

7 February 2020

Gwydir Regulated River Water Source

Allocations

The Gwydir catchment has received a slight boost from rain in January, but storage levels are still at historic lows. Levels in the Gwydir water source storage, Copeton Dam, rose by about 9 gigalitres (GL) to 113 GL. Inflows into the storage during the month was around 17 GL, along with 3.5 GL of tributary inflows below the storage. This improvement has been useful in topping up the essential supply account.

Despite the improvement in rainfall and runoff into the system, it has not been enough to offset the extreme dry conditions experienced over the last 24 months and more sustained rainfall and runoff is required to bring the system back to normal conditions. General security (GS) allocations remain unchanged at zero per cent for the 2019-2020 water year.

Since the last general security allocation in early February 2018 there has been 54 gigalitres (GL) of inflow into Copeton Dam. **This is the second lowest 24-month inflow volume on record.** The lowest inflow was a century ago, being 53 GL in the 24-months to January 1920.

The system shortfall decreased in January 2020 from to 69 GL to 55 GL; however, it still means that inflows in excess of 55 GL are required before normal regulated river operations can resume.

On Thursday (6 February), a low-pressure trough extending down from the north combined with a very moist onshore flow has brought widespread heavy rain to much of the east coast. Some of this is forecast to extend towards north-west NSW and likely to bring 50-100 mm of rain in the next 3-4 days.

A temporary water restriction was applied to a number of catchments including Gwydir River and its tributaries first from 17 January to 31 January. The restriction has been further extended to 17 February as the Bureau has been forecasting good rainfalls. The restriction is prohibiting pumping by the general security and unregulated river license holders in the valley. Having a temporary restriction order allows any moderate flows to be protected for critical needs. The department will monitor flows closely and should critical needs be met, the order may be lifted. Information on current restrictions is listed here: <https://www.industry.nsw.gov.au/water/allocations-availability/temporary-water-restrictions>

2019-20	High Security	General Security	Drought Stage
Gwydir Regulated River Water Source	100%	0%	 Stage 3

Dam levels (as at 4 February 2020)

Copeton Dam is about 7.1 per cent full – rising – currently holding 113 GL. This time last year the storage was about 12 per cent full.

Drought stage

The NSW Extreme Events Policy introduced a staged approach from one to four to manage extreme circumstances such as severe droughts or poor water quality events. Currently, the Gwydir Regulated River Water Source is at Stage 3 criticality. The need for water restrictions is being closely monitored to protect remaining Gwydir water supplies for critical needs.

Further information on drought stages can be found at: www.industry.nsw.gov.au/water/allocations-availability/droughts-floods/extreme-events

Key facts

- Copeton Dam received 67 mm of rainfall in January 2020.
- Inflows into Copeton Dam were 16-17 GL in January 2020.
- Copeton Dam storage volume increased by about 8.9 GL in January 2020, as a result of the good inflows into the dam, which were able to not only offset releases from the dam, but also were sufficient to increase the amount water in the dam.
- Evaporation and transmission losses have remained very high since the last allocation 24 months ago, reflecting a drying river system and contributing to the 55 GL resource shortfall.
- The general security and ECA delivery loss account is empty. Therefore deliveries from these accounts must be debited at the dam wall meaning owners 'pay' for their own water delivery.
- If extreme dry conditions continue, tougher drought contingency measures may be needed to secure critical human needs beyond this water year.

Seasonal climate outlook

The Bureau of Meteorology seasonal outlook for February to April indicates that the catchment is likely to experience neither drier nor wetter than average conditions. Both daytime and night-time temperatures over this period are very likely and likely (respectively) to be above average.

The Bureau of Meteorology states that the El Niño-Southern Oscillation (ENSO) and the southern Oscillation Index (SOI) are neutral. When the ENSO is neutral, other climate drivers, like more local or short-term conditions can influence Australia's climate. Surface waters in the tropics near to and west of the Date Line are warmer than average, potentially drawing some moisture away from Australia.

For further details: www.bom.gov.au/climate/outlooks/#/rainfall/summary

Further information

The next monthly water allocation statement for the Gwydir Regulated River Water Source will be available on 6 March 2020.

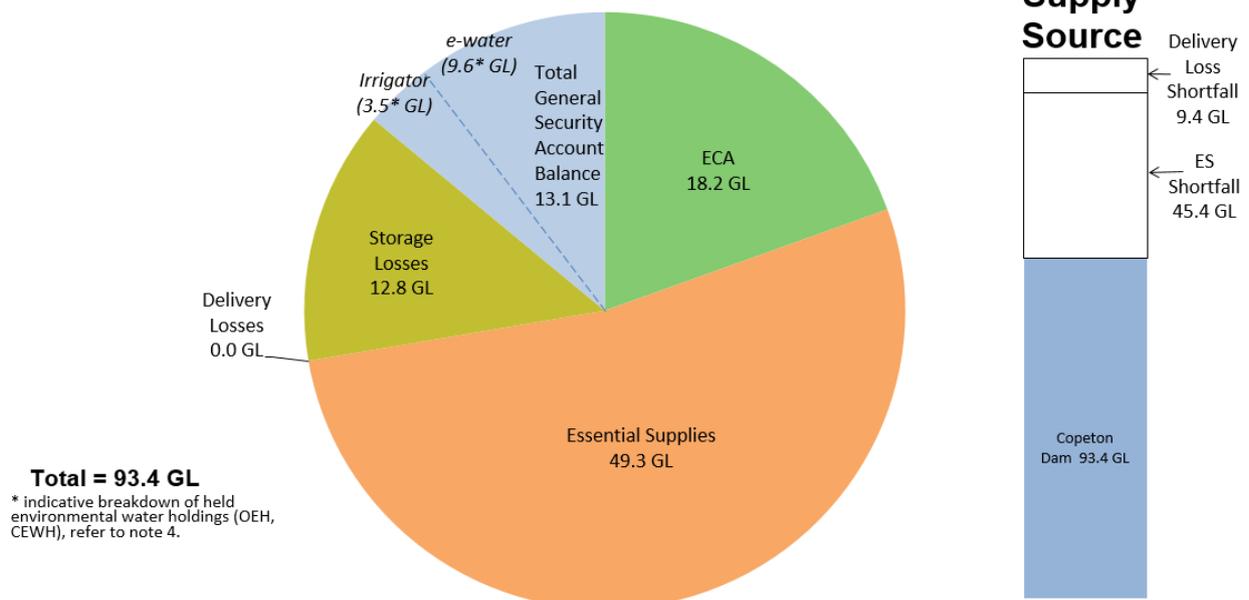
Information on available water determinations and water sharing plans is available on the Department of Industry website: www.industry.nsw.gov.au/water

Resource Assessment Data Sheet

Resource Distribution (as at 31 January 2020)	Volume (GL)	Volume (GL)
Available Resource ⁽¹⁾		93.4
<i>less</i>		
Storage Losses ⁽²⁾	12.8	
Essential Supplies ⁽³⁾	49.3	
Environmental Contingency Allowance (ECA)	18.2	
Delivery Losses ⁽⁵⁾	0.0	
General Security Held Environmental Water (HEW) Account Balance ⁽⁴⁾	9.6	
General Security Irrigator Account Balance	3.5	
<i>equals</i>		
Water available for allocation		0.0

See notes below.

**Resource Distribution as at 31 January 2020
Gwydir Regulated River Water Source**



Notes:

- (1) Available Resource – is the total active storage at Copeton Dam at the time of assessment.
- (2) Storage Losses – evaporation based on forecast storage behaviour over 2 years at maximum historical rates.
- (3) Essential Supplies – water required to be set aside under the water sharing plan to provide for Towns, Stock, Domestic, High Security and riverine environments. Includes stock and domestic replenishments, delivery loss allowance and end-of-system flow requirements. This is offset by minimum forecast inflows to storage.
- (4) Held environmental water (HEW) – water administered by environmental water holders is being reported here, with the associated portion of general security allocation also identified in the above pie chart and table. The reporting of held environmental water is indicative only, prior to reconciliation of usage and net trade. General Security HEW estimated to be 9.6 GL and High Security HEW is estimated to be 0.7 GL. These entitlements are held and/or managed either singly or jointly by various environmental holder groups, including the NSW environment water holder and the Commonwealth Environmental Water Holder (CEWH). Details on environmental holdings can be found on individual agency websites.
- (5) Delivery Losses - this account reflects the water needed to deliver general security water. Zero balance means that water must be borrowed to continue the delivery of general security water, in accordance with prior practice. The payback of any borrow will occur before further general security allocation. However, in extreme situations as currently, 'dam wall debit' becomes necessary where water users are debited the ordered volume at the dam and a reduced volume is available at the point of off-take. Effectively water users are 'paying' their own delivery costs.

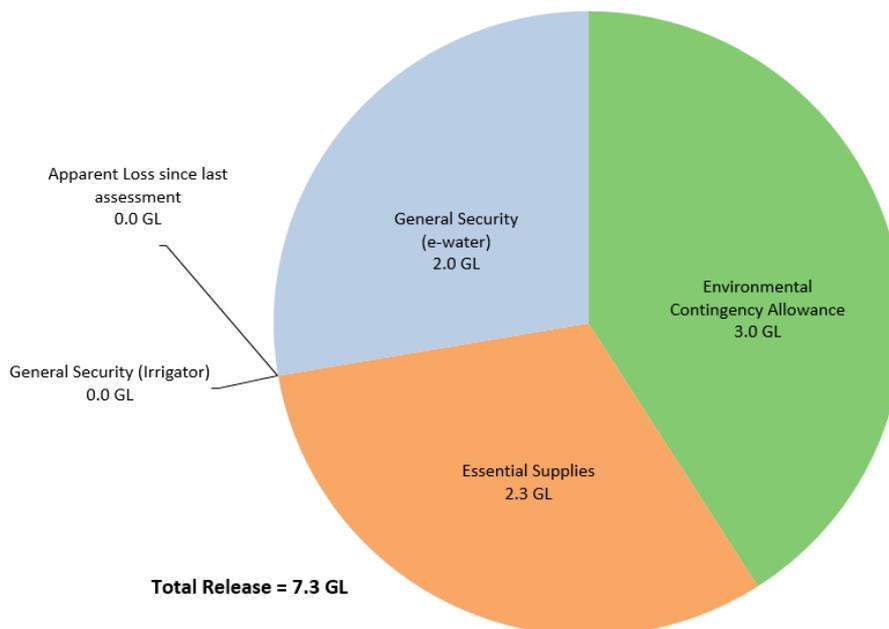
Resource Assessment as at 31 January 2020

Volumes in GL	Budget	Current	Additional	Balance
Storage Loss	12.84	11.95	0.89	12.84
Essential Supplies for next 24 months	94.72	33.97	15.38	49.34
Delivery Loss (256 GL max)	9.37	0.00	0.00	0.00
ECA (90 GL max)	-	18.20	0.00	18.20
General Security (764.5 GL max)	-	13.02	0.00	13.02
Additional Resources for Sharing	-	16.27	-16.27	0.00
Total	-	93.40	0.00	93.40

General Security	Value	Unit
Incremental Increase CREDITED	0.00	GL
Available Water Determination	0.0000	ML per unit share

About 7.3 GL was released from Copeton Dam in January 2020 to meet 2.3 GL of essential supply, 2.0 GL of held e-water and 3 GL of Environmental Contingency Allowance.

Release Distribution for January 2020



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