WATER SECURITY STATUS REPORT

December 2020



SEQ Water Grid capacity



Dam storage levels

*Data correct at 30 December 2020 – Dams selected are largest storages for North, South and Central areas. Visit the Seqwater website for more information.







Urban Utilities









Average daily residential consumption (L/Person)



*Data range is 03/12/2020 to 30/12/2020 and 05/12/2019 to 01/01/2020

See map below and legend at the bottom of the page for water service provider information





Grid operations and overall water security position

Despite receiving rainfall in parts of the northern and southern areas of South East Queensland (SEQ), the region continues to be in Drought Response conditions with combined Water Grid storages at 57.8%.

Wivenhoe Dam remains below 50% capacity for the seventh consecutive month. There was minimal rainfall in the catchment surrounding Lake Wivenhoe, our largest drinking water storage.

Although the December rain provided welcome relief for many of the region's off-grid communities, Boonah-Kalbar and Dayboro are still under drought response monitoring (see below for additional details).

The Gold Coast Desalination Plant (GCDP) had been maximising production in accordance with the Drought Response Plan. However, significant rainfall in the Gold Coast area in mid December filled Hinze dam to the point of overflowing. In anticipation of this and in the interests of cost efficiency, the GCDP was changed from maximising operation to top up mode. The GCDP continues to supplement water supply for SEQ when required after maximising use of Hinze dam.

The Southern Regional Water Pipeline is still operating in a northerly direction. The Northern Pipeline Interconnectors (NPI 1 and 2) have been operating in a bidirectional mode, with NPI 1 flowing north while NPI 2 flows south. The grid flow operations help to distribute water in SEQ where it is needed most.

The average residential water usage remains high at 172 litres per person, per day (LPD). While this is less than the same period last year (195 LPD), it is still 22 litres above the recommended 150 LPD average according to the SEQ Drought Response Plan.

The Bureau of Meteorology (BOM) outlook for January to March is likely to be wetter than average for much of Australia, particularly in the east. The chance of exceeding median rainfall is greater than 70% for much of Queensland. The El Niño/Southern Oscillation outlook from BOM remains at La Niña with modelling suggesting La Niña will continue until at least February 2021

End of month storage level decline assuming a repeat of the particularly dry 2019 year (2020 data not used):

 Jan-21
 56.8%
 |
 Mar-21
 51.8%

 Feb-21
 54.5%
 |
 Apr-21
 51.1%

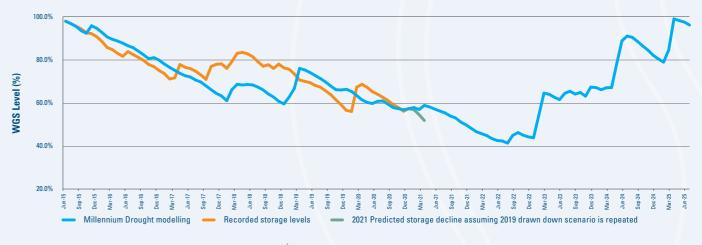
Figure 1: Water Grid storage drawdowns.

Water Grid storage

Water Grid storage actual drawdown to December 2020, and projected draw down for 2021.

The Water Grid drawdown graph shows historical storage data and a projected draw down if the rate observed during the dry year of 2019 (not including any 2020 data) occurred in the corresponding months from January 2021 until April 2021. The 2019 data is used as it was a particularly dry year, rainfall is usually higher in the summer period than it was in 2019. Recently the storage levels improved due to rainfall in mid December, however levels are still below 60%. The millennium drought is shown to compare drawdowns over an extended drought period (see figure 1).

1. This projected drawdown does not account for differences in demand and supply conditions, such as continued operation of the Gold Coast Desalination Plant.



Soil moisture

The rise in deep soil moisture that occurred during the Feb-March 2020 rainfall continues to slowly decrease and is now is currently at 29.47% full. There still needs to be significant rainfall events to see recovery and inflows into the catchment. (see figure 2)

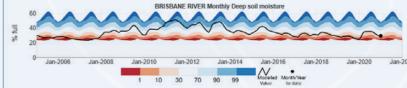
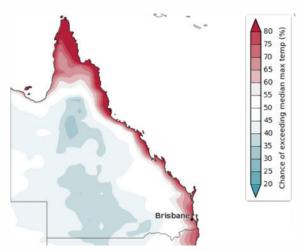


Figure 2: Brisbane River catchment monthly deep soil moisture - modelled estimate to December 2020 (source Bureau of Meteorology AWRA-L)

Weather outlook

Temperature

The BOM outlook is for a 50-75% probability of exceeding the 28.3c temperature for February to April.



http://www.bom.gov.au/climate/outlooks/#/temperature/maximum/median/monthly/0

Off-grid community drought status

The SEQ Water Grid allows us to move treated drinking water around the region. Off-grid communities are not connected to the SEQ Water Grid.

This table has been updated as at 30 December 2020.

Amity Point

Supply: North Stradbroke Island groundwater Standing water level 16.47 m AHD**

Level 1: drought trigger at 15 m AHD

Beaudesert

Supply: Maroon Dam 49.3%

Level 1: drought response in effect as of 19/10/20

Level 2: drought trigger at 25% dam level

Canungra

Exit Drought response 14 December 2020

Supply: Canungra Creek Stream flow ~84.49 ML/day

Level 1: Preparedness and monitoring; Flow falls to <7ML/day

Dayboro

Supply: groundwater/ carting

Well No. 1 standing level >RL 41.00 m AHD

Level 3: drought response in effect as of 6/10/20

Level 4: drought trigger when wells not meeting demand

Dunwich

Supply: North Stradbroke Island groundwater Standing water level 16.47 m AHD**

Level 1: drought trigger at 15 m AHD

Esk

Supply: Wivenhoe Dam 38.8%

(Regional Water Grid Storages response)

Level 1: drought response in effect as of 15/09/20 Level 2: drought trigger at 50% Water Grid level

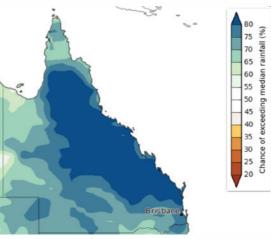
Drought Exit 16 December 2020

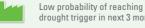
Supply: Yabba Creek Plant operating to meet demand Level 1: Preparedness and monitoring; No water flowing

over the weir

Rainfall

The outlook for February to April is for a wetter than average for Queensland. The outlook for SEQ is for 70-80% above the median for this time of year (324mm).





drought trigger in next 3 months



Medium probability of reaching drought trigger in next 3 months



High probability of reaching drought trigger in next 3 months

Kalbar (Boonah, Aratula and Mount Alford)

Supply: Moogerah Dam 15.4%

Level 2: drought response in effect as of 30/8/20

Level 3: drought trigger at 15% dam level

Kenilworth

Drought Response Exit 15/12/2020

Supply: Wells near the Mary River

Bellbird Creek flow ~51.60 ML/dayl

Kilcoy

Supply: Somerset Dam 74.9%

(Regional Water Grid Storages response)

Level 1: drought response in effect as of 15/09/20

Level 2: drought trigger at 50% Water Grid level

Kooralbyn

Supply: Maroon Dam 49.3%

Level 1: drought response in effect as of 19/10/20

Level 2: drought trigger at 25% dam level

Linville

Supply; Brisbane River at Linville — 0.67 ML/day **Level 1:** drought response in effect as of 15/09/20

Next drought trigger: Cart from Kilcoy when water treatment

Rathdowney

Somerset

Supply: Maroon Dam 49.3%

Level 1: drought response in effect as of 19/10/20

Level 1: drought response in effect as of 15/09/20

Level 2: drought trigger at 50% Water Grid level

*Groundwater level in metres Australian Height Datum (AHD)

Supply: Somerset Dam 74.9% (Regional Water Grid Storages response)

**The bore chosen has the most reliable and up-to-date data that can be continuously monitored.

Level 2: drought trigger at 25% dam level

plan unable to meet demand

Lowood Supply: Wivenhoe Dam 38.8%

(Regional Water Grid Storages response)

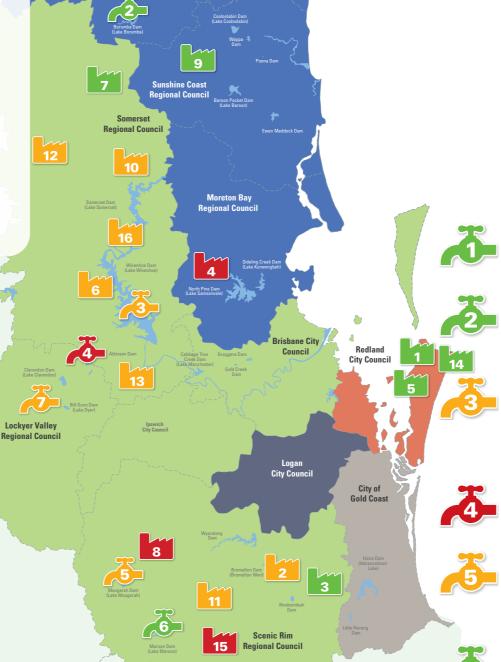
Level 1: drought response in effect as of 15/09/20

Level 2: drought trigger at 50% Water Grid level

Point Lookout

Supply: North Stradbroke Island groundwater Standing water level 16.47 m AHD**

Level 1: Drought trigger at 15m AHD



Water Supply Scheme status

Segwater supplies water to rural landholders and businesses that are licensed to take water from dams and waterways via Water Supply Schemes. The amount of water that can be extracted by licensed irrigators varies according to local water conditions. In times of drought or low flows, irrigation entitlements may be restricted or suspended.

This data has been updated as at 30 December 2020







Full allocation

Restricted

Suspended

Cedar Pocket Water Supply Scheme

Cedar Pocket Dam currently 59.8% (down 2.7% from last month) Announced allocations Medium Priority 100%

Mary Valley Water Supply Scheme

Borumba Dam currently 78.4% (down 2.9% from last month)

Medium Priority 100% (also supplies high priority)

Central Brisbane Water Supply Scheme

Wivenhoe Dam/Somerset Dam currently 48% (down 2.7% from last month)

Medium Priority 70% (also supplies high priority)

osed amendments to water sharing rules in process.

Lower Lockyer Water Supply Scheme

Atkinson Dam currently 5.4% (no change from last month) ounced allocations Medium Priority 0%

Warril Valley Water Supply Scheme

Moogerah Dam currently 15.4% (down 1.6% from last month)

Announced allocations Medium Priority 31%

(also supplies high priority)

nts to water sharing rules in process.

Logan River Water Supply Scheme

Maroon Dam currently 49.4% (up 4% from last month) Medium Priority 100%

(also supplies high priority)

Central Lockyer Water Supply Scheme

Clarendon Dam & Bill Gunn Dam currently 3.1% (up 0.2% from last month)

Morton Vale 0%, Medium Priority 0% (all zones)

ounced allocation (ground water)

Medium Priority 80%, Low Priority 60%

