



Coquitlam Reservoir during extended drought season 2022

Water Supply Area Climate Report

2022 ANNUAL WEATHER AND CLIMATE SUMMARY

Peter Marshall

Field Hydrologist, Environmental Management, Water Services

Water Committee – March 15, 2023

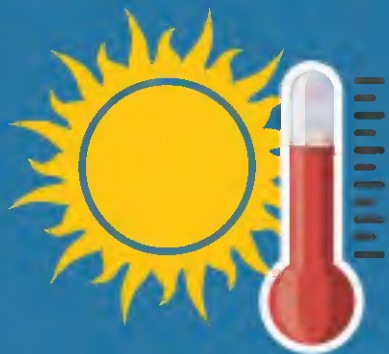
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Metro Vancouver Water Supply Areas

2022 Weather Conditions



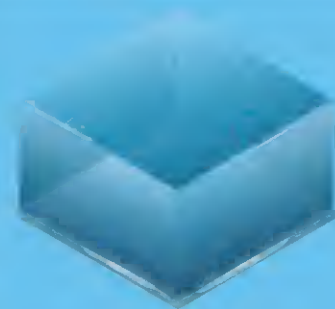
**16th
warmest
year
since 1900**



**94%
of average
precipitation**



Snowpack
was **103%**
of normal
on April 1,
and **180%**
of normal on
June 15



**Source water
storage**
remained
within
normal range



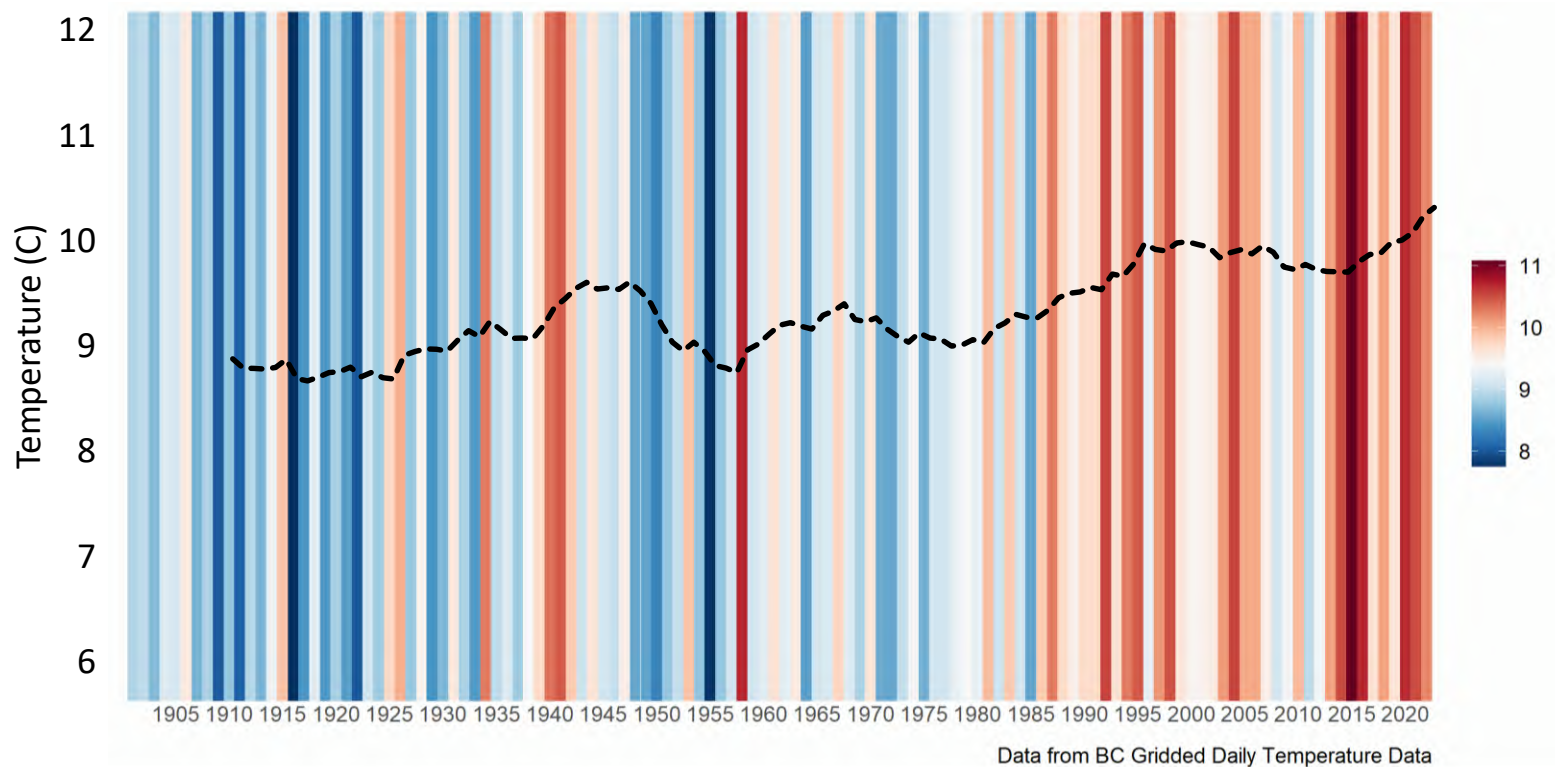
Wildfire smoke at Minnekhada Regional Park 2022

TEMPERATURE

- The hottest day was July 26 with a high of 36.2°C
- August, September, October were all the hottest in the past 20 years
- October was almost 4°C warmer than average
- November and December saw below normal temperatures

WARMING TEMPERATURES

Mean annual air temperatures, 1900-2023



PRECIPITATION

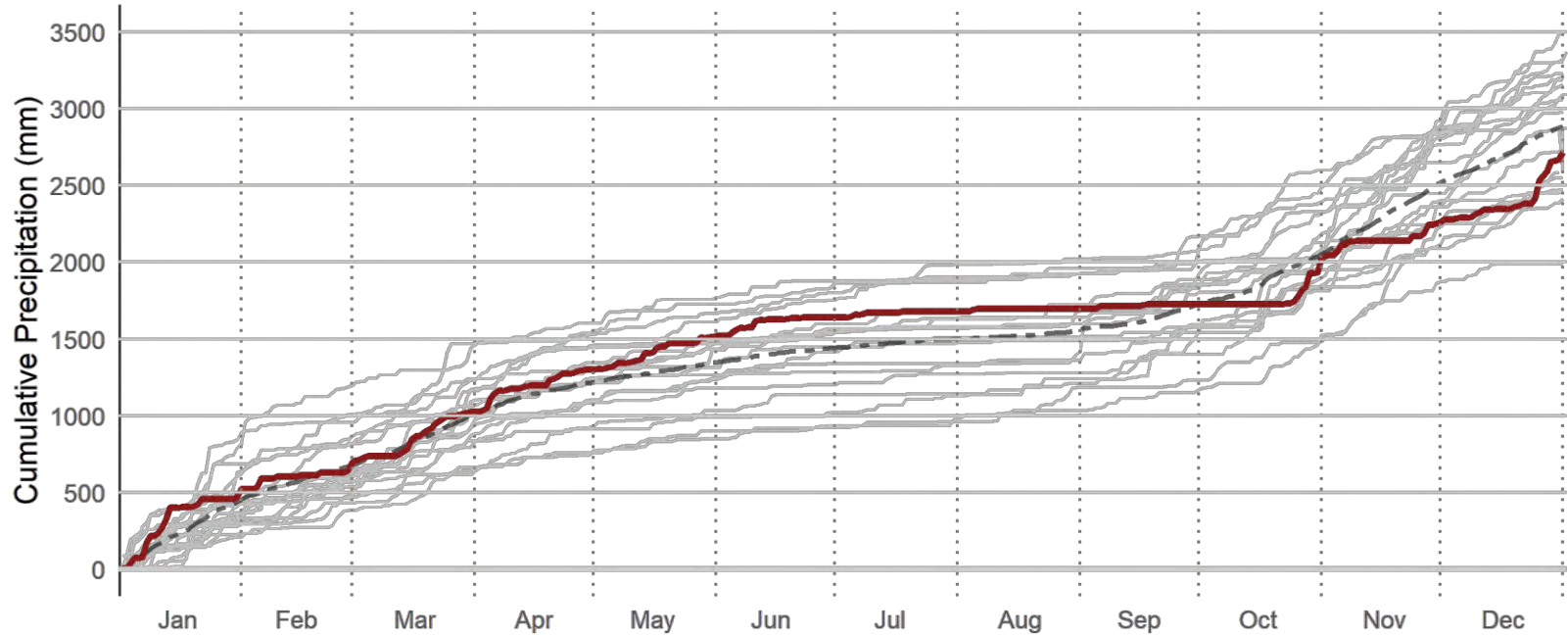
- The spring was exceptionally wet and cool, which led to above average snowpack
- Only 48 mm of rain fell between July 21 and October 21
- Heavy rain came in a series of atmospheric rivers in the fall and early winter



Orchid Lake weather station, Seymour Watershed

ANNUAL PRECIPITATION

Accumulated precipitation in the Capilano Water Supply Area





DROUGHT AND WILDFIRE

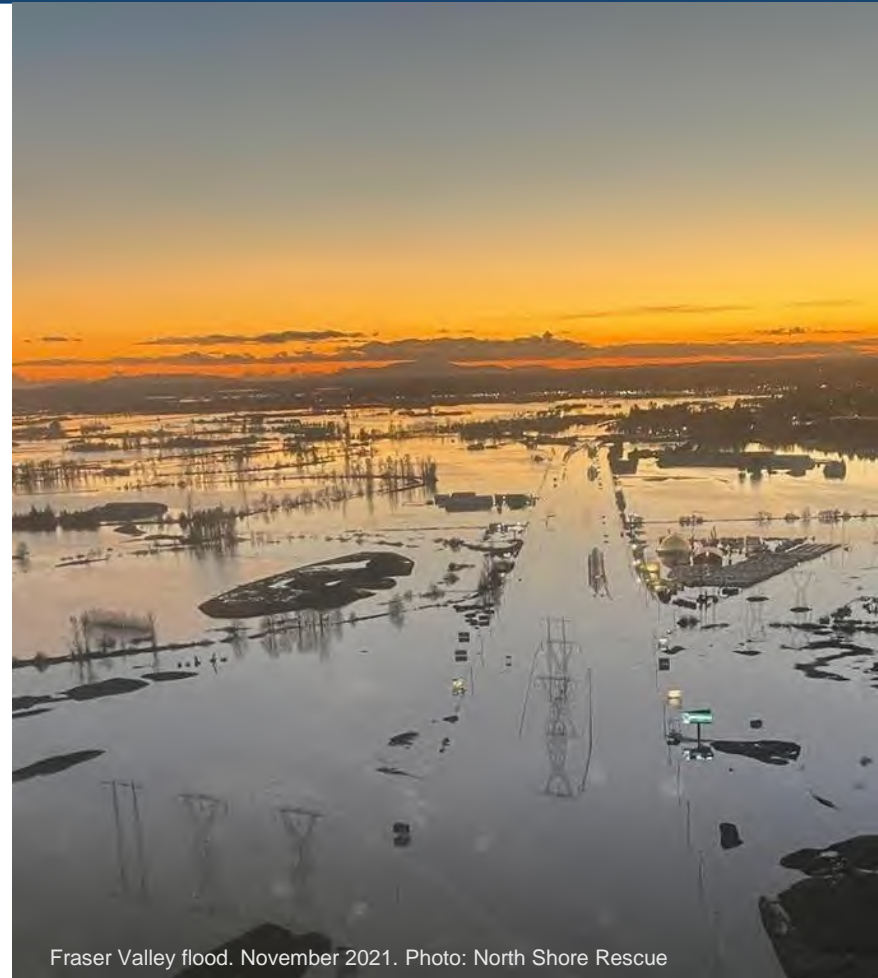
- Seasonal drought persisted well into the fall
- Wildfire smoke spread over the Lower Mainland
- The Minnekhada Regional Park fire sparked on October 1 under summer-like conditions

Minnekhada Regional Park Wildfire 2022. Photo: csnoff photography

CLIMATE IMPACTS

Other recent examples

- 2015 snow drought
- November 2017 atmospheric river, rain-on-snow
- June 2021 heat dome
- November 2021 flooding
- Fall 2022 drought



Fraser Valley flood. November 2021. Photo: North Shore Rescue



Coquitlam Glacier, October 2022

DISAPPEARING ICE

- The last remaining glacier in our water supply areas
- 30 hectares in 1979, and now only 18 hectares remain
- The depth of ice has decreased by more than 10 m since 2015

ACTIONS - WATER SERVICES

Preparing for Impacts from Climate Change

- Promoting water conservation
- Planning for the future to meet the drinking water needs of our growing population (Coquitlam Lake Water Supply Project)
- Collecting and sharing valuable information about environmental conditions in the water supply areas
- Using new technologies to enhance our monitoring programs



Capilano Reservoir



Questions?

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