

## Varying available water determinations and maximum water account debit

*The amount of groundwater that all water users can extract each year from a groundwater source is limited. If extractions exceed extraction limits, the Department of Planning, Industry and Environment may need to reduce groundwater access to return average groundwater extractions to these limits. This fact sheet shows the effects of the two methods available to manage groundwater access on an example water allocation account.*

If extractions exceed extraction limits by the buffer percentage in the relevant water sharing plan, the department may need to reduce access in the following year(s) to return extractions to these limits.

We can reduce groundwater access by reducing the:

- amount of water going into accounts (known as the **available water determination**), or
- amount of water that users can take or trade from accounts (known as the **maximum water account debit**).

The department can use one or a combination of these methods to limit the volume of water that licence holders can access from their accounts to return average extraction to the limits. More detail on these options is available in the [Managing groundwater extraction to limits fact sheet](#).

### Demonstrating the effect of these methods

Below, Table 1 and Table 2 demonstrate how varying the available water determination and maximum water account debit affect the volume of water added to a water allocation account and the effect that has on how much can be taken or traded from the account.

Table 1 shows five different scenarios (A to E), where either the available water determination (AWD) or the maximum water account debit (MWAD) is varied. Table 2 shows how these different scenarios would affect the water allocation account of a water access licences with 100 unit shares.

Please note that while the example includes carryover from one water year to the next, the percentage of carryover permitted in each groundwater source differs and carryover is not permitted in some groundwater sources.

Scenarios A, B and C show the effect of changing only the available water determination from 1 megalitre per unit share (ML/share) to 0.65 ML/share and then 0.25 ML/share. You can see that the allocation into the account reduces in Scenario B and C as the available water determination reduces.

Scenarios D and E show the effect of changing the maximum water allocation debit for the groundwater source from 2 ML/share to 1 ML/share.

Scenarios C and E show how trading into the account affects the maximum water account debit for that account.

# Groundwater management



## Fact sheet – managing groundwater extraction to extraction limits

More details of each scenario are provided further below.

**Table 1. Scenarios for varying the management method**

Management method	Scenario A – changing only the AWD	Scenario B – changing only the AWD	Scenario C – changing only the AWD	Scenario D – changing the MWAD	Scenario E – changing the MWAD
Available water determination (for the groundwater source)	1 ML/share	0.65 ML/share	0.25 ML/share	1 ML/share	1 ML/share
Maximum water account debit (for the groundwater source)	2 ML/share + trade in	2 ML/share + trade in	2 ML/share + trade in	1 ML/share + trade in	1 ML/share + trade in

**Table 2. Effects of each scenario on water allocation account with 100 unit shares**

Balances, volume added, taken or traded	Scenario A Volume (ML)	Scenario B Volume (ML)	Scenario C Volume (ML)	Scenario D Volume (ML)	Scenario E Volume (ML)
Carryover	50	50	50	50	50
Allocation INTO account (available water determination)	100	65	25	100	100
Trades INTO account	0	0	50	0	50
Water account balance	150	115	125	150	200
Maximum water account debit for THIS account (volume x unit shares + trades in)	200	200	200 + 50	100	100 + 50
Volume that can be debited (taken or traded) from account	150	115	125	100	150
Account balance not available for take or trade	0	0	0	50	50

## Scenario A

Under Scenario A (the yellow column of Table 1 and Table 2), the available water determination is 1 ML/share and the maximum water account debit is 2 ML/share, plus water traded into the account.

In this scenario, the example water allocation account of 100 shares has:

- 50 ML carried over from the previous water year
- 100 ML of allocation added to the account from the available water determination
- no trades into the account
- a water account balance of 150 ML
- a maximum water account debit of 200 ML.

In this scenario, the water account balance is limiting the volume the licence holder can take or trade out of the account to 150 ML. There is no water in the account that is not available.

## Scenario B

Under Scenario B (the blue column of Table 1 and Table 2), the available water determination is 0.65 ML/share and the maximum water account debit is 2 ML/share, plus water traded into the account.

In this scenario, the example water allocation account of 100 shares has:

- 50 ML carried over from the previous water year
- 65 ML of allocation added to the account from the available water determination
- no trades into the account
- a water account balance of 115 ML
- a maximum water account debit of 200 ML.

In this scenario, the water account balance is limiting the volume the licence holder can take or trade out of the account to 115 ML. There is no water in the account that is not available.

## Scenario C

Under scenario C (the orange column of Table 1 and Table 2), the available water determination is 0.25 ML/share and the maximum water account debit is 2 ML/share, plus water traded into the account. The licence holder purchases 50 ML from another licence holder.

In this scenario, the example water allocation account of 100 shares has:

- 50 ML carried over from the previous water year
- 25 ML of allocation added to the account from the available water determination
- 50 ML traded into the account
- a water account balance of 125 ML
- a maximum water account debit of 250 ML.

In this scenario, the maximum water account debit for this licence increased from 200 ML to 250 ML as the licence holder purchased 50 ML. The water account balance is limiting the volume the licence holder can take or trade out of the account to 125 ML. There is no water in the account that is not available.

## Scenario D

Under Scenario D (the purple column of Table 1 and Table 2), the available water determination is 1 ML/share and the maximum water account debit is 1 ML/share, plus water traded into the account.

In this scenario, the example water allocation account of 100 shares has:

- 50 ML carried over from the previous water year
- 100 ML of allocation added to the account from the available water determination
- no trades into the account
- a water account balance of 150 ML
- a maximum water account debit of 100 ML.

In this scenario, the maximum water account debit is limiting the volume the licence holder can take or trade out of the account to 100 ML. This leaves 50 ML in the water account that cannot be taken or traded this year, but can be carried over to next year, subject to any carryover limits in the relevant water sharing plan.

## Scenario E

Under Scenario E (the green column of Table 1 and Table 2), the available water determination is 1 ML/share and the maximum water account debit is 1 ML/share, plus water traded into the account. The licence holder purchases 50 ML from another licence holder.

In this scenario, the example water allocation account of 100 shares has:

- 50 ML carried over from the previous water year
- 100 ML of allocation added to the account from the available water determination
- 50 ML traded into the account
- a water account balance of 200 ML
- a maximum water account debit of 150 ML.

In this scenario, the maximum water account debit for this licence increased from 100 ML to 150 ML as the licence holder purchased 50 ML. The maximum water account debit is limiting the volume the licence holder can take or trade out of the account to 150 ML. This leaves 50 ML in the water account that cannot be taken or traded this year, but can be carried over to next year, subject to any carryover limits in the relevant water sharing plan.

## Summary

To manage extraction to the extraction limits, the department may need to reduce groundwater access by reducing the amount of water going into accounts (the available water determination) or by reducing the amount of water that users can take or trade from accounts (the maximum water account debit).

For more information, visit the department's website [www.dpie.nsw.gov.au/managing-access-to-groundwater](http://www.dpie.nsw.gov.au/managing-access-to-groundwater).

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