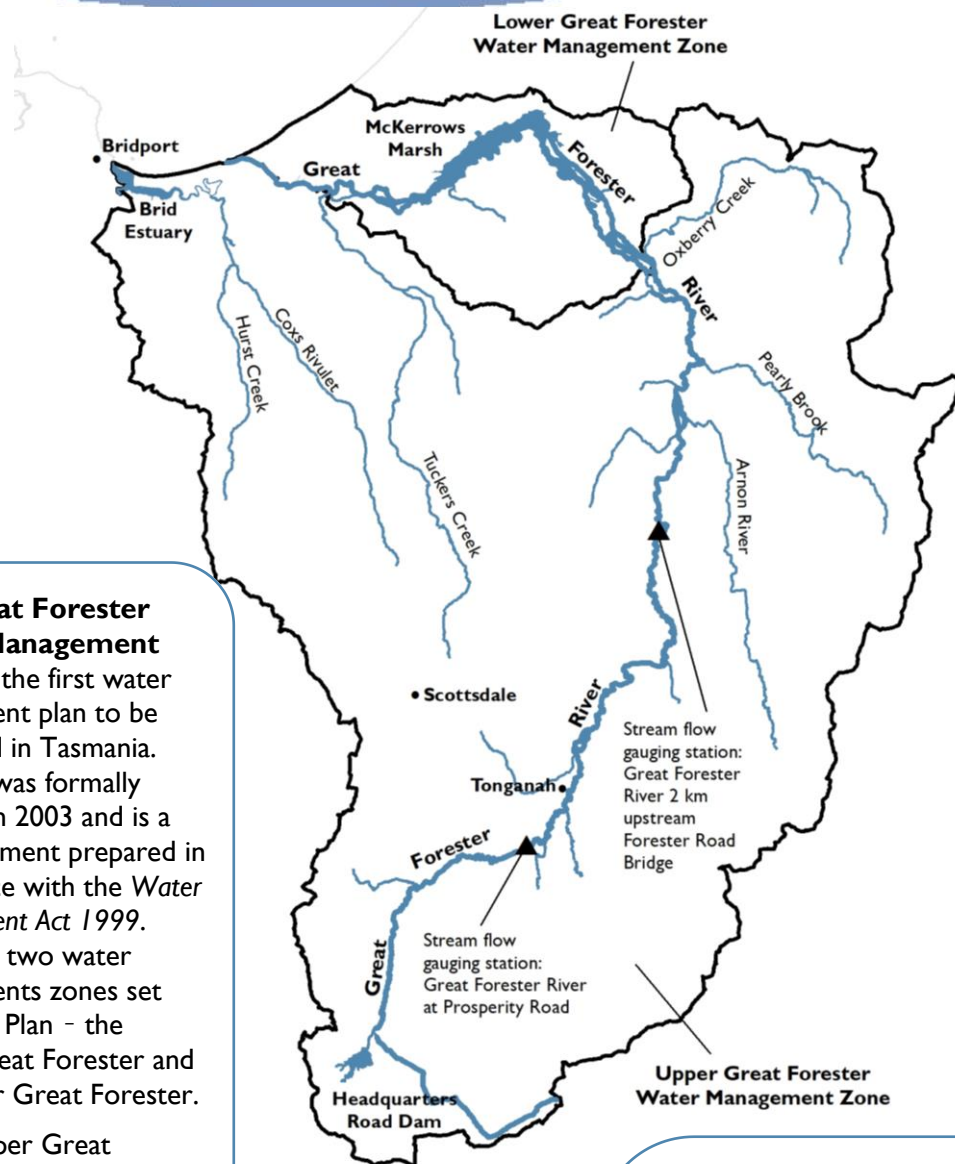


GREAT FORESTER RIVER CATCHMENT ANNUAL REPORT 2020/21



The Great Forester River catchment is located in the north-east of Tasmania and flows 95 km in a northerly direction from Mount Maurice to Bass Strait near Bridport. The catchment covers a total area of 626 km².

The river system is unregulated with a largely natural flow regime that shows a strong seasonal flow pattern (wetter in winter and drier in summer). The average annual water yield is 149,400 ML/year.

The Great Forester Water Management Plan was the first water management plan to be developed in Tasmania. The Plan was formally adopted in 2003 and is a legal document prepared in accordance with the *Water Management Act 1999*. There are two water managements zones set out in the Plan - the Upper Great Forester and the Lower Great Forester.

In the Upper Great Forester zone, the agreed managed minimum flow for the summer period is 30 ML/day, measured at DPIPWE's stream flow gauging station on the Great Forester River 2km upstream of the Forester Road Bridge.

For full details of the current Water Plan go to the DPIPWE Water website.

There are currently 428 water allocations across the Great Forester catchment with a volume of 39,170 ML/year for both non consumptive and consumptive uses. The table below shows consumptive allocations across Surety's 3-7

| CONSUMPTIVE WATER ALLOCATION | | | |
|------------------------------|------------------|------------------|-------------------|
| Surety Level | Summer Vol. (ML) | Winter Vol. (ML) | Overall Vol. (ML) |
| S 3 | 162 | | 162 |
| S 5 | 2,912 | 10,156 | 13,068 |
| S 6 | 12,427 | 1,585 | 14,012 |
| S 7 | 0 | 2,220 | 2,220 |
| Total | 15,501 | 13,961 | 29,462 |

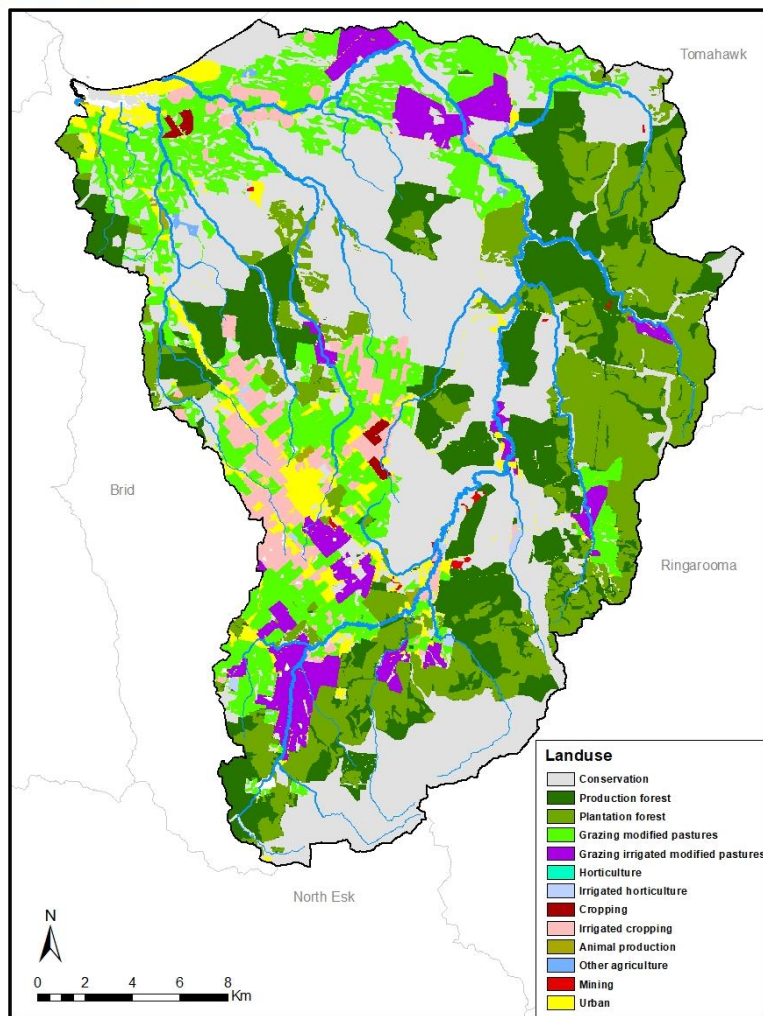
CATCHMENT LAND USE

Approximately 35% of the catchment is under production native forests and plantation forestry. A further 25% is used for agricultural purposes with the remaining area supporting a diversity of land uses including mining, urban areas and conservation land. The catchment includes the township of Scottsdale as its major settlement.

RIVER HEALTH

The Great Forester River catchment supports a number of important freshwater dependent values including giant freshwater crayfish, native Australian grayling and unique paperbark swamp ecosystems such as McKerrows Marsh.

DPIPWE have a long-term river health monitoring site on the Great Forester River at Prosperity Road in the upper catchment. At this site, river health over the long-term has been good, but in recent years the condition has declined marginally and fine deposited sediment appears to be impacting on the health of the river. Due to the COVID-19 situation, no field work was undertaken in the 2020/21 year.



HYDROLOGY SUMMARY

The following pages show plots of long term streamflow (full period of available record), short term (last 5 water years) streamflow and rainfall, and last years flow, rainfall and restriction data, split into winter (May 2020 – November 2020) and summer (December 2020 – April 2021) seasons.



For further information contact your local Regional Water Management Officer at the Department of Primary Industries, Parks, Water and Environment:
Phone: 1300 368 550
Email: Water.Operations@dpiwwe.tas.gov.au
dpiwwe.tas.gov.au/water

Full flow record, 1970 - 2021

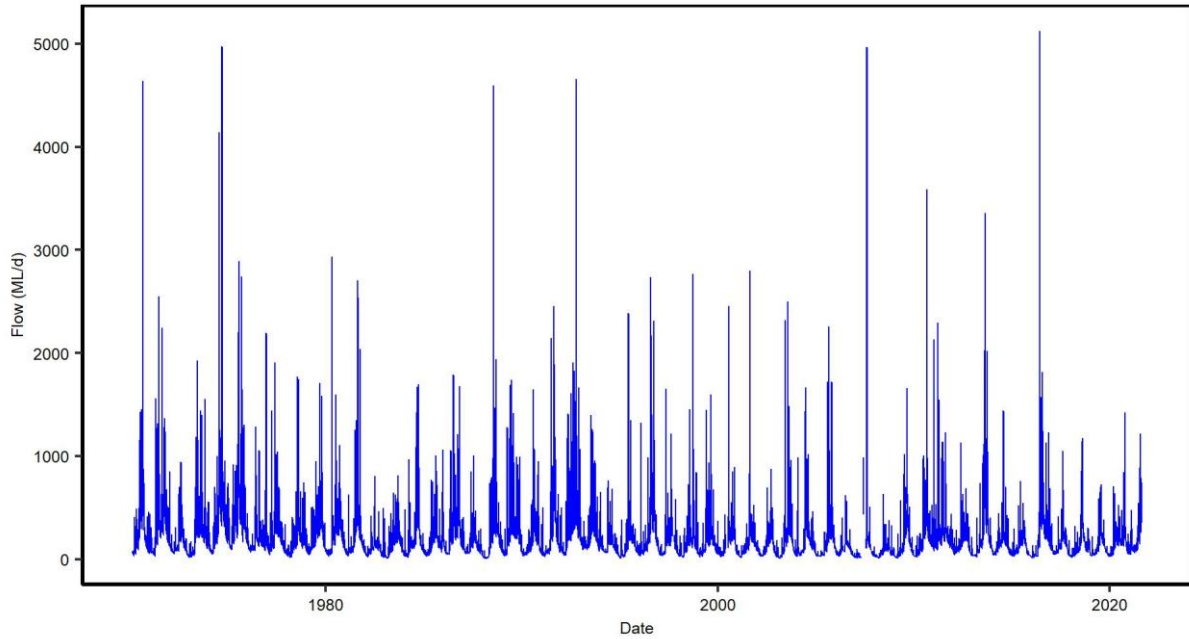


Figure 1. Mean daily flow in the Great Forester River at the Forester Road streamflow gauging station, whole of record.

Full record of yields in water years 1970 - 2020

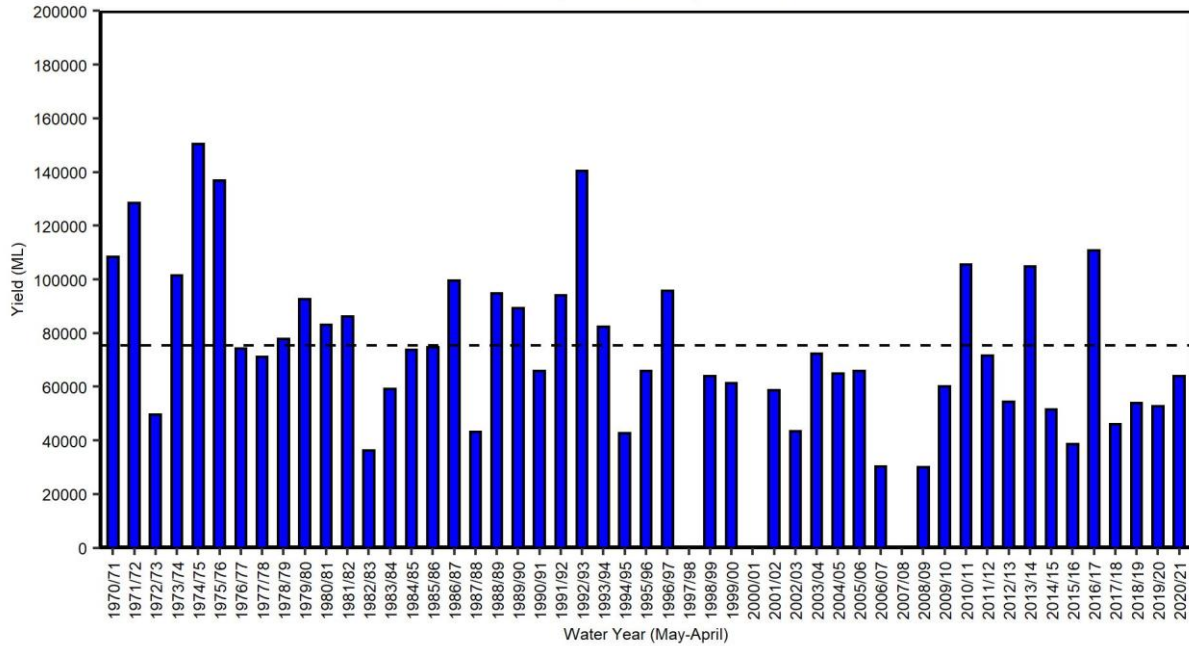


Figure 2. Yields in the Great Forester River at the Forester Road streamflow gauging station. Water years with <95% of the daily flow record available are excluded. The long-term mean yield is shown as the dashed horizontal black line (75 500 ML).

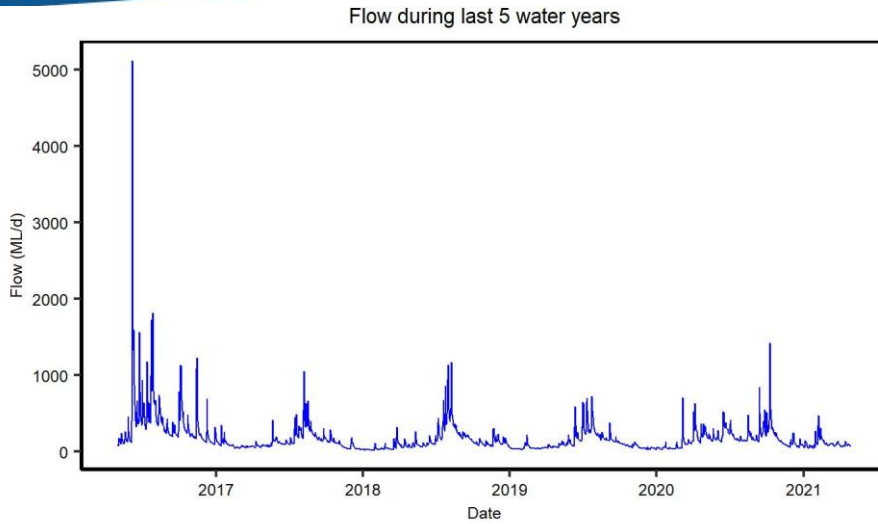


Figure 3. Mean daily flow in the Great Forester River at the Forester Road streamflow gauging station, last five years.

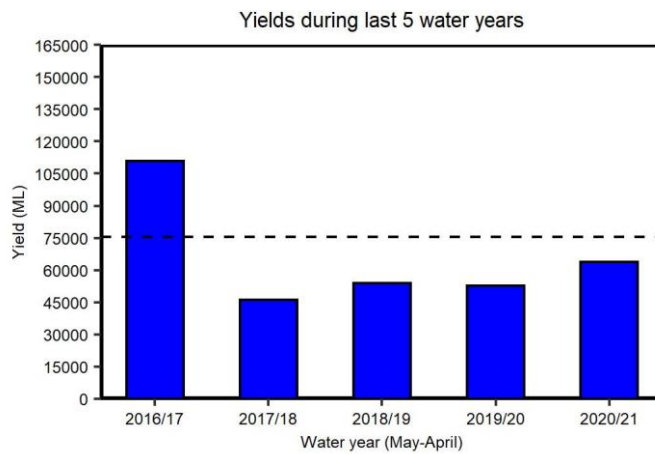


Figure 4. Yields in the Great Forester River at the Forester Road streamflow gauging station for the last five years. The long-term mean yield is shown as the dashed horizontal black line (75,500 ML).

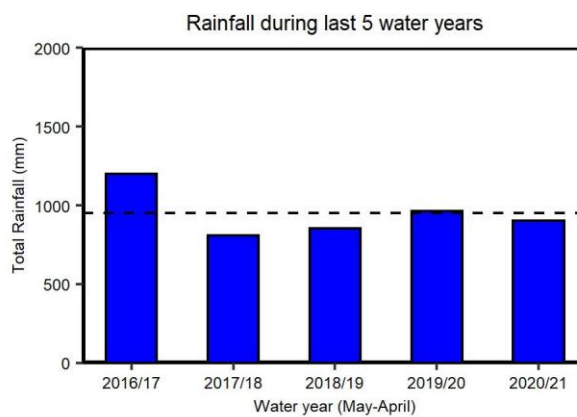


Figure 5. Total rainfall at the Scottsdale BoM weather station during the last five water years. The long-term (1971-2019) mean total rainfall (951 mm) is shown as the black horizontal dashed line.

Rainfall, low flows and restriction periods during winter 2020/2021

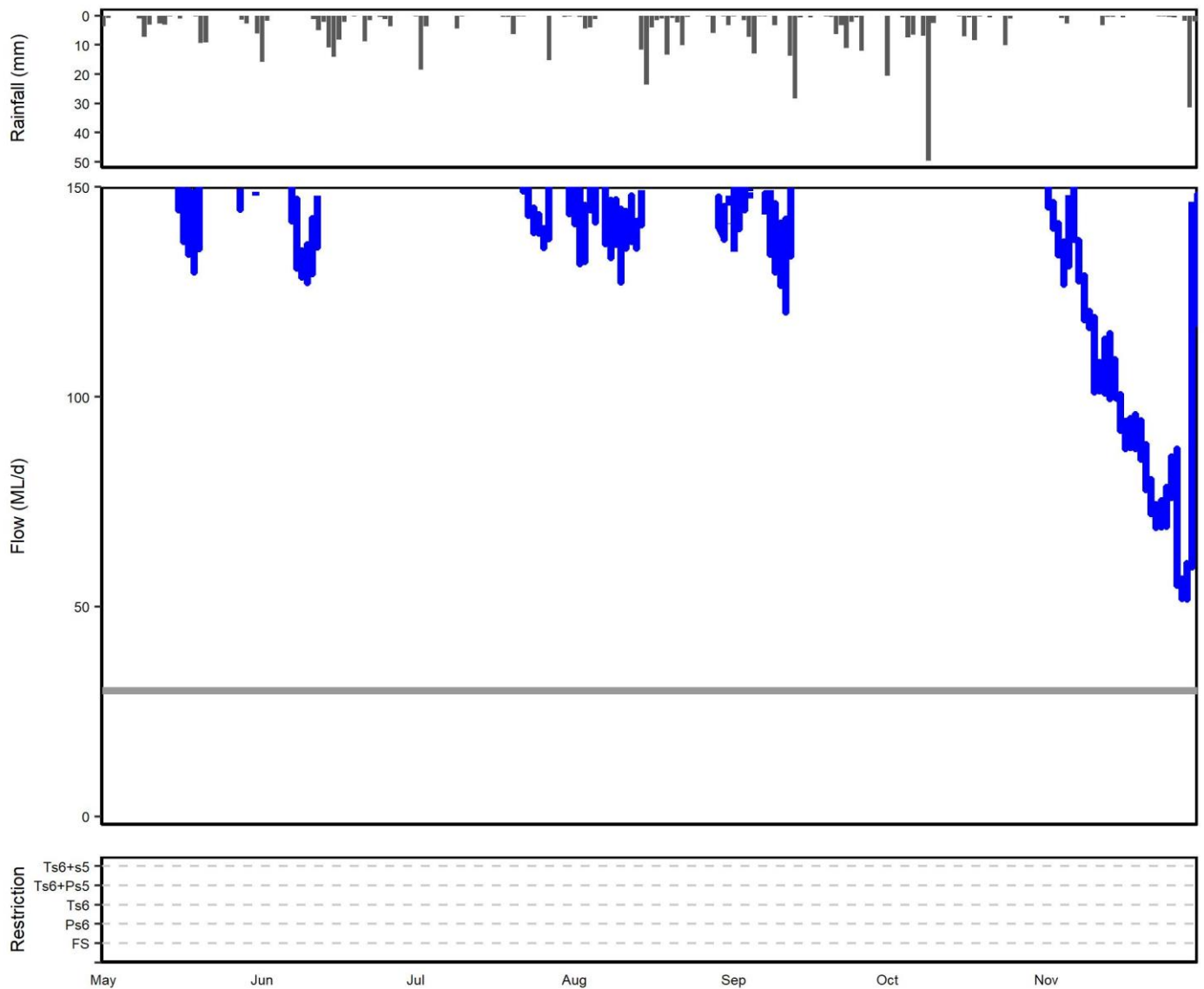


Figure 7. Summary of rainfall, low flows and restrictions in the Great Forester catchment during winter (May-November) 2020.

Top plot: total daily rainfall (Scottsdale BoM site).

Middle plot: instantaneous flow (<150 ML) Great Forester River at Forester Road station (compliance flow site).

Bottom plot: days when restrictions were in place.

Table 1 Restriction levels and total days at each level for the winter period (May - November 2020)

| Restriction Type | Days at restriction level in 2019/20 | Days at restriction level in 2020/21 |
|-----------------------------------|--------------------------------------|--------------------------------------|
| Flow Sharing | 0 | 0 |
| Partial Surety 6 | 0 | 0 |
| Total Surety 6 | 0 | 0 |
| Total Surety 6 + Partial Surety 5 | 0 | 0 |
| Total Surety 6 + Total Surety 5 | 0 | 0 |

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Email: Water.Operations@dPIPWE.tas.gov.au

dPIPWE.tas.gov.au/water

August 2021

Rainfall, low flows and restriction periods during summer 2020/2021

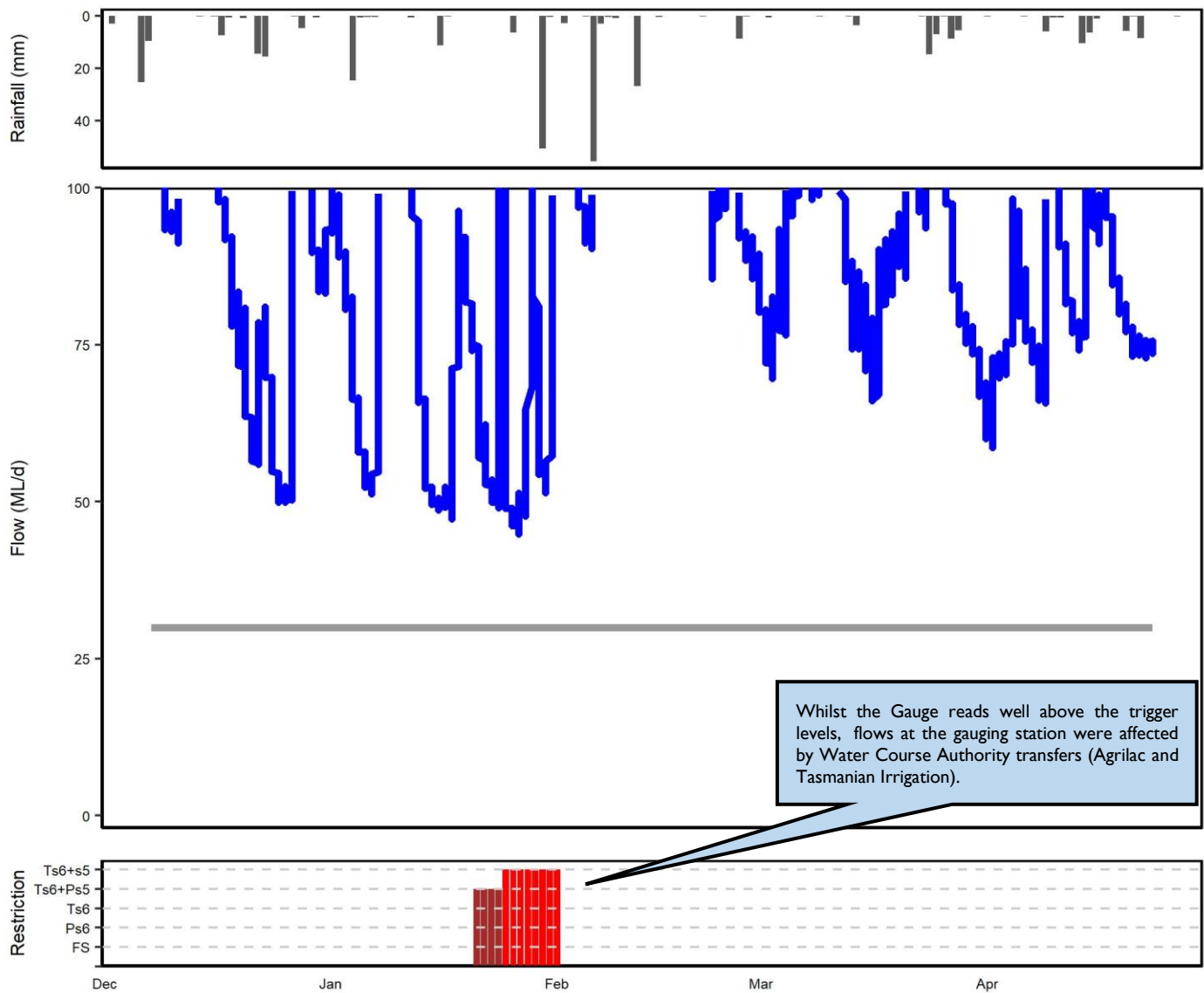


Figure 9. Summary of rainfall, low flows and restrictions in the Great Forester catchment during summer 2020/21 (Dec-April).
 Top plot: total daily rainfall (Scottsdale BoM site).
 Middle plot: instantaneous flow (<100 ML) Great Forester River at Forester Road station (compliance flow site).
 Bottom plot: days when restrictions were in place.

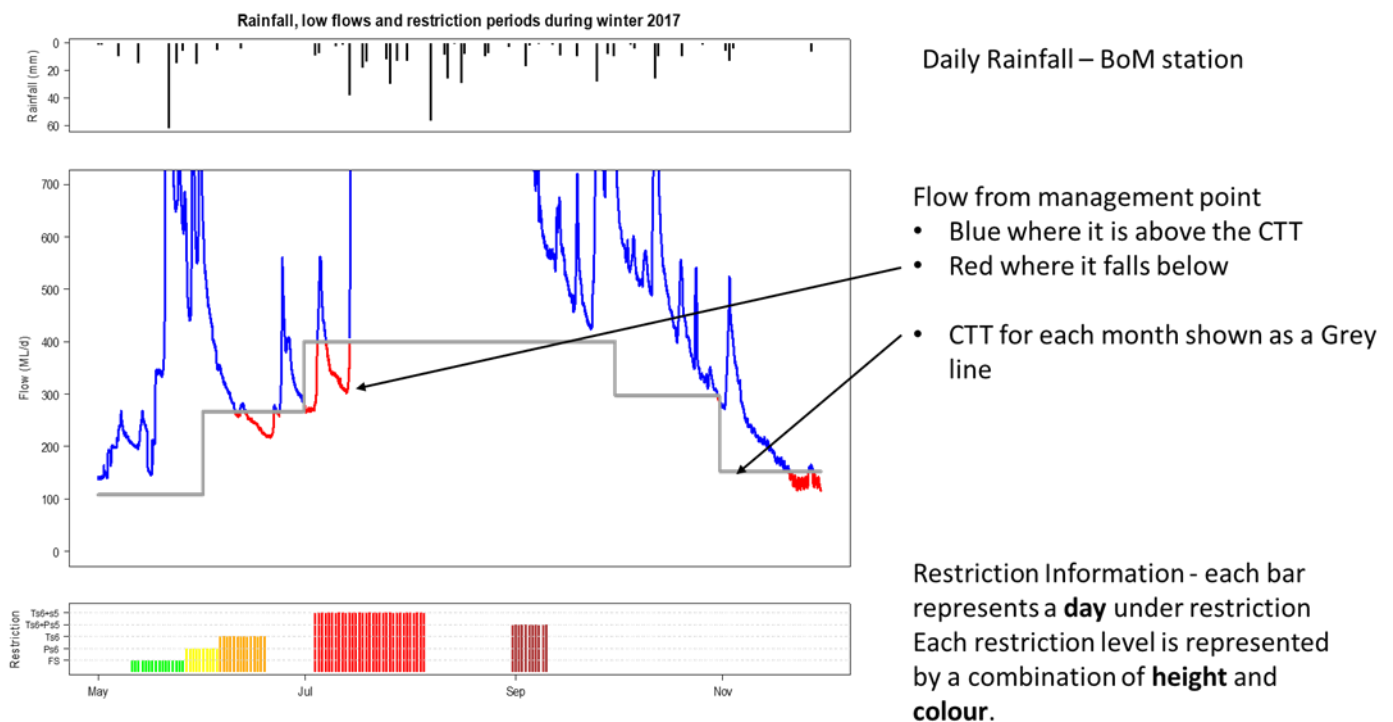
Table 2 Restriction levels and total days at each level for the summer period (Dec 2020 – April 2021).

| Restriction Type | Days at restriction level in 2019/20 | Days at restriction level in 2020/21 |
|-----------------------------------|--------------------------------------|--------------------------------------|
| Flow Sharing | 0 | 0 |
| Partial Surety 6 | 8 | 0 |
| Total Surety 6 | 25 | 0 |
| Total Surety 6 + Partial Surety 5 | 0 | 4 |
| Total Surety 6 + Total Surety 5 | 51 | 8 |

EXAMPLE ONLY

Rainfall, flow and restriction plot legend

NOTE: This is a hypothetical example to assist in interpreting the plots in the main body of this document.



Flow Restriction definitions:

FS = flow sharing (only some catchments), shown in GREEN

Ps6 = partial surety 6 ban, shown in YELLOW

Ts6 = total surety 6 ban, shown in ORANGE

Ts6+Ps5 = total surety 6 and partial surety 5 ban, shown in BROWN

Ts6+s5 = total surety 5 and 6 ban, shown in RED

EXAMPLE ONLY

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August 2021