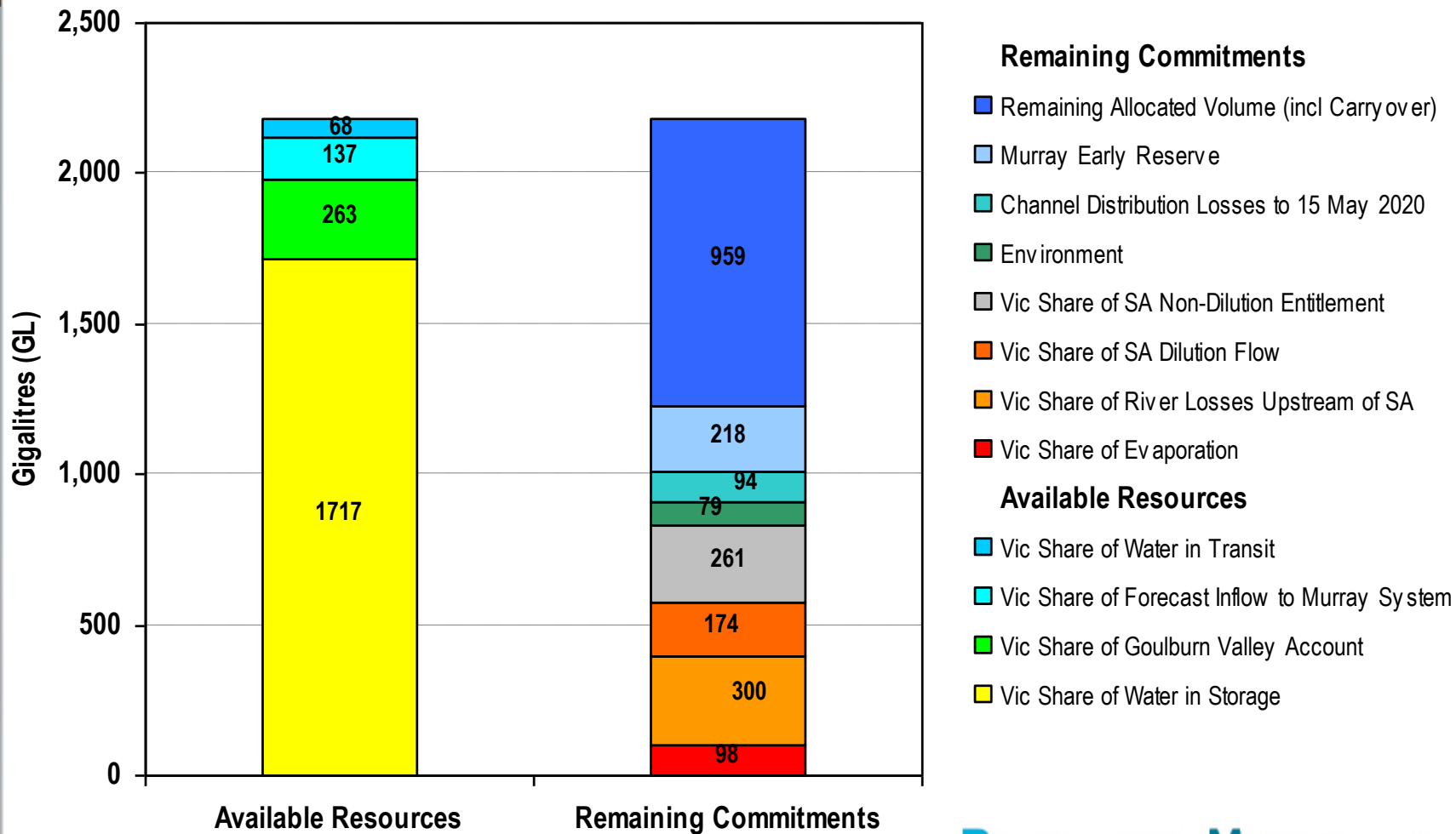


# Murray System

Breakdown of Water in Store and Commitments 16 December 2019



# Murray System

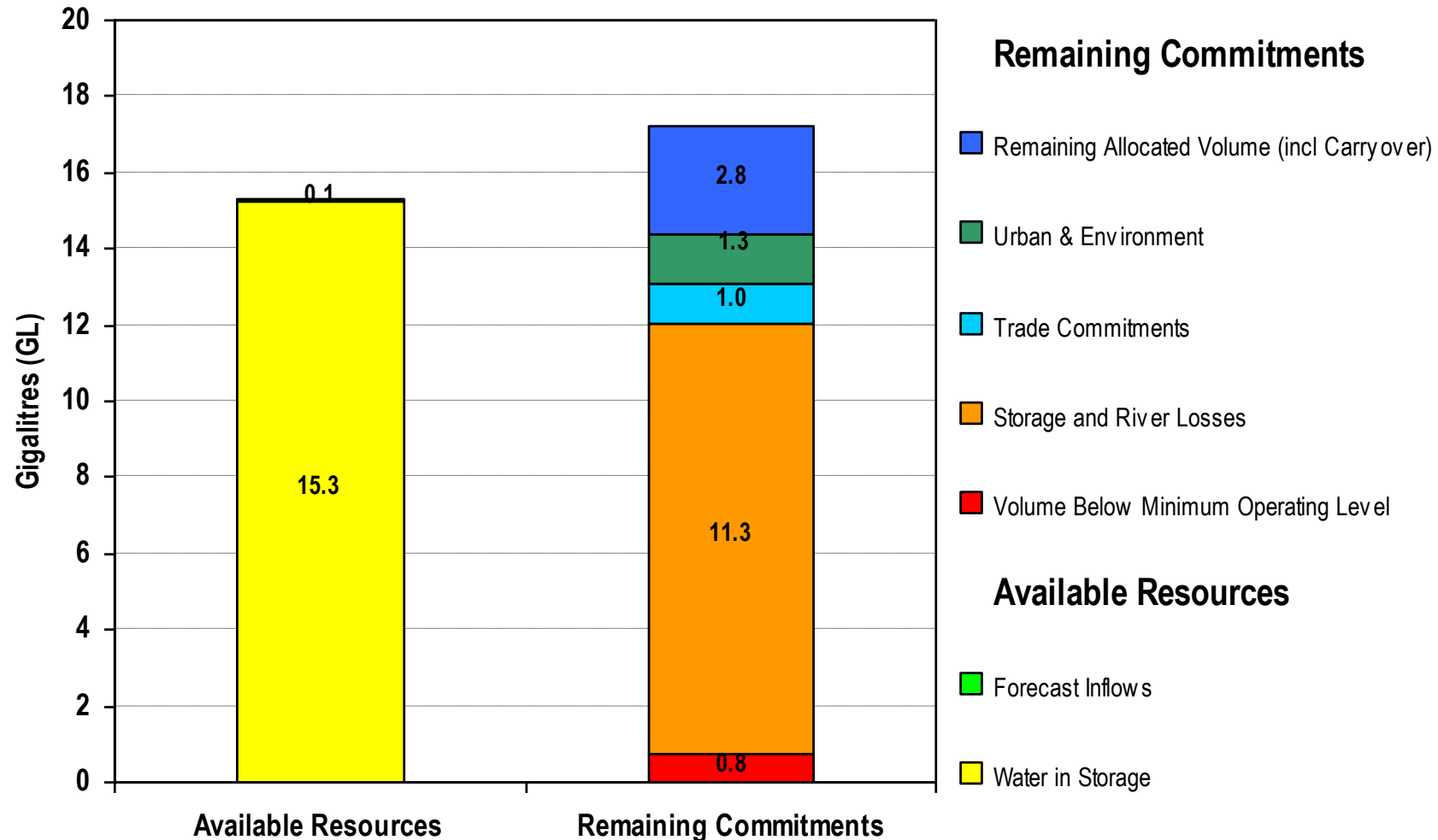
## Breakdown of Water in Store and Commitments: Terms and Definitions

- Vic Share of Water in Storage:** The forecast share of water in the Murray system storages – Dartmouth Dam, Lake Hume, Lake Victoria and the Menindee Lakes – that is owned by Victoria, excluding water that is not available to Victoria under water sharing arrangements at the end of November. The volume held in the Victorian Mid-Murray Storages that is available to meet commitments is also included.
- Vic Share of Goulburn Valley Account:** Total amount of Goulburn system water bought by Murray system users that is yet to be delivered and the carried over volume of Goulburn system water obtained from water savings projects that is to be delivered to the Murray instead of diverted from the Snowy hydroelectric scheme.
- Vic Share of Forecast Inflow to Murray System:** The Victorian share of forecast inflows in the River Murray and tributaries above the storages from the start of December.
- Vic Share of Water in Transit:** The share of the water flowing in the River Murray that is assigned to Victoria, but has not reached a Murray system storage.
- Vic Share of Evaporation:** The Victorian share of the water needed to account for evaporation from storages.
- Vic Share of River Losses upstream of SA:** The Victorian share of the water needed to account for losses from the River Murray upstream of the South Australian border.
- Vic Share of SA Dilution Flow:** The Victorian share of the water needed to account for the supply of dilution water to South Australia, as required under the Murray-Darling Basin Agreement.
- Vic Share of SA Entitlement:** The Victorian share of the water needed to supply entitlement to South Australia, as required under the Murray-Darling Basin Agreement.
- Environment:** Entitlements held for the environment, including the Barmah-Millewa Forest, River Murray Improved Flows and lower Broken Creek operation.
- Channel Distribution Losses to 15 May 2020:** Estimate of the amount of water required to operate Victorian Murray system rural water corporations' channel and pipeline delivery systems to deliver allocation to customers and urban water corporations.
- Remaining Allocated Volume (including Carryover):** The volume assigned to all Victorian Murray entitlement holders under a seasonal determination of 56% high-reliability water shares (HRWS) including the carried over resources that were allocated to entitlement holders in previous seasons that is yet to be delivered. The volume remaining includes resources held by rural water customers, the environment and urban water corporations.
- Murray Early Reserve:** The volume set aside after seasonal determinations reach 30% as a reserve for system operations in the 2020/21 season.

Source: Resource Manager

# Broken System

Breakdown of Water in Store and Commitments 16 December 2019



# Broken System

## Breakdown of Water in Store and Commitments: Terms and Definitions

**Water in Storage:** The volume of water held in Lake Nillahcootie.

**Forecast Inflows:** The volume of forecast inflows in tributaries above Lake Nillahcootie that are yet to flow into the storage and the volume of forecast tributary flows downstream of Lake Nillahcootie that can meet river loss commitments. This estimate of inflows assumes there are no further rain events for the year.

**Volume Below Minimum Operating Level:** The volume of water that cannot be released through existing infrastructure under gravity.

**Storage and River Losses:** The volume of evaporation and other water losses from the storages and from the natural rivers, lakes and waterways that are part of the irrigation network. Also called headworks losses.

**Trade Commitments:** The volume of Broken system water purchased by downstream systems that is yet to be delivered.

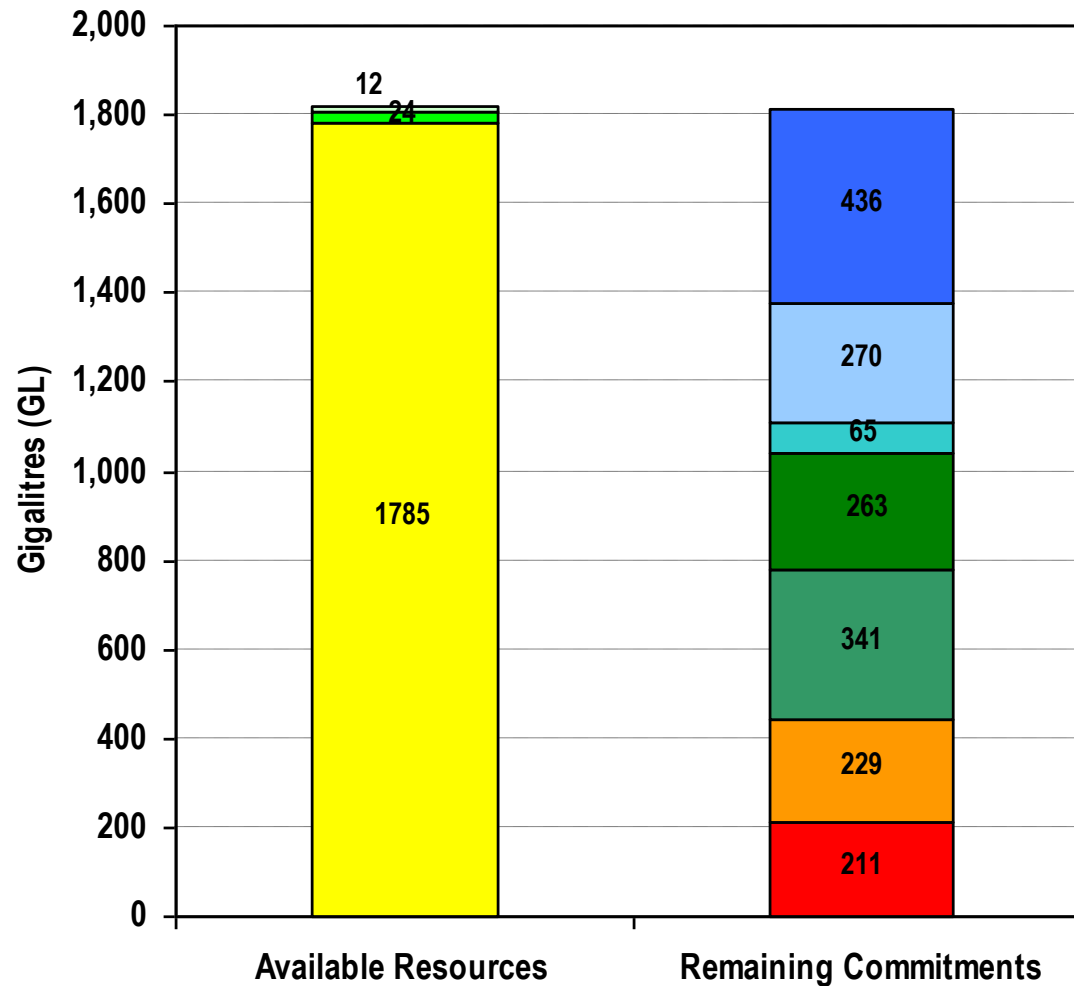
**Urban and Environment:** Entitlements held by urban water corporations and the environment.

**Remaining Allocated Volume (including Carryover):** The volume assigned to water share holders under a seasonal determination of 0% high-reliability water shares (HRWS) including the carried over resources that were allocated to entitlement holders in previous seasons.

*Source: Resource Manager*

# Goulburn System

Breakdown of Water in Store and Commitments 16 December 2019



## Remaining Commitments

- Remaining Allocated Volume (incl Carryover)
- Goulburn Early Reserve
- Channel Distribution Losses to 15 May 2020
- Trade Commitments to Murray System
- Urban and Environment
- Storage and River Losses
- Volume Below Minimum Operating Level

## Available Resources

- Campaspe, Loddon & Broken Trade Commitment to Goulburn
- Forecast Inflows to Eildon and Goulburn Weir
- Water in Storage

# Goulburn System

## Breakdown of Water in Store and Commitments: Terms and Definitions

**Water in Storage:** The volume of water held in Lake Eildon and Waranga Basin.

**Forecast Inflows to Eildon and Goulburn Weir:** The volume of forecast inflows in tributaries above Lake Eildon and Goulburn Weir.

**Campaspe, Loddon & Broken Trade Commitment to Goulburn:** The volume held in the Campaspe, Loddon and Broken systems that needs to be delivered to the Goulburn system as result of trade.

**Volume Below Minimum Operating Level:** The volume of water that cannot be released through existing infrastructure under gravity. Pumping of Waranga Basin will not be required to support allocations in the 2019/20 season.

**Storage and River Losses:** The volume of evaporation and other water losses from the storages and from the natural rivers, lakes and waterways that are part of the irrigation network. Also called headworks losses.

**Urban and Environment:** Entitlements held by urban water corporations including Melbourne, irrigators on the lower Broken Creek, the Victorian and Commonwealth environmental water holders, Modernisation Water Savings Account and the water quality reserve.

**Trade Commitments to Murray System:** Total amount of Goulburn system water bought by Murray system users that is yet to be delivered and the carried over volume of Goulburn system water obtained from water savings projects that is to be delivered to the Murray instead of diverted from the Snowy hydroelectric scheme.

**Goulburn Early Reserve:** The volume set aside between 30% and 50% seasonal determinations as a reserve for system operations in the 2020/21 season.

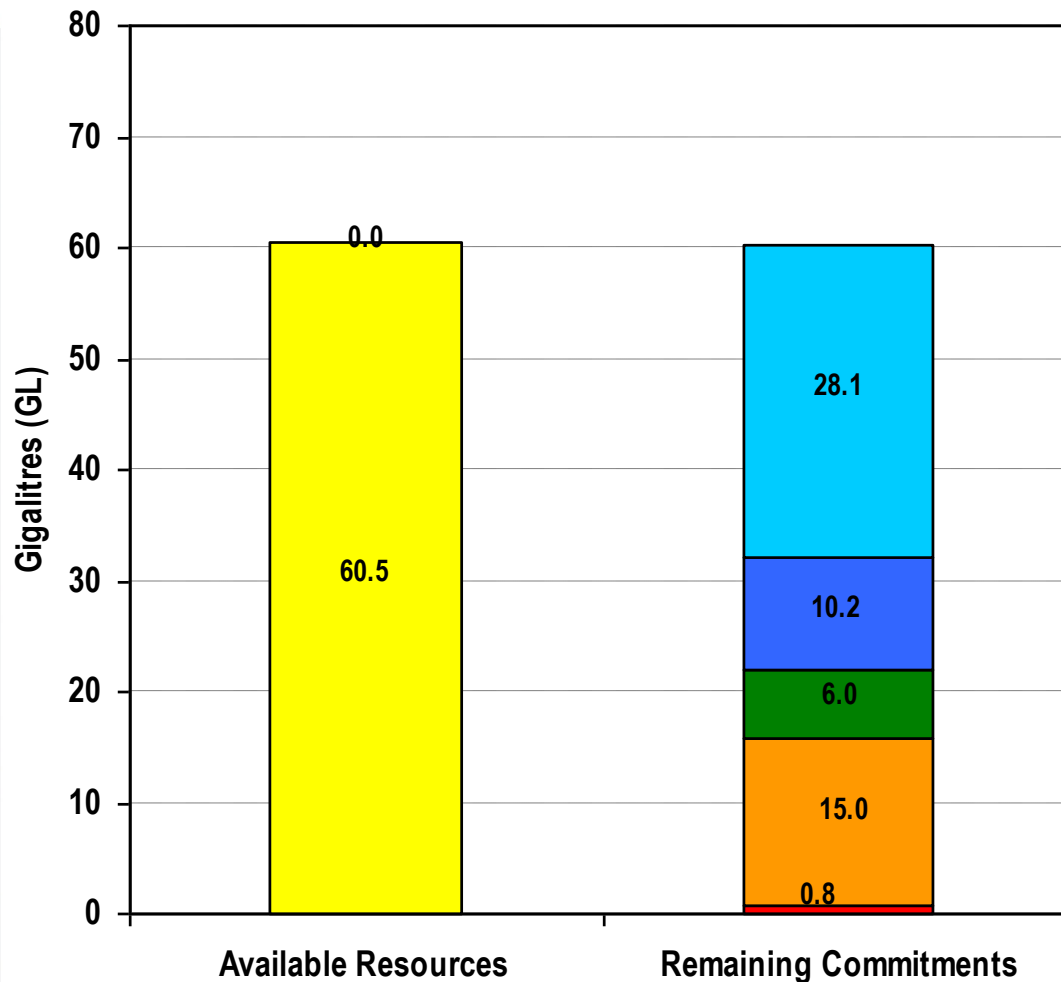
**Channel Distribution Losses to 15 May 2020:** Estimate of the amount of water required to operate the GMW channel and pipeline delivery systems to deliver allocation to customers and urban water corporations.

**Remaining Allocated Volume (including Carryover):** The volume assigned to water share holders under a 64% seasonal determination of high-reliability water shares (HRWS) plus the carried over resources that were allocated to water share holders in previous seasons, that is yet to be delivered.

*Source: Resource Manager*

# Campaspe System

Breakdown of Water in Store and Commitments 16 December 2019



## Remaining Commitments

- Urban and Environment
- Remaining Allocated Volume (incl Carry over)
- Trade Commitments
- Storage and River Losses
- Volume Below Minimum Operating Level

## Available Resources

- GMW Share of Forecast Inflows
- GMW Share of Lake Eppalock

# Campaspe System

## Breakdown of Water in Store and Commitments: Terms and Definitions

**GMW Share of Lake Eppalock:** The volume of water held by GMW in Lake Eppalock.

**GMW Share of Forecast Inflows:** The GMW share of the volume of forecast inflows to Lake Eppalock.

**Volume Below Minimum Operating Level:** The volume of water that cannot be released through existing infrastructure under gravity.

**Storage and River Losses:** The volume of evaporation and other water losses from the storages and from the natural rivers, lakes and waterways that are part of the irrigation network. Also called headworks losses.

**Urban and Environment:** Entitlements held by urban water corporations and the Victorian Environmental Water Holder.

**Trade Commitments:** The volume of Campaspe system water purchased by downstream systems that is yet to be delivered.

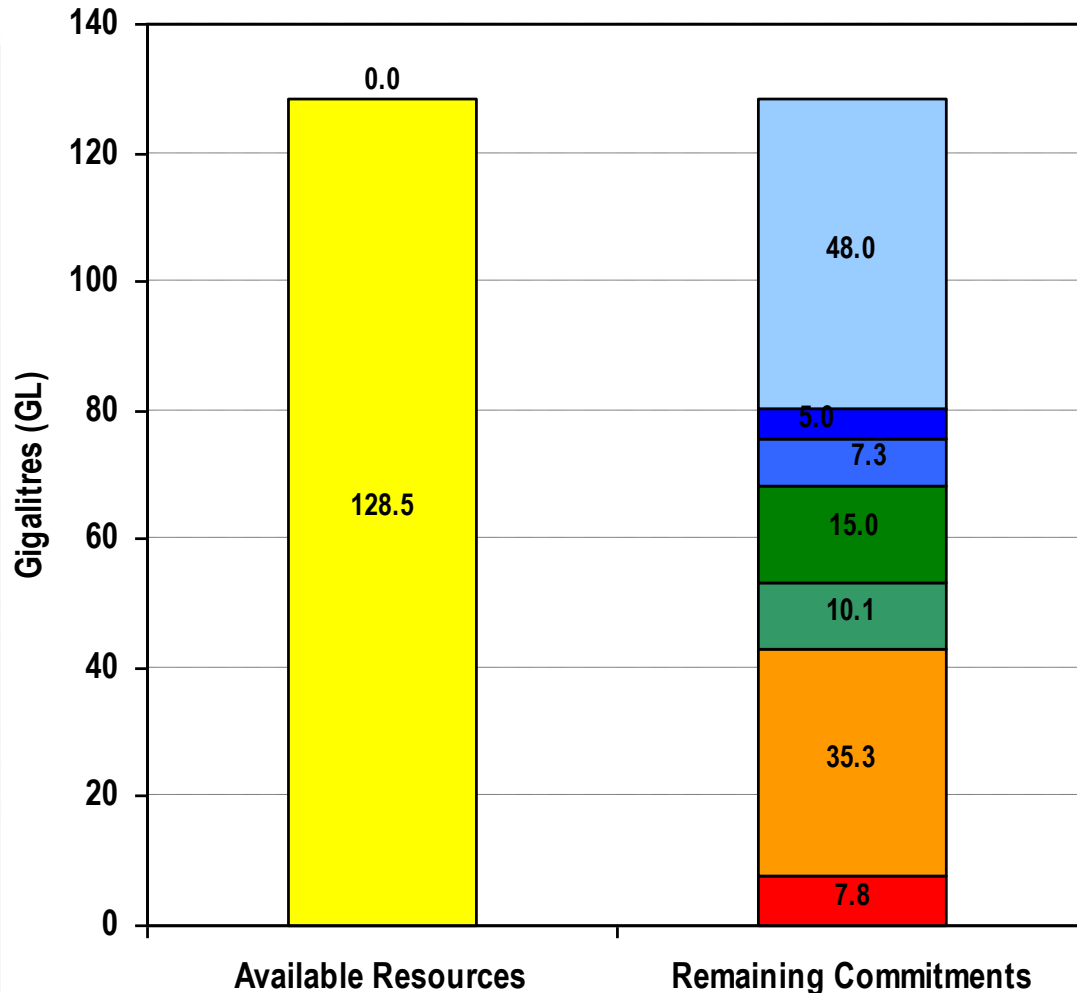
**Remaining Allocated Volume (including Carryover):** The volume assigned to water share holders under a 63% seasonal determination of high-reliability water shares plus the carried over resources that were allocated to water share holders in previous seasons, and are yet to be delivered.

*Source: Resource Manager*



# Loddon System

Breakdown of Water in Store and Commitments 16 December 2019



## Remaining Commitments

- Commitments for 2020/21
- Trade Commitments
- Volume for remaining 2019/20 commitments
- Remaining Allocated Volume (incl Carry over)
- Urban and Environment
- Storage and River Losses
- Volume Below Minimum Operating Level

## Available Resources

- Forecast Inflows
- Water in Store

# Loddon System

## Breakdown of Water in Store and Commitments: Terms and Definitions

**Water in Storage:** The volume of water held in Cairn Curran, Laanecoorie and Tullaroop reservoirs.

**Forecast Inflows:** The volume of forecast inflows in tributaries above the three Loddon storages that are yet to flow into storage. This estimate of inflows assumes there are no further rain events for the year.

**Volume Below Minimum Operating Level:** The volume of water that cannot be released through existing infrastructure under gravity.

**Storage and River Losses:** The volume of evaporation and other water losses from the storages and from the natural rivers, lakes and waterways that are part of the irrigation network. Also called headworks losses and includes minimum environmental flows.

**Urban and Environment:** Entitlements held by urban water corporations and the Victorian Environmental Water Holder.

**Volume for remaining 2019/20 commitments:** The volume available to support seasonal determinations increases up to the Goulburn system seasonal determination.

**Remaining Allocated Volume (including Carryover):** The volume assigned to water share holders under a 64% seasonal determination of high-reliability water shares (HRWS) plus the carried over resources that were allocated to water share holders in previous seasons, that is yet to be delivered.

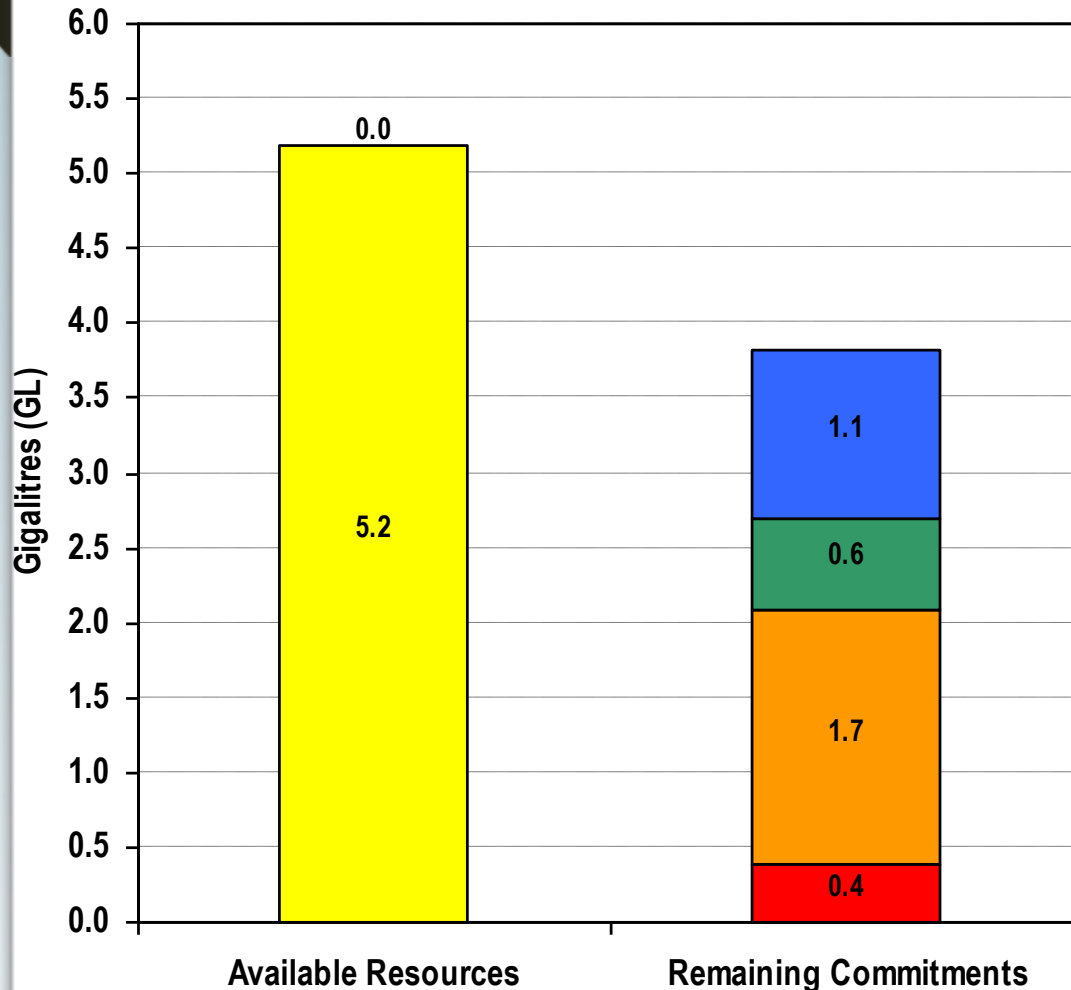
**Trade Commitments:** The volume of Loddon system water purchased by downstream systems that is yet to be delivered.

**Commitments for 2020/21:** Water that is reserved in storage to meet operating requirements and entitlements in the 2020/21 season.

*Source: Resource Manager*

# Bullarook System

Breakdown of Water in Store and Commitments 16 December 2019



## Remaining Commitments

- Remaining Allocated Volume
- Urban and Environment
- Storage and River Losses
- Volume Below Minimum Operating Level

## Available Resources

- Forecast Inflows
- Water in Store

# Bullarook System

## Breakdown of Water in Store and Commitments: Terms and Definitions

**Water in Storage:** The volume of water held in Newlyn Reservoir and Hepburns Lagoon.

**Forecast Inflows:** The volume of forecast inflows in tributaries above Newlyn Reservoir and Hepburns Lagoon.

**Volume Below Minimum Operating Level:** The volume of water that cannot be released through existing infrastructure under gravity at Newlyn Reservoir and Hepburns Lagoon.

**Storage and River Losses:** The volume of evaporation and other water losses from the storages and from the natural rivers, lakes and waterways that are part of the irrigation network. Also called headworks losses and include minimum environmental flows.

**Urban and Environment:** Entitlements held by urban water corporations and the Victorian Environmental Water Holder.

**Remaining Allocated Volume:** The volume assigned to water share holders under a seasonal determination of 100% high-reliability water shares (HRWS) and 100% low-reliability water shares (LRWS) including the carried over resources that were allocated to entitlement holders in previous seasons.

*Source: Resource Manager*