



ALL SAP MEETING | 5 & 6 JUNE 2018 | SESSION 2

Planning assumptions - Update of NSW cap factors

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Cap factors

What are they

- Cap factors are a water accounting tool to measure how much water has been recovered for the environment
- They enable different entitlement classes to be counted on equal terms
- They are a numerical value (from 0.0 to 1.0) assigned to each entitlement class, to allow the shares to be counted on equal terms even though entitlement classes are quite different in features.

Cap factors

What are they

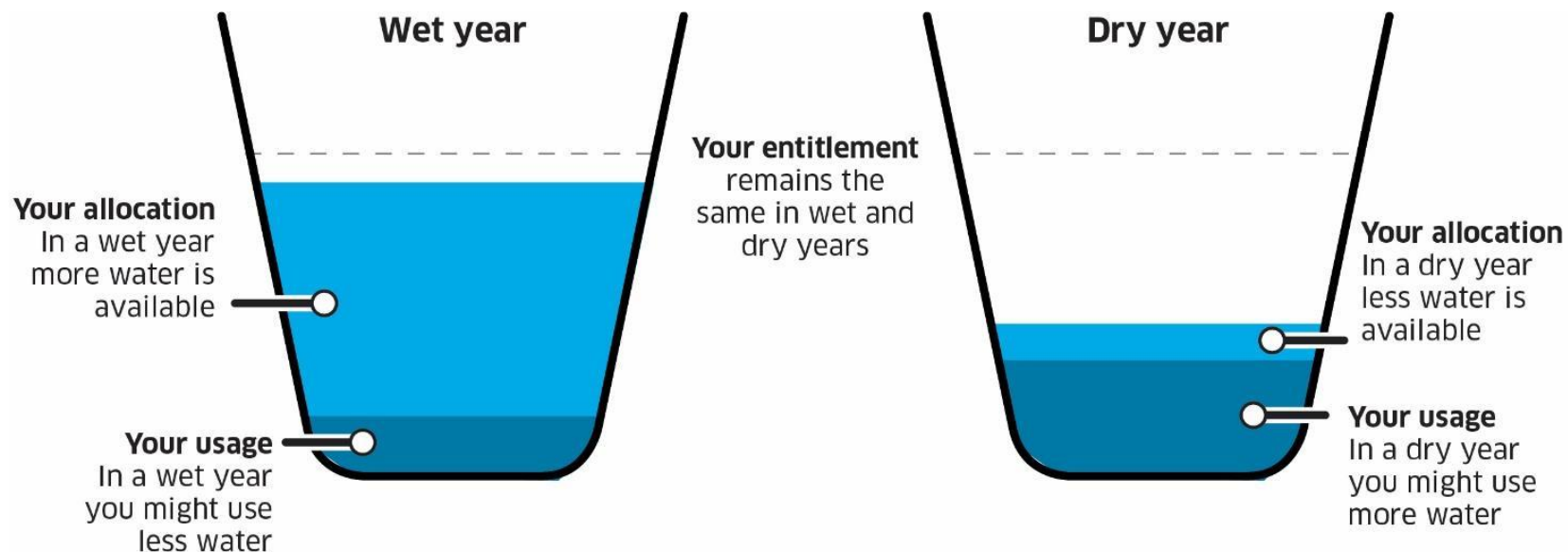
- Cap factors make sure that the water recovered for the environment is given a volumetric equivalent across entitlement types
- There are over 150 different classes of water entitlement in the Murray–Darling Basin
- We need cap factors to verify that the right amount of water is being recovered so it is important to look at the long-term average actual use of each class of entitlement

Cap factors

What they aren't

- Cap factors aren't an indication of reliability
- Cap factors reflect average historical use of water allocations and are not a measure of the actual amount of water entitlement holders can access
- Cap factors do not change the rights of water entitlement holders and they do not effect resource assessments
- Cap factors should not be used in assessing the value of water entitlements as an asset
- They are not the same as the MDB Cap

The relationship between entitlements and allocations



Why are we updating cap factors

- A set of cap factors was adopted in 2011 by the Ministerial Council based on a range of different sources
- Concerns have been raised that the methodology used was not as accurate as it could be, and not consistent across the Basin
- In 2015, all Basin governments committed to reviewing the methodology and the assumptions used to develop the first set of factors
- The NSW Government and the MDBA are confident the updated set of factors are realistic and reflect the best available information for this purpose

What will cap factors be used for

- The updated cap factors will be used to measure how much water has been recovered for the environment
- The updated cap factors will be more consistent and accurate across the Basin and take into account actual water use
- They will also be used to help guide any future water recovery decisions

How did NSW calculate the updated cap factors

- The updated factors take into account the most accurate and up-to-date information, including:
 - historical usage of allocations, including carryover
 - climatic patterns over more than one hundred years
 - water trade patterns
 - local rules associated with water access and allocation in each catchment area.
- We are confident that we have captured the best available information

How NSW determined updated cap factors

- Starting point is the MDBA BDL model. It provides the total long term water use up to June 2009 in a system (a volume)
- Examine the amount of water taken by entitlement and net trades between entitlement classes and systems (2004 -2016)
- This gives us the amount water that was available to use versus how much was used (the activation rate)
- For high reliability entitlement classes we assume long term water availability from BDL model will be used at activation rate - this gives the long term volume that was taken

- For Supplementary entitlement we assume the long term use is equivalent to the volume in the BDL model
- The remaining volume from the BDL model is then used to calculate the long term general security entitlement use
- The cap factor for each entitlement class is then determined by dividing the long term use by the number of entitlements for that class

Recovery volumes

| | RECOVERY - 2011 LTDLE Factors ('official' recovery) (GL) | RECOVERY - 2018 NSW New BDL Factors (GL) | LOCAL REDUCTION AMOUNT (2018) (GL) | TOTAL RECOVERY (INCLUDING SHARED AMOUNT) GL | OVERS/ UNDERS LOCAL TARGET on 2075 target (GL) |
|-----------------------|--|---|--|--|---|
| Intersecting Streams | 8.1 | 8.1 | 0.0 | | +8.1 |
| Barwon-Darling | 32.6 | 32.6 | 32.0 | | +0.6 |
| NSW Border Rivers | 3.3 | 4.2 | 7.0 | | -2.8 |
| Gwydir | 46.9 | 54.7 | 42.0 | | +12.7 |
| Namoi | 11.5 | 11.2 | 20.0 | | -8.8 |
| Macquarie-Castlereagh | 82.5 | 102.5 | 55.0 | | +47.5 |
| Northern Basin | 184.9 | 213.3 | 156.0 | 180.0 (Shared 24.0) | +44.8 |
| Lachlan | 49.6 | 48.2 | 48 | | 0.2 |
| NSW Murrumbidgee | 440.0 | 428.7 | 320 | | +108.7 |
| NSW Murray | 353.4 | 311.8 | 262 | | +49.8 |
| Lower Darling | 20.0 | 22.3 | 8 | | +14.3 |
| Southern Basin | 813.4 | 762.8 | 590 | 761.2 (Shared 171.2) | +1.6 |
| Total NSW | 1047.8 | 1023.5 | 794 | 989.2 | 34.3 |

What this means

- Water recovery in New South Wales is on-track
- More water needs to be recovered in two areas:
 - Namoi
 - Border Rivers
- Lachlan updated BDL model (improved data and model accuracy) should result in no further recovery
- Commonwealth to consider future recovery plans once factors finalised.

Have your say

- The New South Wales Government is seeking submissions on the updated factors
- We are particularly looking for feedback on certain aspects of the method:
 - Estimates of supplementary and general entitlements
 - Historical usage
- Technical report is available
- Feedback through the 'Have your say' website

Have your say

<https://www.industry.nsw.gov.au/water/plans-programs/water-resource-plans/stakeholder/public-consultation-on-water-recovery-accounting-factors>