



Thursday, 15 October 2015

## NSW Murray and Murrumbidgee Valleys:

### Water availability and allocation update

#### NSW Murray and Lower Darling

##### Allocations

NSW Murray general security allocation has **increased by 6 per cent** to 12 per cent of entitlement. There is no change to Lower Darling allocations.

This improvement follows slightly better than expected inflows into upper Murray and internal spills in favour of NSW at Lake Victoria.

	High Security	General Security	Average Carryover
Murray	97%	12%	30%
Lower Darling	20%	0%	Restricted access

##### Dam levels

- Dartmouth Dam is currently 63 per cent full, holding 2,469,000 megalitres (ML)
- Hume Dam is 45 per cent full, holding 1,377,000 ML
- Without rainfall and inflows these levels are expected to fall as the weather begins to warm and irrigation demand rises.

##### Outlook

A special update of the Bureau of Meteorology's (BOM) climate outlooks has been released due to a significant shift towards a drier October nation-wide. The Indian Ocean Dipole has trended more positive thereby reinforcing the strong El Niño. The month of October in the region is very likely to be drier and warmer, with less than 20 per cent chance of exceeding median rainfall for the month, as well as a high chance of warmer temperatures. October to December is likely to be drier and warmer than average with a delay in the onset of the northern Australian wet season.

System inflows in the past 12 months have totalled 3,130 GL which is in the lowest 3 per cent of years. Only in the years of the Millennium drought (2005-09) were lower inflows observed. System inflows in September tracked about one third of the long term average and about half of the 10 year average. As we have passed the season of likely highest inflows, there is generally a reduced chance of significant improvements to water availability for the remainder of the water year.

**Media contact: Bunty Driver M 0407 403234**

[www.water.nsw.gov.au](http://www.water.nsw.gov.au)

## Trading

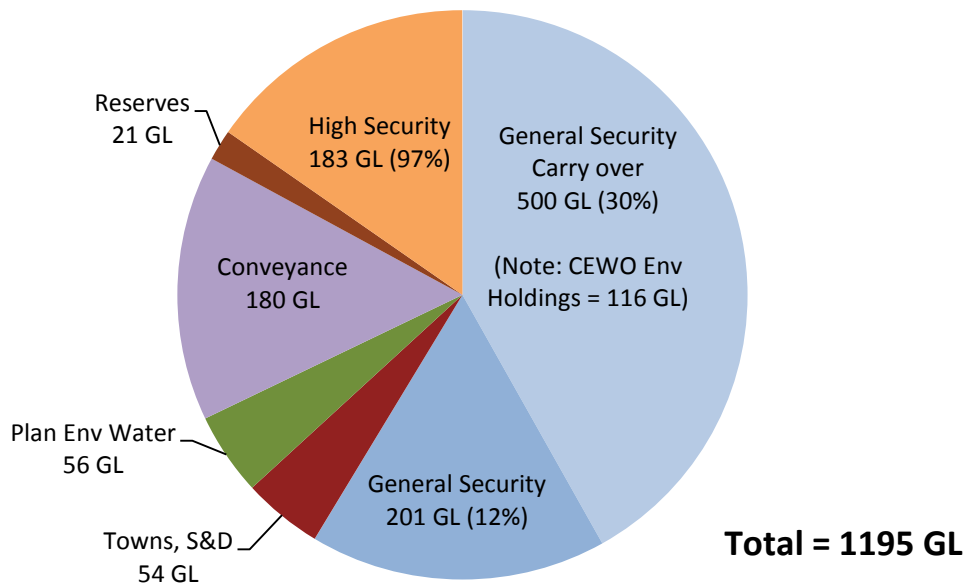
In the Murray, trade across the Barmah choke is restricted to ‘no net trade downstream’; however there is currently capacity for downstream trade (by virtue of upstream trades).

Trade is permitted within the Lower Darling water source but inter-valley trade is closed due to the water shortage. NSW Murray water users can trade **into** the Murrumbidgee valley.

Resource Distribution (as at 15 October) for 2015-16	
	Volume (GL)
Total Available Resource	1195
<b>less</b>	
Carryover	500
Rules based Environmental Water <sup>(1)</sup>	56
Towns, Stock, Domestic	54 (100%)
Reserves <sup>(2)</sup>	21
Conveyance <sup>(3)</sup>	181
Announced High Security	183 (97%)
Announced General Security	200 (12%)

*\*See notes below – refer to next Data Sheet table.*

## Allocation Distribution 2015-16 NSW Murray - 15 October 2015



## NSW Murray Resource Assessment – Comparison with this time last year

Item	Mid Oct 2014 (GL)	Mid Oct 2015 (GL)	Comments
NSW share of total resources	1,880	1,195	<b>Inflows in last 12 months extremely dry (97%AEP)</b>
less			
Carryover	498	500	similar carryover
Environmental	239	56	(borrowed B-M water)
Towns, Stock, Domestic	59	54	similar to last year
Conveyance	215	180	84% of last year's
High Security	183	183	same
Critical Human Need (CHN) reserve*	40	21	will need to increase soon
General Security	650	201	less GS allocation in 2015

\* CHN reserve target 61 GL.

### Chances of improvement

The chances of inflows being above historical minimums, and therefore the likelihood of improved allocations, are as follows:

NSW MURRAY Potential Inflow Conditions #	Forecast 1 December General Security Allocations**	Forecast 1 March General Security Allocations**
Current allocation (99% inflows)	12%	12%
9 chances in 10 (very dry) (90%)##	24%	30%
3 chances in 4 (dry) (75%)	30%	33%
1 chance in 2 (average) (50%)	36%	45%
1 chance in 4 (wet) (25%)	51%	75%

# Using all years of inflow records. \*\* Licence holders can add individual carryover to the relevant percentage.

## We are currently tracking [here](#)

### Next Announcements

Conditions are being constantly monitored and any significant changes in water availability or outlook will be promptly announced, otherwise:

The next allocation update for the Murrumbidgee will be on 1 November.

More detailed information, including comparison with last year, will be on 16 November.

The next Seasonal Outlook, including probability table and rocket diagram will be 15 December.

# NSW Murray Valley Outlook

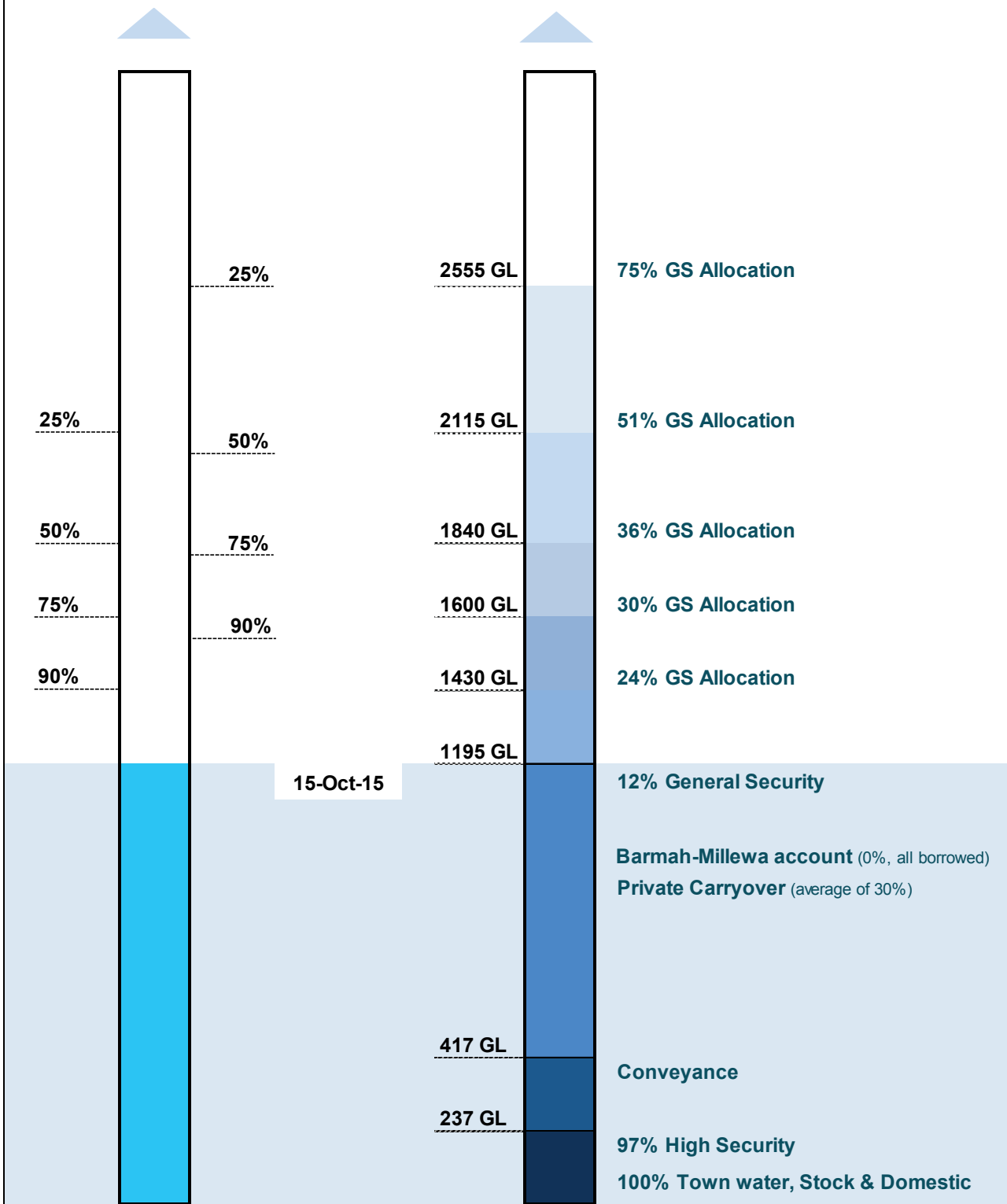
As at 15 October 2015

## Probability of improvement

1-Dec

1-Mar

## Indicative requirements



\* Figure not drawn to scale. The figure is based on probabilities and does not guarantee allocations, volumes are indicative only.

## Murrumbidgee Valley

### Allocations

Murrumbidgee general security entitlements have **increased by 2 per cent to 29 per cent**, due mostly to slightly better than expected inflows into storages since the last assessment.

	High Security	General Security	Average Carryover
Murrumbidgee	95%	29%	23%

### Dam levels

- Blowering Dam is currently 46 per cent full, holding 775,000 ML
- Burrinjuck Dam is 71 per cent full, holding 731,000 ML

### Outlook

A special update of the Bureau of Meteorology's (BOM) climate outlooks has been released due to a significant shift towards a drier October nation-wide. The Indian Ocean Dipole has trended more positive thereby reinforcing the strong El Niño. The month of October in the region is very likely to be drier and warmer, with less than 20 per cent chance of exceeding median rainfall for the month, as well as a high chance of warmer temperatures. October to December is likely to be drier and warmer than average with a delay in the onset of the northern Australian wet season.

As we have passed the season of likely highest inflows, there is generally a reduced chance of significant improvements to water availability for the remainder of the water year.

### Trading

Trade of account water **out** of the Murrumbidgee valley is closed, but trade into the valley and within the valley is unaffected.

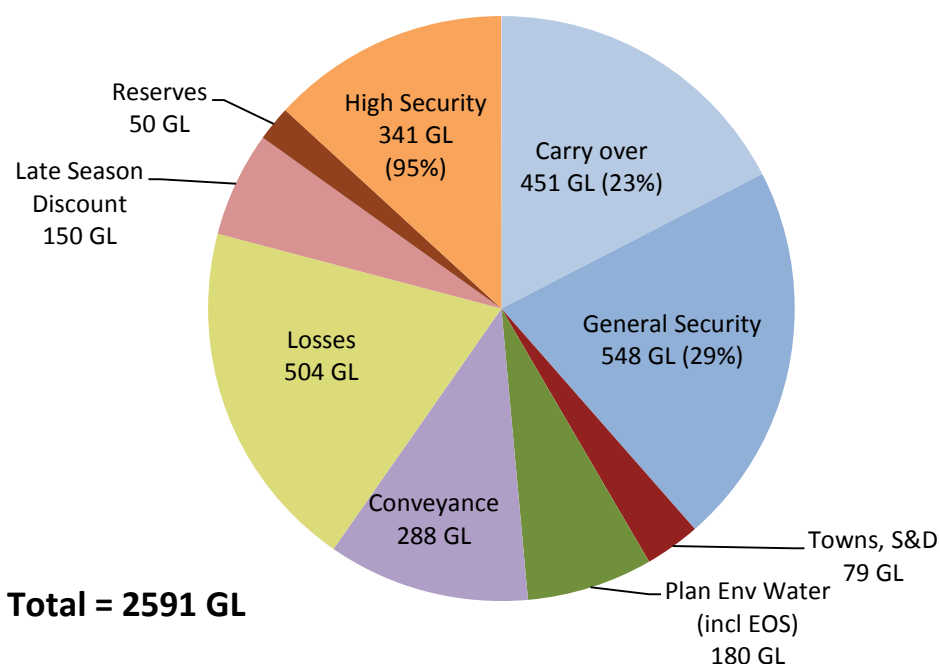
### Murrumbidgee Resource Assessment Data Sheet

Resource Distribution (as at 15 October) for 2015-16	
	Volume (GL)
Total Available Resource	2,591
<b>less</b>	
Carryover (incl. Murrumbidgee IVT carryover)	451
Rules based Environmental Water <sup>(1)</sup>	180
Towns, Stock, Domestic	79 (100%)
Reserves <sup>(2)</sup>	50
Conveyance <sup>(3)</sup>	288

Resource Distribution (as at 15 October) for 2015-16	
Announced High Security	341 (95%)
Announced General Security	548 (29%)
Losses (transmission, evaporation, ops) <sup>(4)</sup>	504
Late Season Discount <sup>(5)</sup>	150

\*See notes below.

## Allocation Distribution 2015-16 Murrumbidgee Valley - 15 October 2015



**Notes:**

- (1) Primarily rules-based environmental water – water required to be set aside under water sharing plans to provide for riverine environments. Includes end-of-system flow requirements and environmental allowance. In the Murray this includes AEA and Wakool system requirements. Excludes ‘licence-based’ environmental water.
- (2) Reserves – required primarily under statutory plans, and mainly used for emergency purposes and critical needs. Includes Murrumbidgee Provisional Storage Volumes.
- (3) Conveyance entitlement – a category of access licence originally issued to Irrigation Corporations to facilitate delivery of water through their channel systems. Allocation to this category is prescribed in the water sharing plans and is a function of current high and general security allocations. (This category of licence can carry over up to 30% of entitlement in the Murrumbidgee, but none in the NSW Murray).
- (4) ‘Losses’ is the best estimate of the volume required to run the river under expected conditions to meet demands for the remainder of the year. They do not appear in the Murray distribution because they are debited by Murray Darling Basin Authority before NSW is provided its share of Murray resource. They include storage evaporation, transmission losses, operations loss. It is assumed

there is no further rainfall and that inflow returns to dry conditions. This estimate is constantly refined as the year unfolds.

- (5) The last few months of the assumed drought inflow sequence and the assured RAR inflows from Snowy Hydro arrive too late to support peak demand so cannot be used for current allocations. This value was increased in the mid-August assessment based on discussions with Snowy Hydro and a potential later delivery of RAR this year. This water will support allocation improvement of 3 to 5 percent in March 2016, if not before. (If this water was included in current allocations, the water could be used and the storages emptied before the late season inflow arrives).

### Murrumbidgee Resource Assessment – Comparison with this time last year

Item		Mid Oct 2014 (GL)	Mid Oct 2015 (GL)	Comments
Storage Volume (GL)	Burrinjuck	817	730	
	Blowering	1068	791	less SHL power generation
	<b>Total</b>	<b>1885</b>	<b>1521</b>	
Transmission Losses		430	408	
1 July IVT carryover balance		99	11	
Late Season Inflows		0	150	larger than usual – allowance for SHL release late in the season which cannot support peak summer demand
GS Available		40%	29%	
Average GS Carry Over		26%	23%	

SHL = Snowy Hydro Limited.

### Chances of improvement

The chances of inflows being above historical minimums, and therefore the likelihood of improved allocations, are as follows:

MURRUMBIDGEE Potential Inflow Conditions #	Forecast 1 December General Security Allocations**	Forecast 1 March General Security Allocations**
Current allocation (99% inflows)	29%	29%
9 chances in 10 (very dry) (90%) <sup>##</sup>	29%	29%
3 chances in 4 (dry) (75%)	29%	30%
1 chance in 2 (average) (50%)	33%	35%
1 chance in 4 (wet) (25%)	40%	55%

# Using all years of inflow records. \*\* Licence holders can add individual carryover to the relevant percentage.

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# NSW Murrumbidgee Valley Outlook

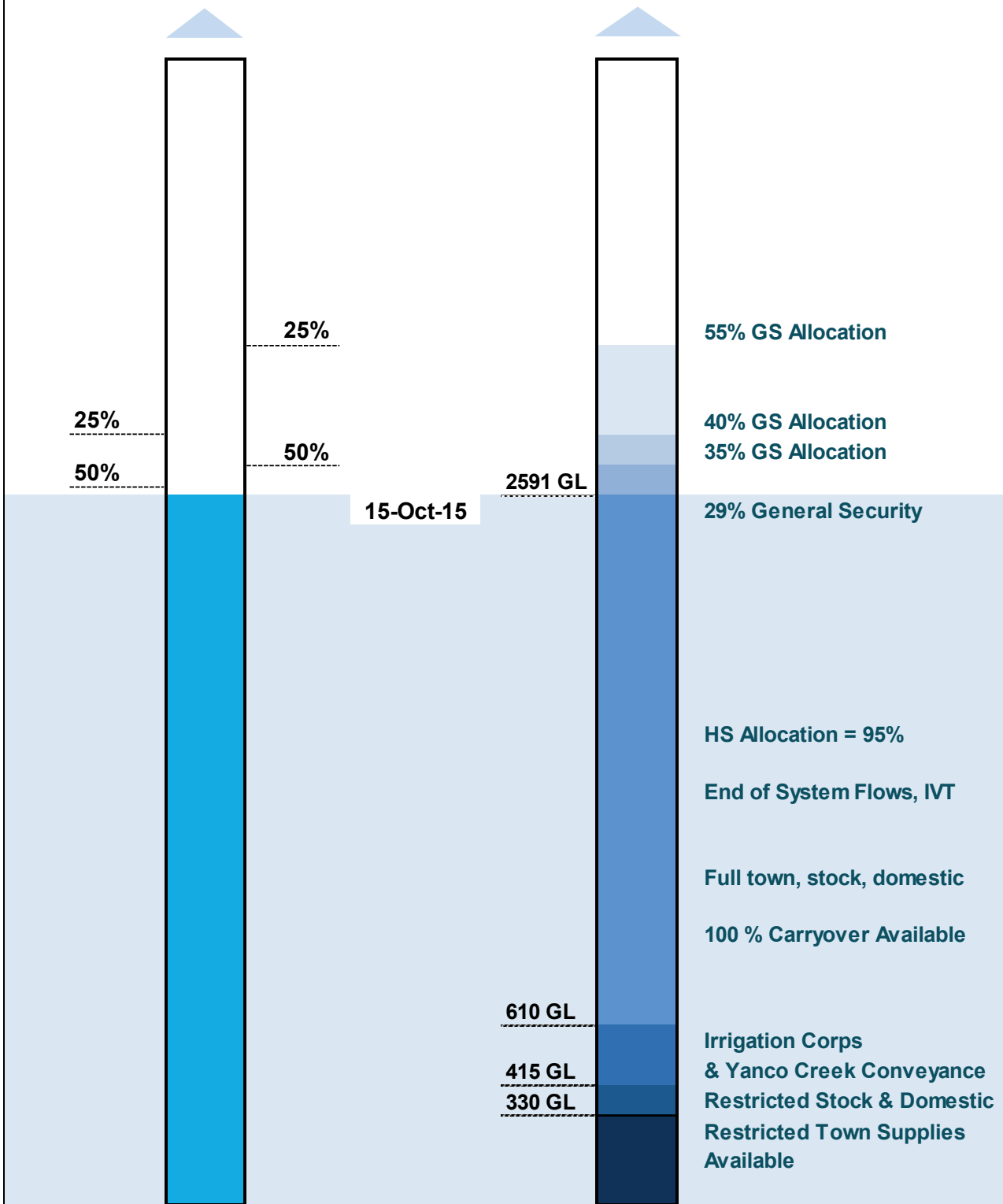
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