



Commentary regarding the Review of Irrigation Salinity Management Policy in South Australia – Issues Paper

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Background

This joint submission has been prepared by a consortium of three Regional Representative Bodies; Riverland Wine, the South Australian Fresh Fruit Growers' Association and the Almond Board of Australia. Together these organisations represent the vast majority of the region's irrigators and associated value-adding industries.

Riverland Wine represents 960 winegrape grower/irrigators as well as the Region's wineries that collectively produce approximately 30% of the national crush worth approximately \$143 million at the farm gate annually. Clearly, the industry is a major stakeholder in the WAP and would like to present the following for consideration.

The Almond Industry supports over 60 grower entities, including corporate operations, in the Riverland region covering in excess of 7,100Ha. This represents an estimated farmgate value of \$103 million. In addition to this, the region supports the operation of three hulling/processing facilities spread across the region.

The Consortium member businesses are all directly affected by any policy which impacts, either positively or negatively, on the quality and availability of irrigation water from the Murray River. Furthermore, it should be noted that the Consortium members are supportive of the Murray Darling Basin Plan and policies which have a positive impact on the River and the Basin's environmental health.

It is also important to recognise that the Basin's irrigators in general and these in South Australia, in particular, have made very considerable advances in the last 40 years through investing in the latest technologies and irrigation management systems. WUE is now very close to optimal and the irrigators are justifiably proud of this considerable achievement.

The Consortium submits that these achievements must be taken into full consideration when formulating policy and those policies must be reviewed regularly and adjusted when further WUE gains have been achieved.

Executive Summary

It is encouraging to note that the Issues Paper makes frequent reference to and acknowledges that “there is additional capacity for irrigation development within available salinity credits¹”; “that annual water use is much lower than volumes available on Site Use Approvals²” and that options should be considered “to revise the zoning policy [to determine] how best to make that capacity available to support new irrigation development³”.

If these three key points are fully acknowledged and the policy reviewed on the foundation of scientific evidence-based data, then collectively, we have a real opportunity to refine and hone policy to deliver the optimal balance of both environmental and economic outcomes.

It is important to fully acknowledge the fact that irrigation management and irrigation water delivery techniques have not been static over the last 40 years in the Riverland. In the last 10 years, in particular, very significant advances have been made which have driven down water usage and virtually eliminated the need for the very comprehensive network of subsurface drains in the region. Irrigation water applications now closely match crop usage and very little (other than the minimum required to leach the salt applied via the irrigation water) goes past the root systems.

These significant improvements have also been driven by a concerted effort through proactive programs to encourage investment in better infrastructure and management techniques. The most recent of these (and still operating) is the SARMS 3-ip program which will reduce the water required for irrigation within the State by 40GL, all of which is being redirected to environmental flows.

Good long-term policy requires regular reviews to ensure it remains appropriate and accurately reflects the current operating environment. In the arena of irrigation and crop management new technologies have made significant improvements to both WUE and productivity/ML. This trend continues and must be encouraged and supported by regular policy reviews and updates to reflect these changes.

¹ Issues Paper p14

² Issues Paper p14

³ Issues Paper p14

Introduction

Thank you for the opportunity to comment on the Issues Paper regarding the review of salinity management policy in South Australia. The Consortium would also like to commend the Department on reviewing the policy in a timely manner and note that the Issues Paper raises a number of important points that clearly indicates the input from previous consultations has been heeded and properly considered.

We are of the opinion that there is no doubt, there is a need for good, scientifically based salinity management policy in order to ensure we obtain the best mix of policies and principles to drive the MDB Plan. With this in mind, we would suggest that future communications and consultations be structured in a way to encourage and promote a more collaborative approach across the numerous stakeholder groups. This will hopefully provide a more considered and balanced response, being developed from the interaction and discussion of the various perspectives.

The Consortium fully agree with the stated matters to be considered in the Review under “Future Management Consideration” on p22, but the following four are of particular importance:

- Opportunities to maximise irrigation development within volumes allocated on site use approvals – without affecting the capacity of existing approval holders to develop.
- Improving clarity and certainty regarding irrigation development, under the salinity management policy in South Australia, over the next 15 years.
- Improving the flexibility to change crop types where additional salinity impacts are unlikely.
- Any changes required due to updated hydrogeological information.

To these matters, we would like to add two that appear to have been overlooked:

- Any changes required in either policy or modelling to reflect and take into consideration updated irrigation WUE information and improved irrigation and drainage management techniques and technology; and
- The opportunities available to the State and region in regard to taking a more proactive and strategic approach to future irrigation development and economic enhancement within the South Australian sector of the MDB.

Key Points of Interest in the Issues Paper

4. Overview of Salinity Zoning Policy

The Basin Plan and its various associated policy frameworks, such as the SA Salinity Management Policy, are becoming increasingly significant to stakeholders, possibly because these policies increasingly influence their business decisions. It is time that policy and opportunity were brought together to actively drive regional economic and environmental planning and development. A coordinated, proactive approach to optimising the opportunities and benefits afforded by the limited resources of water, soils and environment would be a significant (and smart) initiative.

It is submitted that policies such as Salinity Zoning, should not be developed in isolation of the positive opportunities they could also identify and facilitate. Salinity Policy ultimately is not just about the narrow focus of salinity, it is about contributing to the optimisation of a much bigger picture: the economic and environmental opportunities in the SA MDB region.

Nonetheless, it is acknowledged that very significant progress in salinity management in the region has been made over recent decades and the “proof is in the pudding”the significantly lower salinity levels being recorded in the Murray River.

4.2: How does the policy regulate irrigation development?

It is noted that it is stated that, “without regulation it is likely that most irrigation development would locate close to the River Murray in the highest salinity impact areas to reduce costs associated with pumping”. This is only partly true and potentially misleading. While it is true of developments historically (and these developments must be protected and sustained within the policy due to infrastructure and socio-economic imperatives), things have changed.

Larger, often corporate developments have become increasingly common and now form a very significant proportion of irrigated development in the region. These larger holdings are attracted to the larger land parcels of sandier, well-drained soils just beyond the valley floor. These areas, while having larger pumping costs, are easier to develop on the scale required *and are typically in the lower salinity impact areas*. Good examples of these developments include vegetables and almonds north of the river along the Morgan road and at Murtho. All of these are very large developments, often of 1,000ha or more, generating very substantial wealth for the region, the State and exports.

Newer irrigation developments tend to be much larger than historical developments and require significant areas of suitable land. The trend is therefore away from the river valley, into lower salinity impact zones. This trend is a positive one that must be recognised and supported, while at the same time ensuring the ongoing sustainability of the historical high impact zone irrigation areas.

Good policy regarding issues such as irrigation and salinity must only ever be evidence-based. Policy needs to be scientifically sound and whenever assumptions are required to formulate this policy, these must be challenged and proven.

The Consortium understands that often there is an initial imperative to quickly address an important issue, often when all the facts are not yet known. Arguably, this was the case when the salinity policy for SA was initially developed. However, two things have changed over time; knowledge and irrigation management techniques. Additionally, South Australia has been significantly and positively impacted in this arena by a number of initiatives which have significantly contributed to these changes in the region. These include the On-farm Irrigation Efficiency Program, the Irrigator Exit Grants and more recently the SARMS 3-IP Program.

The SARMS program alone will deliver a total of 40GL to the environment, and thus directly, significantly and permanently reduce the region's irrigation water usage. In doing so, it reduces salt delivered to the aquifer, reduces the impact of drainage water raising the level of the aquifer and thus the ingress of saline water into the river basin. In addition, the increased environmental flows dilute the salinity level in the waterways.

These are significant changes and must be acknowledged and accounted for in the salinity policy review.

Policy must be reviewed regularly to identify and take into account all significant changes to irrigation water use volumes, improvements in WUE and the aggregate change in salinity impacts on the river system.

5: Status of Available Salinity Credits

On page 13 it is stated that, "Analysis of irrigation water use shows that the volumes of water being used are actually much lower than the site volumes against which credits are assigned". It is further stated that, "This indicates there is a capacity for new irrigation development to occur both within assigned credits and the remaining available credits".

This is a key point which clearly indicates that the policy regarding salinity credits is now probably out of step with the reality of the more recent WUEs being generally achieved. The underlying assumptions supporting current policy are now most probably dated and require a review and updating.

The Consortium agrees fully with these statements and submit that this seems to indicate that salinity credits required/ha to offset the salinity impact are falling – a key point we wish to make. However, it is not clear how this important and ongoing factor is being acknowledged and fully factored into policy development and implementation.

We would also like to note that in general this area of policy is not well understood by stakeholders, and while it can be complex, there is a need to provide a simple explanation to assist communication and understanding.

6. Current Water Use Capacity on Site Use Approvals

This section, correctly in our opinion, clearly makes the points that should be at the core of the review and set the assumptions to drive the review. These are:

1. “there is additional capacity for irrigation development within available salinity credits”;
2. “that annual water use is much lower than volumes available on Site Use Approvals”; and
3. that options should be considered “to revise the zoning policy [to determine] how best to make that capacity available to support new irrigation development”.

It is submitted that the review follows up on these points and that they are included in the review’s brief and methodology. We further submit that evidence-based scientific data be used as the basis of considering and modifying the policy when taking these factors into consideration.

The Salinity Policy appears to have provided an unintended outcome, one that is potentially an important opportunity for the region; there is a significant amount of unallocated salinity credits and significant potential for further development of irrigated horticulture in the region. From the information provided, approximately 191GL⁴ is potentially available for further development.

Is there a policy regarding this significant potential to further develop the region’s economic base?

Significant opportunities to optimise the Basin’s economic potential must be identified and incorporated into the Salinity Policy in a coordinated approach to managing and promoting regional development.

As in the case regarding understanding the concept of Salinity Credits, there is room for improvement in the understanding of SUEs and their impact (trading, constraints etc) by the stakeholders and this could be assisted by wider communication of the concept in an easy to understand format. This would greatly assist in encouraging higher levels of irrigator participation, improving the two-way communications and opening up the possibility for an improved range and quality of the options being raised and discussed when formulating future policy.

8.2 Transfer of Site Use Approval Volumes

It is acknowledged that the issue of the transfer of Site Use Approval Volumes is a difficult area. However, local experience and feed-back has raised the following issues and concerns which should be addressed in the review:

1. Irrigators can potentially lose SUA volumes if they change to lower water use crops.
2. Irrigators may lose the ability to move to more profitable crops which require greater irrigation volumes.
3. SUA determinations are fixed in time, and are not necessarily cognisant of improved technologies and WUEs and do not recognise that changes are likely and desirable.
4. The opportunity for freeing up salinity credits quarantined for prior commitment claims that may not eventuate.
5. Reviewing the policy emphasis on ensuring no net increase in volume of water authorised for use in High Impact Salinity Zones. It would be more effective to ensure *no net increase in salinity impact* in these areas to acknowledge and take advantage of improving irrigation technologies and the consequent improvement in WUE.

⁴ Table 1, p14.

6. Ways and means whereby the developments and supporting infrastructure in the high salinity impact regions can be sustained in the long term as these areas typically provide the fundamental foundation for the local economies and amenities.
 - We need to ensure that policies do not preclude redeveloping properties (particularly in the High Salinity Impact Zones) with crops that have higher water requirements (but not necessarily with a higher salinity impact) than current plantings. This effectively “traps” irrigators into ever decreasing water usage crops and/or forces them to continue with uneconomic crops, regardless of economic outlook. It would also eventually make the properties unsalable for the same reasons.

8.3 Changing to Higher Water Use Crops

This issue is an extremely important one to consider when looking at the long term viability of the more established irrigation areas along the Murray. It needs to be realised that all primary industries have their economic cycles and for various reasons can become unviable to produce. For example, if growers producing crops with relatively lower water use per hectare, such as winegrapes, were to find the crop unviable and there was an option available to convert to a higher use but viable crop, then this option MUST be available to them. If not, the options available would be crops of equal or lower water usage. Even if these are available, it sets up a cycle of only growing equal or lower water usage crops, a parameter which becomes increasingly difficult to meet.

It is acknowledged that in general these areas fall within the high impact zone, however they have a number of special issues which must be considered:

1. They are the economic foundation of the towns that service these areas;
2. The irrigators are serviced by extensive, well maintained irrigation delivery infrastructure;
3. This infrastructure would eventually be left stranded if growers were denied the ability to change crops (including to higher water use crops) as economic circumstances changed and they became financially unviable; and
4. The continual and dramatic improvement in WUEs in the region has had a significant and positive impact on irrigation water usage and therefore the potential impact on the salinity impact from these activities.

9 Water Use Efficiency Policy

There is no doubt that a good water efficiency policy is required to support and assist the implementation of appropriate salinity management, and it is pleasing to see this included in the Issues Paper.

However, while there is no doubt the region’s irrigators and infrastructure managers have made significant progress in this area, it does not necessarily follow that this is as a direct result of SA’s Salinity Management Policy. There have been many drivers for this improvement, some being very significant, for example the SARMS program. There is potential for DEWNR to take a much more proactive role in this arena. Having policy and guidelines is one thing; making it all happen is quite another matter. There are some significant opportunities to further “raise the bar” with WUEs which have received little acknowledgement to date. Probably the best example is the concept of

“Optimisation” management which has led to extraordinary results in the almond industry in both raising WUE and productivity/ML.

It is submitted that along with setting appropriate targets and guidelines, DEWNR should take a more proactive approach to fostering further gains in the region’s WUE achievements.

10 Communication and Engagement

While it is considered that there has been a significant attempt to ensure good communication and engagement to date with the stakeholders, this has been limited by the general lack of understanding by the stakeholders. Understanding tends to drive engagement and fosters the development, presentation and discussion of a greater number of options and perspectives. Simple, nontechnical factsheets and communications are important to facilitate this. Using cryptic terms like “a total of 7.38 EC of salinity credits⁵” does not help.

⁵ Page 13, para 3.