Department of Primary Industries

Clyde River Water Quality Report

Climate Smart Pilots

May 30, 2022

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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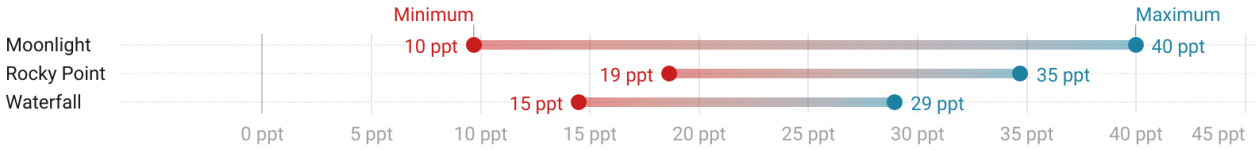
1 Salinity

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

	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
Waterfall Creek	26.1 ppt	26.3 ppt	26.4 ppt	27.2 ppt	27.6 ppt	28.5 ppt	30.6 ppt
Rocky Point	25.0 ppt	25.5 ppt	25.4 ppt	26.3 ppt	26.5 ppt	27.3 ppt	30.0 ppt
Chinamans Point	22.4 pp	22.6 pp	22.8 pp	23.5 ppt	23.8 ppt	24.5 ppt	25.0 ppt
Angry Man Point	21.1 pp	21.4 pp	21.7 pp	22.5 pp	23.0 pp	23.5 ppt	26.6 ppt

Waterfall

	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
Buckenbowra Creek	21.1 ppt	21.5 ppt	21.5 ppt	22.0 ppt	21.9 ppt	22.5 ppt	27.4 ppt
Big Island West	18.2 ppt	18.9 ppt	19.2 ppt	20.2 ppt	20.4 ppt	20.8 ppt	22.9 ppt
Double Bay	17.5 ppt	17.7 ppt	18.1 ppt	18.6 ppt	18.7 ppt	19.0 ppt	20.7 ppt

Moonlight

	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
Moonlight	26.7 ppt	27.4 ppt	27.4 ppt	28.0 ppt	28.5 ppt	29.0 ppt	30.9 ppt
Budd Island North	25.4 ppt	25.7 ppt	26.5 ppt	26.6 ppt	27.2 ppt	27.7 ppt	29.4 ppt
Wray Street	32.6 ppt	32.5 ppt	30.9 ppt	30.0 ppt	25.8 ppt	16.6 ppt	11.1 ppt
Snapper Point							

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

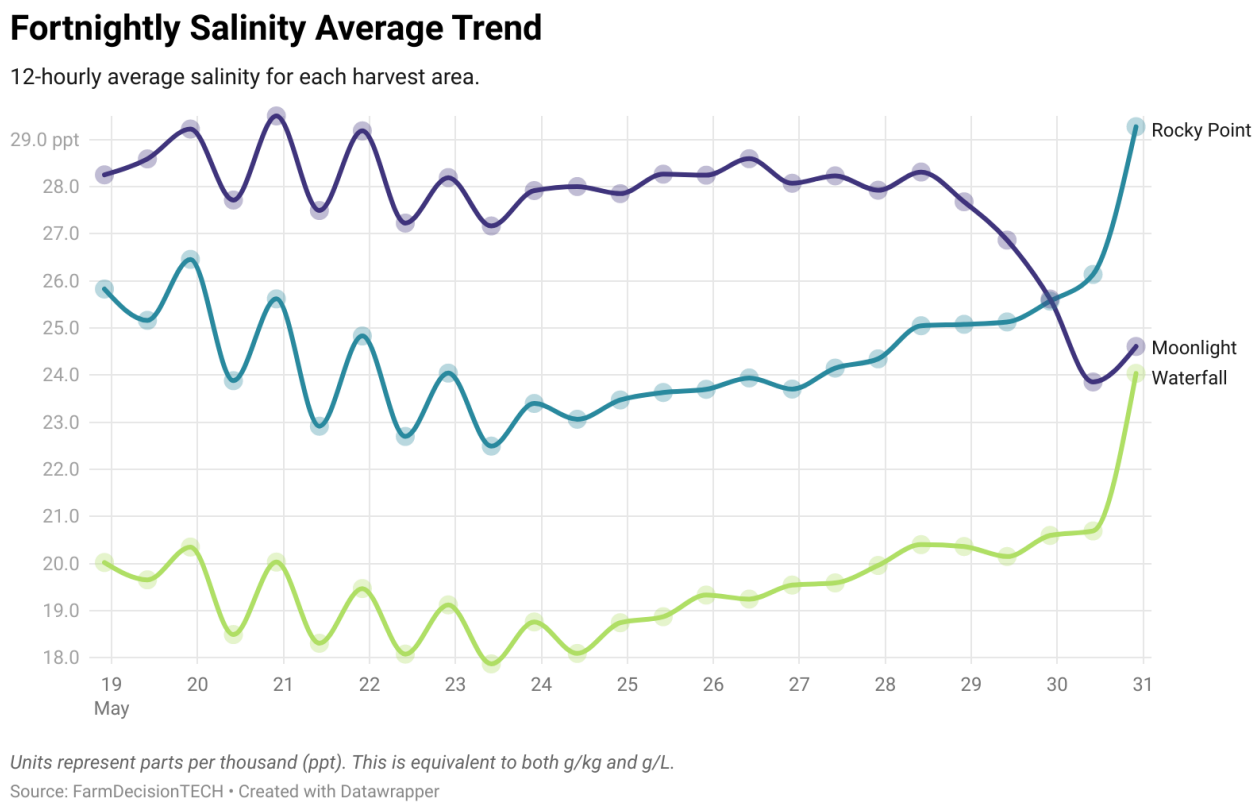
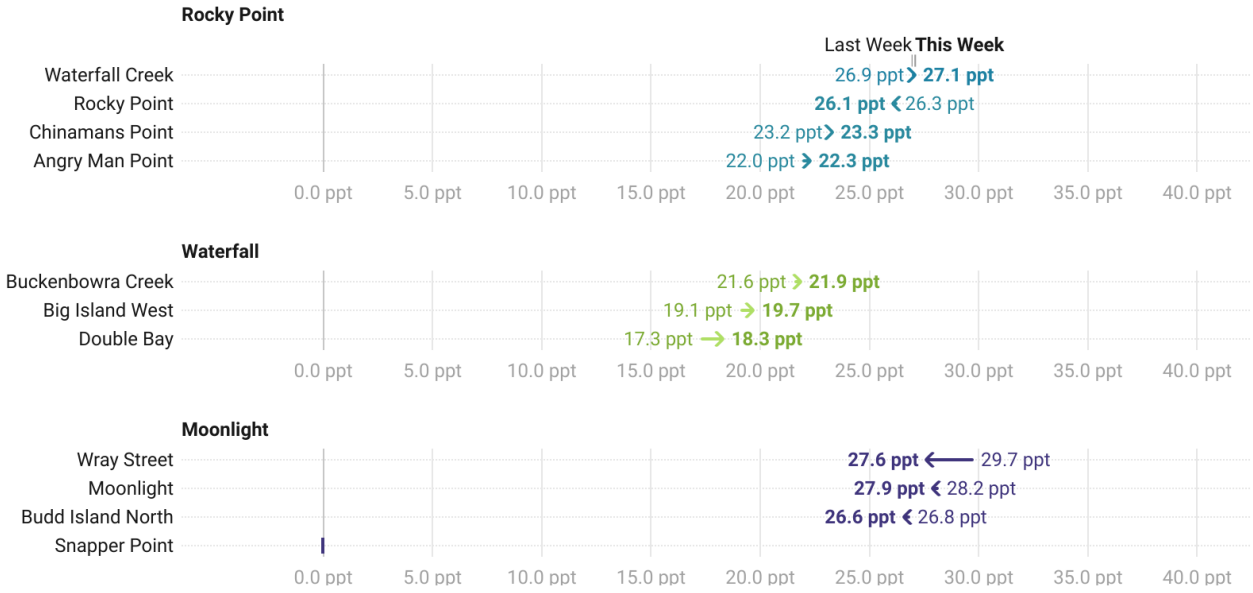


Figure 3: This figure represents the daily average salinity of all buoys contained within a harvest area. Its designed to reduce the impact of tides and provide the general trend of salinity over the past week.

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

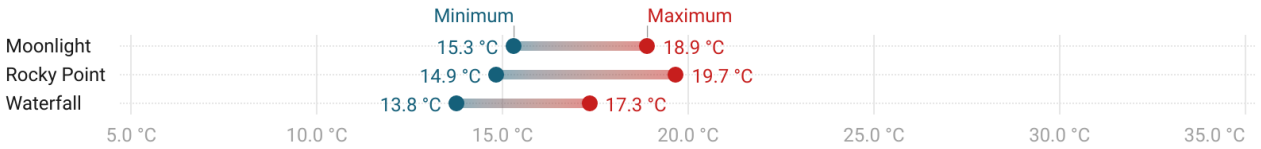
Figure 4: This figure demonstrates the average difference in salinity for this week compared with the prior week. It displays a longer term, general trend to see if salinity is increasing, stabilising or decreasing.

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

	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
Rocky Point	17.8 °C	18.1 °C	18.3 °C	18.3 °C	18.3 °C	18.0 °C	17.4 °C
Waterfall Creek	16.6 °C	16.7 °C	16.9 °C	17.1 °C	17.1 °C	16.6 °C	15.6 °C
Chinamans Point	16.7 °C	16.8 °C	16.9 °C	17.1 °C	17.0 °C	16.6 °C	16.0 °C
Angry Man Point	16.5 °C	16.5 °C	16.6 °C	16.8 °C	16.6 °C	16.1 °C	16.0 °C

Waterfall

	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
Big Island West	16.2 °C	16.3 °C	16.4 °C	16.6 °C	16.5 °C	16.0 °C	15.9 °C
Buckenbowra Creek	16.5 °C	16.5 °C	16.6 °C	16.7 °C	16.5 °C	15.9 °C	16.0 °C
Double Bay	16.1 °C	16.2 °C	16.2 °C	16.4 °C	16.0 °C	15.7 °C	15.2 °C

Moonlight

	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
Wray Street	17.3 °C	17.5 °C	17.6 °C	17.8 °C	17.8 °C	17.5 °C	16.8 °C
Moonlight	17.2 °C	17.4 °C	17.6 °C	17.8 °C	17.7 °C	17.3 °C	16.8 °C
Budd Island North	17.1 °C	17.3 °C	17.5 °C	17.6 °C	17.5 °C	17.2 °C	16.6 °C
Snapper Point							

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

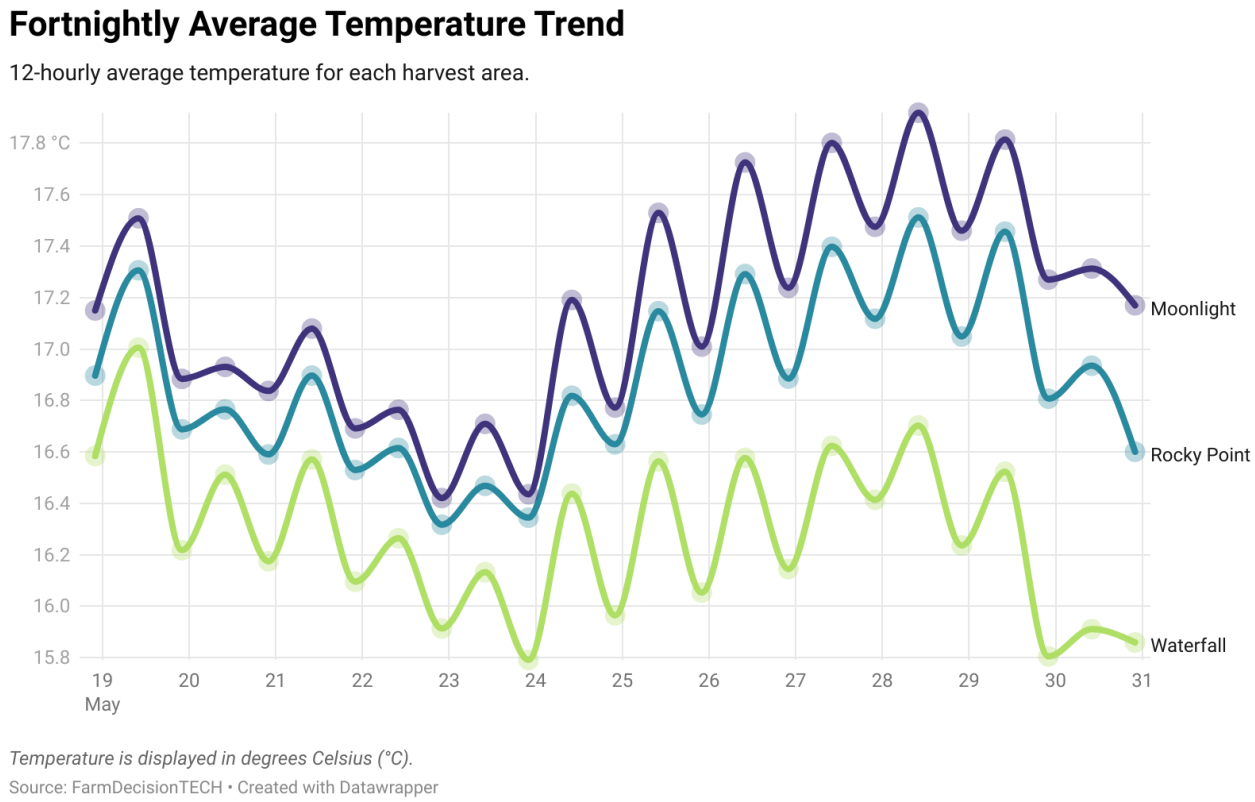


Figure 7: This figure represents the daily average temperature of all buoys contained within a harvest area. Its designed to reduce the impact of tides and provide the general trend of temperature over the past week.

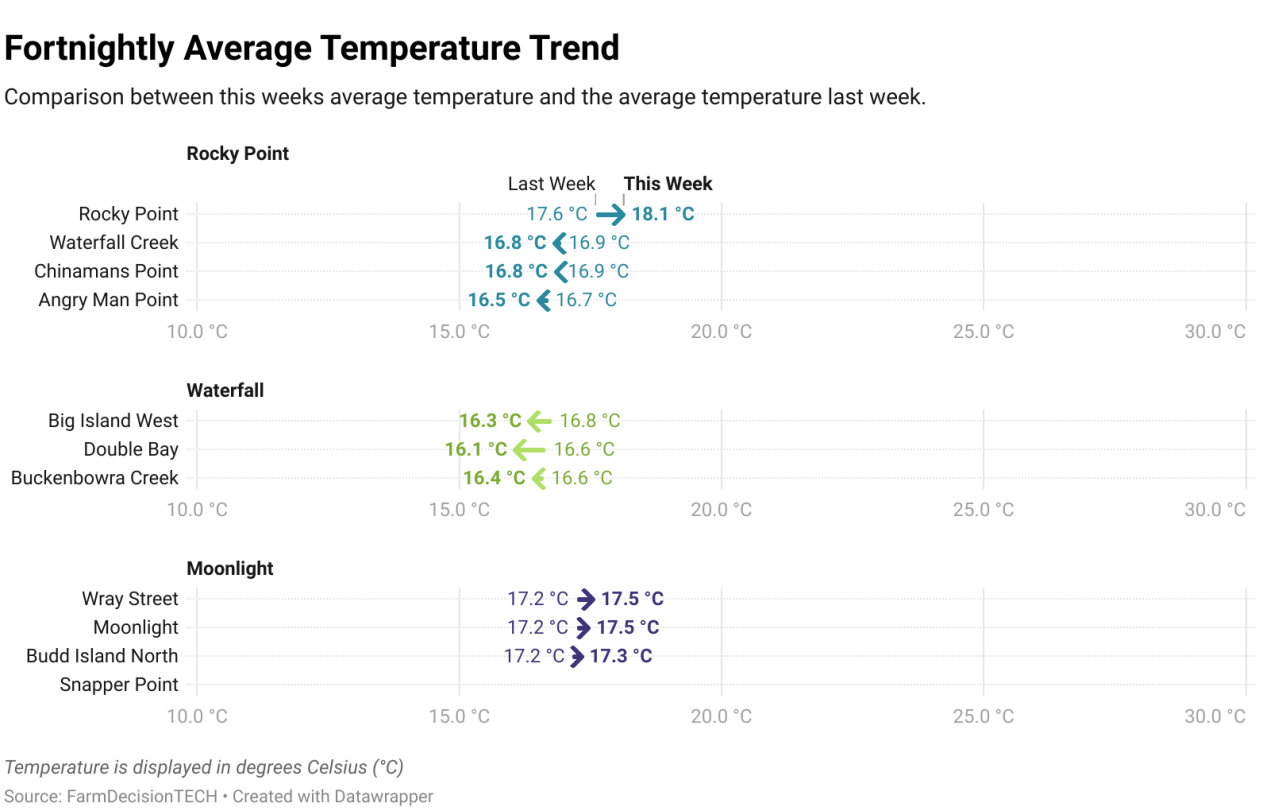


Figure 8: This figure demonstrates the average difference in temperature for this week compared with the prior week. It displays a longer term, general trend to see if temperature is increasing, stabilising or decreasing.

2.3 Historical

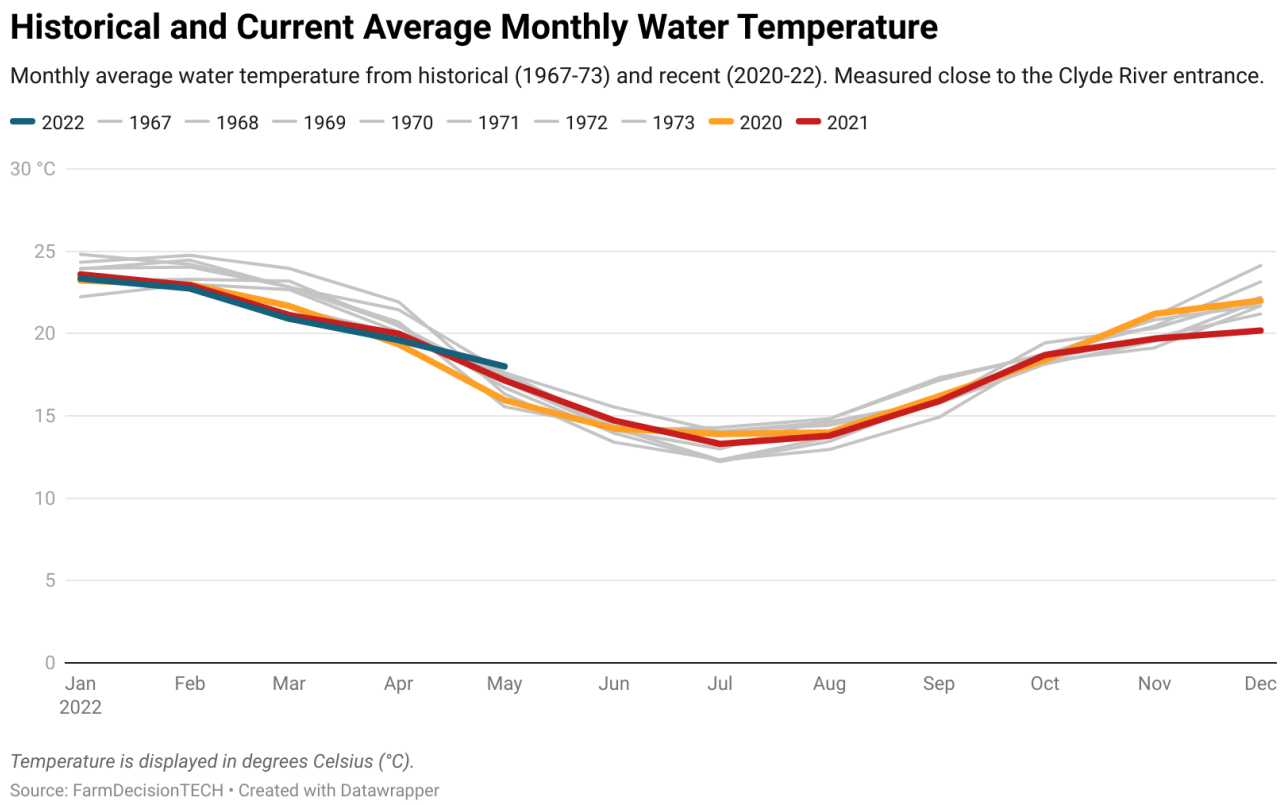


Figure 9: Monthly average water temperature from historical (1967-73) and recent (2020-22). Measured close to the Clyde River entrance.

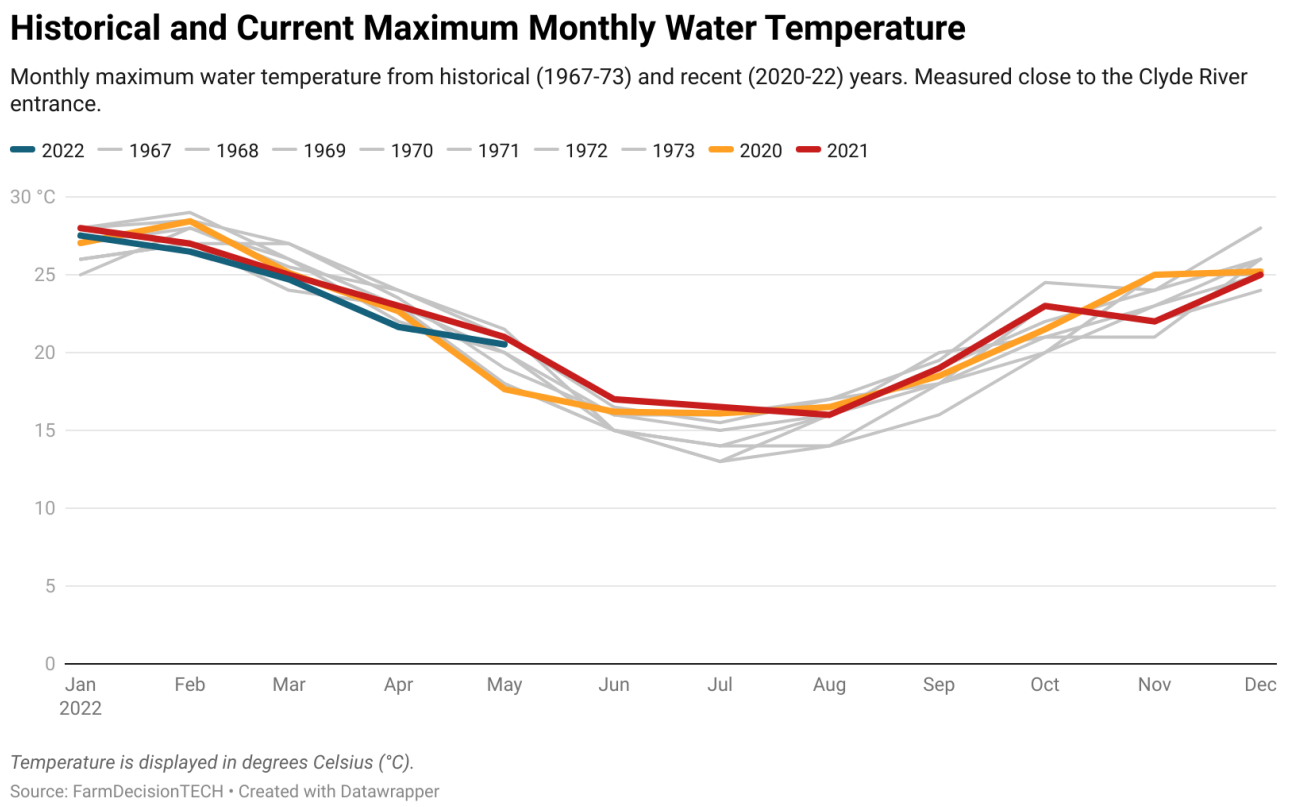


Figure 10: Monthly maximum water temperature from historical (1967-73) and recent (2020-22). Measured close to the Clyde River entrance.

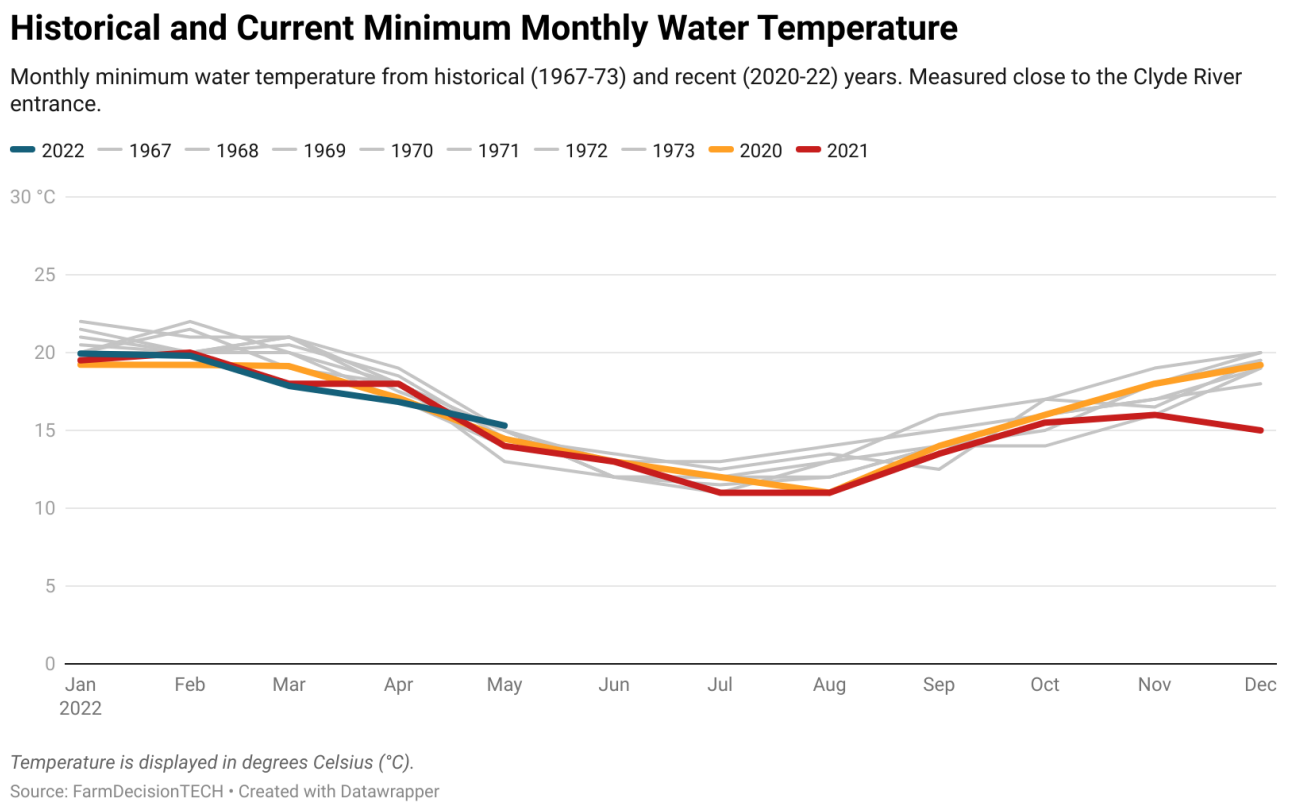


Figure 11: Monthly minimum water temperature from historical (1967-73) and recent (2020-22). Measured close to the Clyde River entrance.

3 Precipitation

3.1 Weekly

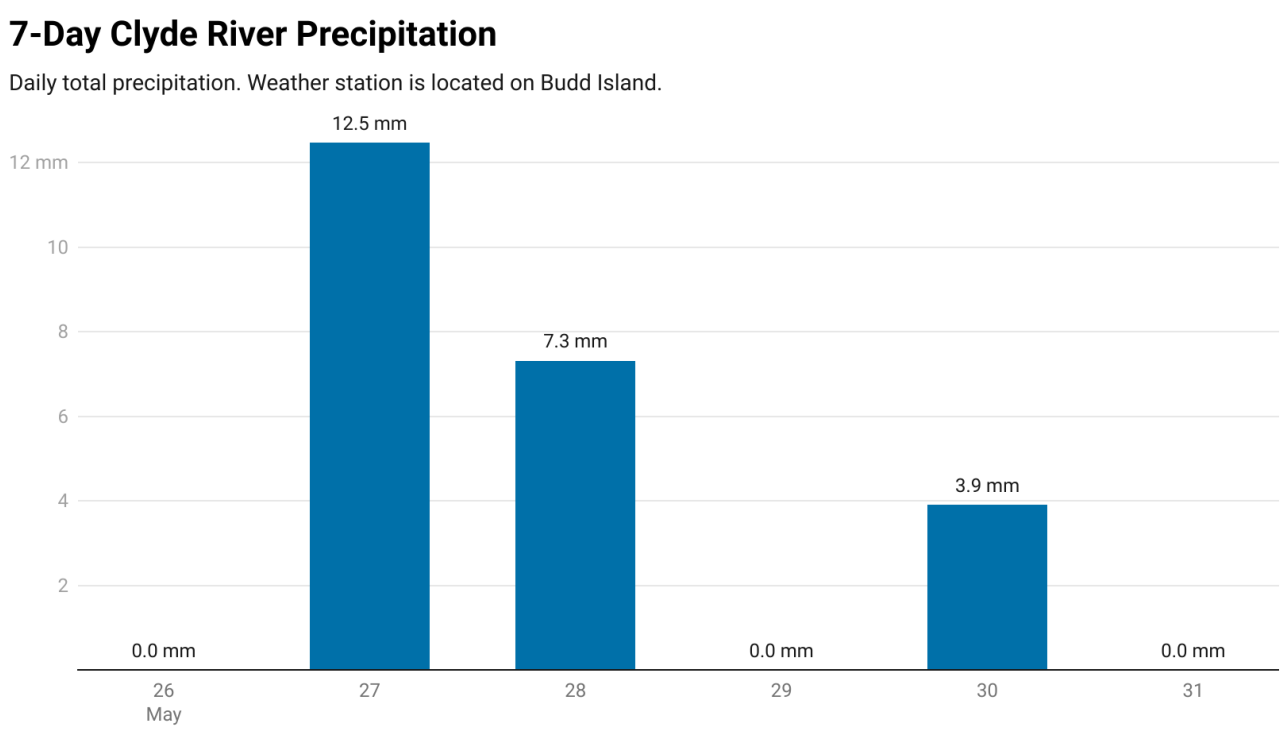


Figure 12: Daily total precipitation at Budd Island for the past week.

3.2 Yearly

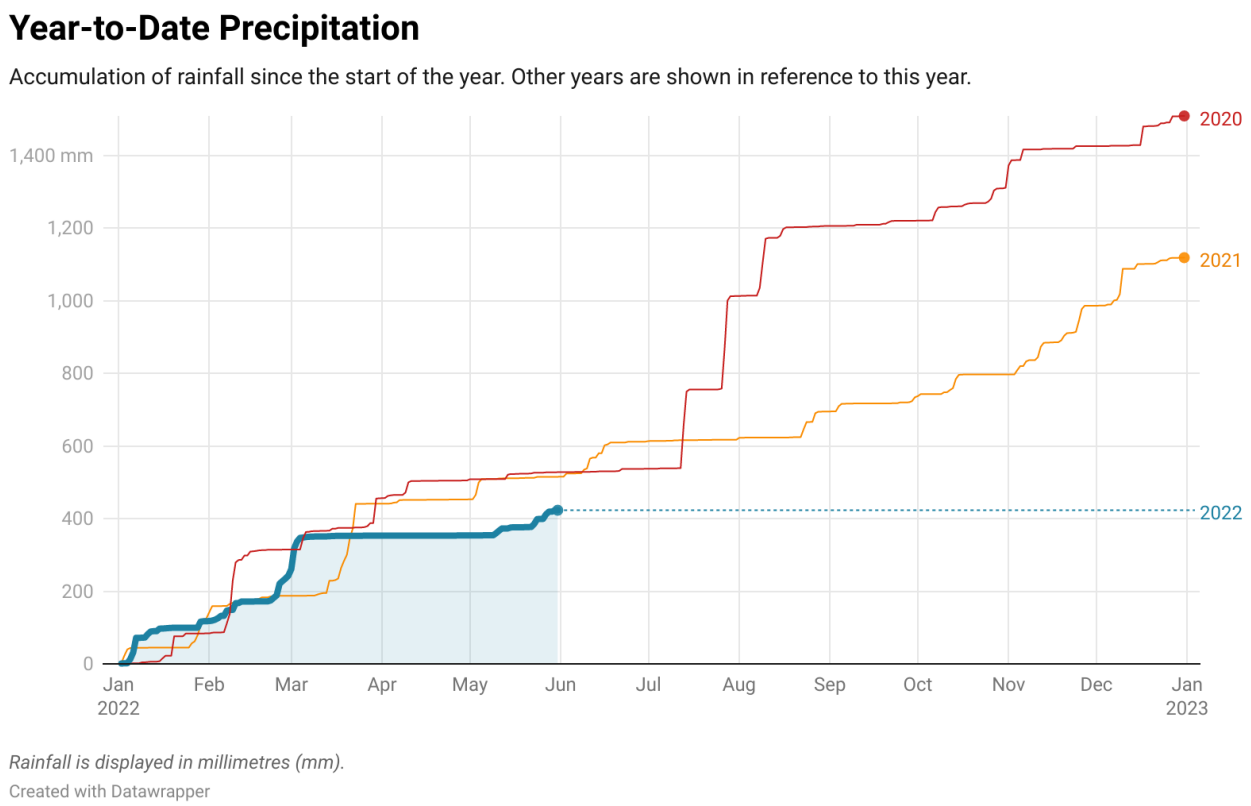


Figure 13: Compares this years total precipitation against previous years.

4 Flow Rate from Tributaries

4.1 Fortnightly

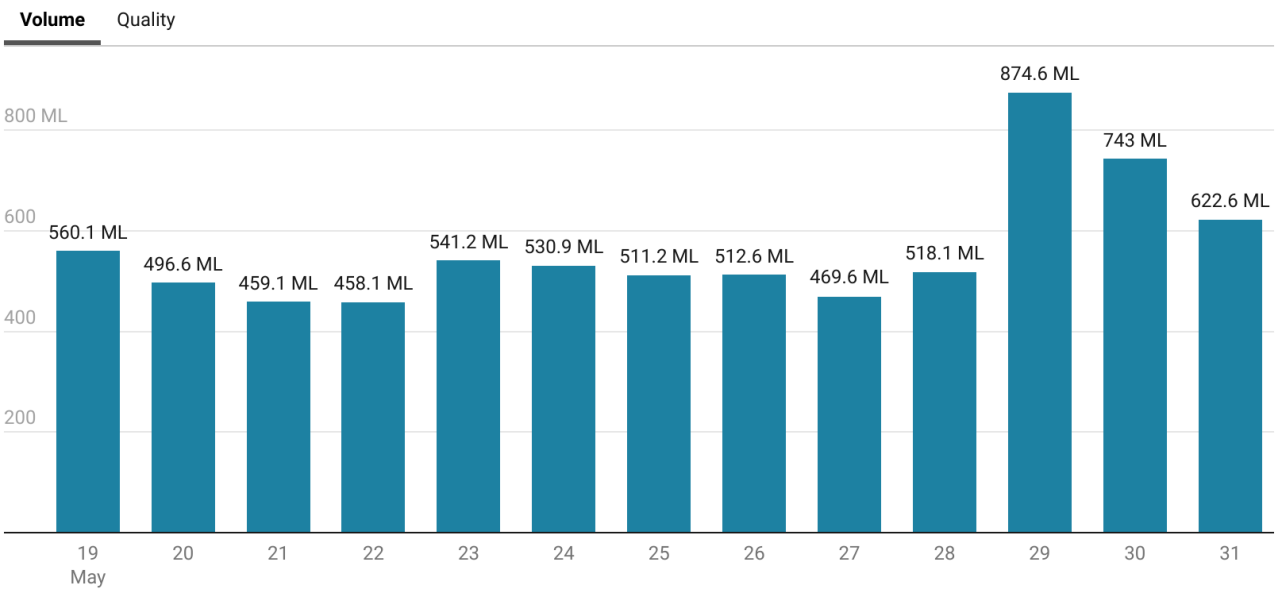
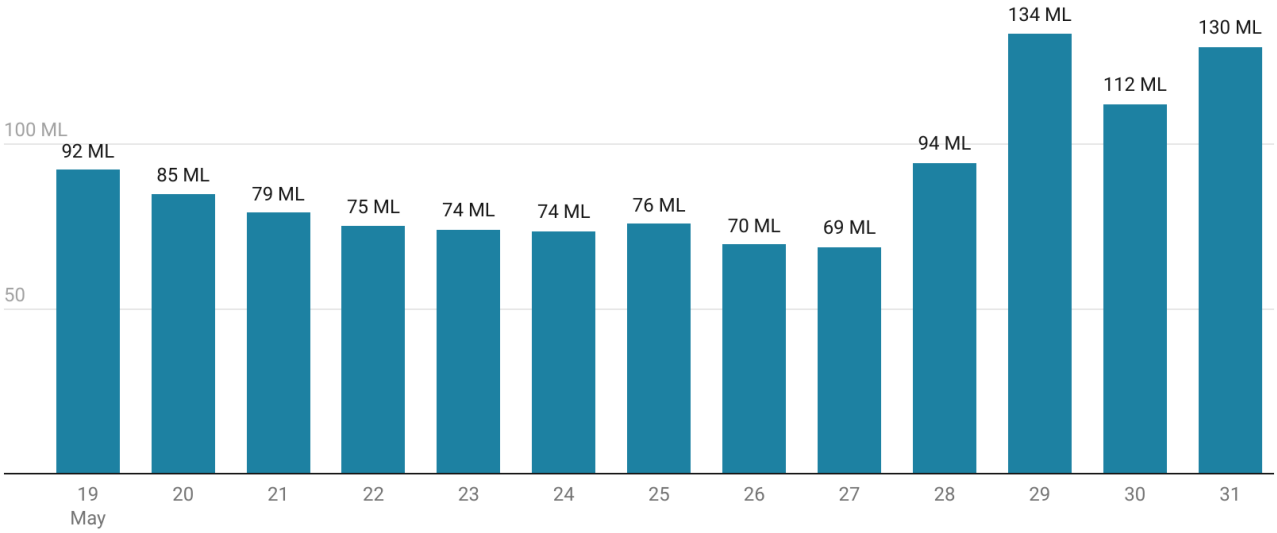


Figure 14: Fortnightly (daily total) water discharge from Brooman.

Buckenbowra Tributary Fortnightly Discharge rate

Daily discharge rate totals for Buckenbowra Tributary. This station is roughly 8 km West of the Clyde River.

Volume Quality



Values represent megalitres per day (ML/day). A mega litre is equal to 1 million litres. Quality Codes: 140 = Best available data, 145 = Data under review, 255 = Dataset not complete

Chart: © State of New South Wales through WaterNSW • Created with Datawrapper

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

4.2 Yearly

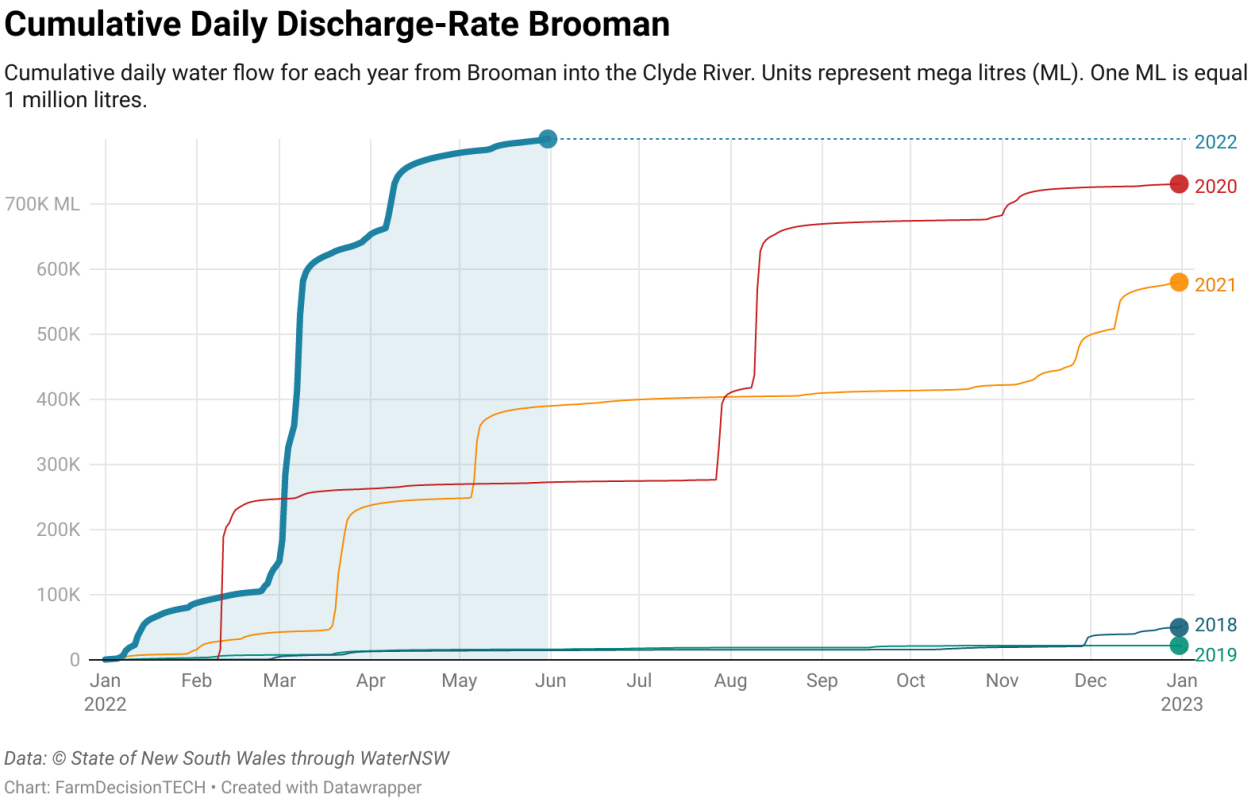


Figure 16: Compares this years total water discharge against previous years. Drought years (2018 and 2019) are shown for comparison.