

# Toonumbar Operations Plan

July 2019

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# 1. Highlights

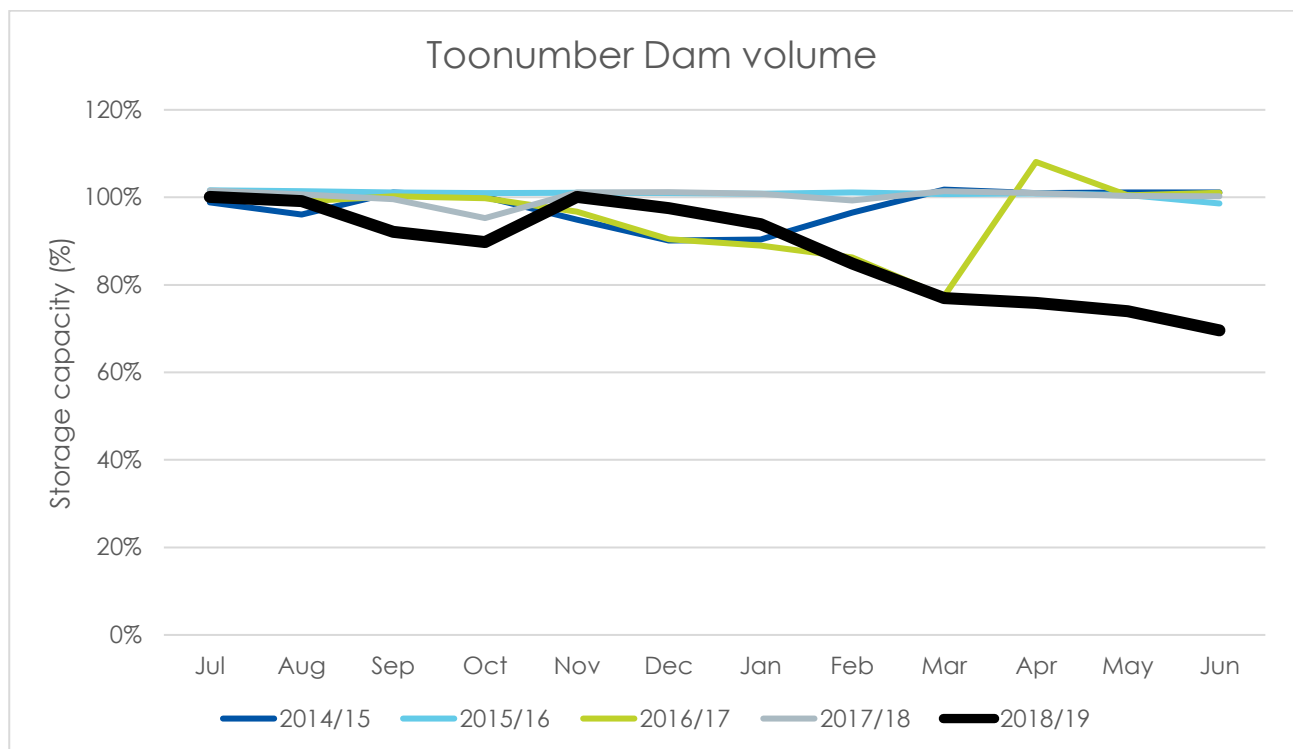
- The Toonumbar Operations Plan allows for delivery of full allocations for all customers in 2019-20.



## 2. Dam storage

### 2.1 Toonumbar Dam storage

The below figure shows the Toonumbar Dam behaviour for the past water year (2018-19) and for the last four water years. The dam was around 100% full at the start of the last water year (2018 -19) and by the end had fallen to 66%.



## 3. Supplementary access

### 3.1 Commentary

There are no Supplementary access licenses available under the Water Sharing Plan for the Richmond River Area.

## 4. Water availability

### 4.1 2018/2019 water availability for Richmond

This information was current as 30 June 2019.

Licence category	Share component	AWD volume	Usage	Balance
Domestic and stock (domestic)	6	6	0	6
Domestic and stock (stock)	8	8	0	8
Regulated river (general security)	9,531	9,531	620	8911
Regulated river (high security)	123	123	15	108
<b>Grand total</b>	<b>9,668</b>	<b>9,668</b>	<b>635</b>	<b>9033</b>

Note: Volumes in the table are in ML.

### 4.2 2019/2020 water availability for Richmond

This information was current as 1 July 2019.

Licence category	Share component	AWD volume	Usage	Balance
Domestic and stock (domestic)	6	6	0	6
Domestic and stock (stock)	8	8	0	8
Regulated river (general security)	9,531	9,531	0	9,531
Regulated river (high security)	123	123	0	118
<b>Grand total</b>	<b>9,668</b>	<b>9,668</b>	<b>0</b>	<b>9,663</b>

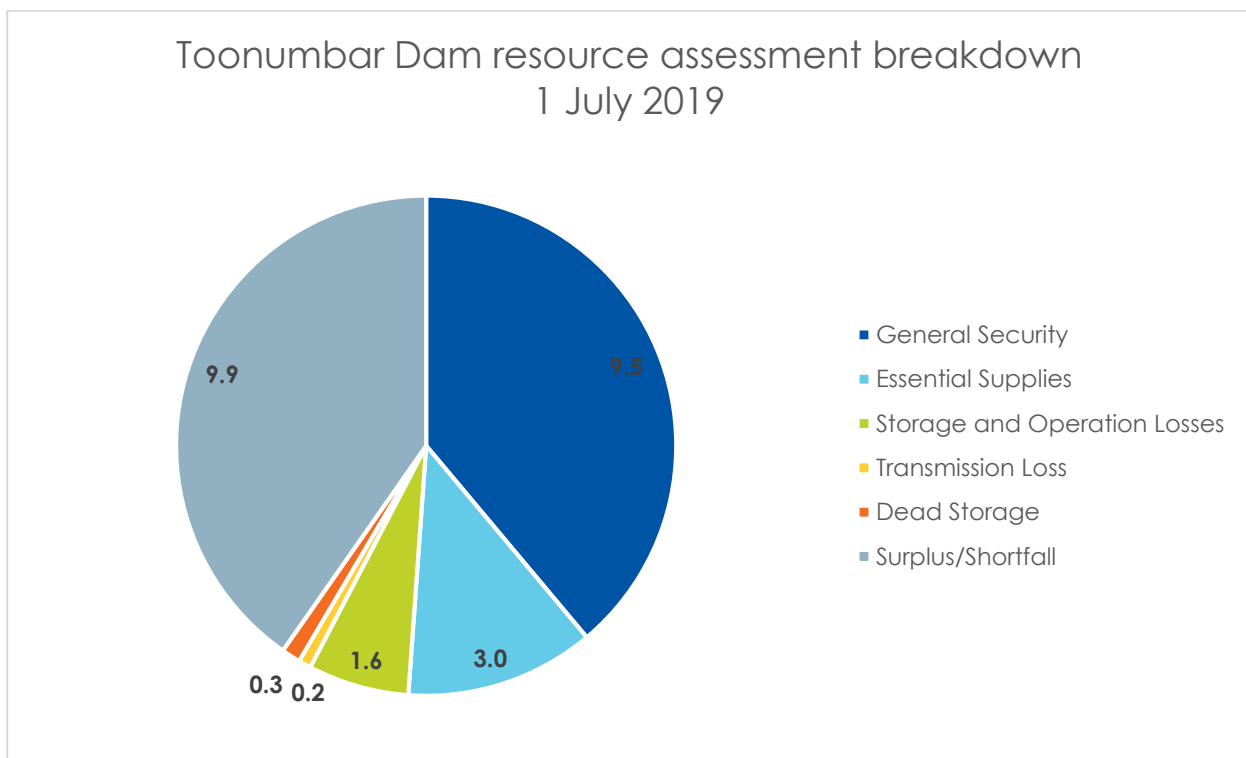
Note: Volumes in the table are in ML.

### General security available water determination

Date	AWD (ML/share)	Total
1-Jul-19	1	100%

In the current water year (2019-20), 100% Available Water Determination (AWD) has been announced on 1<sup>st</sup> July 2019 for all water users including General Security (GS), High Security (HS) and Domestic and Stock (D&S). Carryover is not available to any license categories in the Richmond River system.

### 4.3 Resource assessment



Note: volumes in the pie chart are in GL

Resource Assessment	July 2019	May 2019	Feb 2019	Jan 2019	Dec 2018
Storage Volume	7.313	8.222	9.381	10.381	10.782
Plus minimum inflows	17.2	12.1	15.3	16.8	6.3
Less dead storage	0.3	0.3	0.3	0.3	0.3
Less storage & operation loss	1.6	0.3	0.7	0.9	1.0
Less essential supplies	3.0	1.33	1.87	1.98	3.12
Less transmission loss	.2	0	0.1	0.1	0.1
Less General Security	9.53	8.58	8.58	9.25	9.25
Allocation	100%	100%	100%	100%	100%

Note: Volumes in the table are in GL.

#### 4.3.1 Significance of this resource assessment

The resource assessment at 1 July 2019 confirms deliverability of allocations to the end of water year 2019-20. The assessment also indicates that there is surplus in resources of about 10 GL in this current water year.

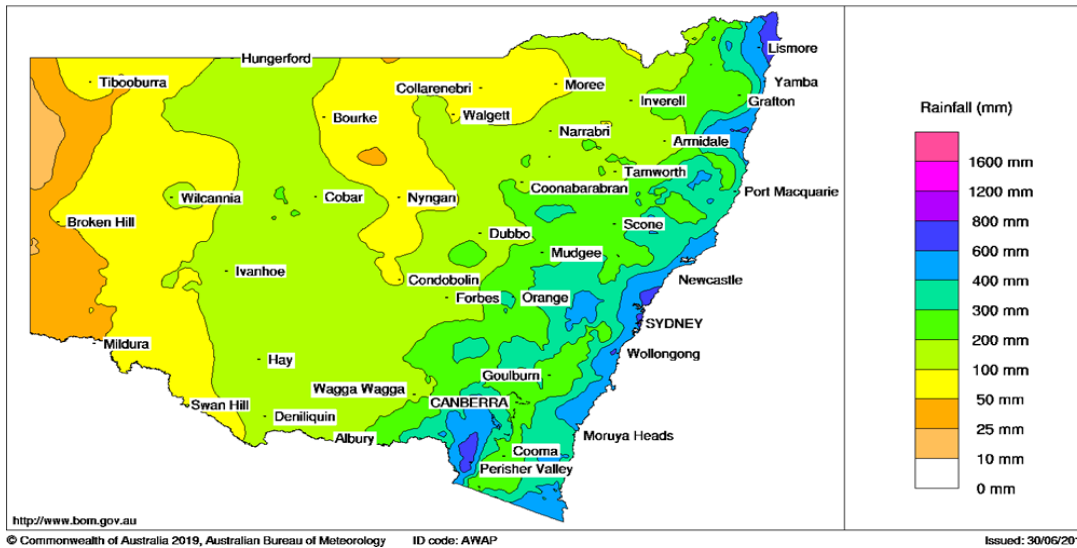
#### 4.3.2 Resource assessment process

The Resource Assessment is the process of calculating how much water is available based on the rules of the Water Sharing Plan (WSP). This is done at the end of the month and when any significant inflow event happens. The above resource assessment table is for the planning horizon from 1 July 2019 to 30 June 2020.

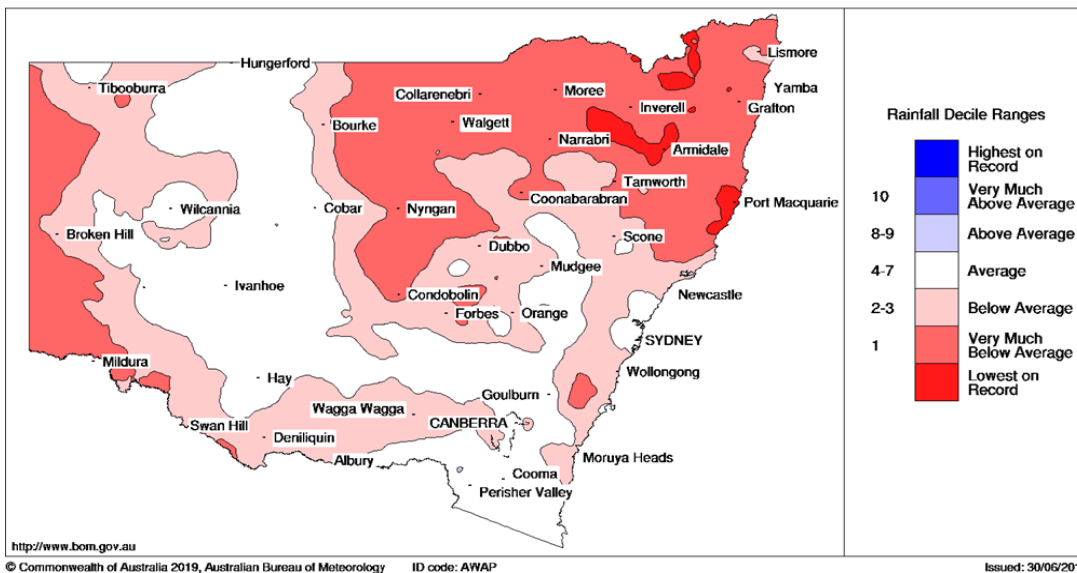
# 5. Rainfall

## 5.1 6-month rainfall

New South Wales Rainfall totals (mm) 1 January to 30 June 2019  
Australian Bureau of Meteorology



New South Wales Rainfall Deciles 1 January to 30 June 2019  
Distribution Based on Gridded Data  
Australian Bureau of Meteorology

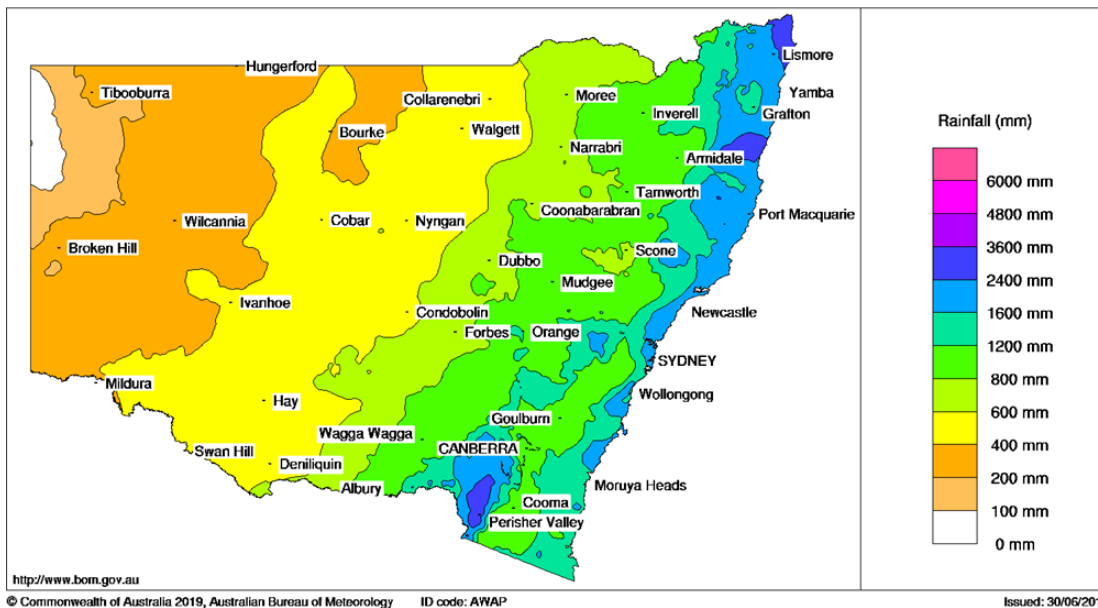


From the above figures the last 6-month total rainfall lies in the range of 200 to 400mm, which is average to below average (average 6-month total rainfall is around 600 mm).

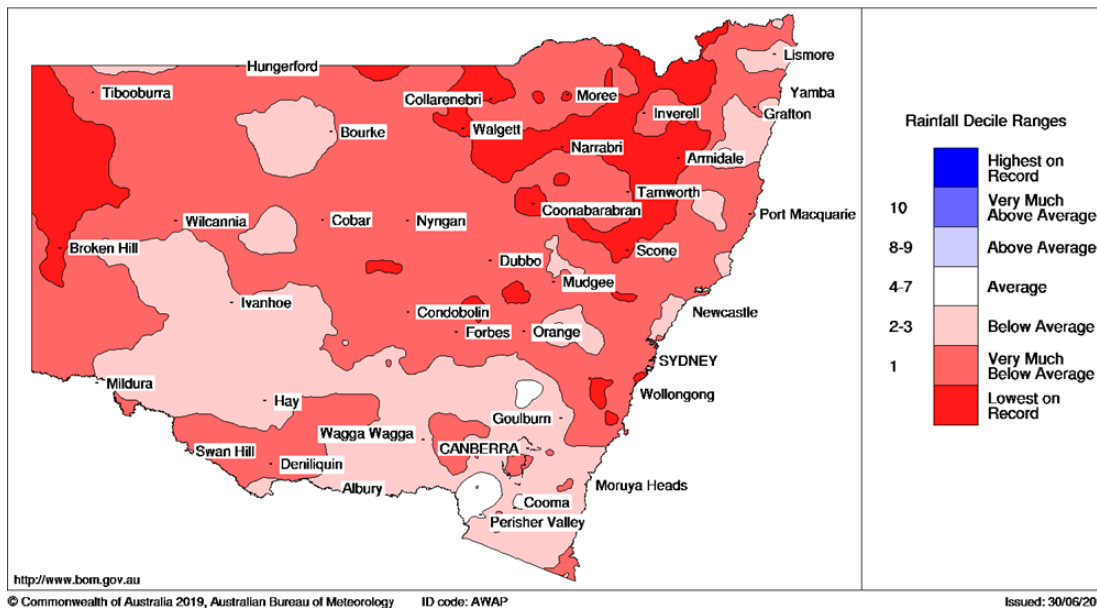
## 5.2 24-month rainfall



New South Wales Rainfall totals (mm) 1 July 2017 to 30 June 2019  
 Australian Bureau of Meteorology



New South Wales Rainfall Deciles 1 July 2017 to 30 June 2019  
 Distribution Based on Gridded Data  
 Australian Bureau of Meteorology

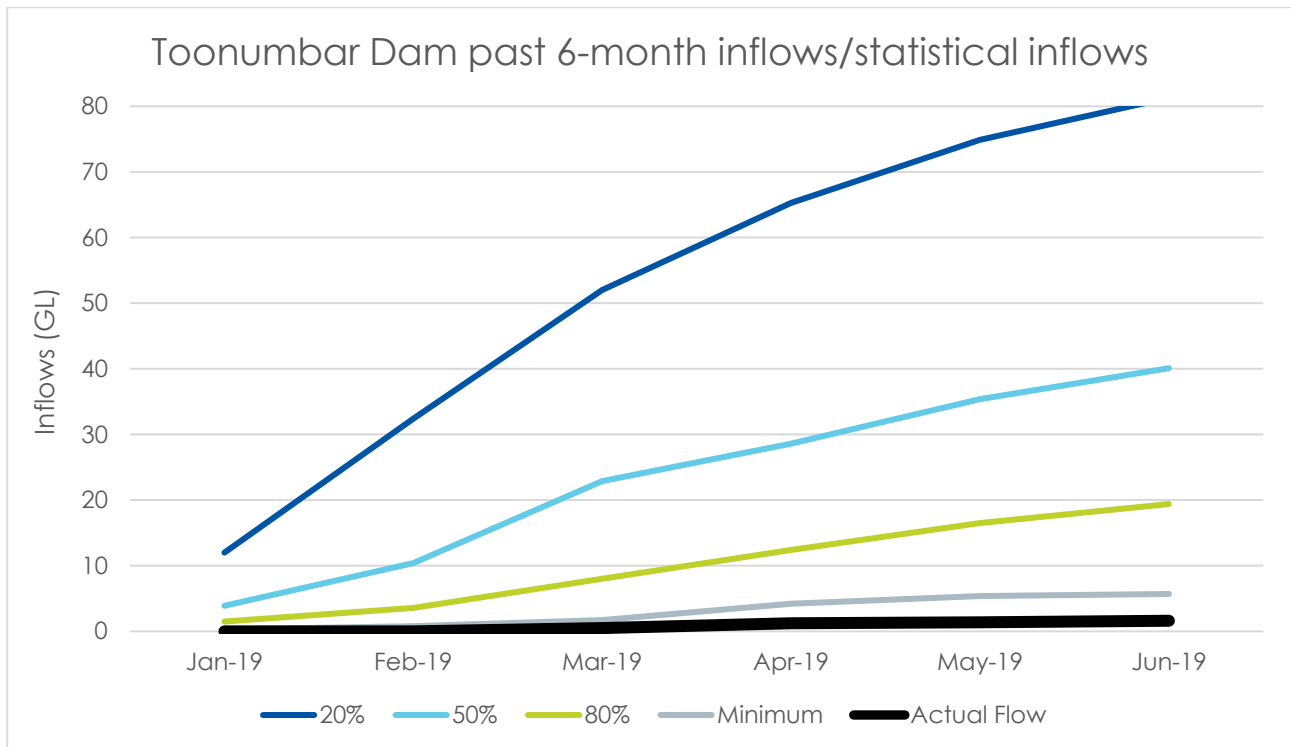


From the above figures the last 24-month total rainfall lies in the range of 1600 to 2400mm, which is average to below average.

## 6. Inflows

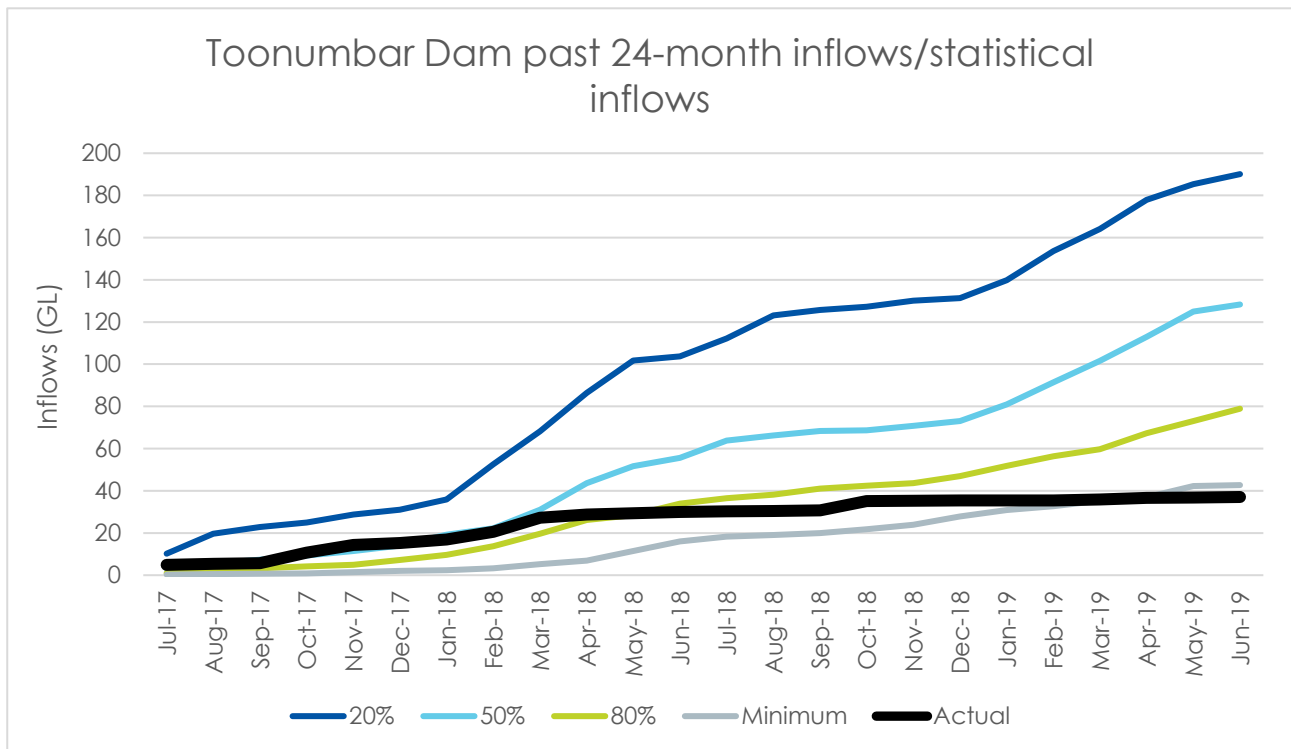
### 6.1 Toonumbar Dam inflows

#### 6.1.1 Toonumbar Dam past 6-month inflows/statistical inflows



Inflows are consistent with rainfall over the past 6 months period. Actual 6 month inflows were around 1.6 GL which is below minimum inflow conditions.

### 6.1.2 Toonumbar Dam past 24-month inflows/statistical inflows



In the last 24 months, only around 37 GL of inflows were recorded which is below the minimum inflows.

### 6.3 Downstream tributary inflows

There are no significant downstream tributary inflows in this water year.

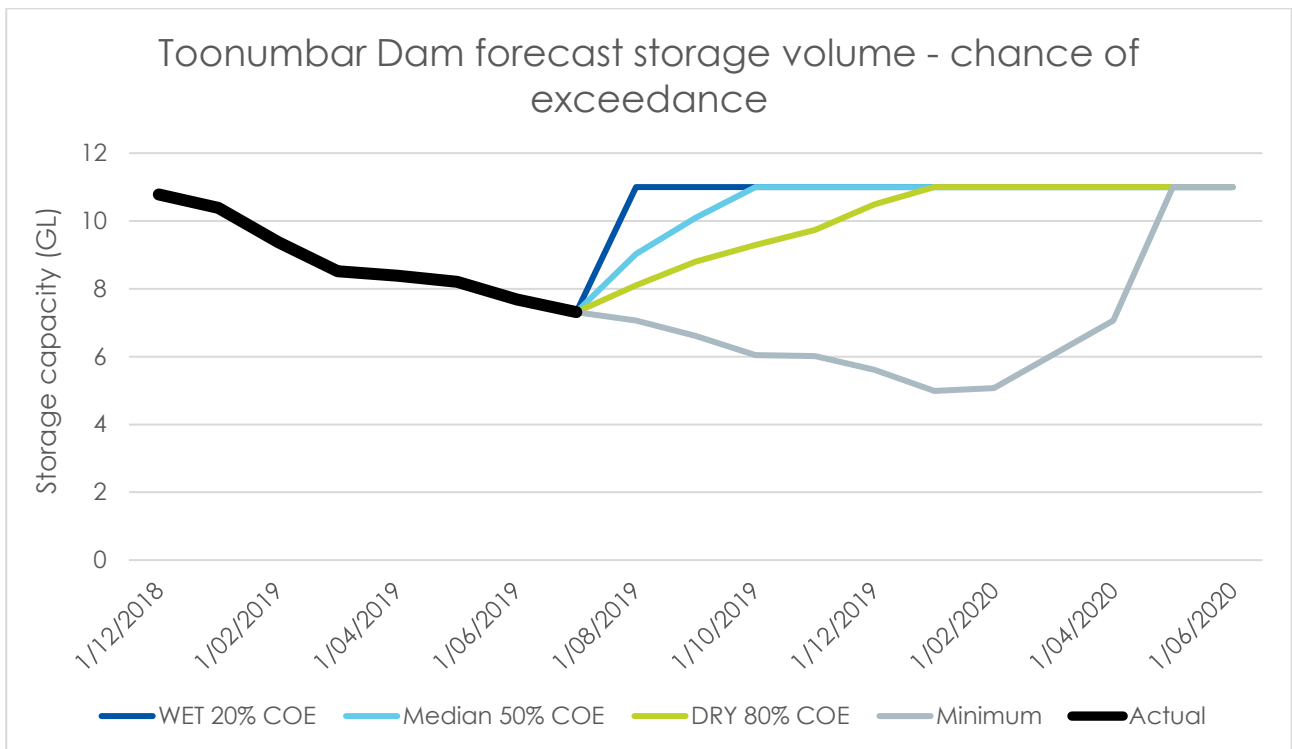
## 7. Operational surplus

### 7.1 Operational surplus for Toonumbar Dam

N/A

## 8. Storage forecast

### 8.1 Toonumbar storage forecast



Assessment done end of January 2019

The above figure demonstrates the possible scenarios of Toonumbar Dam until June 2020. The scenarios are based on different expected inflow conditions. For example, with 20<sup>th</sup>, 50<sup>th</sup> and 80<sup>th</sup> percentile inflow the dam may be full (100%) at the end of June 2020. With the minimum inflow conditions, the dam would be around 5 GL by the end of January 2020 rising to 100% full by June 2020. The Chance of Exceedance (COE) in the figure refers to the chance of exceeding inflows and storage levels in the time frame. For example, Wet 20% COE indicate that there is only a 20% of chance that the dam volume will be greater than the projected level, and there is 80% chance that the dam volume will be less than the projected level.

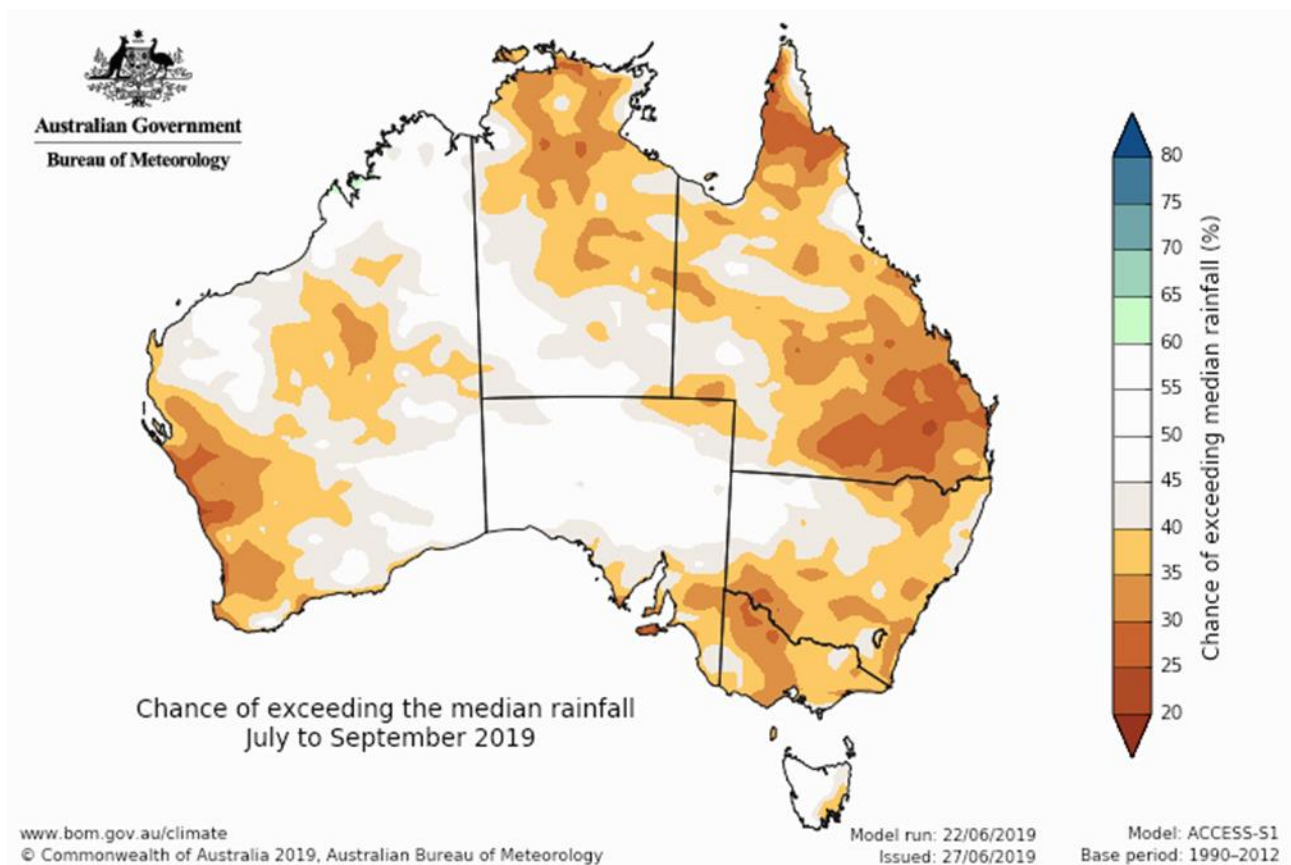
## 9. Outage planning

Item	Time	Description
Toonumbar Dam	N/A	None

At this time there are no planned outages that will affect the delivery of water to customers.

## 10. Prognosis

All licence category available water determinations have reached their limit of 100%.



The above figure shows an increased likelihood of drier than average rainfall over the next three months.

## More information

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Subscribe to our customer information (weekly water availability reports, e-newsletters, etc.) at [waterNSW.com.au/subscribe](http://waterNSW.com.au/subscribe).