REGIONAL DISTRICT NORTH OKANAGAN

MEMORANDUM

File No: 5790.10.09.2026
Date: November 18, 2026

TO: **Board of Directors**

FROM: **Utilities Department**

SUBJECT: **November 2026 Greater Vernon Water Supply Update**

SUMMARY

Based on the Water Storage Triggers Assessment for October 2026, and review of conservation measures to date, Greater Vernon Water (GVW) **Stage 3 water use restrictions** will continue. The Triggers incorporate reservoir levels, current moisture levels, weather forecasts and customer demands to assess water use restrictions. The assessment to remain with Stage 3 restrictions is based on the following:

- Climate forecasts indicate a strong likelihood of warmer and drier conditions through winter and into 2027, increasing drought concerns and uncertainty around spring recharge. Further, based on these conditions customer water demands are expected to be high.
- Kalamalka Lake levels remain historically low, limiting the ability to support Duteau storage conservation efforts by supplementing the system with water from Kalamalka Lake.
- the Province requested conservation to all water utilities supplied by mainstem lakes in the Okanagan.

Staff recognize that outdoor water use has largely concluded for the season and water demand has transitioned primarily to indoor uses. Operations staff continue to work closely with the District of Coldstream and the City of Vernon to optimize water movement throughout the system, manage Headgates Reservoir storage, and conserve water within the Aberdeen Plateau supply system. Routine distribution system flushing has been suspended, with only essential flushing undertaken to meet water quality and public health requirements.

The Antwerp Deep Well was shut down on October 30, 2026, following the completion of agricultural turn-offs. The shutdown reflects reduced seasonal water demand and the desire to minimize manganese impacts and reduce the cost of polyphosphate treatment.

Staff will continue to evaluate the long-term role of the Antwerp Deep Well and potential treatment options to improve water quality. Staff meet regularly to review reservoir storage levels, system performance, and operational measures to maximize water conservation.

Several Water Shortage Management Plan (WSMP) considerations support maintaining Stage 3 restrictions. Watershed conditions remain historically low and climate forecasts continue to indicate an elevated risk of drought conditions extending into 2027. Current forecasts suggest the

potential for warmer and drier conditions associated with a developing El Niño pattern, which has been predicted to negatively affect snowpack accumulation and spring recharge[1].

TRIGGER ASSESSMENT

GVW uses the WSMP decision tree to guide water management decisions. The decision tree considers four (4) triggers to assess the water supply and drought conditions, including current water storage, watershed moisture conditions, forecast weather conditions, and forecast customer demand.

Current Assessment:

1. Reservoir Levels (Water Storage)
    - **Duteau Reservoir** – Current Duteau storage levels are within the Step 1 range (Figure 1); however, storage levels alone do not fully reflect overall drought risk and system vulnerability. Retention of storage was sought through operational measures, primarily increased use of Kalamalka Lake, and significant reductions in customer demand. Despite this, reservoir levels remain below the historical average for this time of year. Goose Lake is also very low and relies on spring runoff from Duteau Creek to fill (Figure 2).
    - **Kalamalka Lake** – Due to continued declines in Kalamalka Lake levels and the lake reaching dead pool conditions, operations adjusted system flows on August 18, 2026, and areas previously supplemented by Kalamalka Lake were transitioned back to the Duteau system (Figure 3).
2. Current Moisture Conditions – Precipitation at the Vernon Auto climate station has been consistently below normal since October 2025, with the exception of March and August. Although August precipitation was near average, the region remains in a significant cumulative moisture deficit (Figure 4). Multi-year drought conditions have also reduced soil moisture, limiting the infiltration of rainfall and snowmelt and subsequently reducing surface runoff and reservoir inflows. This is evident in Figures 1 and 3, where rainfall events in September and October produced little measurable increase to reservoir inflows despite reduced customer demand.
3. Forecast Weather Conditions – Forecast El Niño conditions increase drought risk into 2027[1]. Given the potential for another year of limited watershed recharge, maintaining reservoir storage above minimum targets remains important to preserve water supply reliability and system resilience.
4. Customer Demand Forecast – Potable demand is now shifting towards indoor water use and is consistent with seasonal use (Figure 5).

[1] ClimateData.ca. (2026). *What the developing exceptional El Niño means for Canada in 2026-27*. From https://climatedata.ca/news/what-the-developing-exceptional-el-nino-means-for-canada-in-2026-27/

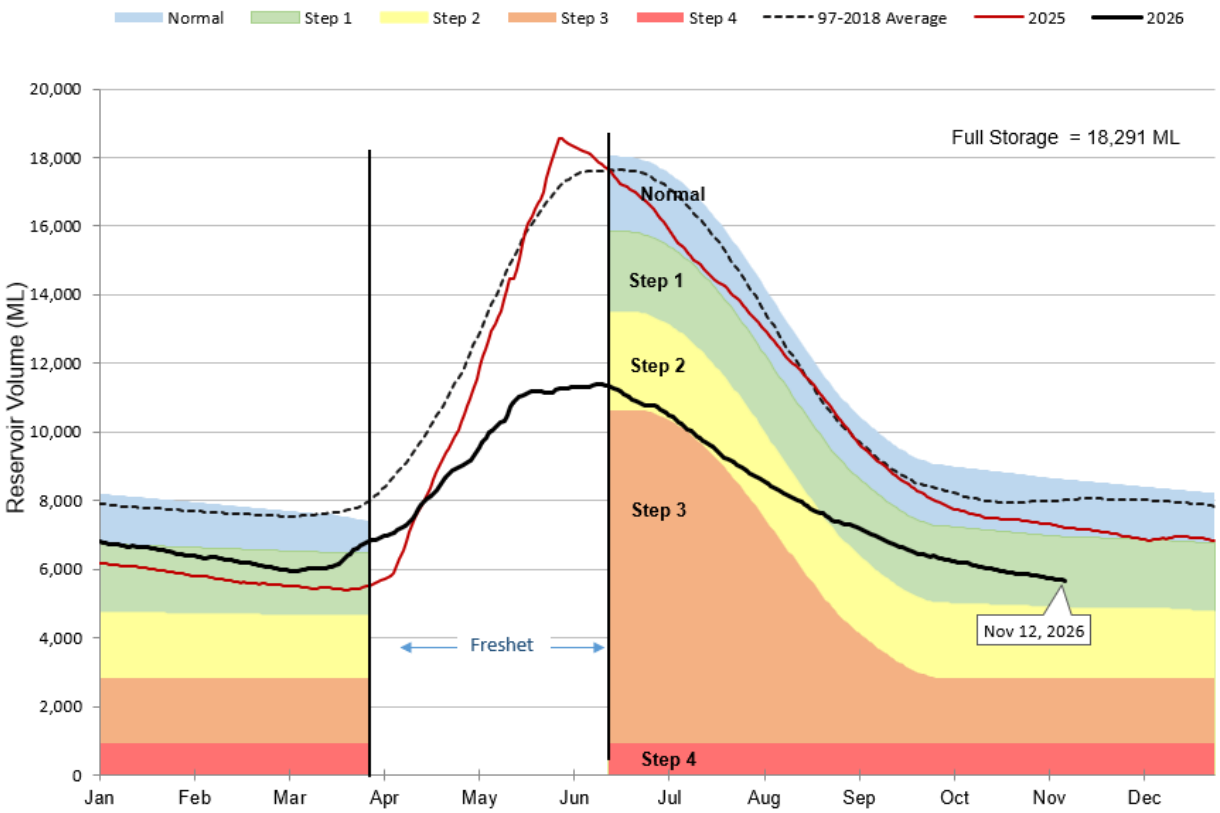


Figure 1: The Duteau reservoir levels in Megaliters (ML)

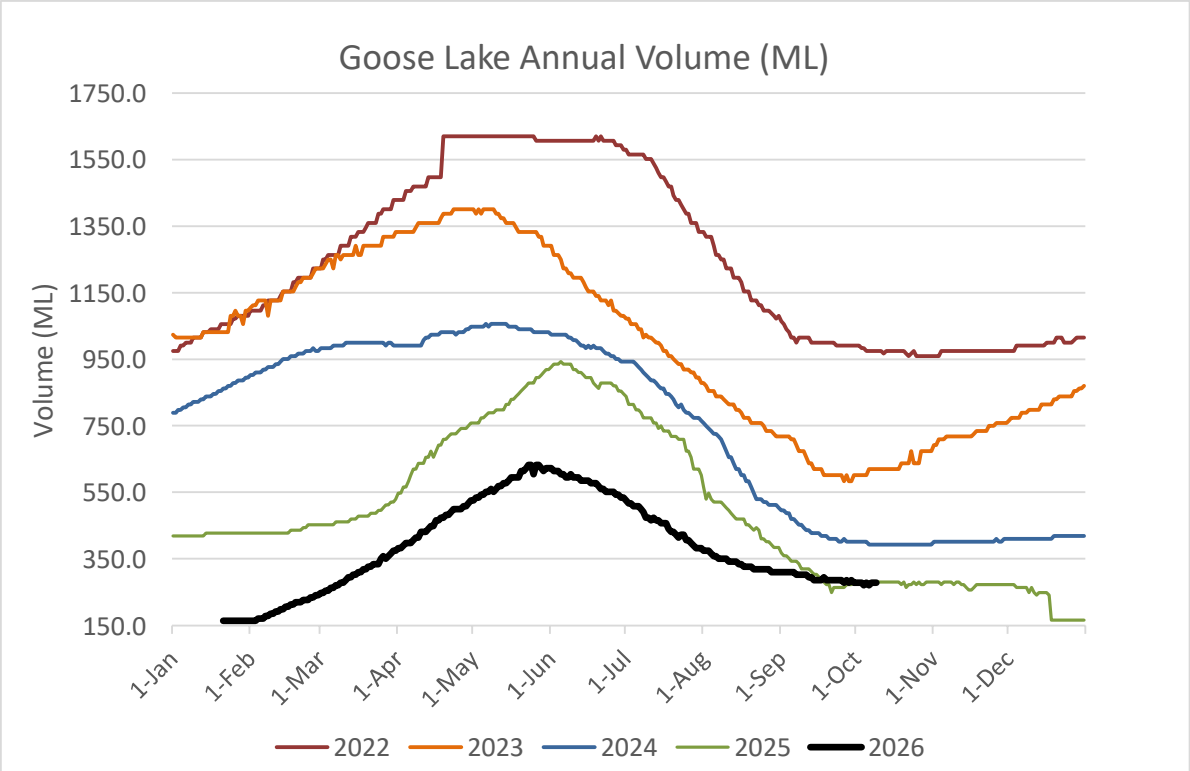


Figure 2: Goose Lake Water Storage

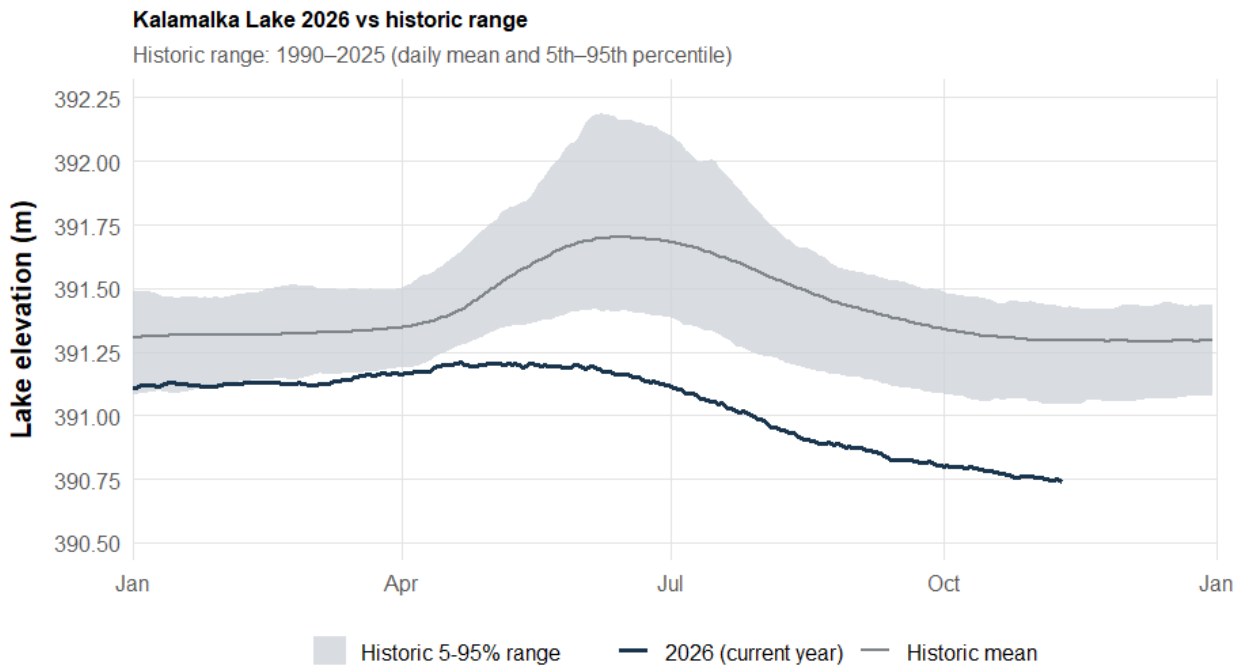


Figure 3: Kalamalka Lake elevation for 2026 compared to the 1990-2025 average

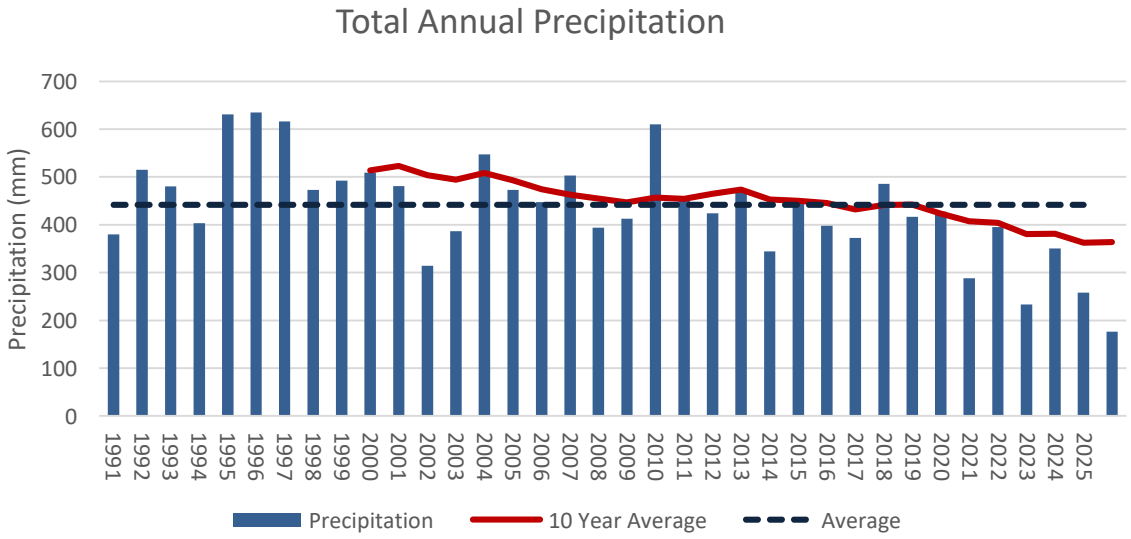


Figure 4: Historical Annual Precipitation and 10-Year Average at the Vernon Auto Climate Station (1991-2025)

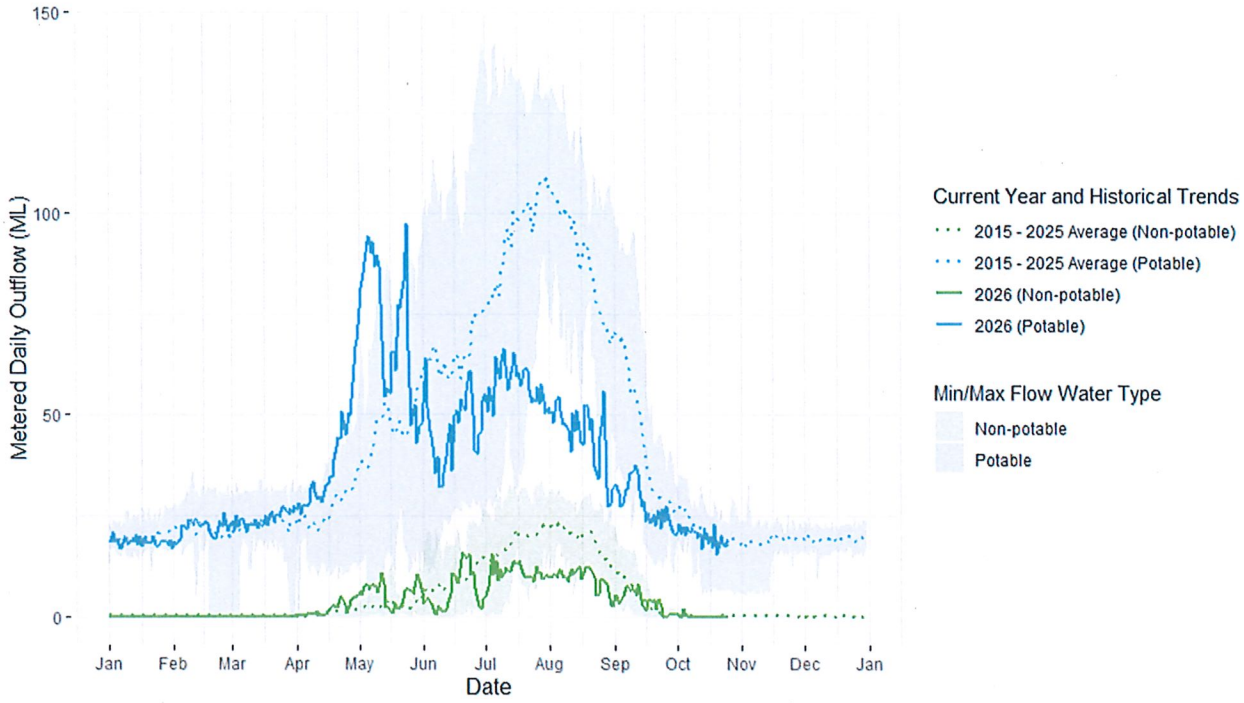


Figure 5: Potable and Non-Potable customer demand trends

The GVW Water Shortage Management Plan and further information on the triggers and the water system can be found at www.rdno.ca/restrictions.

Submitted by:

John Lord, P.Eng.
General Manager, Infrastructure