for one week at the beginning of the month and then lowered to level 3, where it remains. The Similkameen, which has been seeing historical low flows all summer, was also downgraded to level 3.

¹ ECCC Seasonal forecasts. <https://climate-scenarios.canada.ca/?page=cansips-prob>

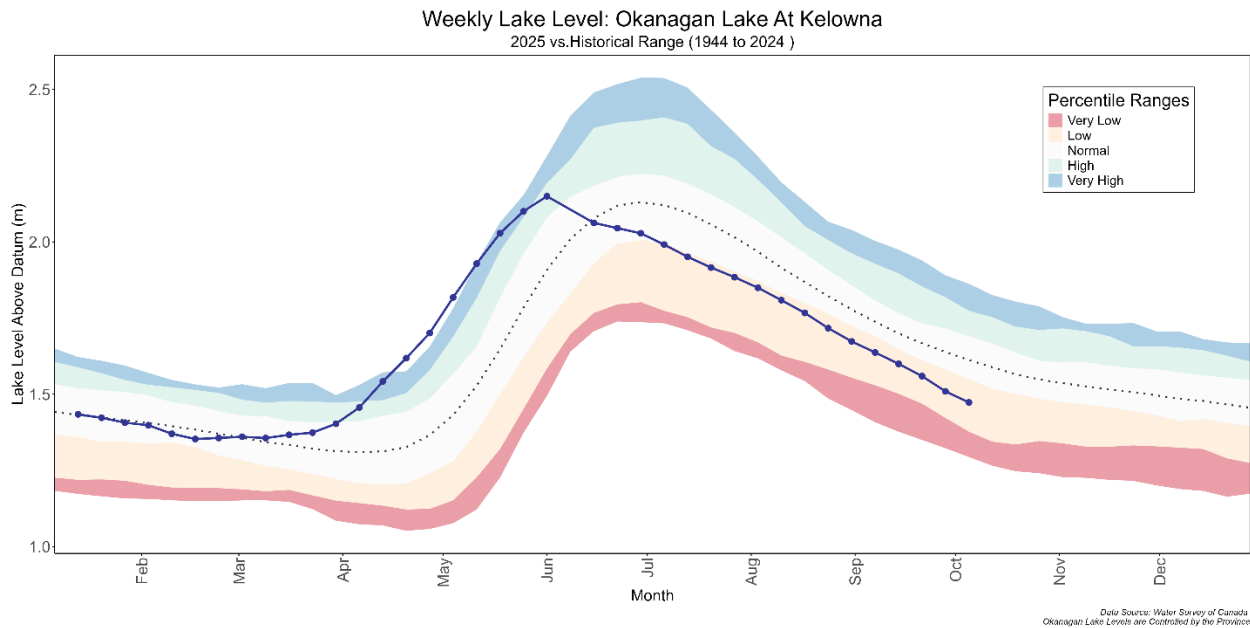
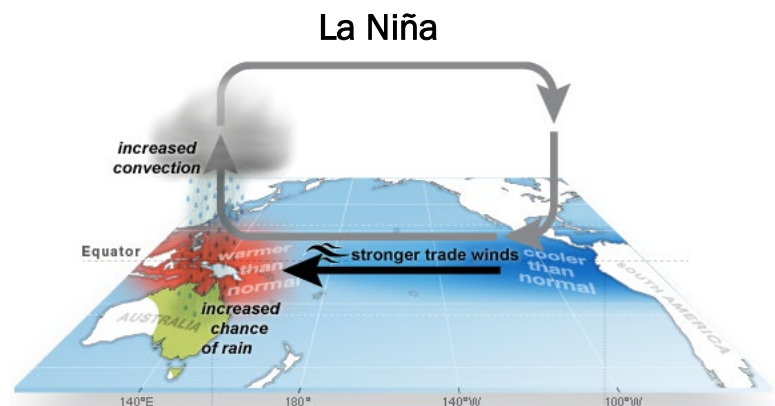


Figure 5: Weekly lake levels for Okanagan Lake at Kelowna compared to the 1944 – 2023 range as of Oct. 27, 2025. Data is retrieved from the Water Survey of Canada.

El Niño-Southern Oscillation Spotlight

Environment and Climate Change Canada is forecasting a La Niña this winter —what does that mean? La Niña and El Niño are extreme phases of a large-scale natural cyclical climate pattern called El Niño-Southern Oscillation (ENSO)². The cycle includes differences in wind and ocean temperatures in the Pacific Ocean. They represent two opposite situations which can have a large influence on the weather across Canada. The cycle length ranges from three to seven years, with each event only lasting a few months.

La Niña conditions result from stronger-than-normal trade winds that push warm ocean water towards Asia, resulting in cooler water rising from the deeper ocean near North America (Figure 6)³. For Canada, La Niña years are typically colder and see more snowfall than normal. The coast of B.C. can have more atmospheric river (i.e., extreme) precipitation events.

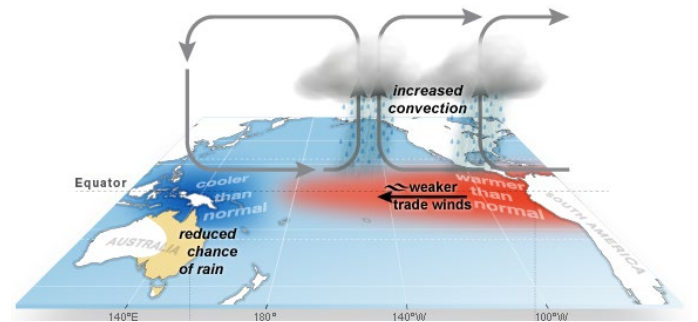


² <https://climatedata.ca/news/get-climate-smart-el-nino/>

³ <https://www.bom.gov.au/climate/about/?bookmark=enso>

El Niño conditions occur when the trade winds weaken and reverse, pushing warm ocean water towards the west coast of the Americas (Figure 7)³. This hot blob of water has led to hot, dry conditions in Canada and has been one factor contributing to some of the warmest summers on record, such as 2023.

El Niño



Neutral Conditions for most of the time, the ocean and atmospheric circulation are in the neutral phase (Figure 8)³. In this phase, the system is transitioning between the other two. During this time, the trade winds typically blow towards Asia but are not as strong as during a La Niña.

Neutral

