Murrumbidgee
Groundwater Inc

Feedback to

NSW DPIE

Managing Groundwater Access to Extraction Limits in the Lower Murrumbidgee Deep Aquifer

5th March 2021

Managing groundwater access to extraction limits feedback

This feedback is provided by Murrumbidgee Groundwater Incorporated (MGI) on behalf of groundwater users of the Lower Murrumbidgee Deep Aquifer. MGI have also encouraged individual licence holders to submit their own feedback.

Introduction:

MGI endorse the feedback given by NSW Irrigators Council, however there are a number of points MGI wish to specifically raise in relation to managing groundwater access to extraction limits in the Lower Murrumbidgee Deep Aquifer.

MGI congratulates the department on the development of the Groundwater Use Tracker. This is a valuable tool for irrigators and industry alike to obtain vital information about water usage as the season progresses. However, as with any tool, it is only good as the information entered. We are all responsible for ensuring the water use data is up to date, which includes meter readings and data supplied to iWAS.

Below we have addressed each of the questions supplied in the feedback form.

1. **Which option would best suit your business and / or your community? Why?**

Option E would be suit Murrumbidgee Groundwater Inc (MGI) irrigators. In this option, valley compliance would no longer be socialised but become an individual's responsibility. Simply, water traded out is noted as use from the sellers account, for compliance assessment. This option is explained in more detail in question 13.

Of the 4 options presented at the recent meetings, Option C- reduce water into accounts (AWD) and out of accounts (maximum water account debit- MWAD), is the option that would best suit MGI member businesses as it allows greatest flexibility and enables businesses to manage impacts. But MGI would expect to negotiate the reduction with the department, in the year that it is required, and preferably with as much advanced warning as possible. MGI do not accept a predetermined and specific number set in stone.

2. **Which option is least suitable for your business and /or community? Why?**

Option A (Reduce water into accounts only by reducing the available water determination) is the least suitable option for our community and the businesses of MGI members. Any reduction in AWD erodes the value of our water asset with finance institutions while also reducing the availability of water.

3. **How would reducing an available water determination (the volume added to your account at the start of the water year) affect your business?**

A Reduction in AWD limits the ability of business's to function to their fullest capacity and to the capacity that many businesses have made costly decisions upon. For example many decisions, such as crops planted, fertiliser and sprays applied and water traded in, are often made months in advance to any AWD announcement. In some cases water is leased years in advance and a reduction of AWD impacts the volume of water in the lease arrangements.

A reduction in AWD also leads to a reduction in water security for farm businesses with permanent plantings.

Reducing AWD also impacts the value of our asset with banks and stifles/impacts the water trade market.

4. **How would reducing your maximum water account debit (the volume you can take or trade from your account in a water year) affect your business?**

While reducing the maximum water account debit **r**educes productive ability, it still enables businesses to partially offset this by trading water in, if water is available and it is economic for the farm business to do so and does not impact the economic value of the water asset.

5. **Would a combination of reducing available water determination and maximum account debit be better suited to maximise your business or community outcomes? Why? Why not? (NOT relevant to Upper Macquarie).**

Yes a combination of reducing AWD and maximum account debit would be better than reducing AWD only. But as stated in point 1, MGI would expect to negotiate the reduction with the department in the year that it is required, preferably with advanced warning. MGI do not accept a predetermined and specific number set in stone.

Again, as stated in point 1, the preferred method is Option E, where valley compliance is no longer socialised but an individual's responsibility. With the option explained in more detail in question 13.

6. **Which of the following principles for managing extraction to the limits do you think are the most & least important and why?**

a. Each licence holder is allocated their share of the extraction limit (i.e. available water determination equivalent to the extraction limit divided by shares).

b. Each licence holder can extract their share of the extraction limit (i.e. maximum water account debit equivalent to the extraction limit divided by shares)

c. Available water determinations don't drop below 0.5 ML/share in the year 1.

d. Maximum water account debit is not reduced below 1ML/share.

This is a confusing question and the answer will change depending upon what perspective we look at it from.

(a) is in effect AWD. This can be said to be most important because it has the biggest negative impact on farm businesses if there is a reduction. So it is important this is NOT the method used in future.

(b) could also be seen as the most important, as individuals are responsible for their own accounts

(c) is important because if AWD dropped below 50% it would be devastating for many farm businesses. Like (a) any reduction in AWD is damaging.

From a production perspective, the order of importance is B, D, C, A (especially if individual accounts) because it is the system which will allow greatest production.

From a Water value and equity perspective the order of importance is A, C, B, D.

If we are looking at importance from a balance and fairness perspective the order is C,B,A,D .

7. **Are there any other principles and risks the department should considering determining the method used in your area? Why?**

Yes there are a number of principles that MGI feel should be considered and these include:

Individuals are responsible for their own Compliance within the averaging period (so that compliance is no longer socialised across all licence holders across the valley).

Water traded is noted as “use” from the sellers account, for compliance assessment.

Water ordering for groundwater.

Telemetry for groundwater used for irrigation and industrial use in at RISK aquifers. This would allow much more timely information and decisions if everybody knew that numbers in accounts was up-to-date. However, as the system currently stands there are problems with the seamless flow of data. MGI understands that at the moment the telemetered river pump meters are still manually entered- there is no point in having telemetry to collect and transmit data if it is not automated/computerised at the data “receiveal” end.

8. **Do you want to see extraction returned to the limit within a year or over a maximum of three years? Why and what are the risks to consider in adopting a one or three-year timeframe?**

MGI would like to see extraction returned to the limit over a three year period, as this will minimise negative impact businesses reliant only on groundwater as well the impacts on other licence holders and the wider community we live and work in. It is essential that this adjustment period is negotiated in consultation with stakeholders.

9. **What are your comments or concerns about the assumptions made to predict user and market behaviour in order to determine available water and / or a maximum account debit? What risks need to be considered?**

Predictive assumptions on usage are made without the benefit of complete real time data and final outcomes are often delayed. No consideration is given to individual accounts and water use patterns or strategies. Late release of final AWD/MWAD figures impact business planning.

These assumptions do not take into account the change in crop mix in the region. There has been an increase in permanent plantings which are only now starting to “come on-line”. We are still unsure what impact these new plantings will have on water use, water trade and volumes of carryover water in accounts, just to name a few.

The assumption that all water in accounts will be used is incorrect. Behaviour this year (with an AWD of 65%) has seen a reduction in the amount of water offered for trade which is contrary to your assumption that trade would increase. And we have no way of knowing what individuals thinking is behind this behaviour.

Behaviour and assumptions will vary against El Niño and La Niña scenarios, as will appetite for trade dependant on enterprise Gross Margins, which vary year to year.

10. **Do we need to alter our assumptions? If so, what assumptions do you suggest?**

Yes- Remove assumptions wherever possible by using data from water ordering, telemetry and grower intention surveys. MGI suggest you have a small group of irrigators as advisors, who can be called upon to provide input into assumptions when required.

11. **Do you have any comments on the implications of implementing new procedures by July 2021 on your business planning? When in the water year do you start planning your carryover, trade and water access for the following water year? What risks need to be considered?**

July 1, 2021 is too soon to implement new procedures. Many people and businesses have made costly decisions and investments based upon current/existing procedures. As noted in point 3 many decisions, including crops planted, fertiliser and sprays applied and water traded in, are made months in advance. In fact some businesses have leased water years in advance. Implementing the new procedures by July 2021 would be unjust and severely impact such businesses.

Planning for carryover, trade and water access begins in February/March. Therefore the earlier businesses have information the better they can plan for their farming business and minimise the impact any decision will have.

The ability of some business to offset reduction in groundwater with surface water needs to be considered.

12. **What are your views on introducing a transition period – only reducing available water determinations in 2021-22 if extraction by all water users in an area exceeds limits and then commencing new procedures that may include reducing the maximum account debit from 1 July 2022? What risks need to be considered?**

We are not sure what is meant by "**if extraction by all water users in an area exceeds limits".** Are you assuming all water users in the area are exceeding the limit, or the valley as a whole has exceeded?

Although we feel reducing AWD is the least wanted method, it would be fairest way in the short term, as businesses have made business management and investment decisions based upon the current procedures.

The major risks that need to be considered in the future is possibility a longer transition period will compound overuse. Although this will not be likely at this time, as water use this season looks to be well down.

Also continued used of AWD will erode water value and the underlying equity if there is a major reduction.

13. **Do you have any other comments, concerns or additional information you'd like to tell us about?**

MGI recommend valley compliance move from the current socialised process to an individualised method- or OPTION E.

Currently, compliance is socialised with current rules: (5 year rolling average with 200% Carryover, 200% MWAD or "Take").

Year 1	Year 2	Year 3	Year 4	Year 5	5 Year Total	Ave of 5 years
200 %	200%	100%	100%	100%	700%	140%

ALTERNATIVE OPTION: Option E.

Individual is responsible for Compliance. Take is made up of licence water used/pumped and volume traded out with no change to existing rules (Five Year rolling average with 200% Carryover, 200% MWAD or "take" in any one year, but limited to 500% in 5 years).

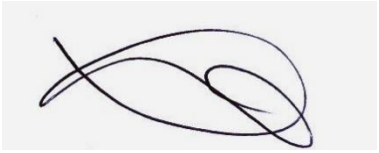
Year 1	Year 2	Year 3	Year 4	Year 5	5 Year Total	Ave over 5 years
200 %	200%	100%	0%	0%	500%	100%
200 %	100%	100%	100%	0	500%	100%
100%	100%	100%	100%	100%	500%	100%

Or any other combination.

This DOES NOT include water traded IN. That volume is counted towards the sellers MWAD “Take” (Max Water Account Debit). You may temporary trade in as per current rules on top of your 500%.

Move all users of groundwater to water ordering and telemetry for groundwater used for irrigation and industrial use in at RISK aquifers as this would allow much more timely information and decisions if everybody knew that numbers in accounts was up-to-date. BUT only if the iWAS system can receive the telemeted data. MGI understands that at the moment the telemetered river pump meters are still manually entered- there is no point in having telemetry to collect and transmit data if it is not automated/computerised at the data “receiveal” end.

Finally, we would like to stress the importance of MGI, and any other group who wish to be included, being involved in the development of the method to make compliance the responsibly of individual businesses rather than socialised across the valley as it currently is.



For Matthew Toscan
Chairman Murrumbidgee Groundwater Inc.