

COWICHAN WATERSHED 2025

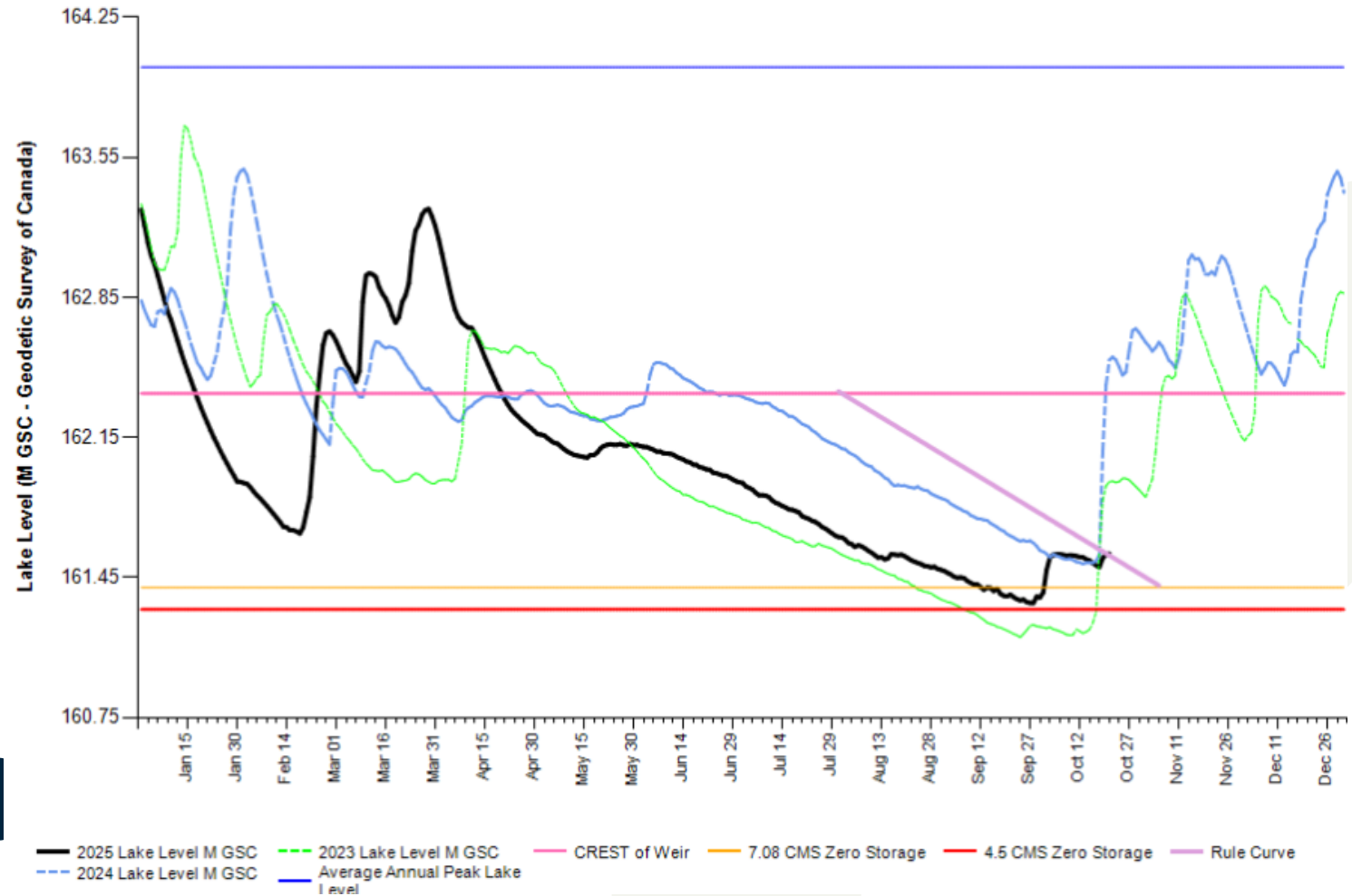
October 27, CWB Meeting

Overview of 2025 Weir Operations along with review of history of levels/flows/control actions. “What next” is also introduced given droughts are now expected most years.

Presented by Brian Houle

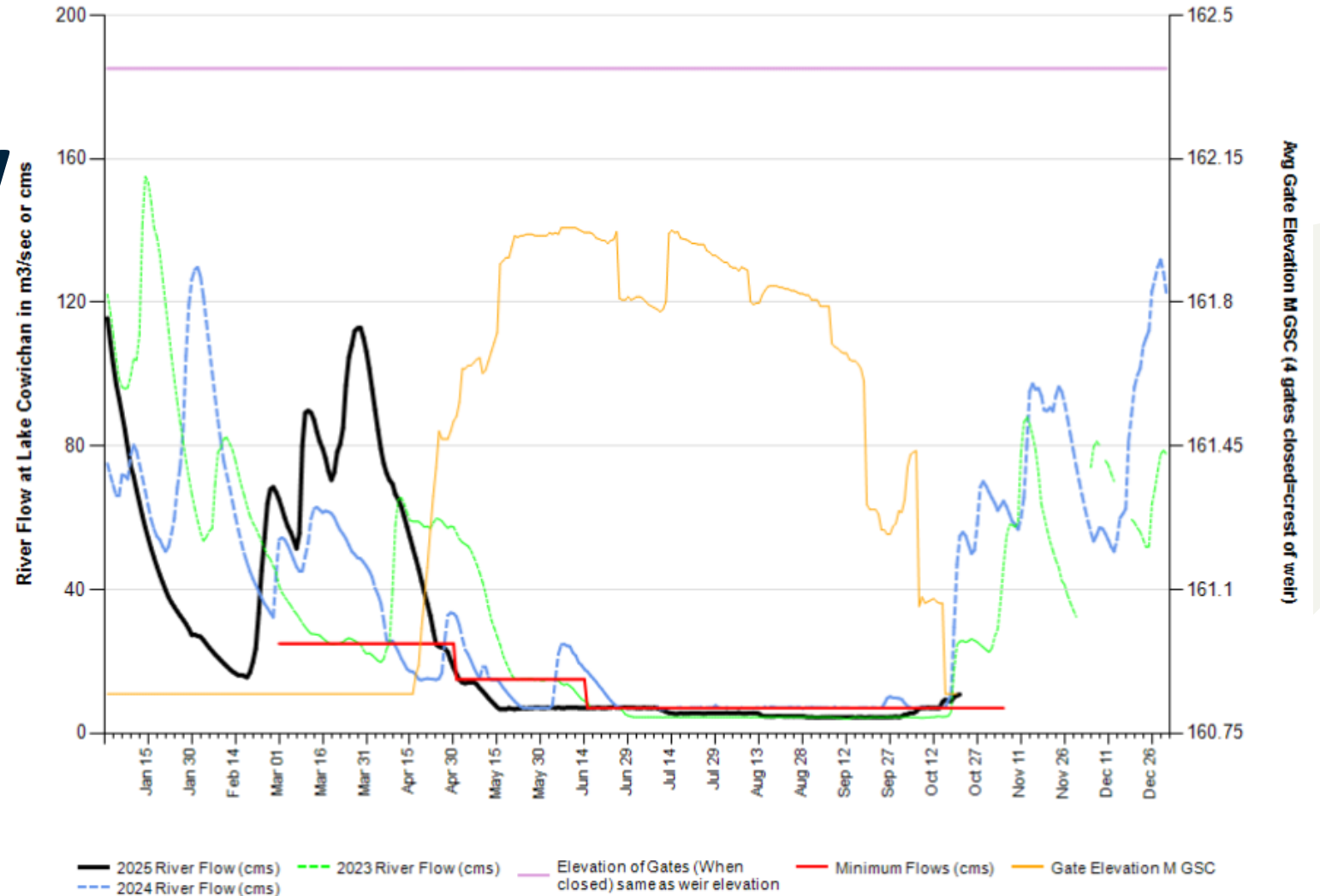
2025 included new guidance to keep lake 100% full as long as possible. A wet spring followed by drought and then some rainfall in August!!!

2025 Cowichan Lake Level - 2025 (Black) & 2024 (Blue) & 2023 (Green)



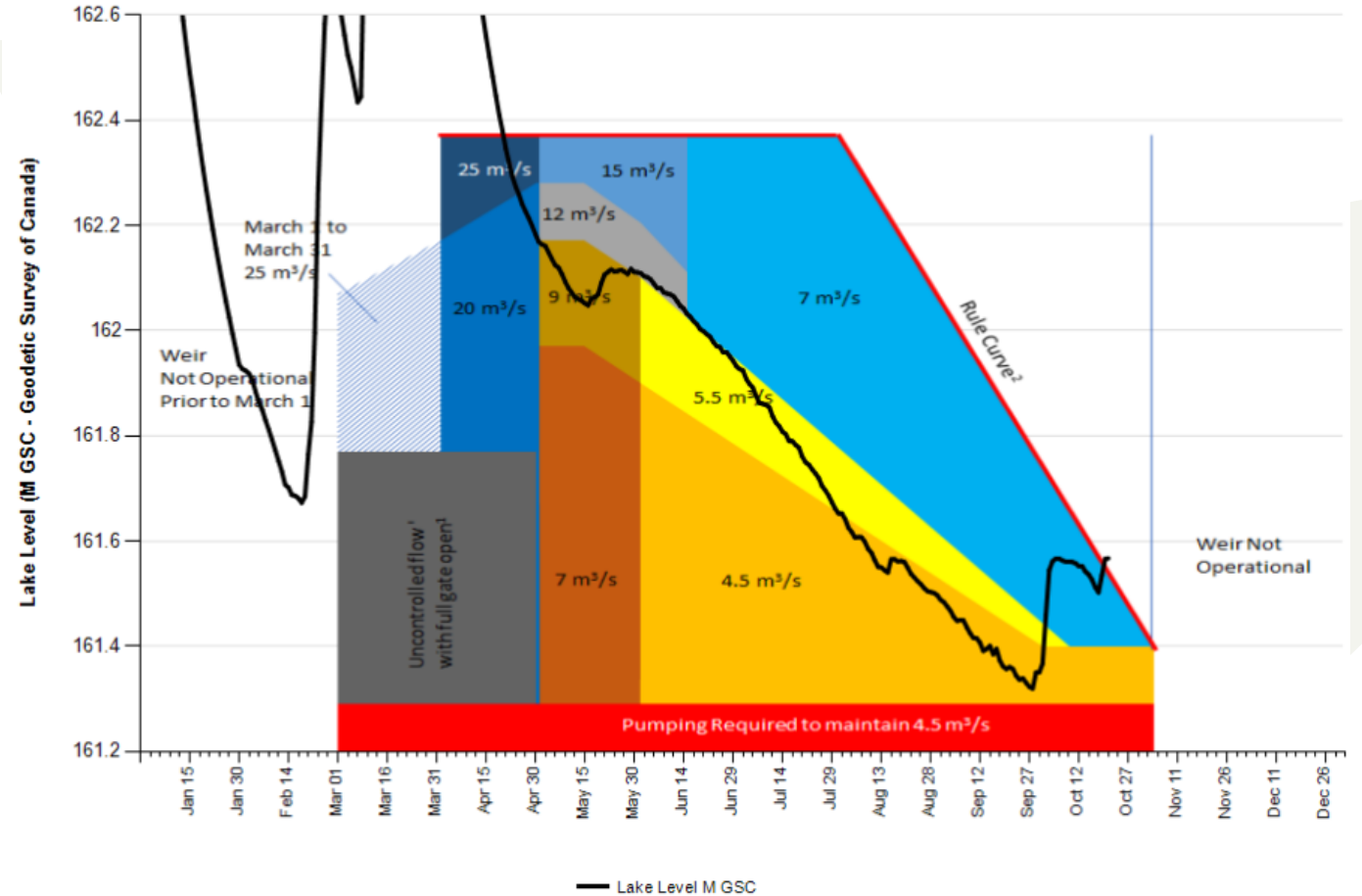
After wet spring, with lake dropping to below full supply, flow reductions used. Flow down to 7 cms by May 15 helped prevent pumping

2025 Cowichan River Flow - 2025 (Black) & 2024 (Blue) & 2023 (Green)



The flow guide chart is helpful once snowpack has fully melted but does not provide guidance that is helpful in springtime.

2025 Cowichan Lake Level and River Flow Guidance Chart - Below Average snow pack



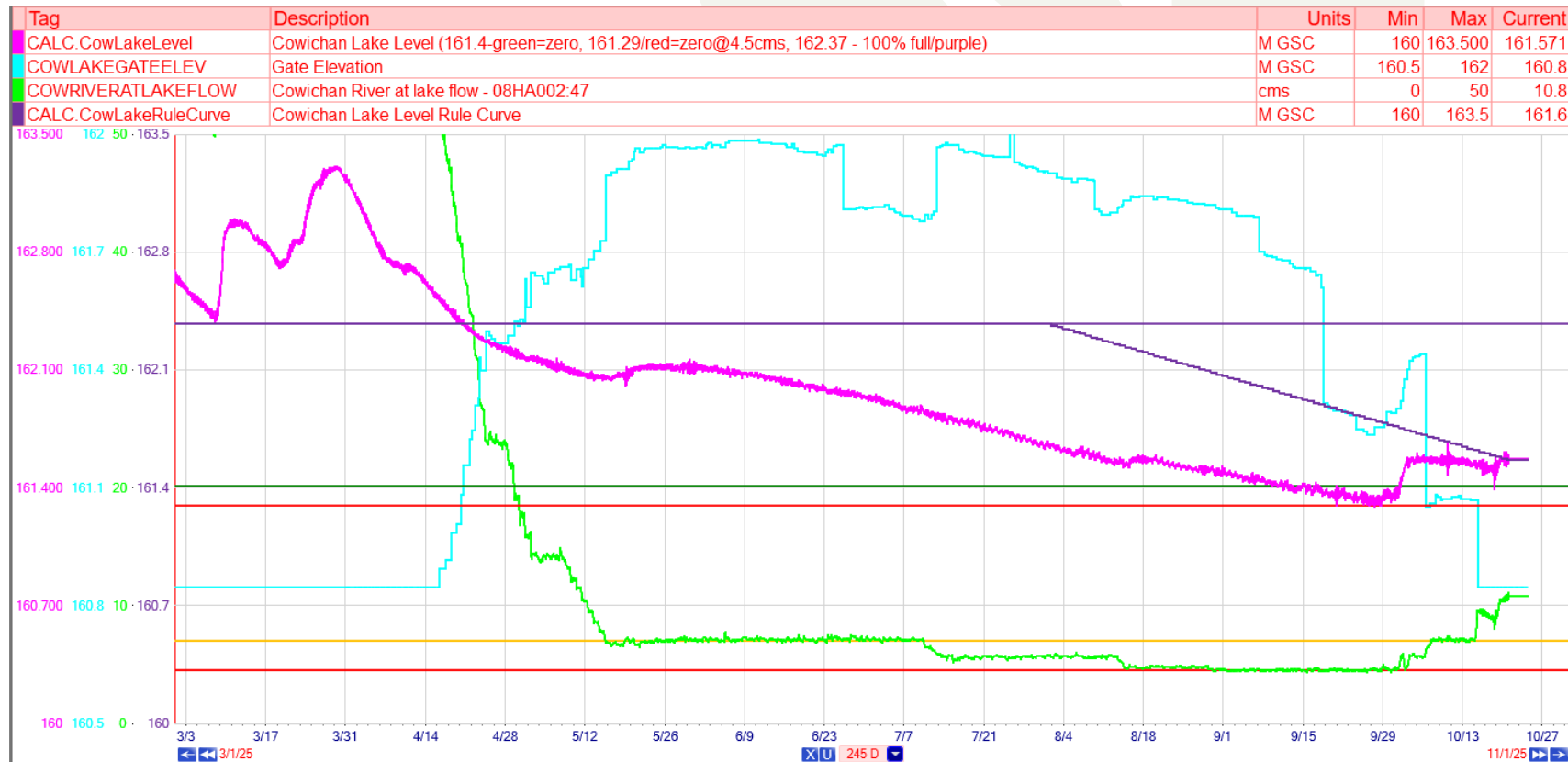
2025 INCLUDED WEEKLY STAKEHOLDER CONFERENCE CALLS

- * The use of a weekly teams call to discuss watershed conditions was helpful for all participants & esp. Domtar.**
- * There are no minutes from the weekly dialogue while changes to weir operations are communicated widely with the weekly email update going out to 128 people.**
- * Domtar is open to revisions to how the watershed is managed – provide Brian Houle with your ideas.**

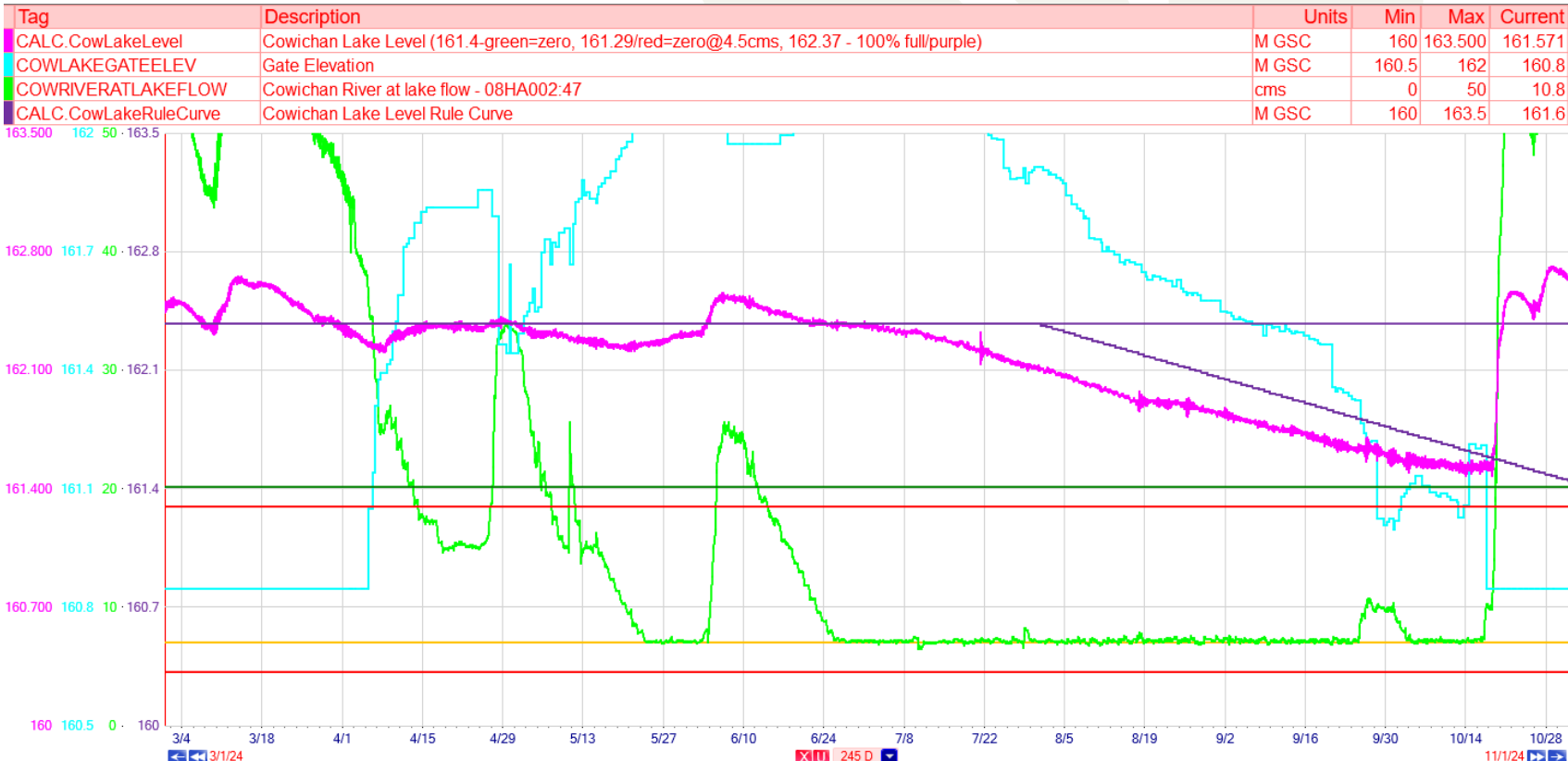
REVIEW OF RECENT YEARS IN MORE DETAIL

The following trends show from March 1 to Nov 1 and highlights river flow, lake level and other key details to illustrate how those years progressed. Each year in same format for easier comparison, year to year.

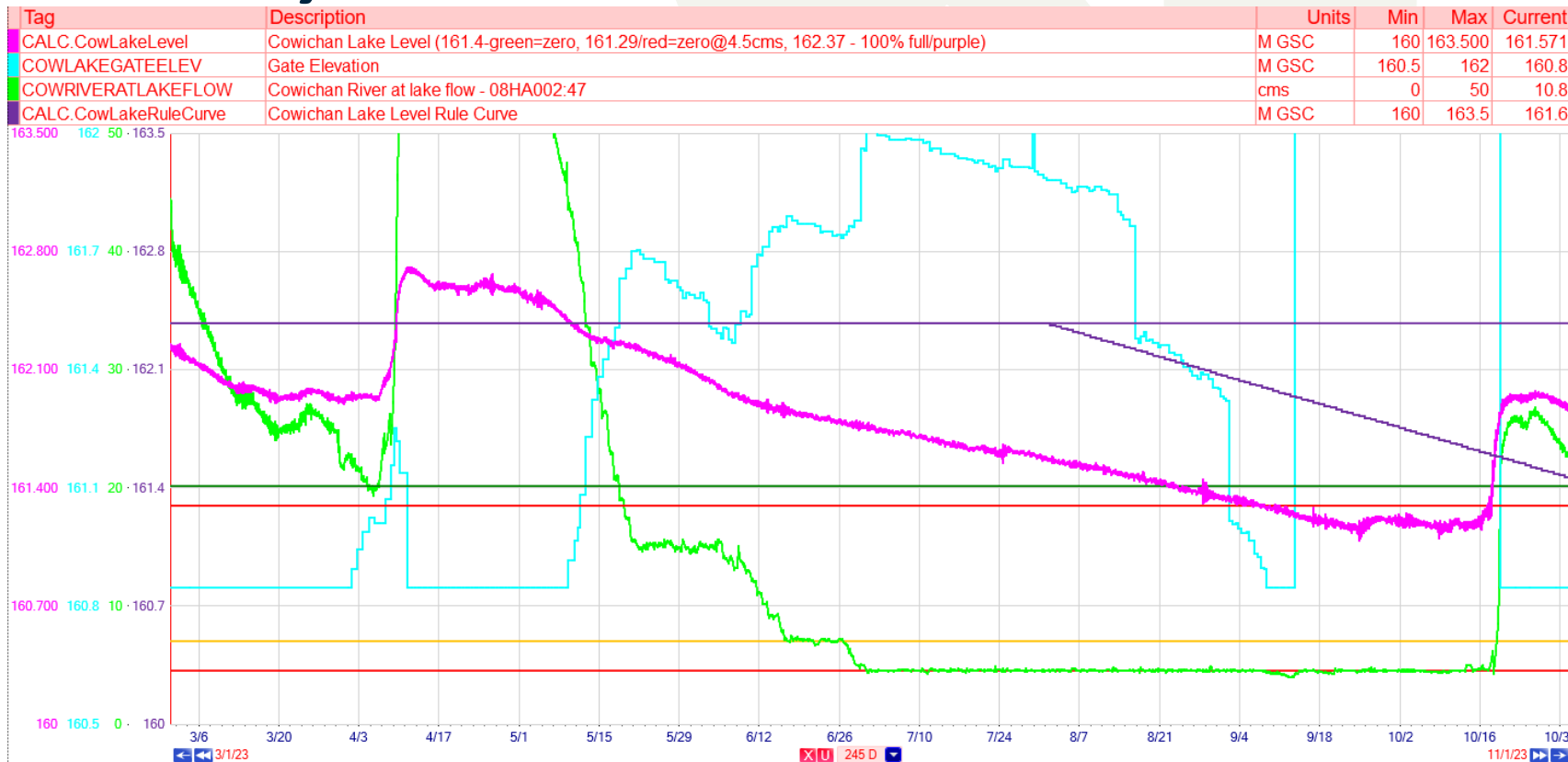
2025 included new guidance to keep lake 100% full as long as possible. Flow to 7 cms on May 16 and down to 4.5 cms on Aug 15.



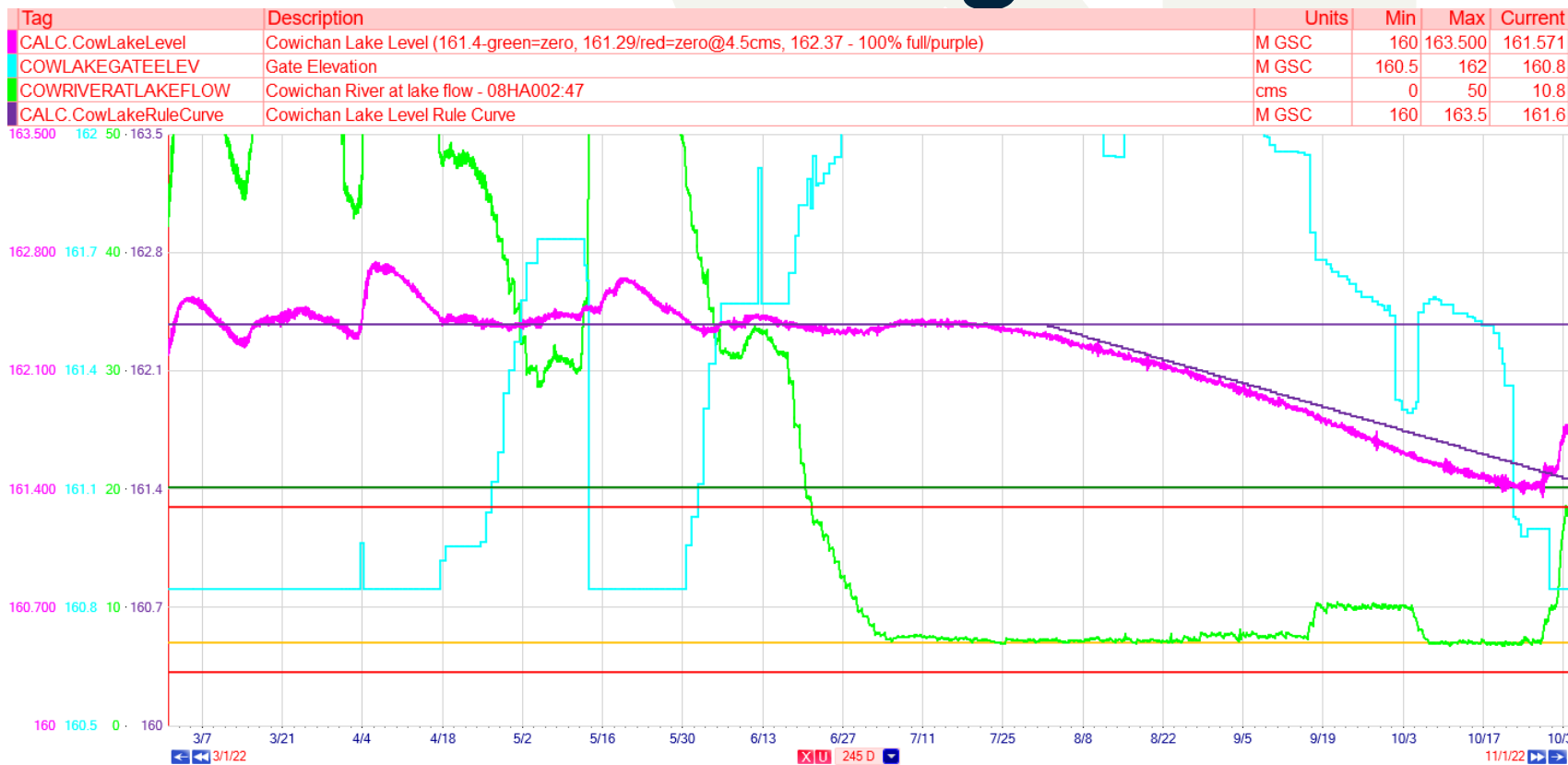
2024 was 1st year with new guidance to keep lake 100% full as long as possible. Flow down to 15 on April 18, to 7 on May 24, 7.08 all summer



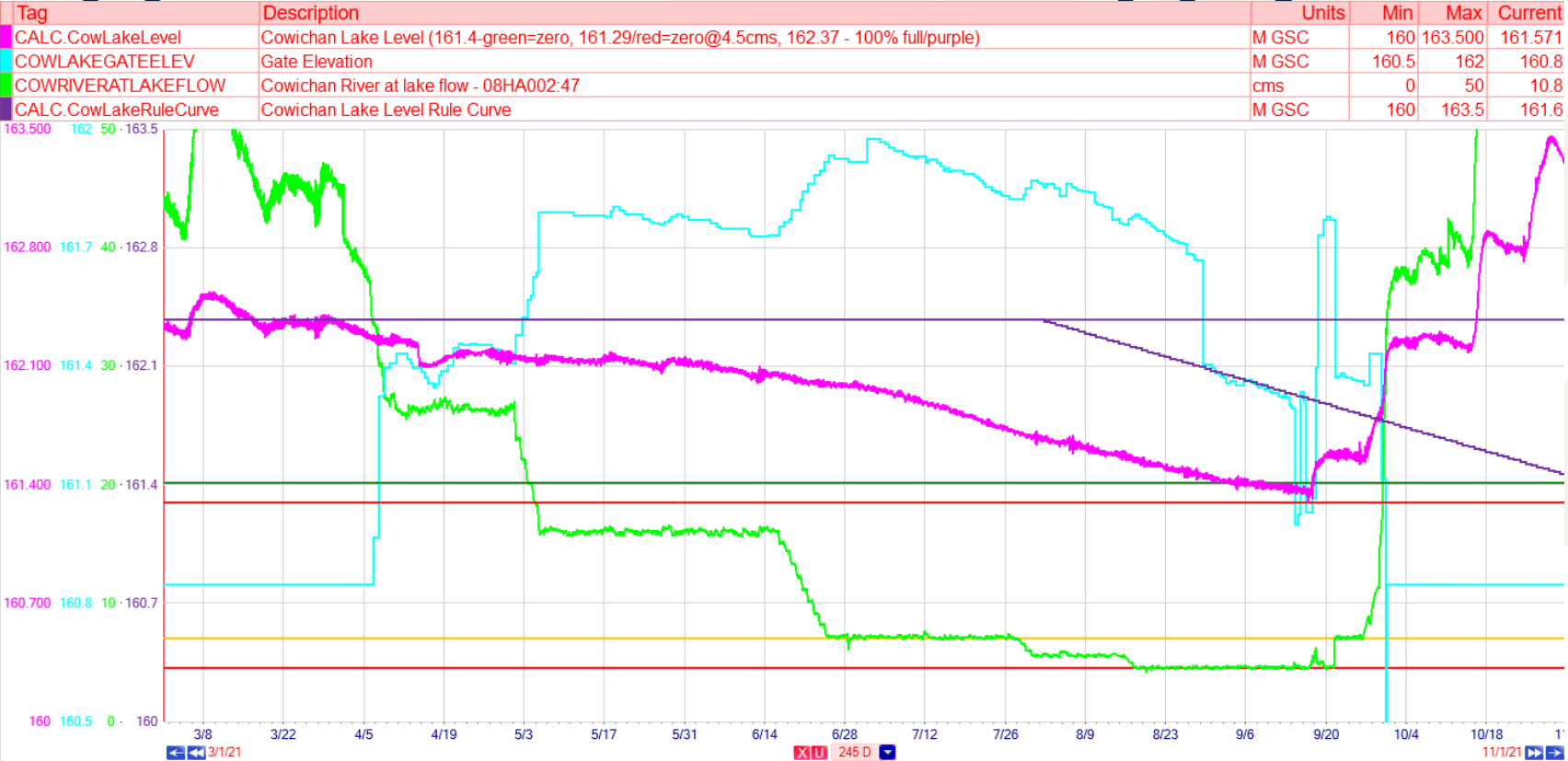
2023 Was very difficult year and included 36 days of pumping. Flow reduced down to 7 cms June 16, and down to 4.5 cms June 30



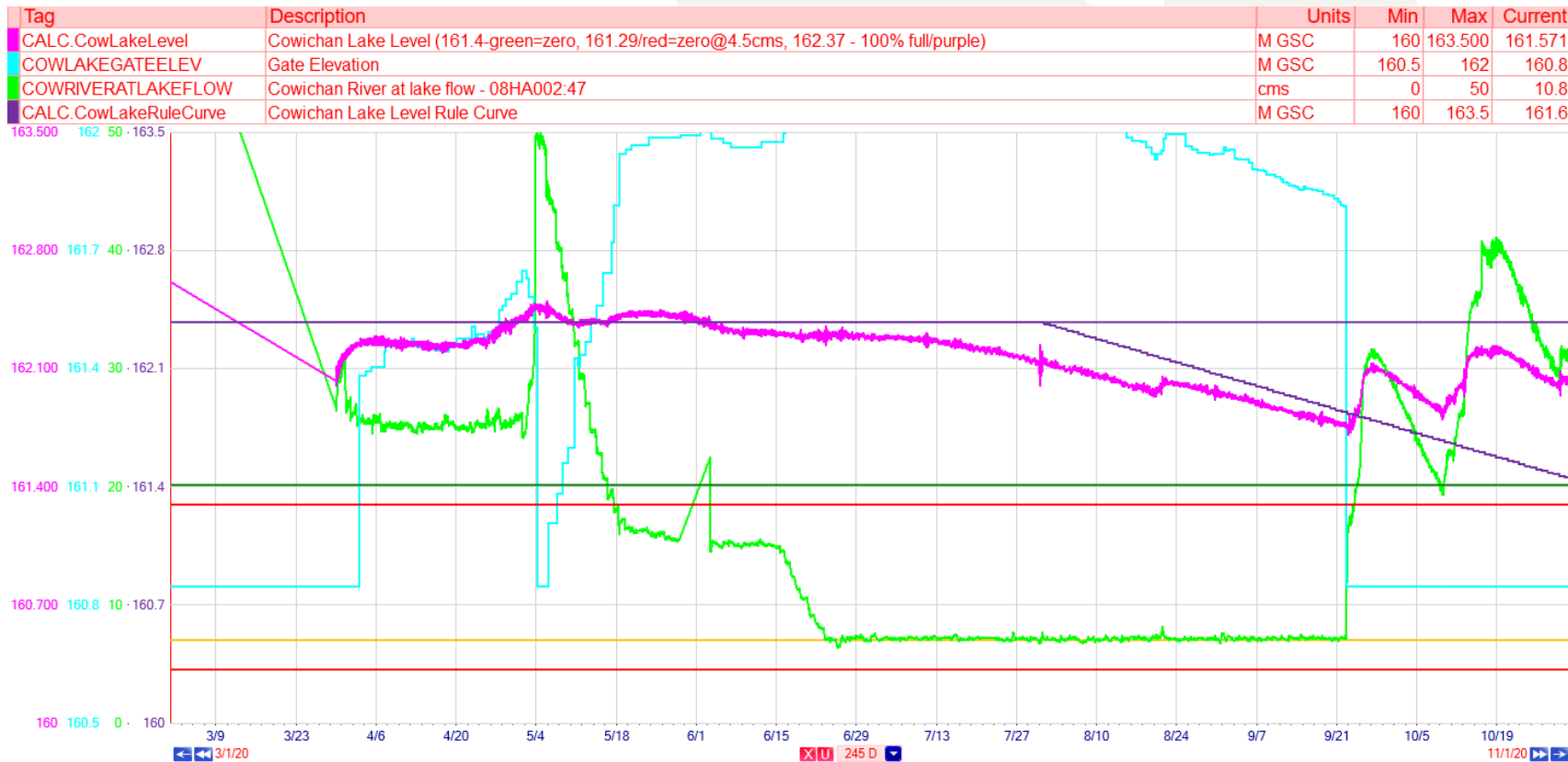
2022 A wet year with lake higher than it has ever been in summer. For the first time, the 2013 rule curve allowed higher levels in July



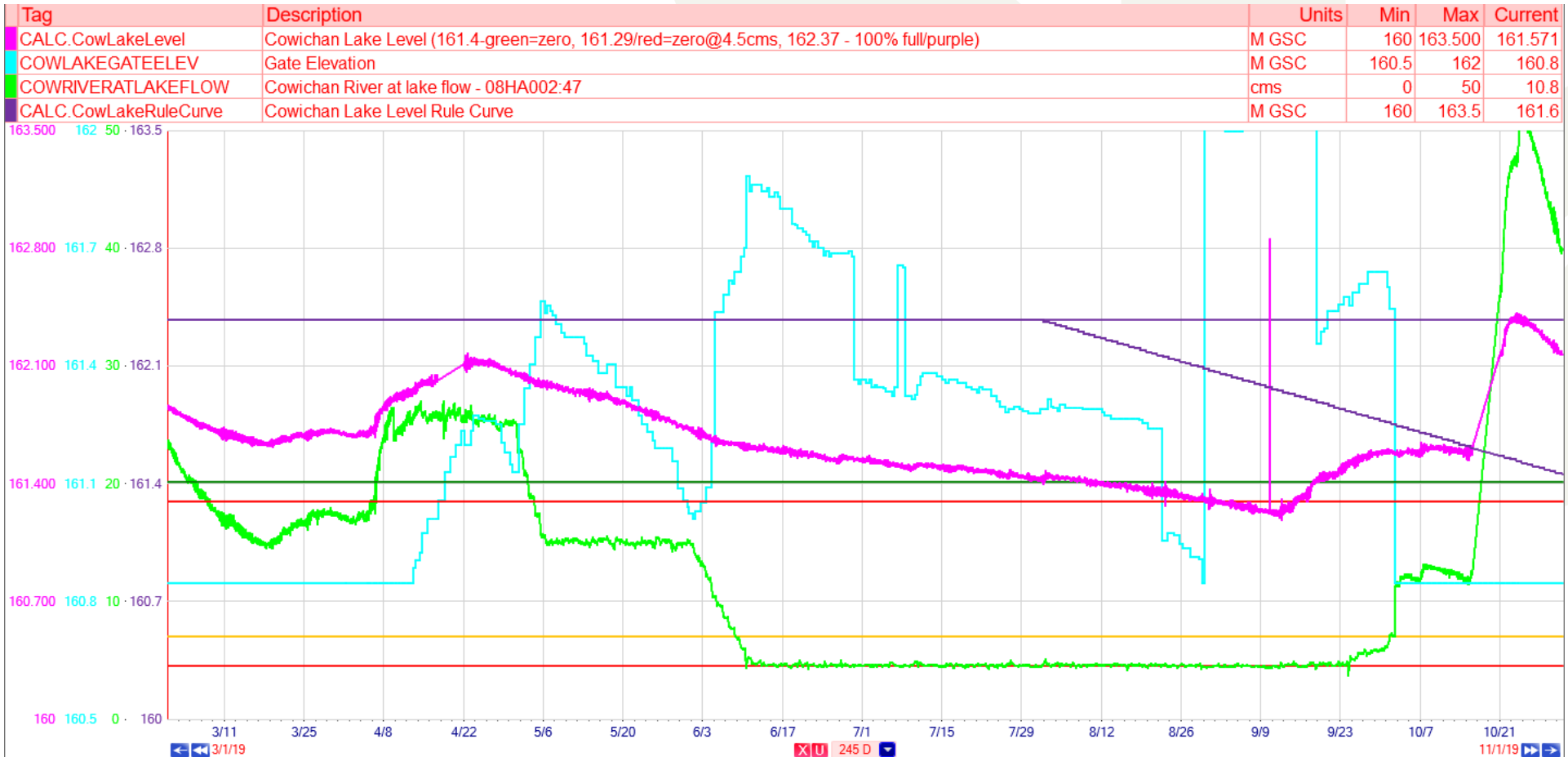
2021 was challenging year with risk of pumping. Ideal flows sustained in springtime. Lake dropped to below zero supply in Sept.



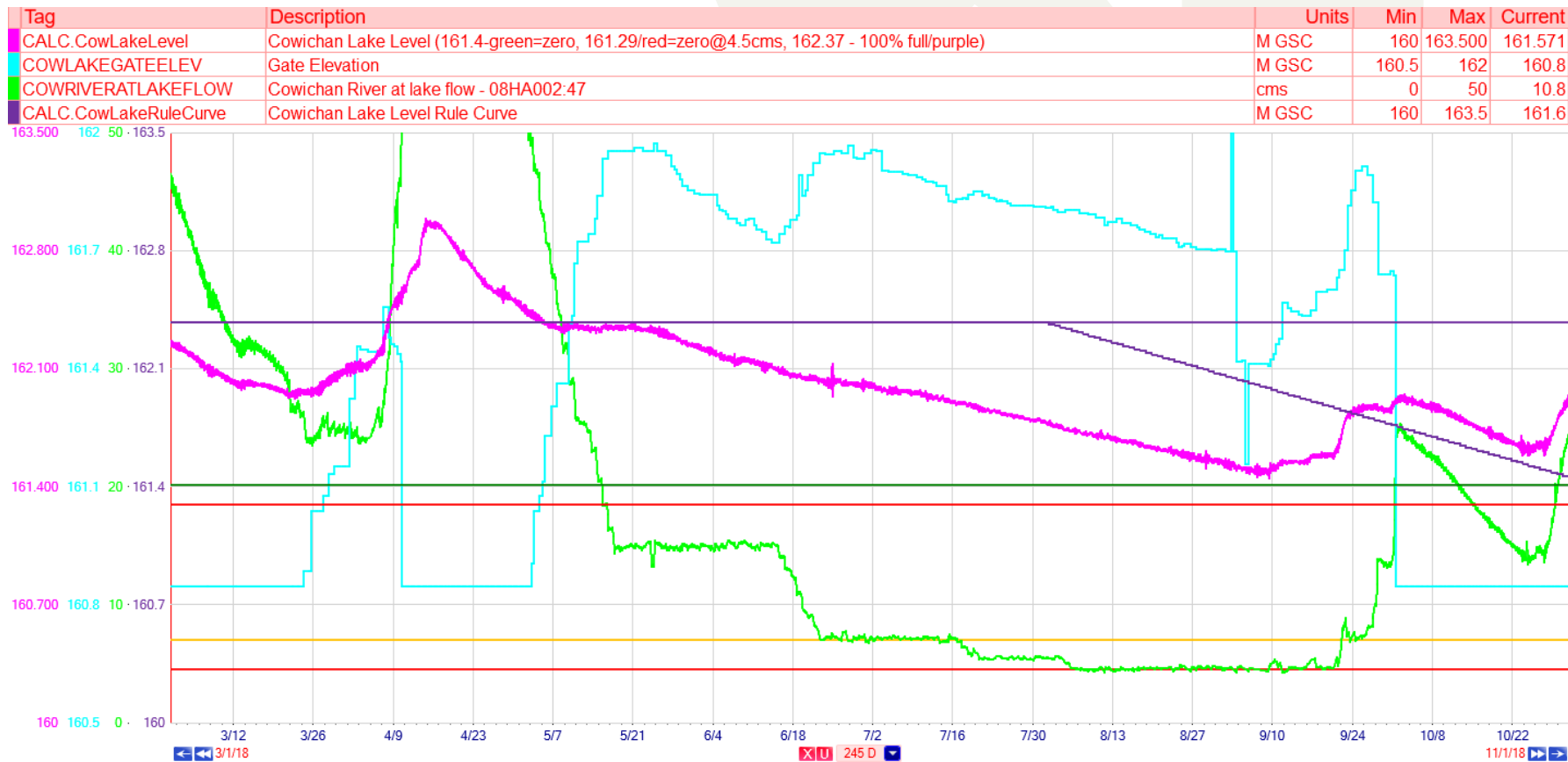
2020 Showed higher lake levels, sustained ideal flows and rainfall arriving well before concern for low lake levels sets in.



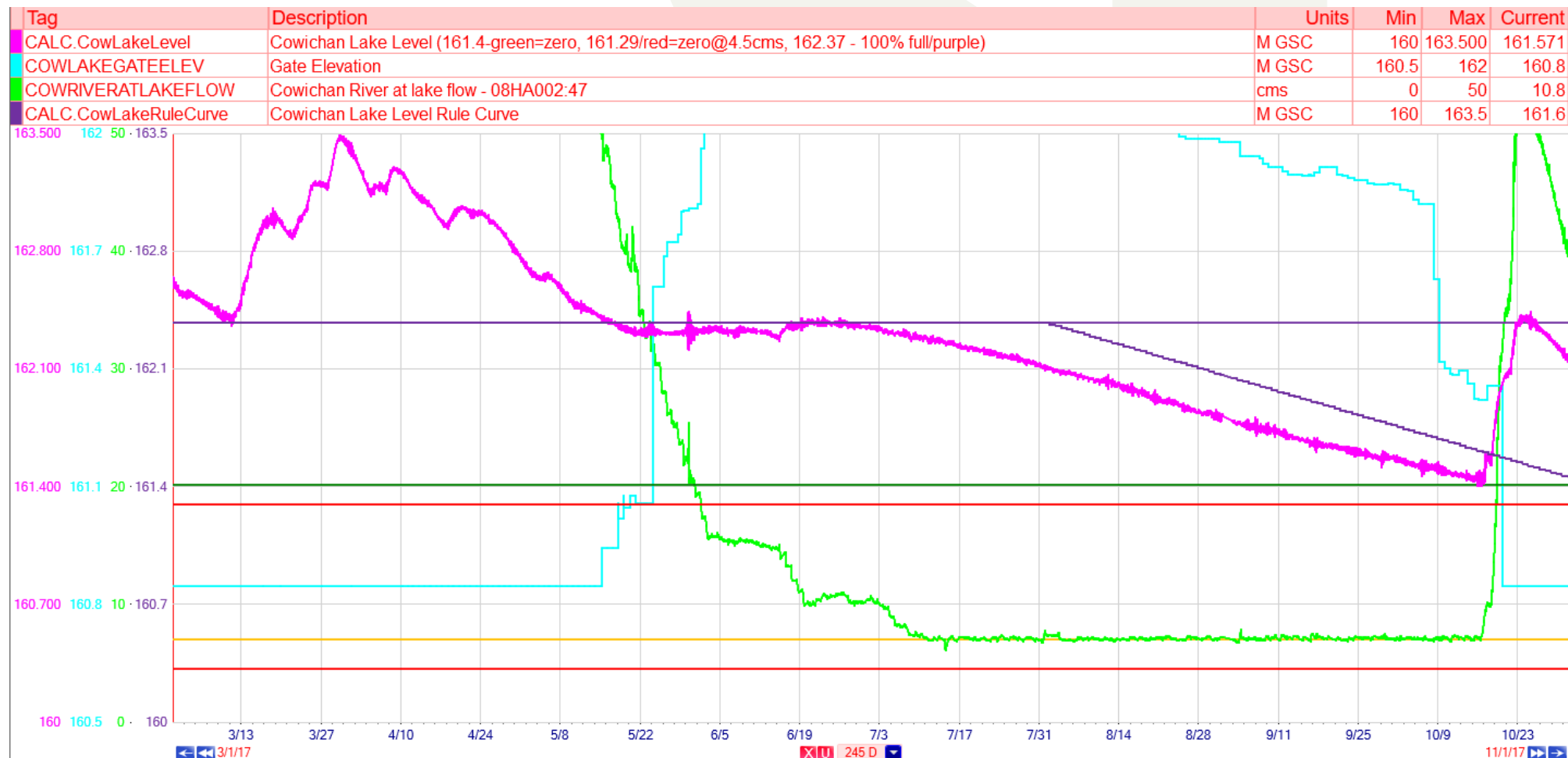
2019 was dry year and required the use of pumps for 19 days



2018 showed concern for running out of water, and then rainfall arrived early in September. Flows reduced down to 4.5 cms by Aug 8.



2017 drained the lake but did not require revisions to ideal flows.



2016 was first year to install pumps, media event and then rain arrived in time to not need to use pumps. Flow at 4.5 cms on May 27



DFO HAS PROVIDED DOMTAR WITH GUIDANCE TO SUBMIT AN APPLICATION FOR AUTHORIZATION FOR 5 YEARS. AUTHORIZATION WILL FOCUS ON SUSTAINING A FULL LAKE IN SPRINGTIME TO SUPPORT 7 CMS FOR THE SUMMER HEAT SEASON. LOW LAKE LEVELS IS NO LONGER AN EMERGENCY AND IS EXPECTED AND THEREFORE, PLAN FOR DROUGHT EACH YEAR.

Following from fish kill of 2023, Regulator guidance in springtime has revised to keep lake 100% full. Flows below 25 and 15 cms authorized in order to hold lake at 100% full. A full lake as springtime ends will support 7 cms through dry season. DFO authorization will provide the guidance needed for support activities needed for years when not enough water to sustain ideal springtime flows of 25 and 15 cms, and for when 7 cms is not sustainable and for when pumps are needed.

NEXT STEPS

- 1. Provide DFO with 2025 year end report as guided in the Authorization**
- 2. Submit DFO application ASAP for period of 2026-2030 for authorization to adjust April flows down to 15 cms, to reduce May/June flows to 7 cms, to reduce summer flows down to 4.5 cms and to use pumps if needed. Objective being: hold lake 100% full in spring, avoid pumping.**

FEEDBACK FROM MEETING WITH COWICHAN WATERSHED BOARD

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Domtar