Department of Primary Industries

Clyde River Water Quality Report

Climate Smart Pilots

August 30, 2023

www.farmdecisiontech.net.au

Foreword

Funding

This work has been produced by the NSW Primary Industries Climate Change Research Strategy funded by the NSW Climate Change Fund.

NSW Department of Primary Industries Disclaimer

This is a research trial and pilot project, and you should not rely solely on the information or advice provided in these reports.

Feedback and Questions

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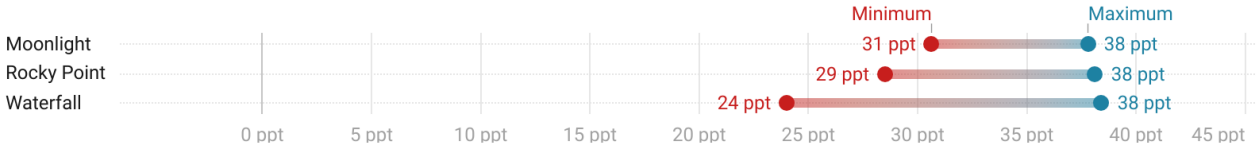
1 Salinity

1.1 Weekly

Weekly Minimum and Maximum Salinity

These values represent the absolute minimum and maximum recorded values from Buoys within each harvest area.



Units represent parts per thousand (ppt). This is equivalent to both g/kg and g/L.

Source: FarmDecisionTECH • Created with Datawrapper

Figure 1: These values represent the highest and lowest salinity reading a buoy has recorded in each of the harvest areas in the past week.

7-Day Salinity Average Trend

Average daily salinity at each buoy throughout the Clyde River.

Waterfall Moonlight Rocky Point

Rocky Point

	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
Waterfall Creek	34.4 ppt	34.1 ppt	34.3 ppt	34.4 ppt	34.9 ppt	35.2 ppt	34.7 ppt
Rocky Point	33.5 ppt	33.3 ppt	33.4 ppt	33.7 ppt	34.0 ppt	34.6 ppt	34.3 ppt
Angry Man Point	31.8 ppt	31.6 ppt	32.0 ppt	32.2 ppt	32.5 ppt	32.8 ppt	32.4 ppt
Chinamans Point	30.0 ppt	30.0 ppt	30.2 ppt	30.5 ppt	31.0 ppt	31.2 ppt	30.7 ppt

Waterfall

	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
Buckenbowra Creek	33.6 ppt	33.4 ppt	33.9 ppt	34.3 ppt	34.7 ppt	35.2 ppt	34.8 ppt
Big Island West	29.3 ppt	29.3 ppt	29.6 ppt	29.8 ppt	30.1 ppt	30.3 ppt	29.3 ppt
Double Bay	25.2 ppt	25.4 ppt	25.7 ppt	26.0 ppt	25.9 ppt	26.0 ppt	25.8 ppt

Moonlight

	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
Snapper Point	35.0 ppt	34.8 ppt	34.9 ppt	35.2 ppt	35.5 ppt	35.9 ppt	35.5 ppt
Wray Street	32.6 ppt	32.5 ppt	32.5 ppt	32.6 ppt	32.7 ppt	32.9 ppt	32.6 ppt
Budd Island North	32.4 ppt	32.2 ppt	32.2 ppt	32.3 ppt	32.6 ppt	32.8 ppt	32.2 ppt
Moonlight							

Units represent parts per thousand (ppt). This is equivalent to both g/kg and g/L.

Source: FarmDecisionTECH • Created with Datawrapper

Figure 2: This figure represents the daily average salinity of each of the buoys contained within a harvest area. Its designed to reduce the impact of tides and provide the general trend of salinity over the past week for specific locations within harvest areas.

1.2 Fortnightly

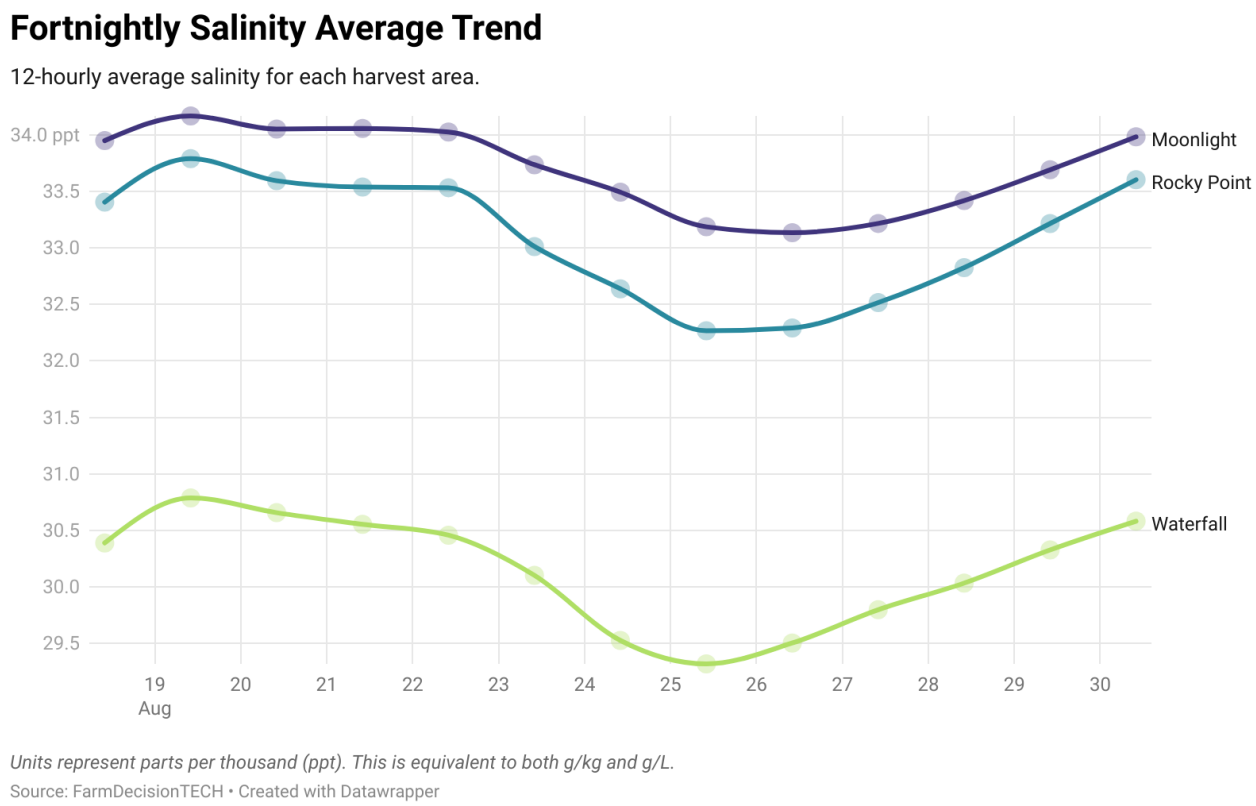
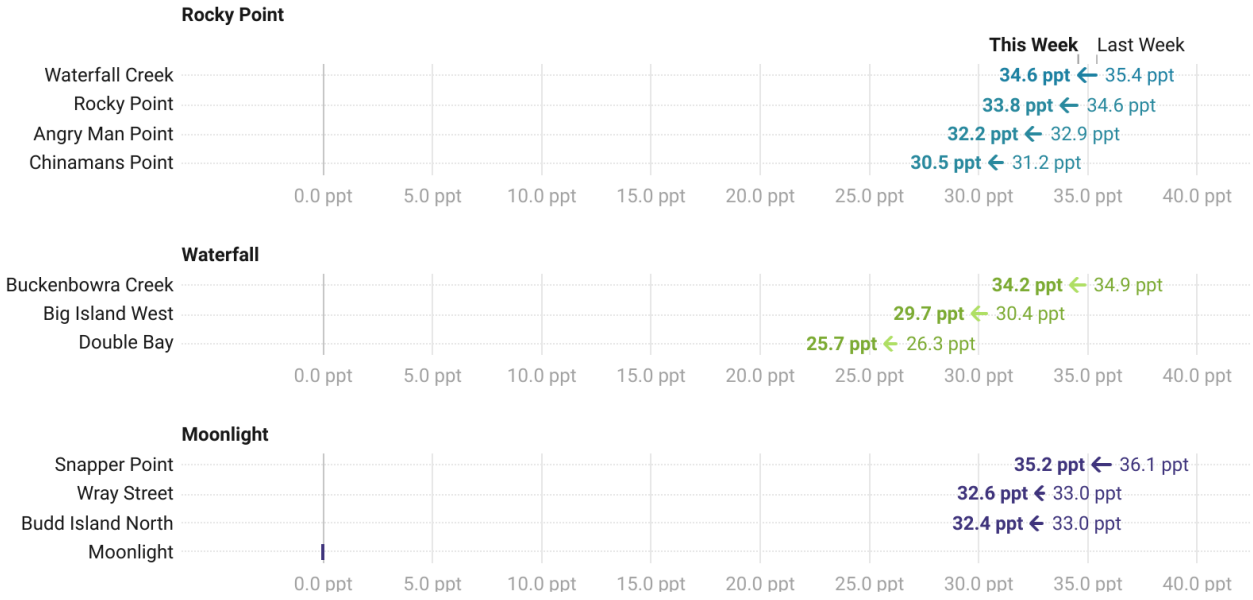


Figure 3: This figure represents the daily average salinity of all buoys contained within a harvest area. Its designed to reduce the impact of tides and provide the general trend of salinity over the past week.

Fortnightly Average Salinity Trend

Comparison between this weeks average salinity and the average salinity last week. Left pointing arrow means salinity is decreasing, right pointing means salinity is increasing.



Units represent parts per thousand (ppt). This is equivalent to both g/kg and g/L.

Source: FarmDecisionTECH • Created with Datawrapper

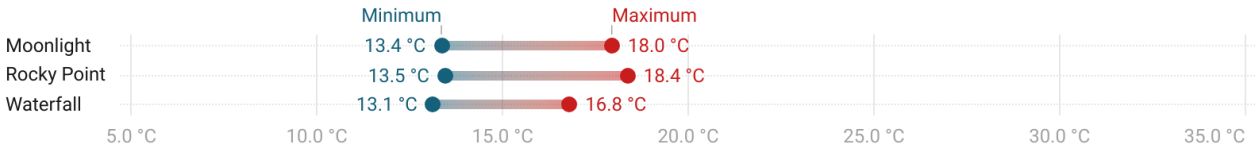
Figure 4: This figure demonstrates the average difference in salinity for this week compared with the prior week. It displays a longer term, general trend to see if salinity is increasing, stabilising or decreasing.

2 Water Temperature

2.1 Weekly

Weekly Minimum and Maximum Water Temperature

These values represent the absolute minimum and maximum recorded values from Buoys within each harvest area.



Source: FarmDecisionTECH • Created with Datawrapper

Figure 5: These values represent the highest and lowest temperature reading a buoy has recorded in each of the harvest areas in the past week.

7-Day Temperature Average Trend

Average daily temperature at each buoy throughout the Clyde River.

Waterfall Moonlight Rocky Point

Rocky Point

	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
Rocky Point	15.4 °C	15.5 °C	15.9 °C	16.1 °C	16.4 °C	16.5 °C	16.2 °C
Angry Man Point	15.2 °C	15.4 °C	15.7 °C	16.0 °C	16.2 °C	16.3 °C	16.1 °C
Waterfall Creek	15.4 °C	15.4 °C	15.8 °C	16.0 °C	16.3 °C	16.4 °C	16.1 °C
Chinamans Point	15.3 °C	15.3 °C	15.7 °C	16.0 °C	16.3 °C	16.3 °C	16.1 °C

Waterfall

	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
Buckenbowra Creek	15.1 °C	15.3 °C	15.6 °C	15.9 °C	16.1 °C	16.2 °C	16.0 °C
Big Island West	15.0 °C	15.1 °C	15.5 °C	15.7 °C	15.9 °C	16.1 °C	15.9 °C
Double Bay	15.0 °C	15.0 °C	15.5 °C	15.6 °C	15.7 °C	15.9 °C	15.8 °C

Moonlight

	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
Wray Street	15.7 °C	15.7 °C	16.0 °C	16.2 °C	16.4 °C	16.5 °C	16.3 °C
Budd Island North	15.7 °C	15.7 °C	16.1 °C	16.2 °C	16.5 °C	16.5 °C	16.3 °C
Snapper Point	15.7 °C	15.8 °C	16.0 °C	16.2 °C	16.4 °C	16.4 °C	16.3 °C
Moonlight	15.7 °C	15.7 °C	16.0 °C	16.2 °C	16.4 °C	16.6 °C	16.3 °C

Temperature is displayed in degrees Celsius (°C)

Source: FarmDecisionTECH • Created with Datawrapper

Figure 6: This figure represents the daily average temperature of each of the buoys contained within a harvest area. Its designed to reduce the impact of tides and provide the general trend of temperature over the past week for specific locations within harvest areas.

2.2 Fortnightly

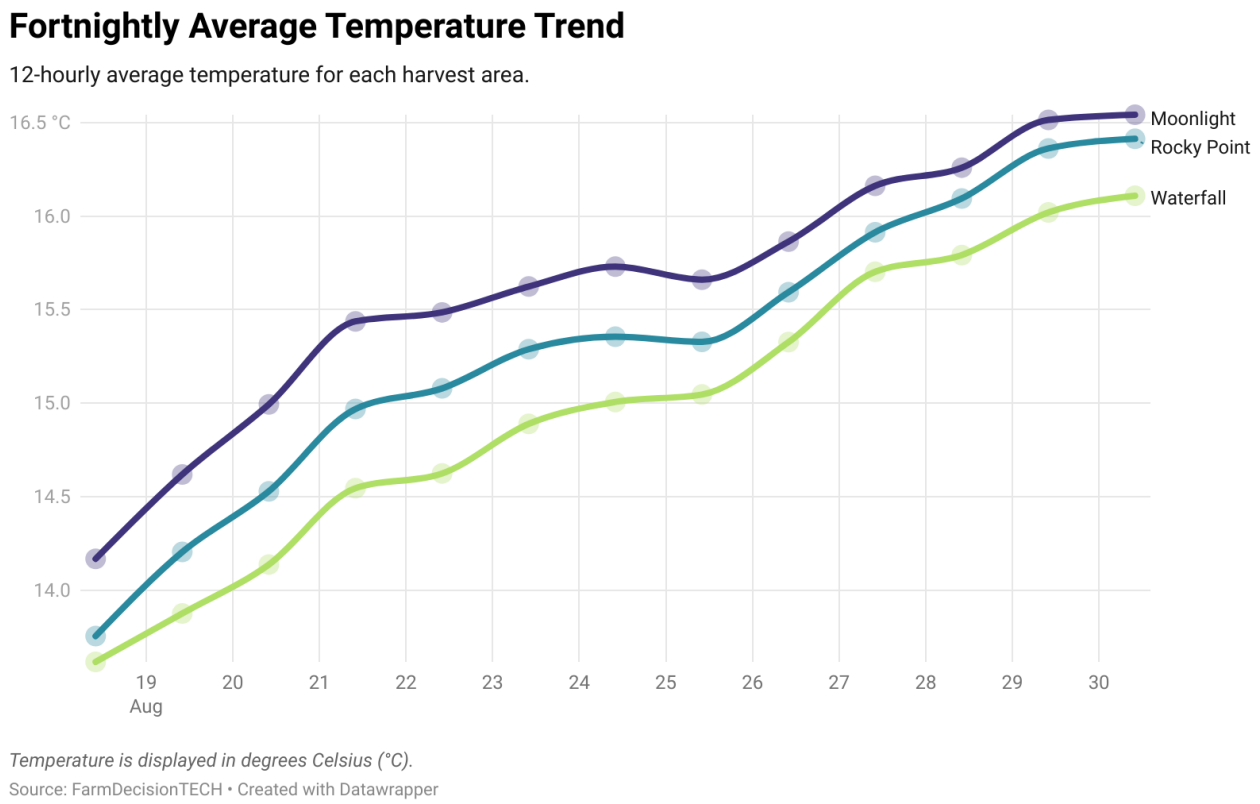


Figure 7: This figure represents the daily average temperature of all buoys contained within a harvest area. Its designed to reduce the impact of tides and provide the general trend of temperature over the past week.

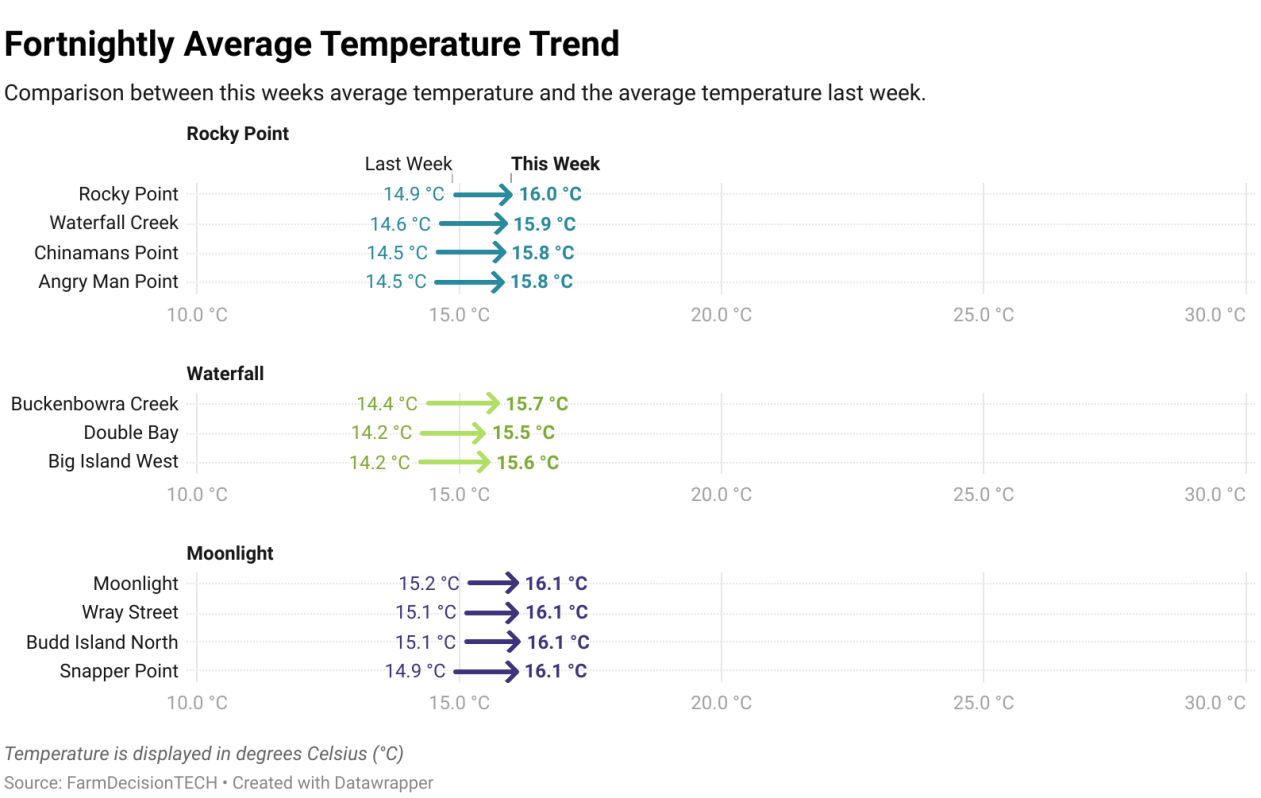


Figure 8: This figure demonstrates the average difference in temperature for this week compared with the prior week. It displays a longer term, general trend to see if temperature is increasing, stabilising or decreasing.

2.3 Historical

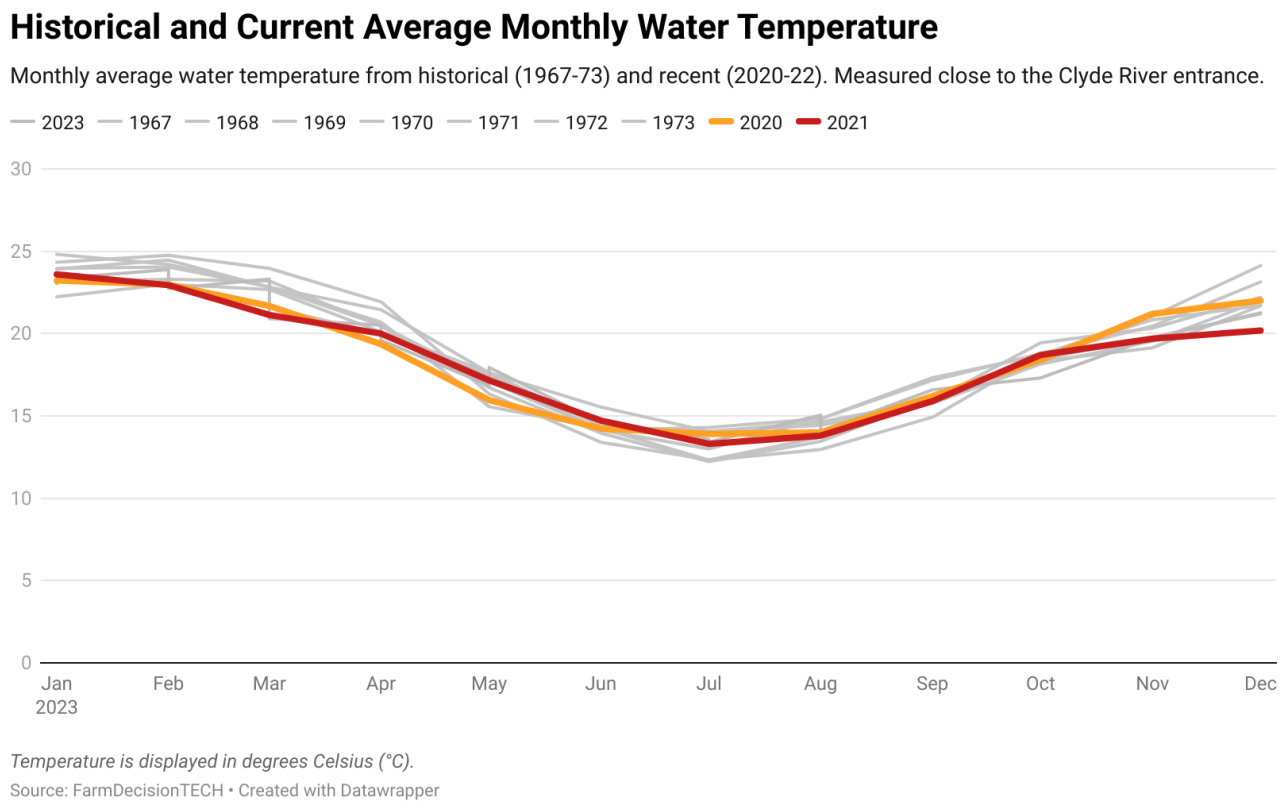


Figure 9: Monthly average water temperature from historical (1967-73) and recent (2020-22). Measured close to the Clyde River entrance.

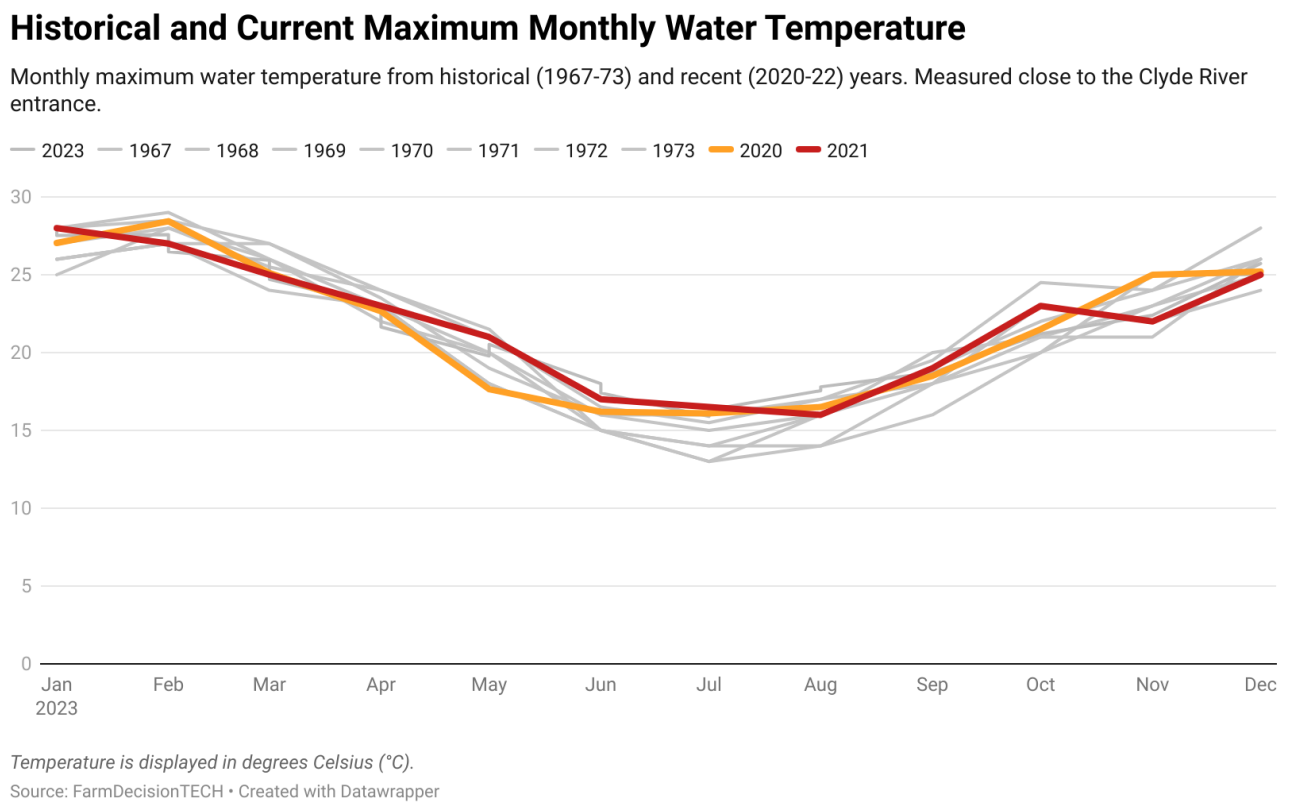


Figure 10: Monthly maximum water temperature from historical (1967-73) and recent (2020-22). Measured close to the Clyde River entrance.

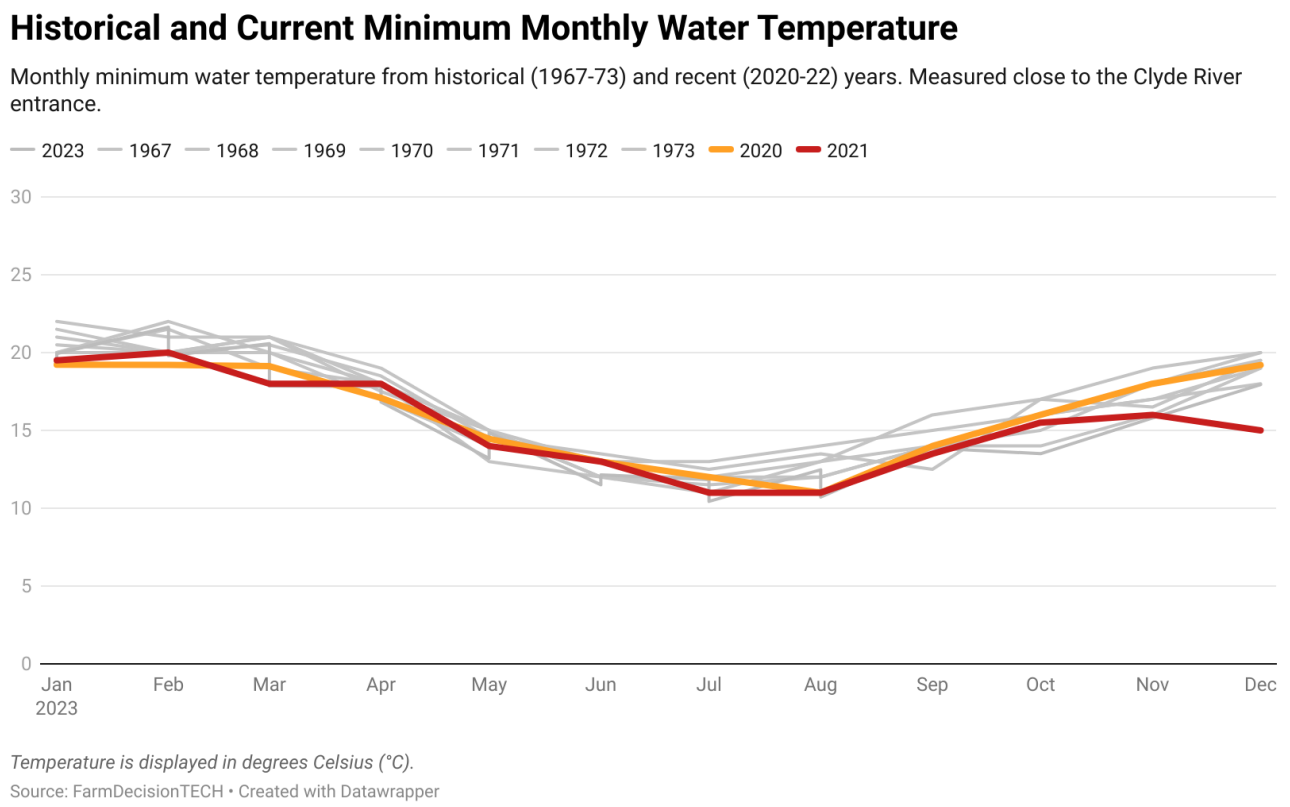


Figure 11: Monthly minimum water temperature from historical (1967-73) and recent (2020-22). Measured close to the Clyde River entrance.

3 Precipitation

3.1 Weekly

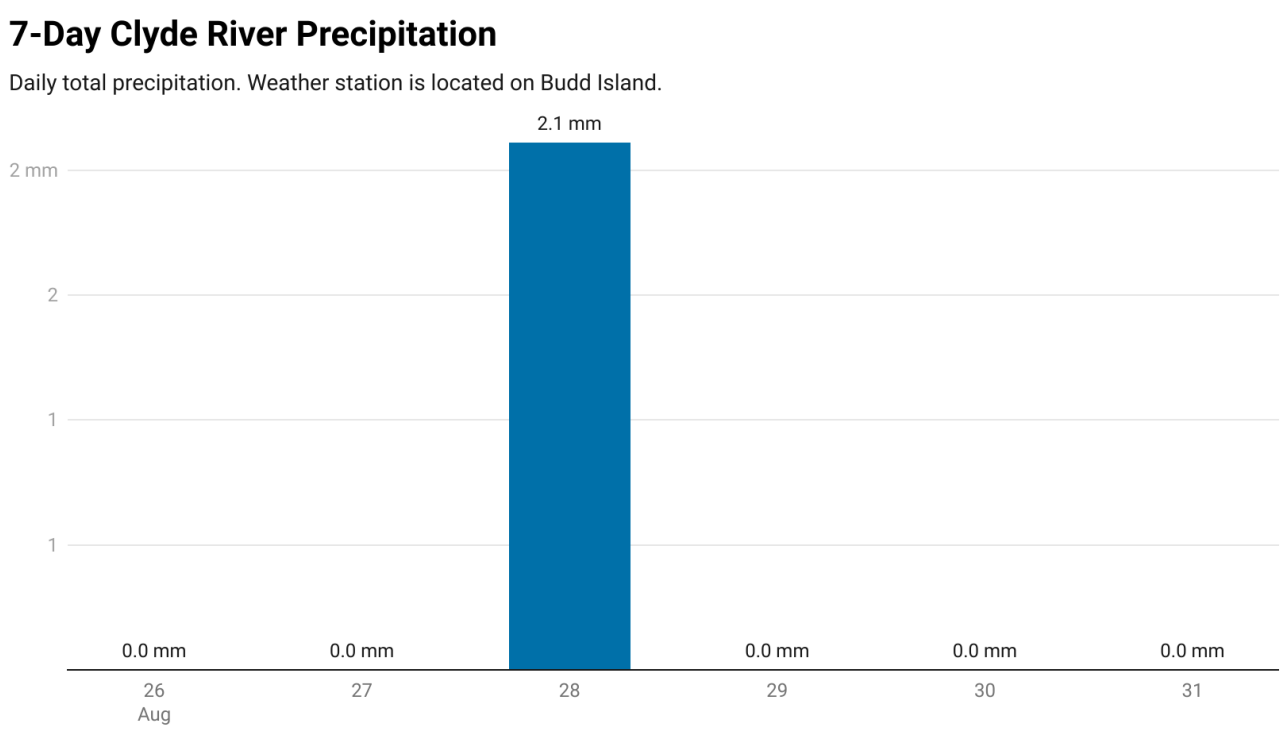


Figure 12: Daily total precipitation at Budd Island for the past week.

3.2 Yearly

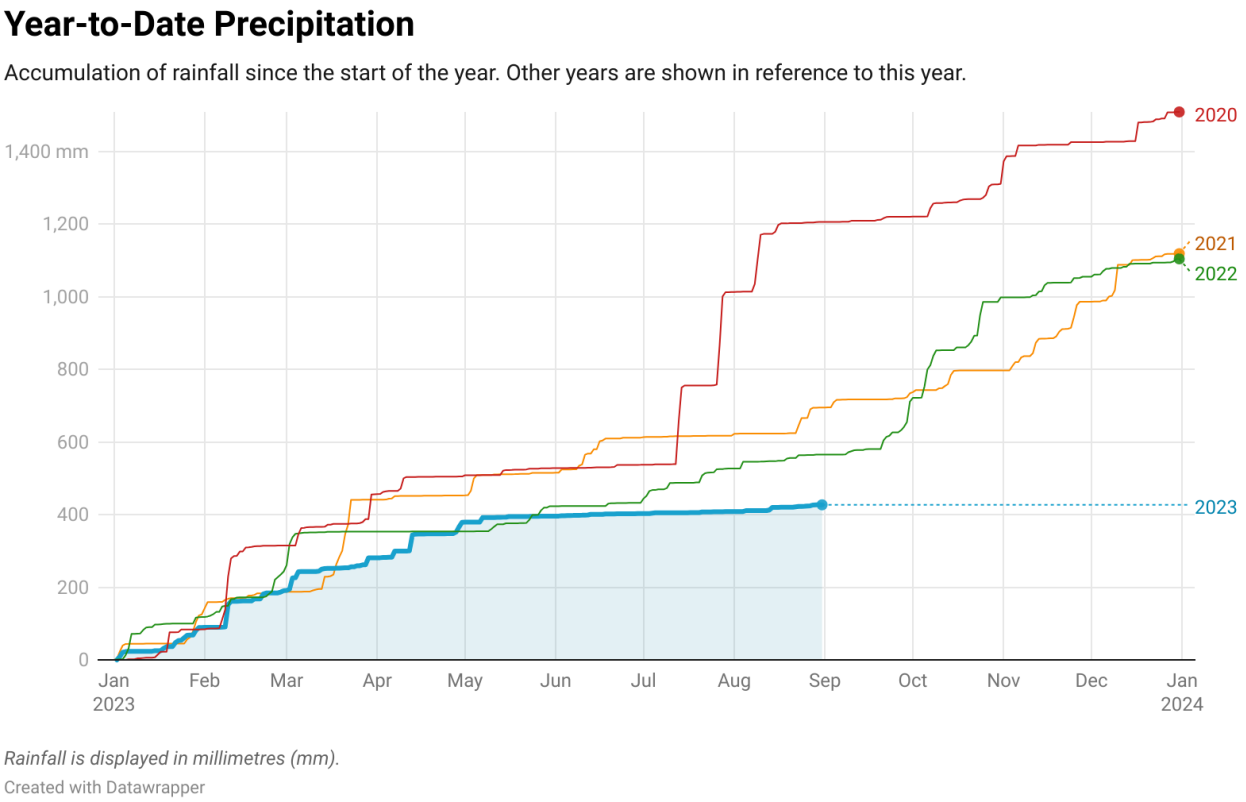


Figure 13: Compares this years total precipitation against previous years.

4 Flow Rate from Tributaries

4.1 Fortnightly

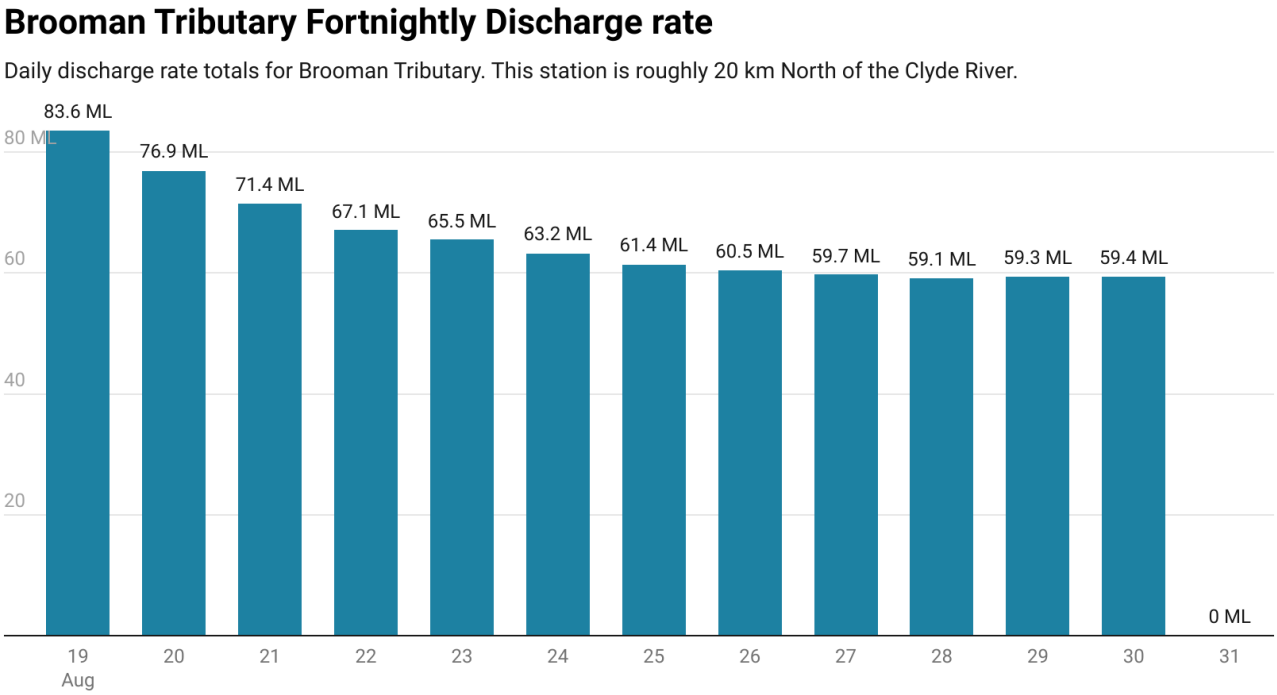


Figure 14: Fortnightly (daily total) water discharge from Brooman.

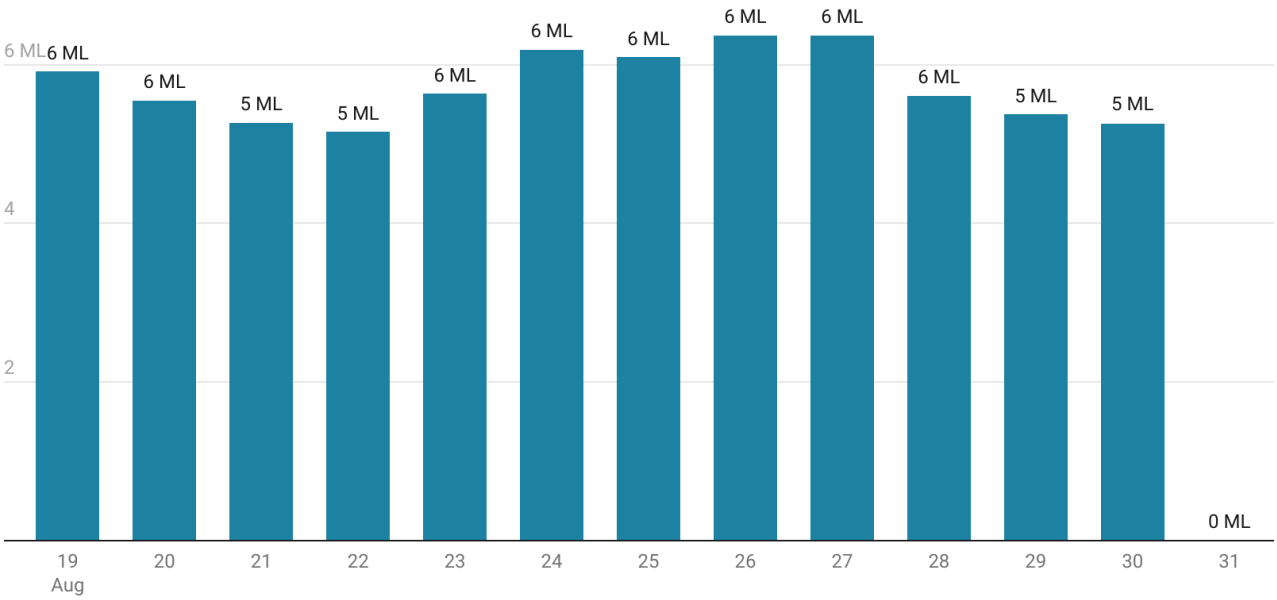


Figure 15: Fortnightly (daily total) water discharge from Buckenbowra.

4.2 Yearly

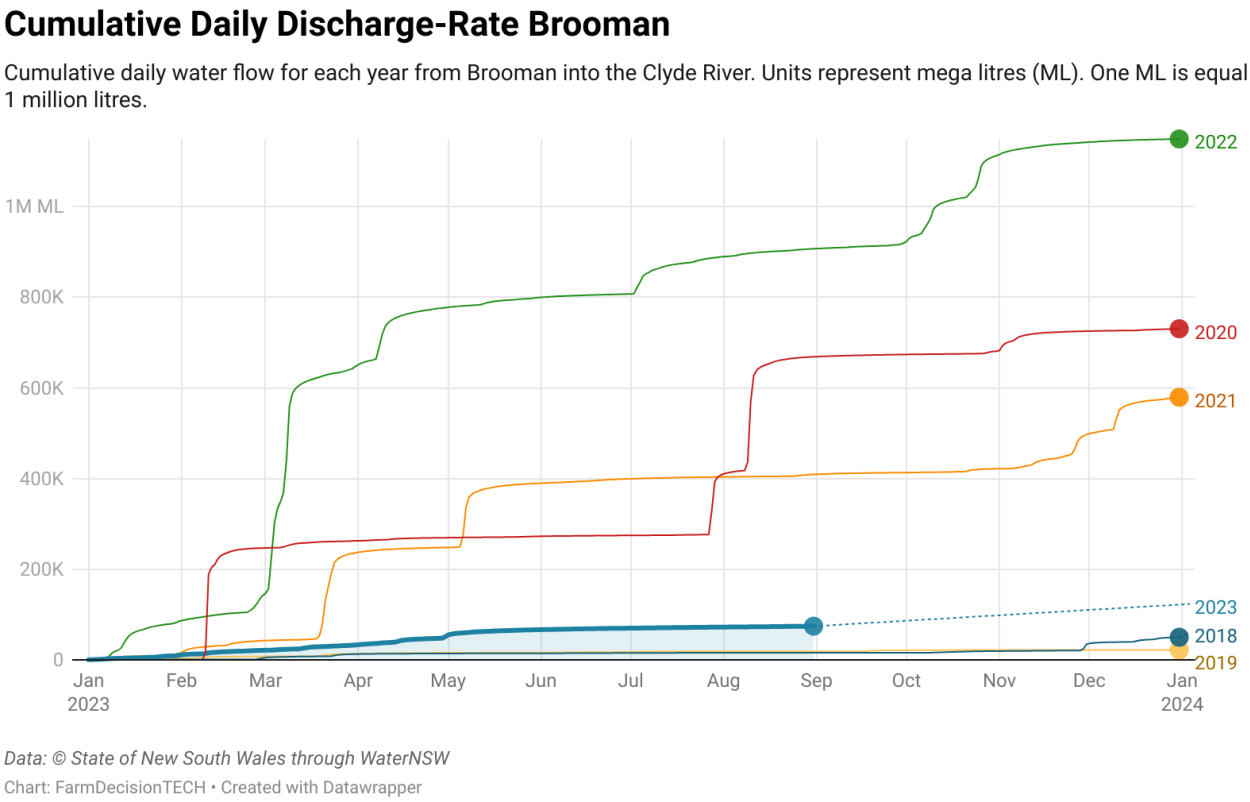


Figure 16: Compares this years total water discharge against previous years. Drought years (2018 and 2019) are shown for comparison.