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INDUSTRY SIX POINT FRAMEWORK FOR THE WINDSOR INQUIRY

Representatives of irrigated agricultural Industries in NSW appreciate the opportunity to tender the following submission to the Standing Committee on Regional Australia in support of the Committee's inquiry into the likely impacts of the Murray Darling Basin Proposed Basin Plan on regional communities.

Irrigated agriculture – a profile in 2010

- Food and fibre producers in the Murray Darling Basin are among the worlds best in terms of productivity and water use efficiency. A decade of debilitating drought has sharpened these efficiencies

- Evidence abounds that Basin irrigators have been at the forefront in Australian business in embracing new technologies and improving productivity as part of a continuing process during the past 20 years and more

- Small but vital Basin communities, local infrastructure and civil amenities throughout the basin exist solely because of the economic impetus of food and fibre production over several generations

- Perceptions championed by some activists that irrigated agriculture in the Murray Darling Basin is environmentally unsustainable are wildly inaccurate and based more on emotion than clear scientific evidence.

Irrigators and dryland farmers do not in principle, or in fact, oppose governments' desire to increase environmental water flows in the Basin but this must be done in a manner that recognises the true nature and value of this vital resource in both human and ecological terms

The challenges of bringing together the States and regional communities that make up the Basin on a positive journey to implement the Murray Darling Basin Plan cannot be underestimated.

Forward thinking, long-term 'lateral' policy solutions are critical to optimising the use of water resources if we are to see positive environmental outcomes, healthy rivers, and a viable future for irrigated agriculture and Basin communities.

All solutions are inextricably linked – we cannot better manage the environment without better managing all water use across the Basin.

Achieving the best outcomes requires an adaptive approach where governments partner with communities with a mission to deliver a new Sustainable Diversion Limit (SDL) through improved water management and improved infrastructure.

This approach will require smarter, more flexible and adaptive management of water resources for communities, irrigated agriculture and agribusiness and the environment in the Murray Darling Basin.

It is clear that the present strategy for water recovery needs to be overhauled. Regions are seeking acknowledgement that smart water management solutions are an essential priority.

The following six point framework is based on the Inquiry's Terms of Reference and is provided for the Standing Committee's consideration.

TERMS OF REFERENCE – 1

Point 1: New, world-first Australian technology is driving innovation and real solutions in our water industry.

The Australian Government is rolling out a National Broadband Network to bring regional Australia and our cities into the 21st century, but is it applying a similar approach in technology and thinking for our future water management? No, and the Standing Committee should be asking the question – why?

Any focus on options for water-savings measures or water return on a region–by-region basis must have, at its core, the adoption of the latest water management technology. This is the only way to provide future community confidence, equity and accountability in the use of our future water resources.

Currently, there is confusion within the community as to how government will implement the Basin Plan in partnership with community and with the States. Reform of other industries has shown that unless Australian (and international) technology is linked to water reform and adjustment to provide 'smart water use' that benefits all users, irrigators and the environment, then our regional community will continue to question the veracity and delivery of the Basin Plan.

The community is demonstrating it can adjust to a lesser water future and is willing to accept change – with the support of modern real time monitoring technology – if it will provide better management of our river and irrigation delivery systems. Better management means smarter use of water once it is released from storage through to the farm or for river and environmental flow benefits.

To deny regions, river managers and irrigators this technology will constrain innovative and clever water use and Sustainable Diversion Limits (SDLs) will not be managed effectively. 'Smart systems' will minimise the quantum of water required to achieve the desired environmental response, just the same as better meeting crop water demand based on measuring water deficits.

For community to support change they must see and recognise that this change will confer benefits to their regional future, as well as the environment.

Point 2: Modern infrastructure upgrades use cost-effective and innovative water delivery technologies to provide real water efficiencies, real user benefits and real savings.

Investment in water use efficiency through infrastructure by government is an investment in the future of rural and regional communities and jobs. On the other hand, government buyback of water is the permanent removal of a productive long term asset from rural Australia.

It has been suggested that current water dependent communities can simply embrace new industries e.g. become an IT hub or develop new tourist attractions to offset the loss of water. Unfortunately, the reality for most water dependent communities is that water means jobs and value-adding.

The socio-economic ramifications of water permanently leaving many communities should not be underestimated.

The current Commonwealth water buyback program is, in many cases marginalising regional irrigation assets and delivery systems. A more planned and strategic approach is required rather than what appears to be the current 'scatter gun' approach.

Buying back water without sound planning risks leaving people stranded, risks leaving irrigation communities saddled with increasing operational costs as well as facing significant reductions in income.

Water purchase does have a role but only when 'integrated' with other recovery programs (as a total river system approach) in order to rationalise or adjust the system by targeting buybacks in marginal irrigation areas while simultaneously modernising the remainder of the system. Without this, delivery of the Water for the Future Program will leave the regional community with significant costs. This will also fail to deliver the National Water Industry reform agenda.

The Basin Plan must better recognise the social and economic circumstances of Basin communities that depend on the basin's water resources. The Australian Government needs to adopt a partnership approach with the States to provide regional local solutions to water reform in conjunction with water recovery.

The MDBA proposes to develop the Basin Plan on the basis of a number of factors including socioeconomic analysis which will include social, cultural, Indigenous and other public benefit issues. The MDBA will use the socioeconomic analysis to inform how, where and when water can be delivered to meet environmental requirements.

Once the Sustainable Diversion Limits have been determined the MDBA will assess the socioeconomic implications of any reductions in the long term average sustainable diversion limits and provide a report to the Murray–Darling Basin Ministerial Council along with the proposed Basin Plan. Governments will then use this information to consider appropriate responses to social and economic impacts of the Basin Plan.

However, one has to question why we are not seeing a concurrent strategy being developed with the States to provide for cost effective infrastructure water recovery together with smart water use. Despite recent press to the contrary from reported academics, water infrastructure projects are cost effective based on scale, and there are numerous case examples to demonstrate this fact.

This would be undertaken with regional community support along the entire river system in a planned way so that cost efficiencies can be achieved and legacy benefits for the community can be built into the Basin's irrigation future.

To confer a permanent cut back in licensed entitlement without the 'tools' to prosper with less water is not an option for the community. Notwithstanding this, governments have a responsibility to ensure that all usage of water is fully accountable in terms of daily use (using 'real time' flow measurement) by either the consumptive user or the environment.

TERMS OF REFERENCE – 2

Point 3: Total water system management and measurement from dams to all users including the environment, is essential to improving water delivery, use efficiency and accountability for all users.

There has been significant criticism of a socio-economic approach to the Basin Plan by special interest groups like the Wentworth Group of Concerned Scientists and others. It is their view that, unless environmental issues are addressed and factored into economic evaluations, the socio-economic studies are not complete.

One problem inherent in this argument is how to reach agreement on the true and realistic value of the 'environment' in the MDB. Furthermore, people's views on what constitutes a healthy long-term river basin environment may differ widely, while resorting to an overtly precautionary principle risks creating significant long term opportunity costs.

Within the Basin there is an array of natural and modified wetlands and numerous engineered infrastructures. It is clear that our natural river systems are no longer 'natural', that is, they are almost all modified by dams and weirs and diversion structures. What therefore are we really trying to achieve when we transfer water away from the production sector and, how do we know we have the right systems and resources in place to ensure such a transfer delivers the benefits that are being touted in an efficient manner?

How should we make decisions on environmental versus productive water shares in situations where community, industry and recreational works have significantly changed 'natural' conditions?

Clearly, integrated environmental watering solutions are required rather than treating consumptive and environmental entitlement as separate management regimes. We need to look at river systems as a whole, define environmental targets based on flow responses, maximise water efficient engineering solutions and ensure real time flow management and recording of daily flows.

This should be undertaken concurrent with a similar program for water diversions and entitlement recovery should be linked to system modernisation programs rather than simply buying water first and worrying about the community consequences later!

This simultaneous consideration is important otherwise we may find an embarrassing and economically damaging situation where too much water has been clawed back and regional economies begin to seriously contract.

The plan needs to contain a robust and transparent mechanism to facilitate movement of environmental water into irrigation water markets in times when there is excess run-off so that Basin irrigation farmers can continue to manage the variability of their environment and maintain Australia's position as a key producer of food and fibre for an ever more demanding world.

Total water system management also supports options trading between the environment and the irrigation market. This enables the trade of water between uses, dependant on certain conditions, therefore providing more effective use of the resource.

For example, if allocations in any one year reach a threshold level to meet an irrigator's crop water requirements then an irrigator may be prepared to sell an option to trade the annual allocation for use by an environmental manager to piggy back flow requirements. Conversely in some years the environment may be prepared to sell water use right options to irrigators as the water may not be required based on environmental watering plans targets already being met.

This trading facility enables risk management between both sectors whilst supporting each other in making 'surplus' annual water use flexible at any one time, therefore more effective use of water within a system.

Point 4: The future delivery of the Murray Darling Basin Plan will rely on computer driven water system modelling and management, but without river and delivery system real-time flow measurement and the adoption of new computer management technology, our future water supply is at risk and diversion limit targets will not be met.

Real time measuring and monitoring of the Basin catchment flows is very important to improving the efficiency of our water management. At present our river systems and their operators do not provide accountability and equity for all users.

How can you demonstrate progressive, adaptive management if you cannot effectively measure and manage flows down our rivers systems? Smart water delivery and use may in fact reduce the SDL requirements outlined in the Guide to the Plan.

The 'Murrumbidgee River Efficiency Project' is an example of a project providing multiple outcomes for the irrigation community *and* better flow management of the river. In this case the aims are very clear and the approach is a balanced one with benefits to all.

The Murrumbidgee project was developed by Water for Rivers with the support of the NSW Office of Water and State Water and its objectives are to:

- improve water delivery service and efficiency to users;
- generate water savings;
- better match irrigation delivery with crop water demand to enhance production; and
- improve the health of wetlands and the riparian environment of the river system.

This Project is a 'real time' example of government and industry development of river infrastructure and management solutions to deliver genuine social, economic and environmental benefit. If it can be done here why can't it be done throughout the entire Basin?

Governments and water managers need to look at efficiency gains across in the wider Basin. For instance, the Menindee Lakes and the Lower Lakes have been recently highlighted as being

places where substantial savings can be made without reducing the water supply to productive agriculture and hence not threatening the socio-economics of Basin communities.

Point 5: Environmental water recovery requires smart water systems to provide a common platform to manage delivery to our environmental assets.

The MDBA Plan is 'securing water for the environment' but community and regions need to have greater clarification on how that water is to be used and managed by river and irrigation operators, for targeted environmental benefit.

If there is no genuine, validated and accountable Environmental Watering Plan (one that has credibility in meeting environmental objectives in a balanced way) with benchmarks, measurement of environmental gain and requirements for efficient use of the water (and minimise consequential flooding), then there is a huge risk that the significant environmental benefits that are hoped for will be seriously compromised, leaving commercial agriculture and the Basin communities seriously and permanently water impaired.

<u>Holistic Environmental Management</u>

It is clear from a range of experiences and studies that simply adding water alone to wetlands and environmental assets will not necessarily produce the best environmental gains.

A holistic approach which integrates land management, fauna and flora management and good science is more meaningful. This approach is not one being demonstrated by most government authorities/agencies nor by funded environmental groups. Efforts by others (e.g. the Macquarie River Food & Fibre in the Macquarie Marshes and groups in the southern valleys) to seek 'long term local solutions' are not given due recognition and support they deserve.

Water efficiency gains created through a holistic management system could, at appropriate times, be sold back into the relevant valley irrigation system to help fund continuing development of holistic management practices. However, this cannot be done without smart water systems and real time management to ensure all water use is accurately accounted for in daily use.

Integrated environmental watering solutions must be developed; treating consumptive and environmental entitlement as separate management regimes is not tenable. We must look at the river systems as a whole, define environmental targets based on flow responses, maximise engineering solutions and ensure real time flow management and recording of daily flows (similar to what is being done with the Murrumbidgee Project).

An innovative way to achieve environmental or social benefits without requiring additional water is to leverage the flow of consumptive water when being delivered to water users. For example, environmental water could 'piggyback' irrigation flows to water river red gums and deliver consumptive water through floodplain runners.

The Australian Government should investigate the development of a partnership for environmental water management programs between State and Commonwealth environmental water holders to enhance management and efficiency of environmental water use.

TERMS OF REFERENCE – 3

Point 6: The debate about Plan targets has marginalised logical discussion on how government delivers future environmental watering plans. Providing new technology for regional water management holds the key for future partnerships between community, irrigators and the environment.

Despite there being far more funds available in the Water for the Future Program assigned for water use efficiency (WUE) investment than for entitlement 'Buy Back', there is little or no WUE program progress. The delivery models for efficiency improvements need to be enhanced and discussed with industry.

Local irrigator bodies are very concerned over difficulties with communication, red tape, complexity and layers of bureaucracy (e.g. CMA, State Water, and DEWHA). Resources to deal with water matters – especially at the regional level – seem very thin and diminishing. Can the system be rationalised into a more simplified structure with improved communications?

The competitive tender process for rationalisation of irrigation schemes has created a lot of inefficiencies. There is an unwillingness to share information between schemes despite a common goal of targeting the best and most efficient outcome, which only fills the pockets of planners and lawyers through unnecessary duplication.

Irrigators would prefer a more collaborative approach based on making cost effective tradeoffs. This was done as part of the Living Murray process however, with the revision of the Basin cap and potential to significantly impact regional community (e.g. halve the amount of licence share in the Murrumbidgee Valley) a hierarchical approach is needed which is based on a total river system approach extending to irrigation areas. This will ensure a proactive and partnership response to the Basin plan.

Despite reducing services and the fact that more water is being retained for and diverted to the environment, fewer and fewer agricultural water users are left to share the ever-increasing water administration and delivery bills without recourse.

Significant agency costs need to be removed from irrigator's accounts immediately. Government has forgotten that the other beneficiaries of water storages such as the

environment (there would be no environmental flows in drought without storages), town water security and flood mitigation incur a cost that should be shared by the greater community not just irrigators.

We need to develop a hierarchy of response to improving rivers system and irrigation efficiency. Buybacks should be targeted at areas where wind back is clearly justified and system efficiencies are very poor. Other areas should be allowed to continue to be irrigated into the future.

Local regional solutions should be developed based on this hierarchy together with river system communities to enable proactive amendments to water sharing plans. These responses should be developed and linked to the NSW Government response to integrate the Water for the Future Program and the broader NSW response.

Appropriate funding allocations in addition to existing Federal Government commitments need to be made to ensure local regional solutions can be effectively implemented and resourced within an agreed regional community response i.e. targeted buyback, total system upgrade and metering including on farm efficiency programs.

The Standing Committee should review the delivery model for the Basin Water for the Future Program due to the current ineffective infrastructure program developed by the Commonwealth and seek improved governance and effective project and program development that delivers bankable solutions that meet the needs of the Basin's irrigation community.

Put simply, we must integrate State and Commonwealth programs that include modernisation, measurement, water purchase and structural works with the co-ordinated management of environmental entitlement. Only then will we deliver a future for the Murray-Darling Basin that provides harmony between the social, economic and environmental aspirations of the Basin community and the wider Australian populace.

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