

11 December 2018



## Namoi Valley

### Water allocation and availability update

Lower Namoi general security allocation this year **remains unchanged at 0 per cent of entitlement**. Despite some recent rainfall there has been insufficient improvement in resources to provide further allocation.

The last allocation increment of 7 per cent to Lower Namoi general security entitlement holders was in August 2017. Since then the dams have received record low inflows.

Compared with the last month, there is a further minor deterioration in the shortfall, which is now 84,000 megalitres (ML), due to continued low inflows and high transmission losses.

2018-19	High Security	General Security	Drought Stage
Upper Namoi Valley	100%	100%	 Stage 3
Lower Namoi Valley	100%	0%	 Stage 3

### Dam levels (as at 11 December)

- Keepit Dam is below 1 per cent full – falling – currently holding about 10,000 megalitres (ML).
- Split Rock Dam is below 5 per cent full – falling – currently holding about 20,000 ML.

Regulated release from Split Rock Dam is continuing this week, meeting demands down to Keepit Dam and beyond. Sufficient water will be retained in Split Rock Dam to meet all high priority commitments in 2019/20, including general security carryover. Keepit Dam will be effectively empty at the conclusion of the current bulk water release program and any further releases over summer and beyond will be dependent upon future rainfall and inflows.

### Drought stage

The NSW Extreme Events Policy has been released for all surface and ground water sources in the NSW Murray Darling Basin. This introduces a staged approach to managing extreme events such as severe droughts or poor water quality events. Incident Response Guides (IRGs) are being developed for each valley as part of water resource plans to identify triggers and types of actions taken in each stage.

Both lower and upper Namoi water sources are assessed to be in Stage 3. Trade restrictions are in force and water delivery is limited. Water supplies are being managed to meet high priority needs for as long as possible. Increased operational measures are being implemented to maintain critical water supplies as far as possible.

An explanatory section on drought stages has been provided at the end of this statement.

### Key facts

- There was no significant inflow to both Split Rock and Keepit dams in November 2018.

- The headwater storages are experiencing the worst inflow on record.
- Delivery by block release from Keepit Dam started on 16 October and will soon finish.
- If dry conditions continue, storages will be drawn critically low; Split Rock Dam will be at 3% (11 GL) and Keepit Dam will be at <2% (7 GL) by the end of this water year (which includes predicted minimum inflows over coming months).
- Recent and forecast rainfall is assisting Commonwealth environmental water currently flowing downstream of Gunidgera to potentially reach Walgett in coming weeks.
- Total account shortfall has deteriorated from 73 GL last month to 84 GL this month.

## Seasonal climate outlook

The Bureau of Meteorology seasonal outlook for December 2018 to February 2019 shows no clear indication of drier or wetter conditions for the catchment, though the historical accuracy of the forecast over this region is poor. Temperatures are likely above average.

The Bureau's El Niño-Southern Oscillation (ENSO) Outlook (issued 20 November 2018) remains at El Niño ALERT and a positive Indian Ocean Dipole (IOD) event persists. El Niño conditions continue to develop and are expected to remain through the summer months while the current positive IOD will decay by early summer. El Niño conditions are likely to bring warmer than average temperatures for large parts of the continent, while a positive IOD typically has very little influence on Australia from December to April.

For more details on the seasonal climatic outlook:

[www.bom.gov.au/climate/ahead/archive/outlooks/latest-outlook.shtml](http://www.bom.gov.au/climate/ahead/archive/outlooks/latest-outlook.shtml)

## Further information

The next water allocation statement for the Namoi regulated river will be available mid-January 2019.

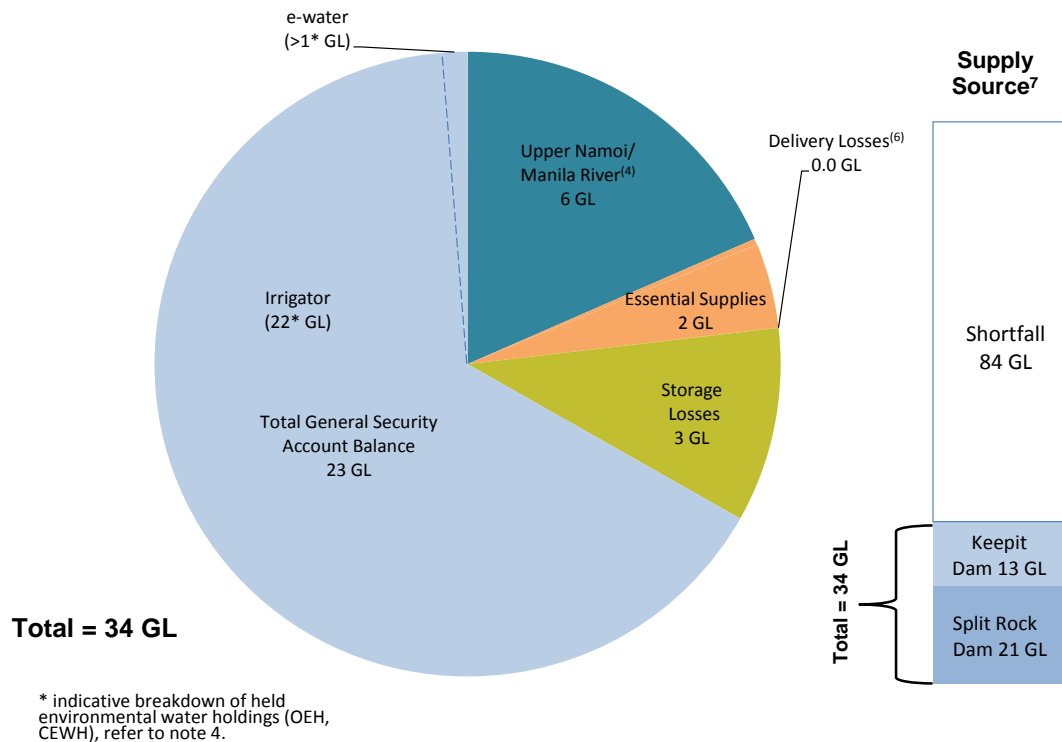
Information on available water determinations and water sharing plans is available on the Department of Industry website - [www.industry.nsw.gov.au/water](http://www.industry.nsw.gov.au/water)

## Resource Assessment Data Sheet

Resource Distribution (as at 30 November 2018)	
	Volume (GL)
Available Resource <sup>(1)</sup>	33.87
<b>less</b>	
Storage Losses <sup>(2)</sup>	3.41
Essential Supplies <sup>(3)</sup>	1.49
General Security Account Balance <sup>(4)</sup>	22.62
Upper Namoi/Manilla River accounts <sup>(4)</sup>	6.35
Peel Trade Account <sup>(5)</sup>	0.00
Delivery Loss Account <sup>(6)</sup>	0.00

See notes below.

## Namoi Resource Distribution (as at 30 November 2018)



### Notes:

- (1) Available Resource: includes total active storage (Split Rock & Keepit Dams).
- (2) Storage Losses: evaporation loss based on forecast storage behaviour and maximum historical evaporation rates over 2 years. The current shortfall is 18.16GL.
- (3) Essential Supplies: water required to be set aside under water sharing plans to provide for Towns, Stock & Domestic, High Security and riverine environments. Includes Gunidgera/Pian stock and domestic replenishments, delivery loss allowance and end-of-system flow requirements. This commitment is offset by minimum forecast inflows into the storages. The current shortfall is 56.75GL.
- (4) Held environmental water (HEW): as a trial, water administered by environmental water holders is reported here, with the associated portions of general security allocation also identified in the above pie chart. This reporting of held environmental water is indicative only and, prior to reconciliation of usage and net trade, estimated to be about 0.45 GL of GS in the Lower Namoi and 0.11 GL of GS in the Upper Namoi. No HS water is held. These entitlements are held and/or managed either singly or jointly by various environmental holder groups, including the NSW Office of Environment and Heritage (OEH) and the Commonwealth Environmental Water Holder (CEWH).
- (5) Peel Trade Account: the Peel water sharing plan, at Clause 86(4), provides for limited allocation assignment from the Peel to the Namoi valleys. It requires a volume to be set aside in Keepit Dam equal to the AWD times 3,000 (maximum of 6,000 ML), for trade from the Peel valley. The current account balance is zero (0) ML meaning all available trade water has been delivered.
- (6) This account reflects the water needed to deliver general security water (delivery losses). 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 increase. The current shortfall is 8.69GL.
- (7) Supply Distribution – the distribution of supply includes active volumes in the dams at the time of the assessment, and it also include any estimated shortfall in meeting the full account limits. High transmission losses create account shortfalls in very dry years. We estimate about 85 GL of inflow to cover the shortfall and extra evaporation prior to next GS allocation increment.

## Resource Assessment as at 30 November 2018

Volumes in GL	Budget	Current	Additional	Balance
Storage Loss	21.57	3.41	0.00	3.41
Essential Supplies	58.24	12.83	-11.34	1.49
Upper Namoi / Manilla River		6.35	0.00	6.35
Delivery Loss	8.69	0.00	0.00	0.00
General Security Irrigation		22.62	0.00	22.62
Peel Trade Account		0.00	0.00	0.00
Additional Resource for Sharing		-11.34	11.34	0.00
Total		33.88	0.00	33.88

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

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




## Drought stage trigger levels


The drought stage is determined in accordance with critical trigger levels for this valley as outlined in the Namoi Valley Incident Response Guide developed by NSW Department of Industry-Water. A drought stage can range from Stage 1 (normal operations) to Stage 4 (critical drought). It is informed by routine water resource assessment results and is triggered by the degree to which water use priorities can be met within the water source. A summary of each drought stage is provided in the table below.

These drought stages are focused on the ability of the regulated river to deliver existing and high priority commitments within the valley. This is distinct from the drought phases determined by the NSW Department of Primary Industries in their Combined Drought Indicator, which is focused on categorising seasonal conditions based on rainfall, soil water, plant growth and drought direction for individual parishes in NSW.

For further details: [www.industry.nsw.gov.au/water/allocations-availability/droughts-floods/extreme-events](http://www.industry.nsw.gov.au/water/allocations-availability/droughts-floods/extreme-events)

## Drought stage trigger levels for surface water – general principles

Criticality	Evidence base for surface water	Broad intent of measures
<b>Stage 1</b> Normal management 	Can deliver all account water under normal river operations practices.	Provide certainty for water use planning.  Long term water security and emergency/drought contingency planning.
<b>Stage 2</b> Drought management 	Unable to deliver 100% of high priority account water <b>and</b> maximum expected use of general security under normal river operations practices.	Operational measures in the current water year to reduce transmission losses and prevent potential future failure to supply water in accounts.  Drought response readiness Local Water Utilities (LWUs).
<b>Stage 3</b> Severe drought/water shortage 	Only able to deliver restricted high priority demands <b>and</b> restricted remaining general security account water.	Restricting access to account water, restricting trade, and suspending some WSP rules in addition to increased operational measures to prevent potential future failure to supply water in accounts.  Drought management/restrictions (LWUs).

Criticality	Evidence base for surface water	Broad intent of measures
<p><b>Stage 4</b></p> <p>Critical drought/water shortage</p> 	<p>Only able to deliver restricted town water supply, stock and domestic and other restricted high priority demands.</p>	<p>Suspension of some WSP rules. Severe restrictions required to prioritise remaining supplies for critical human water needs.</p> <p>Emergency drought management measures/restrictions (LWUs).</p>