



REGIONAL  
DISTRICT  
NORTH  
OKANAGAN

# MEMORANDUM

File No: 5790.10.09.2024

Date: July 3, 2024

**TO:** Greater Vernon Advisory Committee  
**FROM:** Utilities Department  
**SUBJECT:** July 2024 Greater Vernon Water Supply Update

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## SUMMARY

Based on the Water Storage Triggers Assessment, Greater Vernon Water (GVW) will maintain **Stage 1 Water Restrictions**.

June is critical for assessing water supply and determining summer outcomes. At the beginning of June, low reservoir storage and insufficient rain raised concerns that the reservoir storage would remain low and Stage 2 water restrictions would be required; however, with the sporadic precipitation throughout June and cooler weather causing lower customer water demands, the reservoir levels slowly increased and with the rain over the July long weekend, the levels bumped up slightly into the “Normal” step. Hot, dry weather forecasted for the next two (2) weeks will increase customer demand and potentially cause the Duteau reservoir levels to dip back down into Step 1 or be on the transition line between Normal and Step 1 (Figure 1). Additionally, Kalamalka Lake is considerably below the provincial target for this time of year (Figure 2). Based on the status of both sources, GVW will remain in Stage 1 restrictions for the summer unless there is a drastic change (i.e. more rain causing higher storage levels or higher demand than expected causing lower storage levels).

Staff will continue to monitor triggers on a weekly basis to be able to initiate drought response immediately if conditions change. Heightened messaging to customers as per the Stage 1 procedures about conserving water and working with large irrigators to reduce the irrigation peak will also continue. At this time, the next Drought Stakeholder Working Group (DSWG) will not occur unless there is a change to storage, but staff will continue to process a survey of DSWG members on how to improve the GVW water shortage process.

The British Columbia Technical Drought Working Group is currently in a drought Level 2 for the South Thompson and the Okanagan Sub-basin that predicts that adverse impacts to socio-economic or ecosystem values are unlikely. This declaration does not directly apply to GVW as it refers to unregulated streams (i.e. no storage reservoirs).

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MEMBER MUNICIPALITIES:  
CITY OF ARMSTRONG  
DISTRICT OF COLDSTREAM  
CITY OF ENDERBY

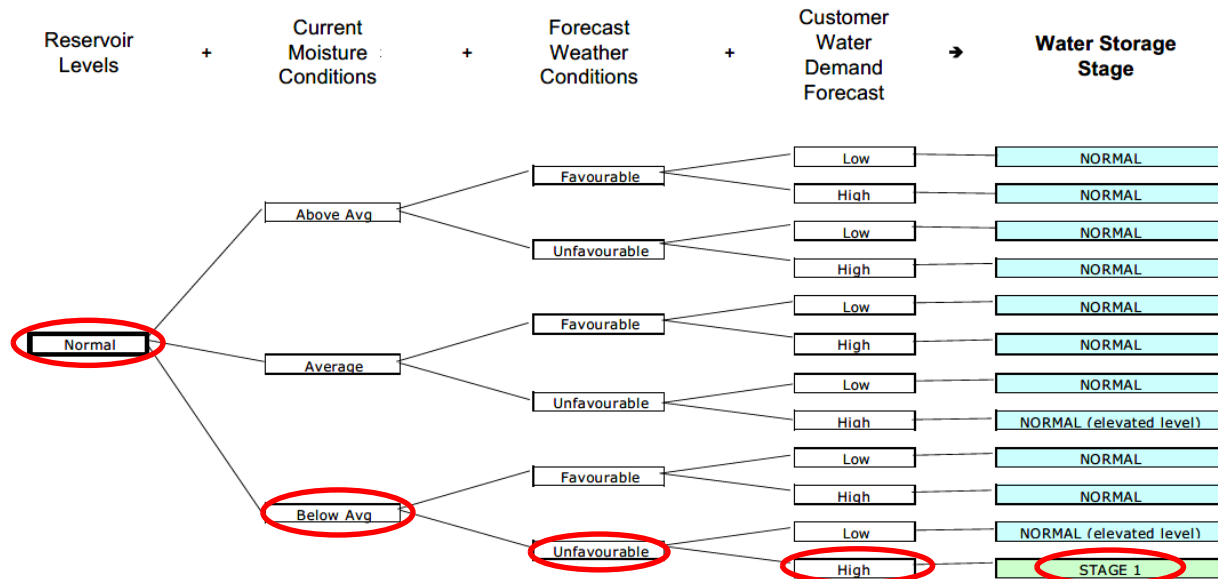
VILLAGE OF LUMBY  
TOWNSHIP OF SPALLUMCHEEN  
CITY OF VERNON

ELECTORAL AREAS:  
“B” – SWAN LAKE  
“C” – B.X. DISTRICT  
“D” – LUMBY (RURAL)

“E” – CHERRYVILLE  
“F” – ENDERBY (RURAL)

## DECISION TREE

The current water storage has moved slightly into the “Normal Step”, but both the Duteau Reservoirs and Kalamalka Lake remain below average (Figure 1 & Figure 2). With the current moisture conditions and weather warming in the next week, the restrictions will remain as a Stage 1.



## TRIGGER ASSESSMENT

GVW uses the Water Shortage Management Plan (WSMP) to guide decisions about GVW water management. Staff monitor four (4) triggers to assess the water supply and drought conditions:

1. Reservoir Levels (Water Storage)
  - **Duteau Reservoirs** - As of July 1, 2024, reservoir levels dipped slightly into “Normal” Step, but remain below average for this time of year. This is due to a combination of low snowpack and below average rain (Figure 1). It is predicted that as customer demand increases this week with the high, dry weather forecasted, the reservoir level will dip back down into Step 1 or be on the transition line between Normal and Step 1.
  - **Kalamalka Lake** – Kalamalka lake levels remain below normal and below provincial targets (Figure 2).
2. Current Moisture Conditions – Recent precipitation was below average for April, May and June when looking at the last 10 years of Vernon Auto data (Figure 3).
3. Forecast Weather Conditions – the Federal forecast predicts above-normal temperatures for July and August with high confidence (60-69%); however, precipitation forecasts show a mixed outlook with less confidence compared to historical norms. There is moderate probability (40-49%) of above-normal precipitation during the same time period.
4. Customer Demand Forecast – Customer demand for June was considered lower than average due to the cooler temperatures (Figure 3). Warmer weather early July is forecasted, with an expected increase in customer demand.

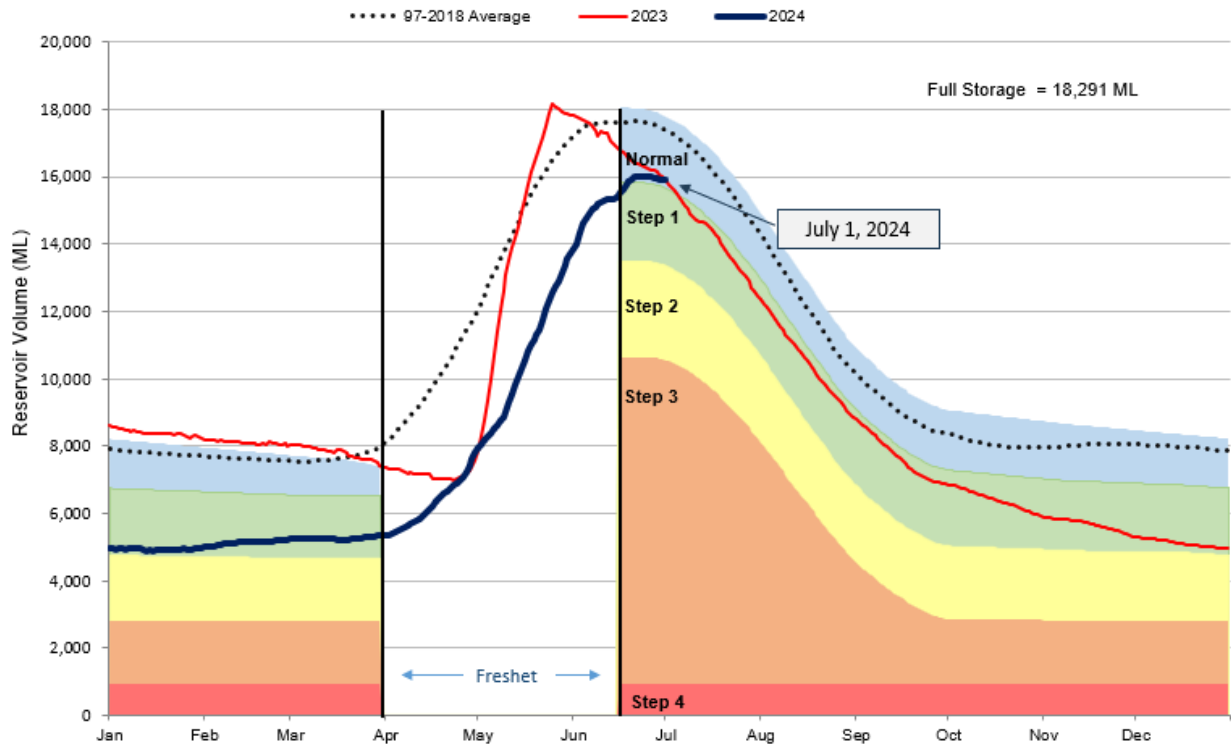


Figure 1: The Duteau reservoir levels in Megaliters (ML)

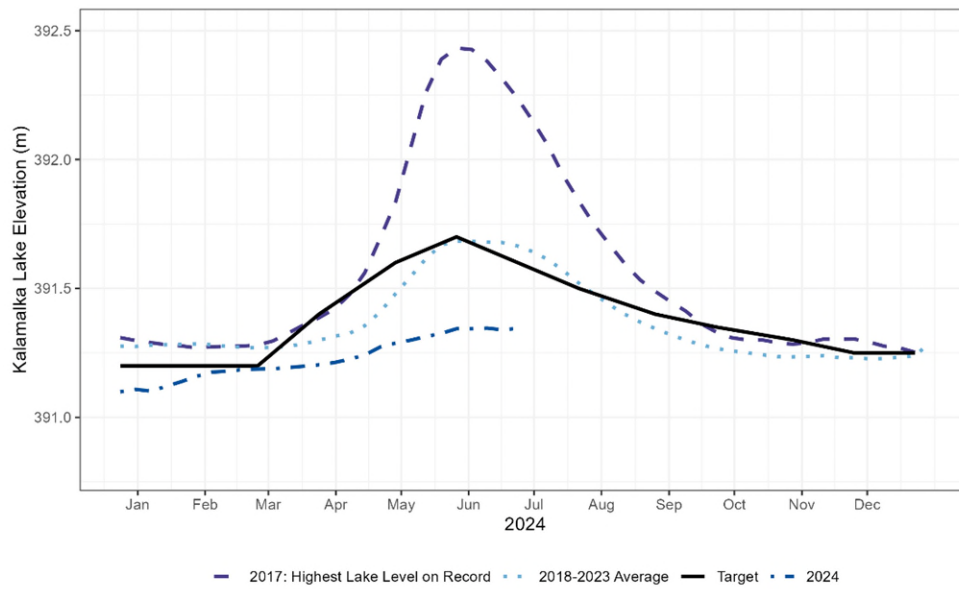


Figure 2: Kalamalka Lake Elevation

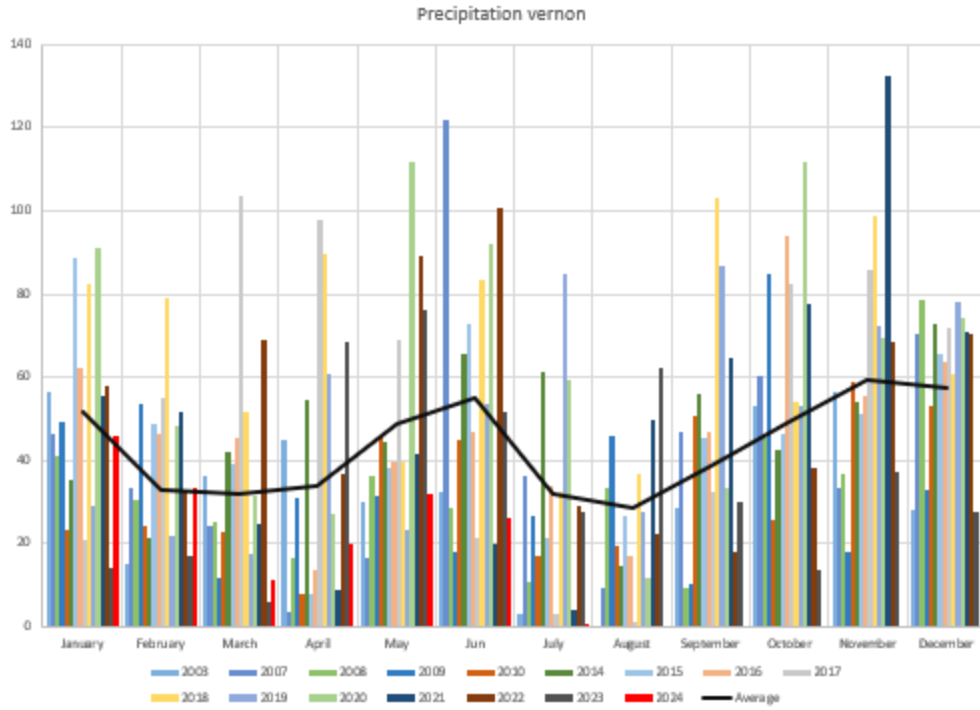


Figure 3: 2014 to 2024 precipitation at Vernon Auto station

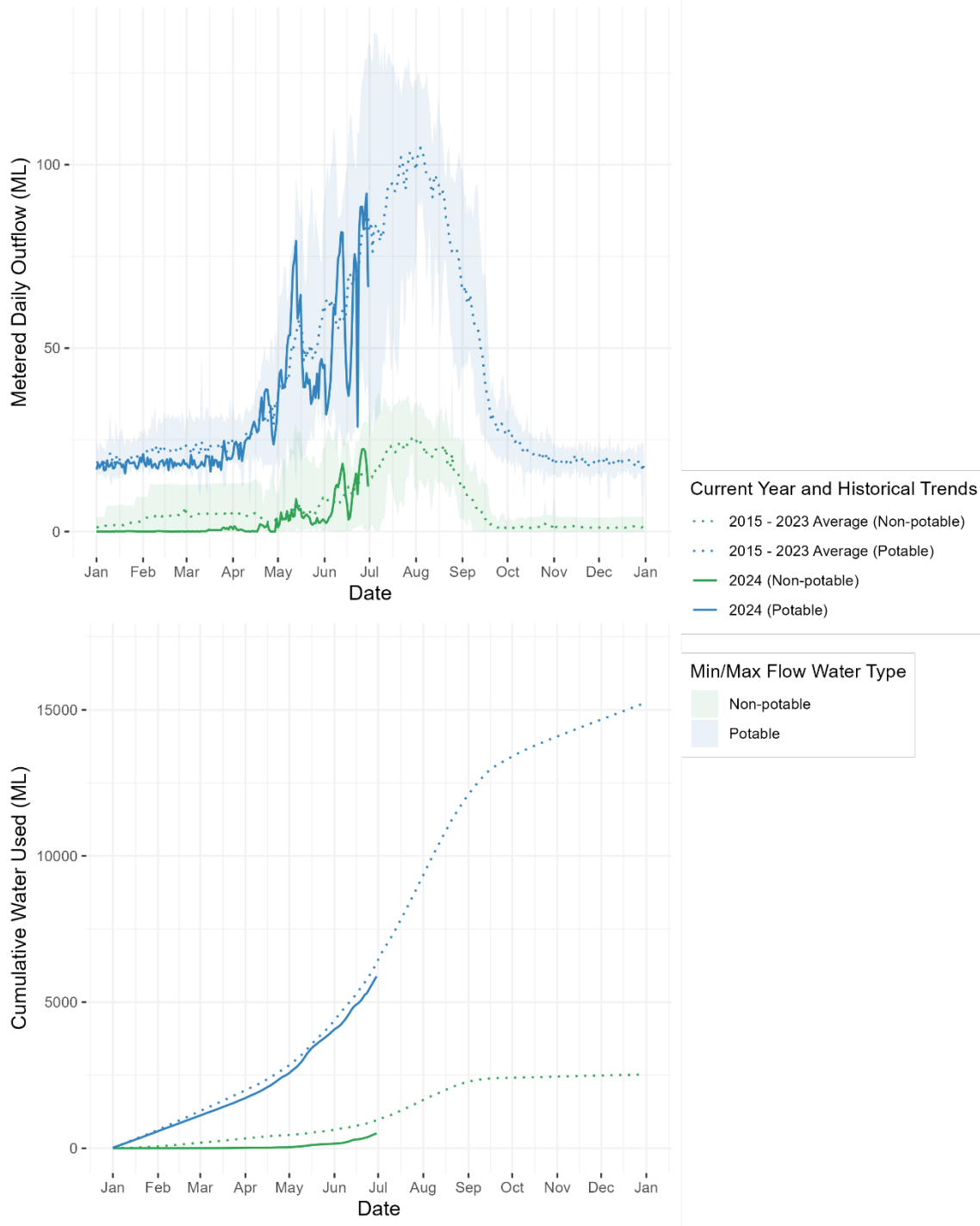
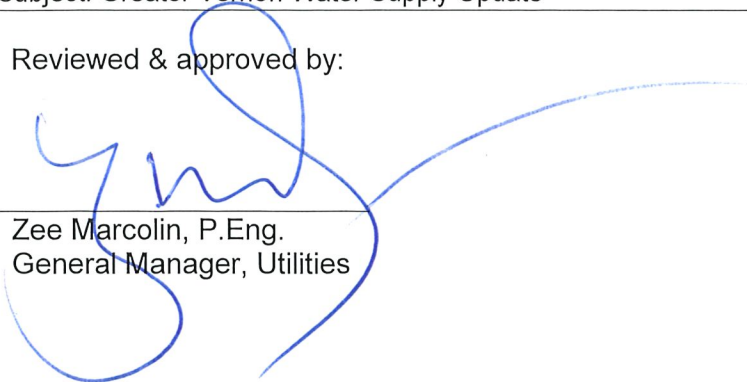


Figure 4: GVW Customer Demand

The GVW Water Shortage Management Plan and further information on the triggers and the water system can be found at [www.rdno.ca/gvw/restrictions](http://www.rdno.ca/gvw/restrictions).

Reviewed & approved by:



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