

# Potable & Non-Potable Water Supply Status

Presentation to Council – April 22, 2024

April 22, 2024

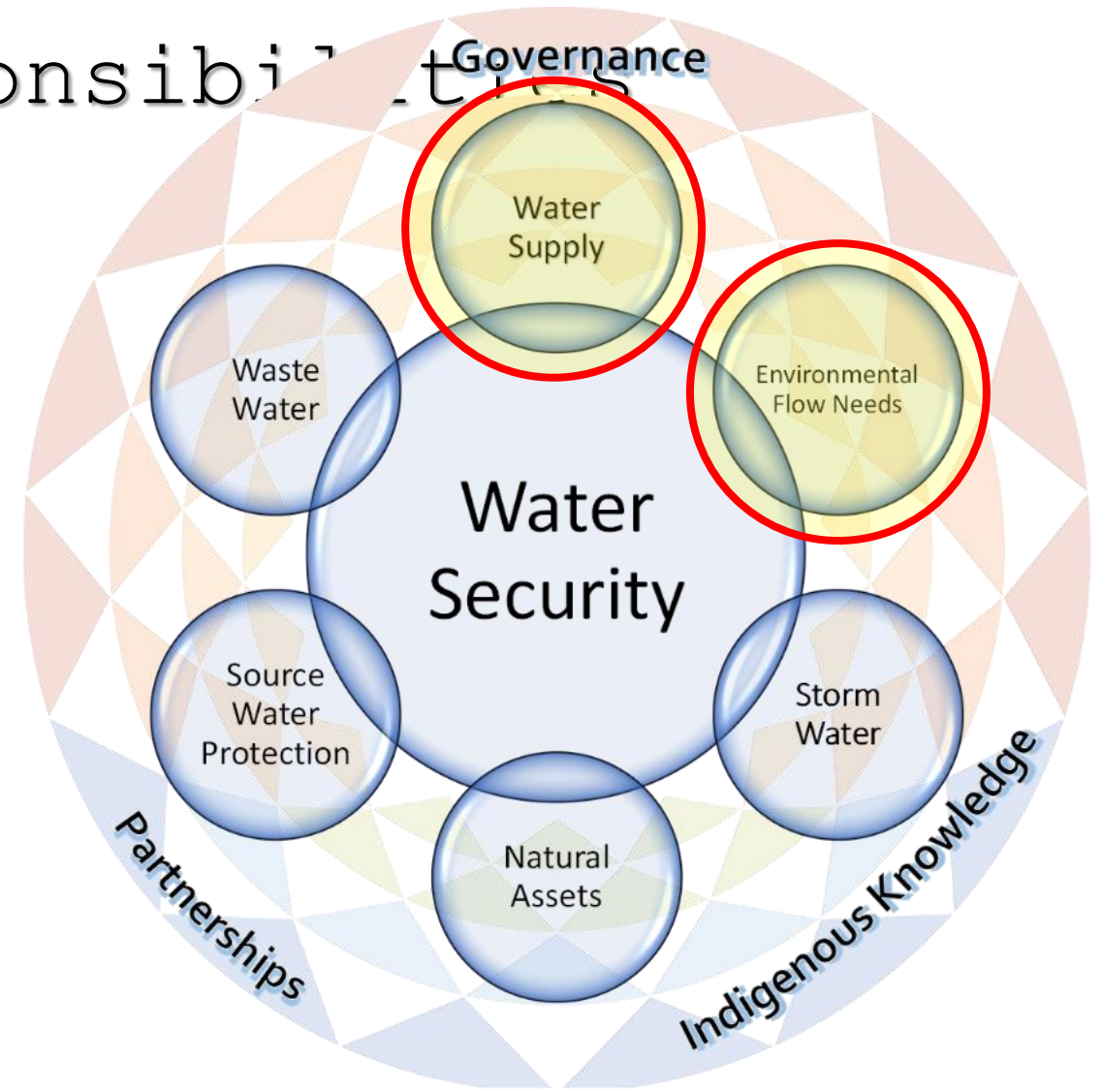
# Outline

- Linkage to Water Security Plan
- Drought Information update
- Snowpacks
- Updates on lake and reservoir impacts
- Conclusion and Recommendation



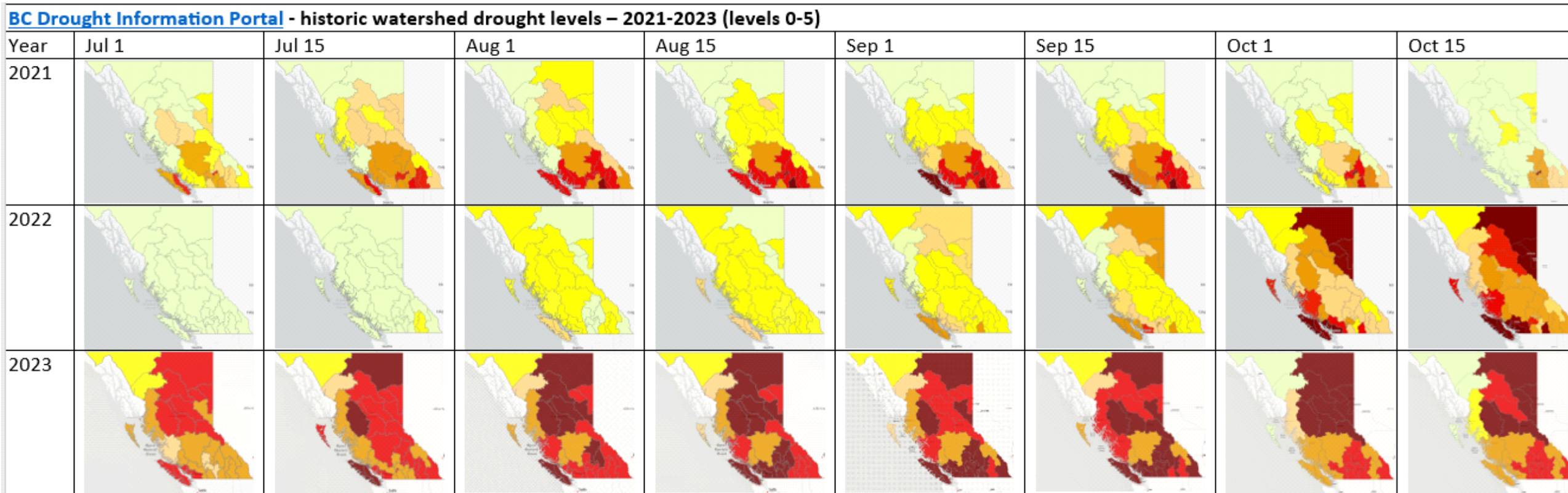
# Water Security/Responsibility Principles

**Principle 1:** "All residents and water users in the City have a safe, affordable, resilient and sustainable supply of high-quality drinking water and a reliable supply of water for agriculture. of water is available to support a healthy aquatic ecosystem."



*The six water sectors outlined in the City's Water Security Planning Process*

# Provincial Watershed Drought Levels



0 - No Adverse Impacts

1 - Adverse Impacts Rare

2 - Adverse Impacts Unlikely

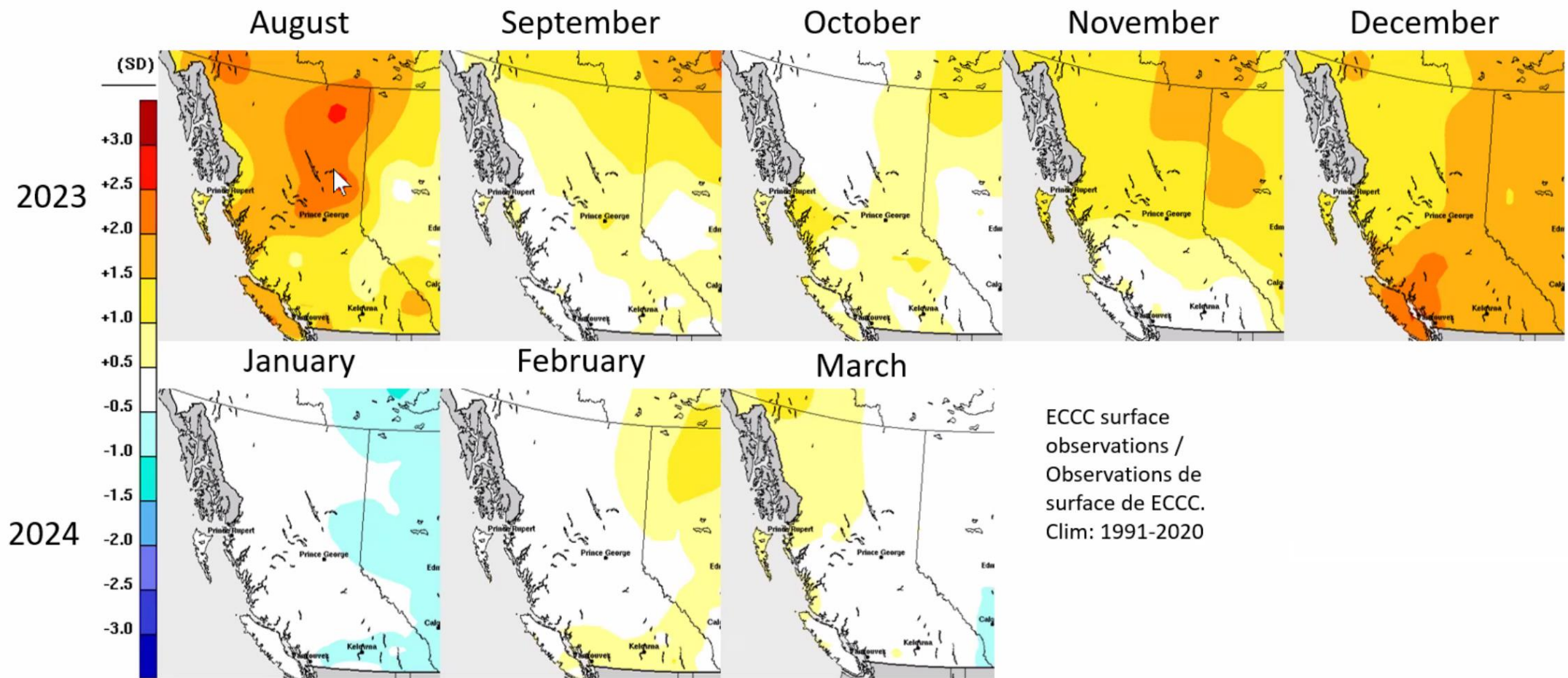
4 - Adverse Impacts Likely

5 - Adverse Impacts Almost Certain



# Past Temperature Standardized Anomalies

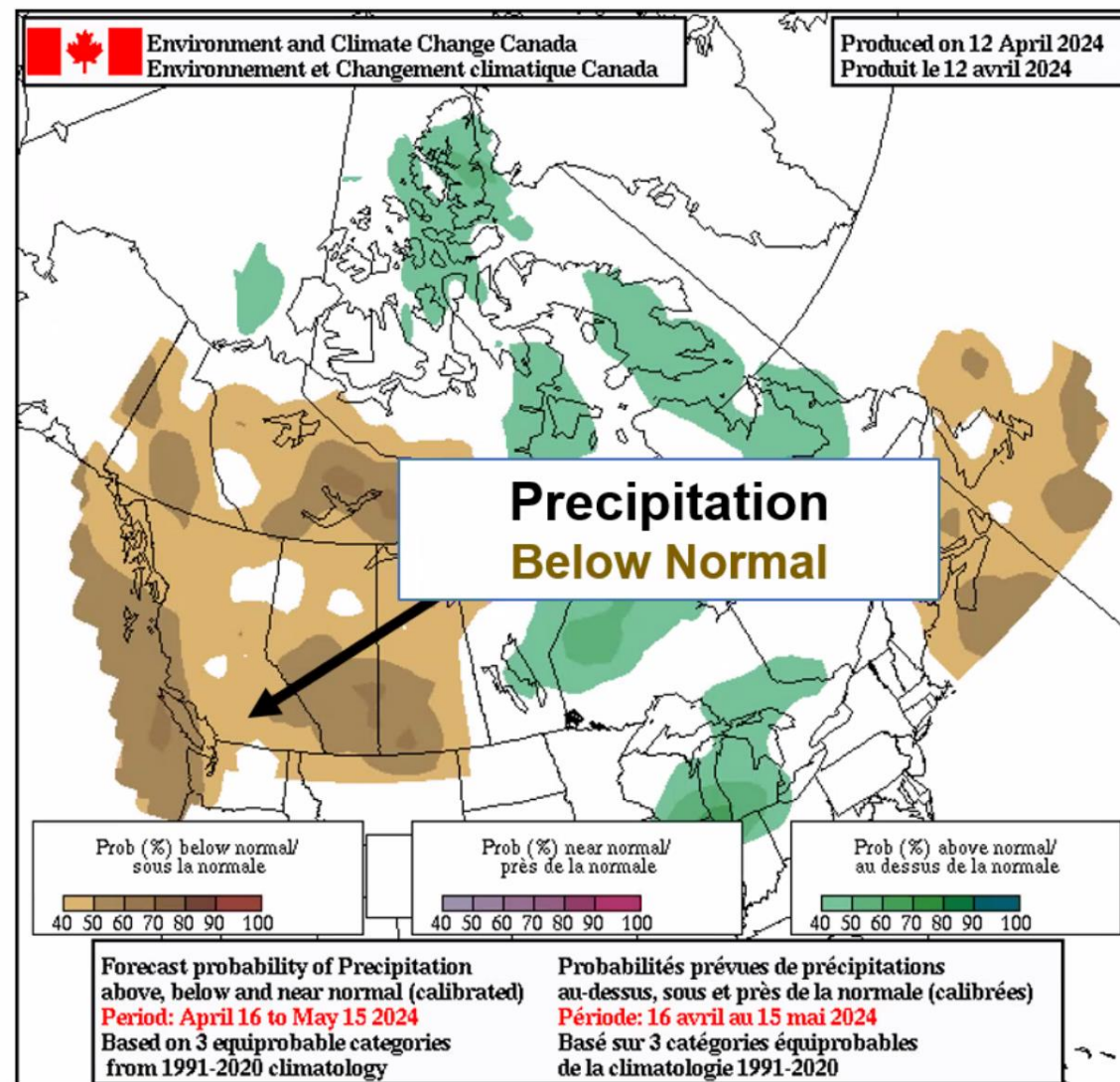
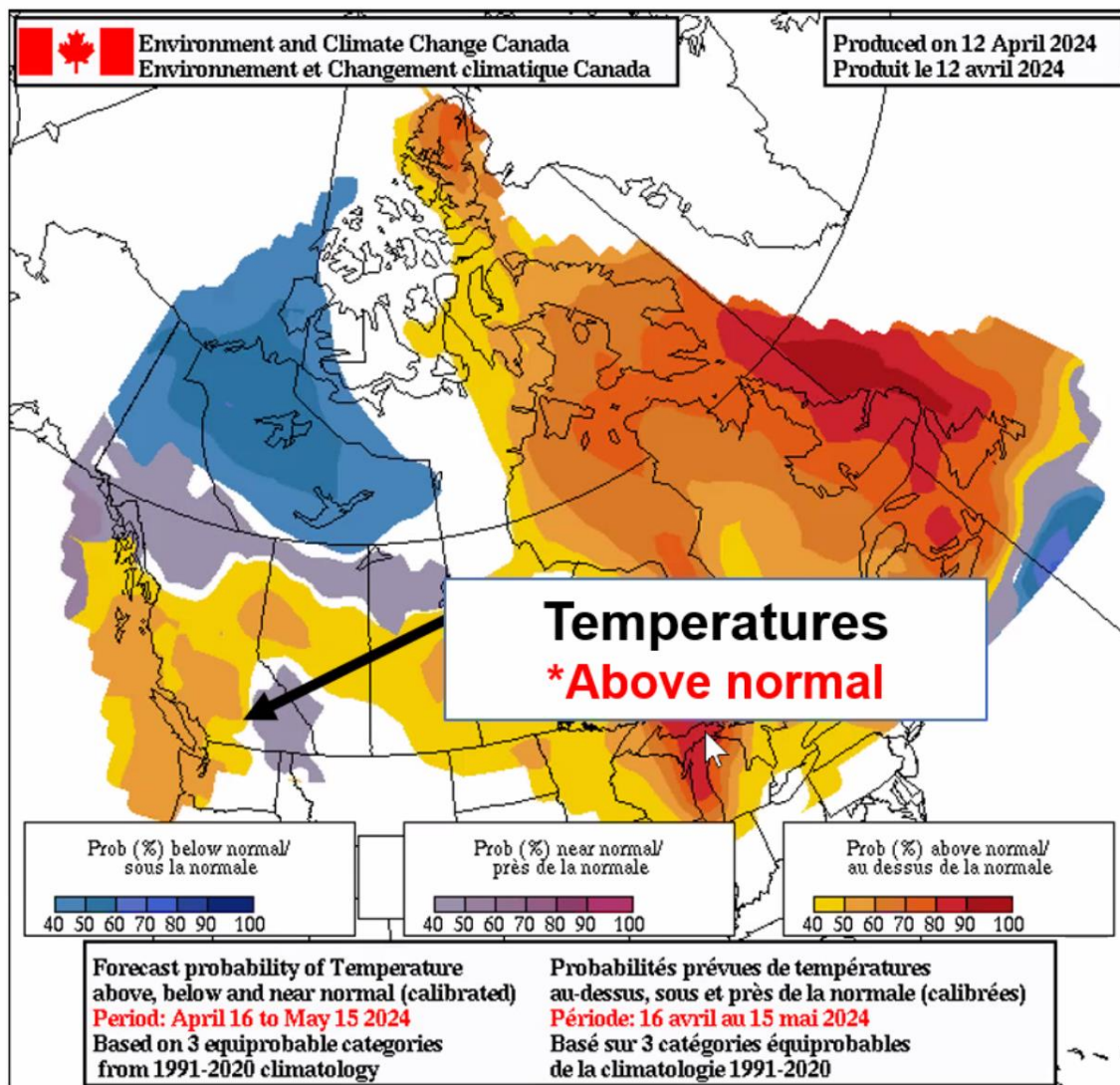
Talking: Arnel Castellan WPM...



ECCC surface observations / Observations de surface de ECCC. Clim: 1991-2020

# Outlook for April 16 – May 15, 2024 – Updated Forecast

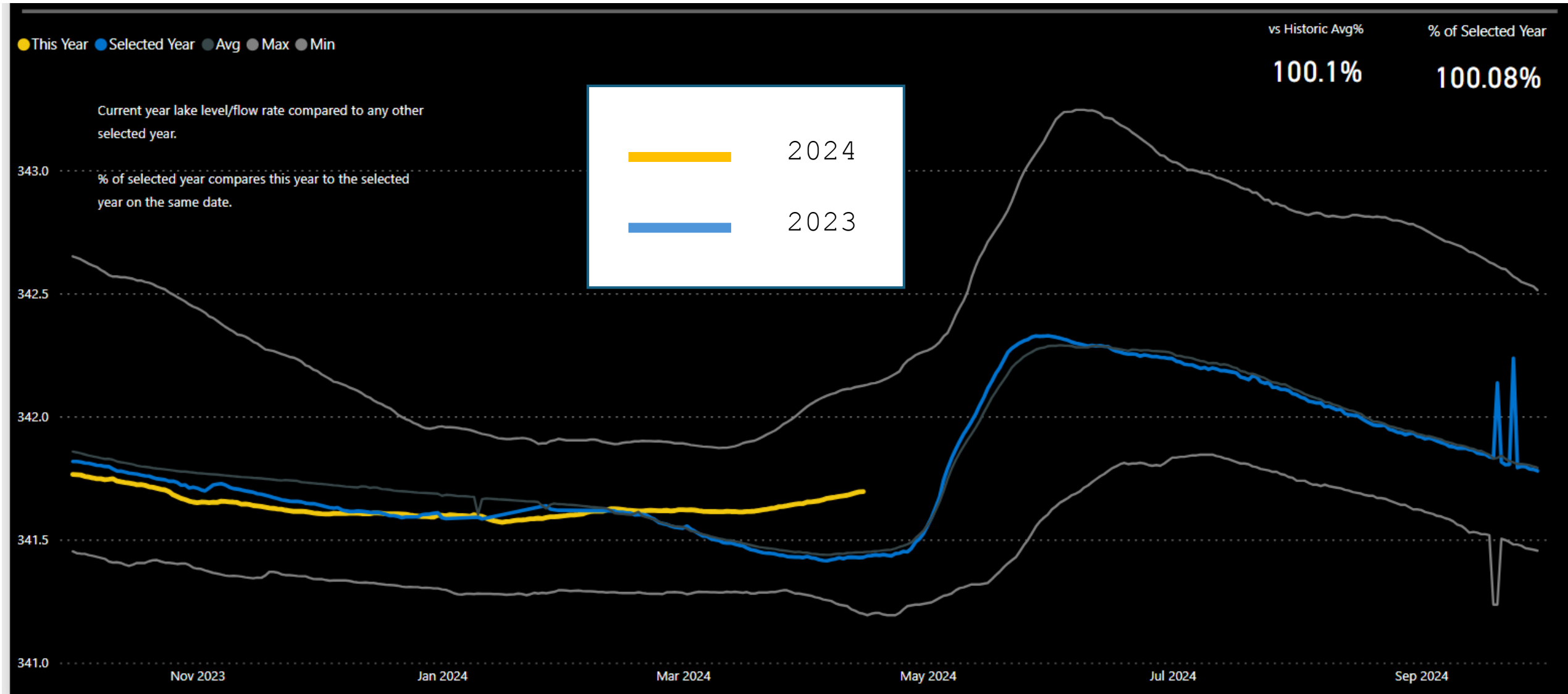
Talking: Armel Castellan WPM...



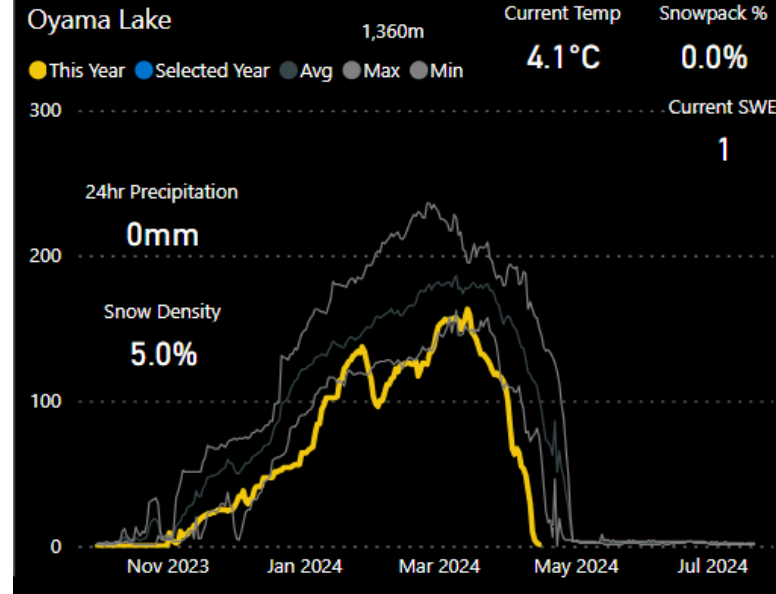
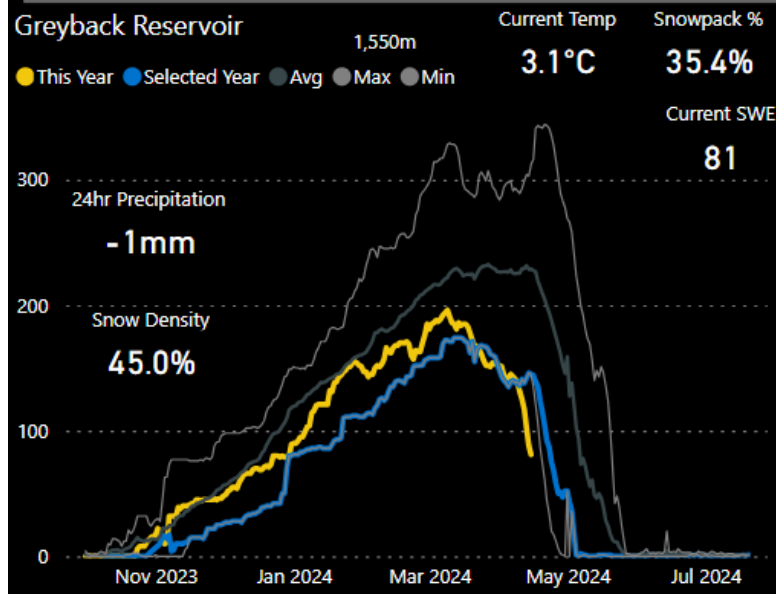
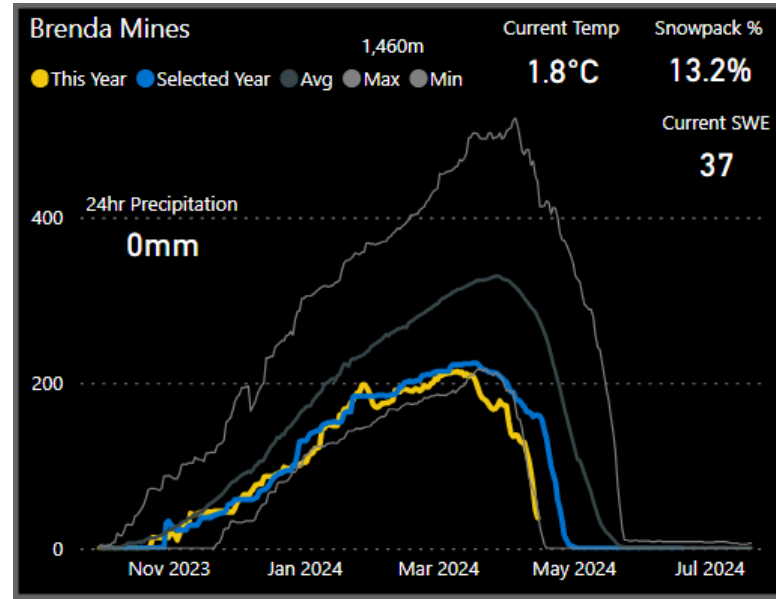
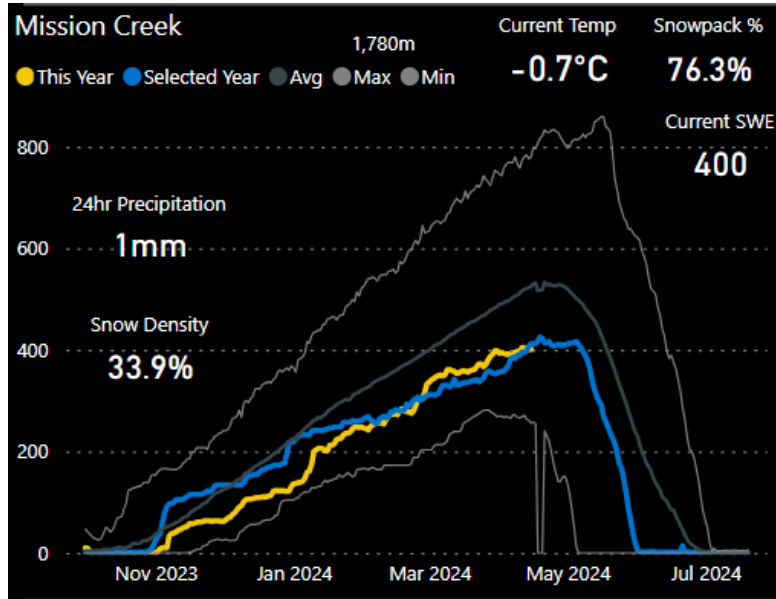
Issued April 12<sup>th</sup>, 2024



# Okanagan Lake Levels - Today and 2023



# Snowpack – Today and 2019



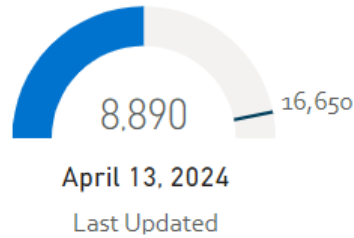
— 2024  
— 2019



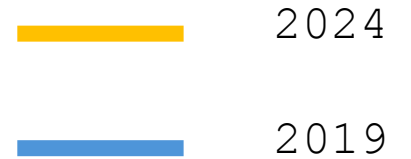
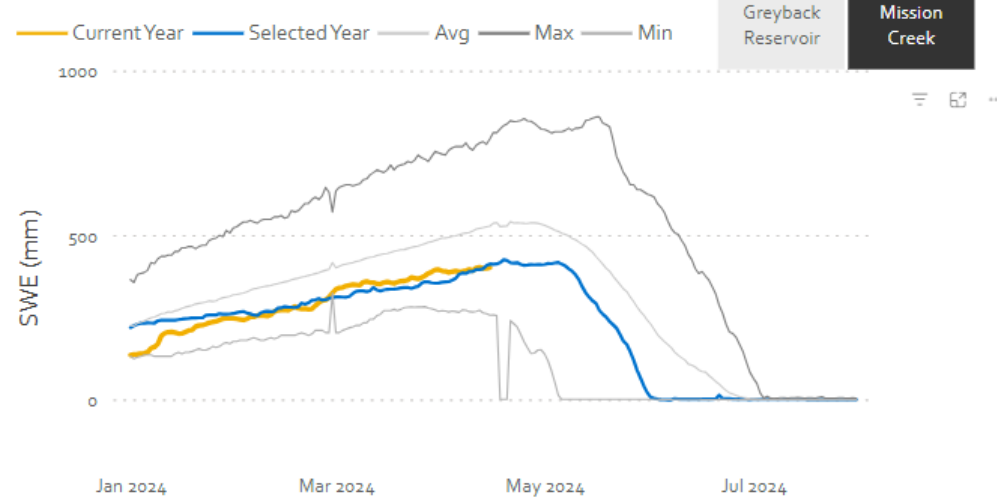
# McCulloch Lake - Dashboard - Spring



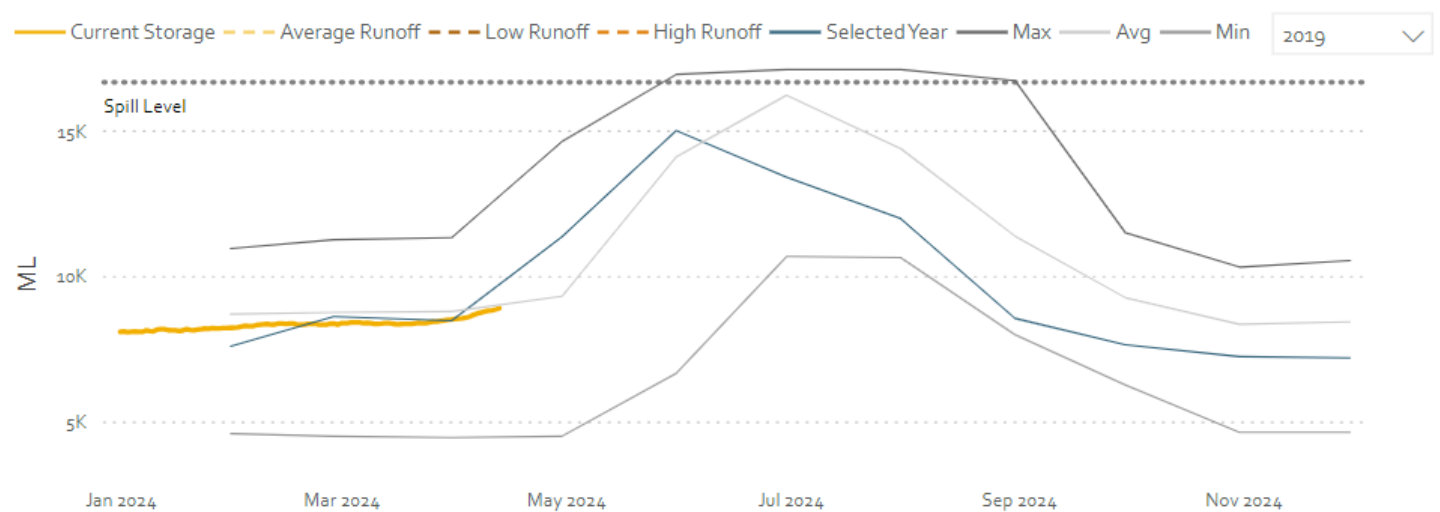
Current Storage (ML)



Snowpack - Snow Water Equivalent



Monthly storage capacity (ML)

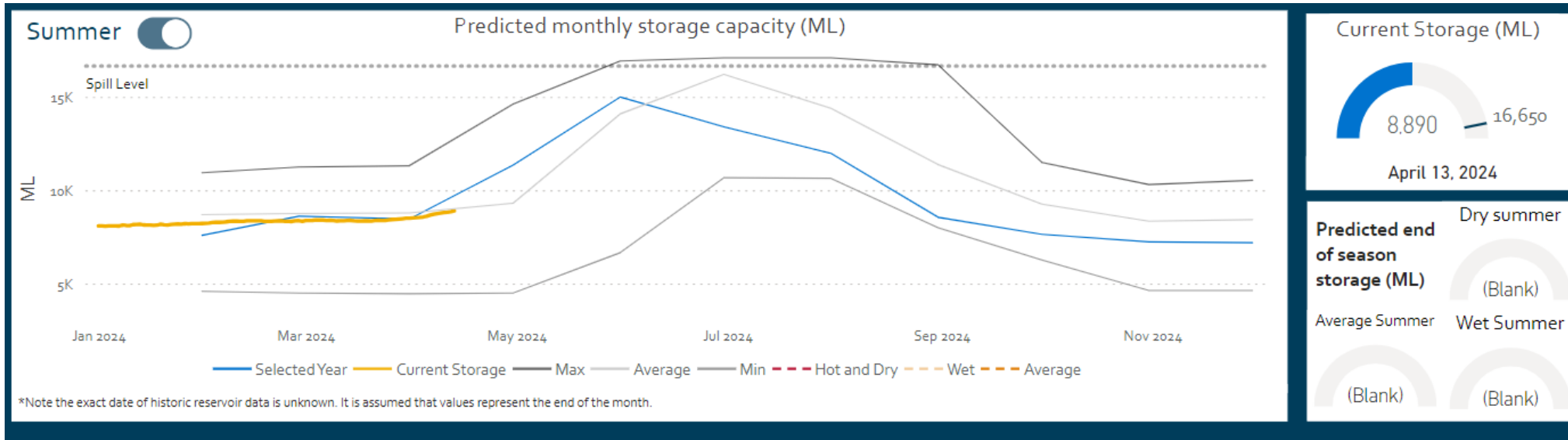


\*Note the exact date of historic reservoir data is unknown. It is assumed that values represent the end of the month.



# McCulloch Reservoir tool - Future Summer

# Prediction



### Remaining (ML)

(Not including current month)

#### Demand

Wet

6307

Average

9068

Dry and Hot

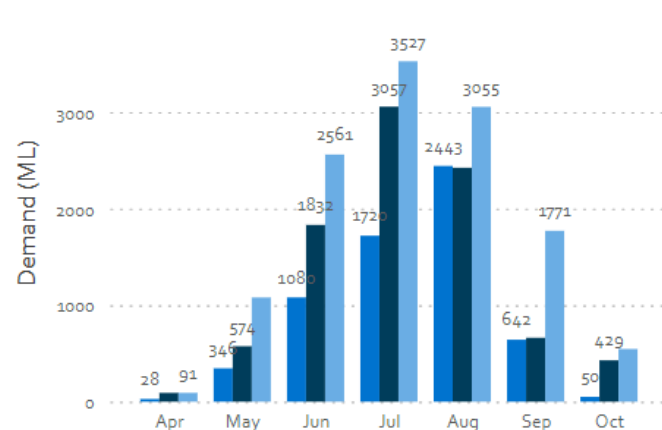
12629

Losses

1160

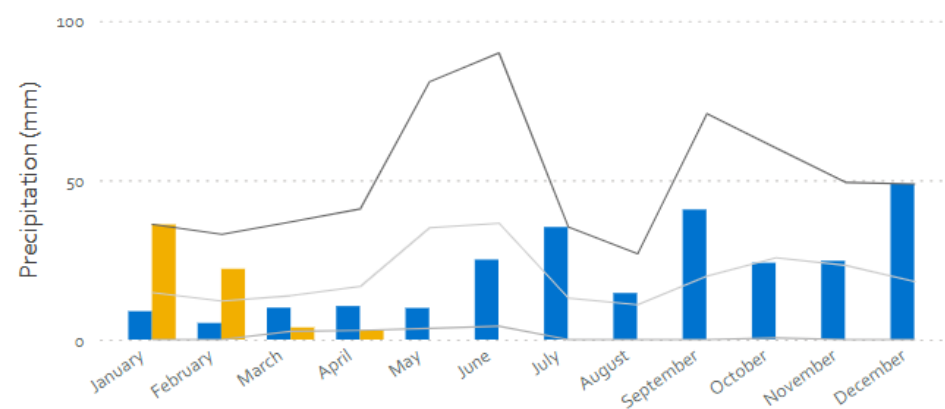
### Water demand (ML) per month

Wet (blue), Average (black), Dry and Hot (light blue)



### Total Precip (mm) per month

Selected Year (blue), Current Year (yellow), Average (grey), Max (black), Min (light grey)





# Conclusion

- Okanagan Drought – into 4<sup>th</sup> Year.
- Potable System
  - Okanagan Lake water levels likely not reaching full pool.
  - High risk of future Provincial Drought Level declarations.
- Non-Potable System
  - Snowpack is well below normal.
  - McCulloch not expected to spill.
    - Storage anticipated to be much lower than normal.
    - Need to prepare for restricted consumption .

# Recommendations

- Updates be provided Council in late May.
- Citizens & Customers need to be efficient with water in 2024.
- Implement Stage 1 Water Restrictions
  - Increased awareness of drought Conditions.
- Non-Potable System Users restricted to allotment (685 mm)
  - No exceedances.
  - City will support farmers to monitor their allotments.





Thank you!