

INQUIRY INTO ECONOMIC AND SOCIAL DEVELOPMENT IN CENTRAL WESTERN NEW SOUTH WALES

Organisation: Macquarie River Food and Fibre

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Inquiry into economic and social development in central western New South Wales

Macquarie River Food and Fibre

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About MRFF

Macquarie River Food and Fibre represents the interests of irrigated food and fibre producers in the Macquarie Valley. Our membership comprises riparian irrigators along the regulated section of the Macquarie River downstream of Burrendong Dam, the groundwater irrigators of the Lower Macquarie Groundwater Sources, as well as the individual members of the Valley's seven off-river irrigation schemes being the Buddah Lake, Greenhide, Narromine, Nevertire, Marthaguy, Tenandra and Trangie Nevertire irrigation schemes. MRFF is supported by a number of associated local businesses.

About this Document

This paper has been prepared in response to the Terms of Reference for the Inquiry into economic and social development in central western New South Wales, as instigated by the Parliament of NSW Legislative Council Standing Committee on State Development. The submission is provided on behalf of irrigated food and fibre producers in the Macquarie Valley however it is noted that our individual members may wish to provide their own submission in response to the Terms of Reference for this Inquiry.

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1. INTRODUCTION

Macquarie River Food and Fibre (MRFF) is the peak industry group for irrigated agriculture in the Macquarie Valley. We are a non-profit organisation assisting our members to develop and maintain efficient, productive and profitable irrigation enterprises. We do this by developing, supporting and implementing a range of policies and projects relating to the allocation, delivery and use of water resources in the Macquarie Valley.

MRFF welcomes the opportunity to provide a submission to the NSW Government's Standing Committee on the State Development inquiry into economic and social development in central western New South Wales.

MRFF has recently worked with the Narromine and Warren Shire Councils on a study that identified imperatives and strategies for addressing social and economic issues in the water dependent Lower Macquarie region. MRFF supports the submission of the recommendations from this study, as submitted by Narromine Shire Council, to this Inquiry. MRFF makes this additional submission to focus more specifically on issues directly related to water management and the Macquarie Valley irrigation industry, and the resultant implications for social and economic development in the central western region.

2. THE IMPORTANCE OF IRRIGATED AGRICULTURE

MRFF represents around 600 farming families from Burrendong Dam near Wellington, to the Macquarie Marshes north-west of Warren. This includes the individual members of the valley's seven off-river irrigation schemes and entitlement holders in the Lower Macquarie Groundwater Sources, concentrated around Narromine.

Like most inland regions of NSW, the economies and communities of the Macquarie Valley are heavily reliant on agriculture. It is worth noting that while MRFF is a collective of irrigated farming families, in the most part, our members operate mixed farming businesses, consisting of dryland and irrigated cropping and grazing enterprises. Access to water for irrigation, from both groundwater and surface water resources, has been a key contributor to farm business diversity and their ongoing viability.

Water Availability

Water use for productive purposes in this area is currently regulated, and limited, by the *Water Sharing Plan for the Macquarie and Cudgegong Regulated Rivers* as well as the *Water Sharing Plan for the Lower Macquarie Groundwater Sources*. Both of these plans were developed in close consultation with the community and various stakeholder groups taking into account environmental, social, cultural and economic values.

In particular, the *Water Sharing Plan for the Macquarie and Cudgegong Regulated Rivers* limits water for extractive purposes to 27% of the long-term average annual flow, providing the remaining 73% of the long-term average annual flow to the environment and the maintenance of ecosystem health. The table

below shows the water available for the various classes of extractive use from the Macquarie and Cudgegong rivers.

Water Access Licence Class	Volume of Entitlement (ML)	Reliability	Average Annual Availability (ML)
High Security	19,419	100%	19,419
General Security	632,000	51%	322,320
Supplementary Access	50,000	64%	32,000
Domestic and Stock	14,265	100%	14,265
Local Water Utility	22,681	100%	22,681

For the Lower Macquarie Groundwater Sources, the long-term annual extraction limit is based on the average level of recharge to each aquifer less an amount reserved for the environment and Aboriginal cultural heritage. The table below shows the water available for extractive uses in the groundwater source.

Water Access Licence Class	Volume of Entitlement (ML)	Reliability	Average Annual Availability (ML)
Local Water Utility	3,093	100%	3,093
Aquifer Access Licence	65,524	100%	65,524

Social and Economic Contribution

The Narromine and Warren Shire Councils, in collaboration with the Central West Catchment Management Authority and MRFF have recently completed a project, funded by the Australian Government's *Strengthening Basin Communities* program, that sought to quantify the social and economic dependence of the two shires on the availability of water, and to consider risks and mitigation strategies should water availability be reduced. (Note: a copy of the final project reports, prepared by consultants Psi Delta, has been forwarded to the Standing Committee for review in this Inquiry by the Narromine Shire Council.)

The Psi Delta report highlights the importance of irrigated agriculture to the local communities and economies of the Narromine and Warren shires, in particular. Agriculture represents over a third of the economic activity with many of the other dominant industries, such as transport and manufacturing, also dependent on agricultural production.

Agriculture in the central west is highly diverse. The Macquarie Valley is historically the most variable of the inland regulated river systems in terms of water availability. As a result, irrigation farming in the region has developed in a way that is flexible and adaptive to this variability and is based largely on farming systems that allow for interchangeability between annual dryland and irrigated cropping programs depending on water availability.

Cotton is the main crop grown under irrigation and is concentrated on the floodplains around Narromine, Trangie and Warren. A range of summer and winter cereals, pulses and oilseeds may also be

grown under irrigation in rotation with cotton, or as dryland crops. Upstream of Narromine, irrigation entitlement is used to water lucerne, vegetables, pastures, cereals and oilseeds. There are also a number of citrus and other permanent horticulture and viticulture plantings located around Narromine and Dubbo that rely on high security river water or groundwater.

Indicative values for permanent sales of Macquarie valley water entitlement are currently around \$1,250 /ML for General Security river licences, \$3,300 /ML for High Security river licences and \$1,000 /ML for Lower Macquarie Groundwater Sources entitlements.

While it is difficult to quantify the exact contribution to the regional economy of irrigated agriculture in any given year due to variations in annual water availability, Psi Delta provided an estimate based on the long-term average annual availability of water for irrigated agriculture as provided for in the region's Water Sharing Plans. This analysis found that on average, the gross value of irrigated agriculture is around \$167 million per year, which is around 50% of the total value of agricultural production in the Narromine and Warren shires from less than 3% of the land area.

In summary, it is clear that irrigated agriculture is an important contributor to the region's economy and its potential diversity. While there are a number of issues affecting agriculture in the central western region more broadly, as raised in other submissions, such as roads and transport infrastructure, and research and development, MRFF's submission deliberately focuses on issues relating to water management.

Clearly specified water access rights and efficient management and delivery systems are key to attracting and retaining water dependent industries in the central west region, be it for agriculture, industrial uses or urban development. The following section of this submission considers some of the major opportunities and threats in this area, and the concluding section provides specific recommendations to the Committee on actions the NSW Government can undertake to ensure the ongoing security and efficient management of water resources in the Macquarie for the benefit of economic and social development in central western NSW.

3. OPPORTUNITIES AND THREATS

MRFF exists as a peak representative body for the valley's irrigation industry and sees a role in liaising with all tiers of government to ensure the ongoing security and efficient management of access to our water resources. Since our inception in 1996, MRFF has been a key participant in water reform, during which time there have been significant achievements in NSW and the Macquarie Valley.

In 2004 a number of very sound objectives for the management of rural water supplies in Australia were agreed to by all governments, with the support of industry and community stakeholders, as part of the National Water Initiative (NWI):

The NWI represents a shared commitment by governments to increase the efficiency of Australia's water use, leading to greater certainty for investment and productivity, for rural and urban communities, and for the environment.¹

For the regulated systems in New South Wales, such as the Macquarie and Cudgegong Rivers and the Lower Macquarie Water Source, much progress has already been made by the NSW Government and rural communities toward meeting the objectives of the NWI, for example:

- Corporatisation of the state owned water delivery business and through the IPART determination process, full-cost recovery from water users for water delivery infrastructure and services
- Development and implementation of the community negotiated Water Sharing Plans for the Macquarie-Cudgegong Regulated Rivers and the Lower Macquarie Groundwater Sources, which clearly specified allowances for the environment and define access rights for consumptive use, including priority of access, tradeability, and carry-over provisions
- Regional devolvement of natural resource management through the creation of the Central West Catchment Management Authority, which sets integrated targets for land, water, biodiversity and community themes
- Major investment by our off-river irrigation schemes, in partnership with the Australian Government's *Private Irrigator Infrastructure Operators Program*, to undertake modernisation projects to improve the efficient delivery and use of their water supplies

Despite these achievements, the state and national water reform agenda seems to have progressed in such a way that many NSW communities may be disadvantaged either because of, or despite, their previous efforts.

¹ <http://www.nwc.gov.au/www/html/117-national-water-initiative.asp>

Major Identified Threats to Industry and Social and Economic Development

Since the passing of the Federal *Water Act 2007*, the development of the Murray Darling Basin Plan and implementation of the Australian Government's *Water for the Future* program, there is now increasing confusion between state and federal responsibilities in relation to water management, which has led to insecurity in our water markets and for our water dependent industries. The process has also resulted in disengagement of regional communities, and the misalignment of water planning within broader regional planning objectives.

In fact, the recently completed Psi Delta report found that government policy and programs represented the greatest threat to the productive capacity of agriculture in the region, greater than even the extreme dry climate scenario (as modeled by the CSIRO).

Government Policies and Programs for Environmental Water Recovery

Since the commencement of the Water Sharing Plan for the Macquarie and Cudgegong Rivers, which allowed 73% of the long term average annual flow for the environment, both State and Federal Governments have embarked on significant spending in the Macquarie Valley to purchase further water entitlement for environmental purposes. That is, direct buyback of entitlement from the productive pool.

	Entitlement (ML)	Average Availability (ML) (at 51% reliability)
Total valley General Security entitlement	632,000	322,320
NSW Government Direct Purchases	48,419	24,694
Australian Government Direct Purchases (approx)	55,000	28,050
Buyback as percentage of productive pool	16.4%	

While MRFF acknowledges that government's have a legitimate role in providing for public good outcomes, which may rightly include additional water for environmental purposes, and that the water market is the appropriate place to obtain this water, MRFF has expressed concern that this buyback has occurred without consideration to the following:

- An overarching plan specifying the environmental objectives for water dependent ecosystems and key environmental assets, noting that State and Federal Government purchases in the Macquarie occurred in the absence of the completed Adaptive Environmental Management Plan for the Macquarie Marshes, the drafting of the Murray Darling Basin Plan and its environmental watering plan, and any reported review of outcomes achieved through the existing Water Sharing Plan.
- A cost-benefit analysis of alternative options for achieving sought environmental outcomes, particularly where these outcomes relate to vegetative condition of water dependent ecosystems such as the Macquarie Marshes. For example, strategic land purchase, investment in

management of invasive pests, and more efficient use, perhaps through works and measures, of existing water available for the environment.

- Adequate consideration or mitigation of the resultant social and economic flow-on impacts to central western communities of removing water from productive uses. Detailed information on these impacts is provided in the Psi Delta reports.

In theory, further environmental water requirements in the region, above those already determined in the existing community negotiated Water Sharing Plans, might be guided by the recommendations of the Murray Darling Basin Authority. However, the development of the Murray Darling Basin Plan is of major concern to water licence holders in NSW, particularly given the extensive efforts already undertaken in this state, and the so far lack of community engagement in the drafting of the Basin Plan.

While MRFF recognises that the soon to be released draft of the Murray Darling Basin Plan may differ to the Guide released in October 2010, our comments are necessarily based on the information released by the MDBA in the *Guide to the Proposed Basin Plan* as this is the only publicly available, formal document, that reports in detail on the MDBA's approach to the development of the Basin Plan.

MRFF considers the proposed reductions (as per the Guide) for the Macquarie-Castlereagh system as clear evidence of a Basin planning process that does not allow the optimisation of social, economic and environmental values for the benefit of rural and regional communities in NSW.

The information in the Guide shows the Macquarie-Castlereagh region as currently having the lowest rate of extraction for productive purposes of all the developed regions in the Basin². Further, the MDBA indicate that the additional water required for the environment within the Macquarie-Castlereagh system is approximately 20 GL on a long-term average annual basis (which applying a reliability factor of 51% equates to approximately 39 GL of General Security Entitlement), an amount which has already been doubled by state and federal government buyback.

Despite this, the MDBA recommends a reduction of 104 GL on a long-term average basis (or 204 GL of General Security entitlement at 51% reliability) under their 3,000 GL Basin wide scenario. An amount which represents over 30% of the General Security entitlement made available for productive purposes at the commencement of the *Water Sharing Plan for the Macquarie and Cudgong Regulated Rivers*.

Based on this proposed reduction, the MDBA lists the Macquarie-Castlereagh region as at high risk of *substantial social impacts*. The report further states:

...at-risk regional and rural towns and communities may have long-term consequences. In particular, a decline in the rateable base for local government authorities and reduced levels of demand for major community services such as health and education may mean that the level of service provision is likely to decline over time. As a consequence, there is a greater likelihood that:

² From Table 5.2 Current diversion baseline conditions in the Murray–Darling Basin, *Guide to the Proposed Basin Plan*, MDBA, October 2010

- *access to health services and education will become more difficult*
- *there will be fewer funds available to local government authorities to invest in and maintain community infrastructure*
- *social and community networks will come under increasing pressure...*

What is particularly concerning about the proposed impact for the Macquarie-Castlereagh region is that 80% of the proposed reduction is actually for downstream requirements. That is, 20% of the required volumes is said to be for this regions key environmental asset, i.e. the Macquarie Marshes, while 80% of the reduction is to meet requirements downstream, or outside, of this region. This additional requirement is despite the Macquarie-Castlereagh region already having the lowest level of flow available for productive purposes (measured as the volume available for extractive use over the total inflows in the water resource area).

Such an approach has major equity implications for the irrigation industry in this region, which must certainly be subject to further review by both the NSW and Federal Governments.

MRFF stands by a position that our region has already done the hard yards in terms of meeting future sustainable diversion limits. MRFF urges government to consider that the water available for extractive uses in the Macquarie-Castlereagh system supports an area of approximately 84,842 square-kilometers and 183,302 people (ABS Census 2006). Water made available for extractive uses includes town water supplies, stock and domestic use, high security industry, and seasonal food and fibre production. That is, water that plays a reasonable and vital role in the ongoing sustainability of central western NSW.

Increasing risk that irrigators will bear an unfair burden of the costs of water infrastructure

MRFF has further concerns that a declining pool of entitlement available for irrigation in the region leaves the irrigation industry exposed to potentially bearing a greater burden of the costs for state owned water storage and delivery infrastructure and associated services.

MRFF supports equitable and efficient pricing of bulk water management and delivery services and has previously been a strong supporter of the IPART process for these determinations. However, this level of confidence is waning following a number of IPART pricing determinations that have failed to address valley specific issues raised by MRFF in relation to the equitable cost-sharing arrangements for the flood mitigation role of Burrendong Dam, and water charges for storage and delivery of the General Security Environmental Water Allowance in the Macquarie-Cudgegong system. Failure to address these issues results in an unfair cost burden on Macquarie Valley irrigators, which in effect lowers the competitiveness of our industry and stifles investment in our region.

MRFF recognises and concurs with the notion of full cost recovery for water users, however, we believe that the currently defined list of users and beneficiaries from the NSW Office of Water and State Water Corporations assets and services is not all encompassing. MRFF has made sound arguments on this basis

to IPART in previous determinations and IPART have failed to provide a response, let alone address, these issues.

Supporting examples:

a) Flood Mitigation Role of Burrendong Dam

The officially acknowledged purpose of Burrendong Dam when it was expanded in the 1950s, was for flood mitigation, in addition to irrigation and provision of stock and domestic supplies. In fact, almost one-third (489,000 ML) of the dam's total storage capacity (1,678,000) is designated and operated solely for flood mitigation, with the remaining 1,189,000 ML designated for irrigation, stock, domestic and environmental purposes. Despite this recognised role, the charges for the operating costs associated with the dam do not incorporate the flood mitigation component, which is plainly incorrect and inequitable.

b) Incorporating the Full List of Extractive Users

MRFF notes that there are numerous higher priority water users than irrigators in the Macquarie, who are not currently recognised, and therefore charged, as customers. We stand by our submission to previous IPART determinations that we would welcome the opportunity to work with IPART and the NSW Government (via State Water Corporation and the NSW Office of Water) to develop a robust and dynamic cost sharing calculator that better reflects the expenses these organisations incur in servicing their different customers.

As a particular example, we refer to the 160,000 ML Environmental Water Allowance in the Macquarie (i.e. entitlement set aside in the Water Sharing Plan as distinct from entitlement subsequently purchased by government, which is subject to water charges). This Allowance is classified as General Security entitlement with the same access rules as irrigation General Security entitlement. A portion of the environmental water is also able to be traded, and the full allocation is able to be stored, carried over and is accessible on demand, therefore incurring the same costs to State Water as irrigators' General Security entitlement. Given the management conditions associated with the delivery of the Environmental Water Allowance we cannot understand why it is not subject to the same charges as other bulk water.

Another example is the unregulated and regulated water that is used as replenishment flows in the effluent creeks of the Macquarie system. Management of these flows is a considerable cost component yet is totally free of delivery charges to those users who require the service. The costs to service these 'non-paying' users have become particularly evident in past years of very low allocation, when paying irrigation customers have seen little to no irrigation water delivered yet have witnessed the continued service provided to subgroups of non-paying customers.

To further exacerbate our point that all users need to be identified as customers, we refer to the make-up of State Water's Customer Service Committees and Community Consultative Committees, which includes irrigators, stock and domestic users, local government, industry, environmental flow management agencies and Catchment Management Authorities. We note that these committees allow all users, whether paying customers or not, rights to be consulted and have input to State Water's business planning, asset planning and management, and other fundamental operating decisions.

Major Identified Opportunities for Industry and Social and Economic Development

MRFF has a vision for an efficient, productive and profitable irrigation industry in the Macquarie Valley. We see the irrigation industry as complementary to the strong and diverse agricultural base in central western NSW. However, key to achieving our vision and maximising the contribution of the industry to the social and economic development of the region is a secure legislative framework and efficient management of the region's water storage and delivery infrastructure and services.

MRFF sees this Inquiry as an opportunity to raise a number of issues which are affecting the ongoing security and relative competitiveness of the Macquarie Valley irrigation industry.

It is our great concern that if we continue to go down a path of simply removing water from productive uses, we will continue to erode at our regions diversification and viability.

The Macquarie Valley irrigation industry has sought to be on the front foot in terms of modernisation or efficiency upgrades, of irrigation systems. Through the involvement of three of our off-river irrigation schemes in the first round of the Australian Government's *Private Irrigator Infrastructure Operators Program*, around 48 GL of Macquarie River entitlement was able to be transferred to the Commonwealth Environmental Water Holder as part of projects that had the dual benefit of upgrading significant stretches of off-river irrigation delivery infrastructure. We believe there is opportunity for further, although likely to be smaller, savings from this valley in the next round of this program and via the State Priority Project on-farm efficiency program for northern NSW yet to be rolled out in the Macquarie.

But to look solely to the irrigation industry to provide additional water requirements across the Basin would be to do the Basin's environmental and productive base a huge disservice. This region presents a prime example of this. In the Macquarie system alone, water recovery has already advanced to the point where the water available for productive purposes is now around 20% of the total available resource. The alternative way of looking at this, is that around 80% of the water resource is allocated to the environment and whole-of-system losses.

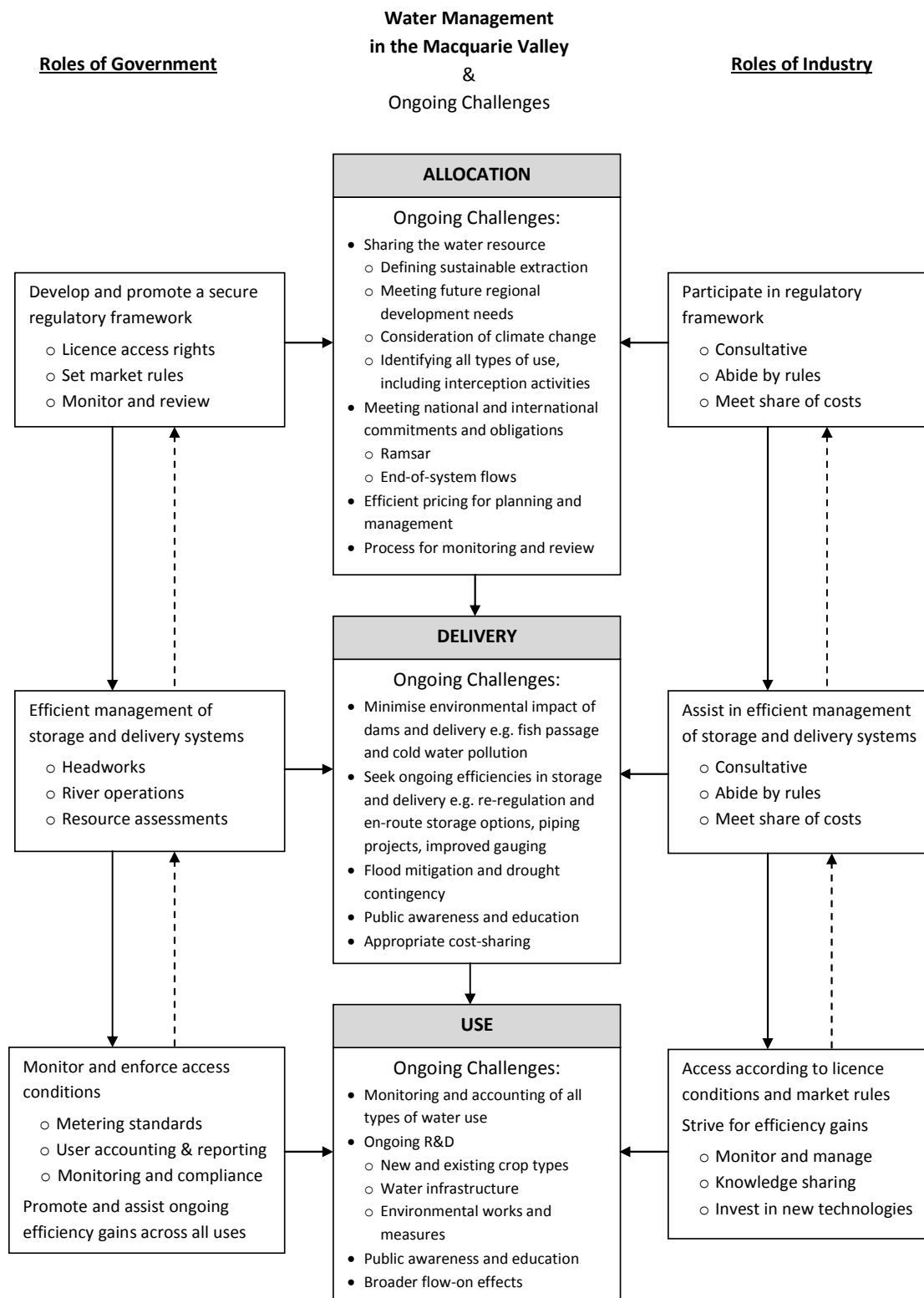
If we are not achieving the desired results from 80% of the available resource, then we need to consider that either we are not making effective use of that 80% or that perhaps the 'just add water' approach does not provide the whole solution to the health of our rivers and wetlands. MRFF believes there are alternative solutions in this valley to improving system health while maintaining a vibrant and productive irrigated agricultural industry. These opportunities exist as both opportunities for in-stream

efficiency improvements for the benefit of *all* water users as well as alternative opportunities for the management of the valley's key environmental asset, being the Macquarie Marshes.

Unfortunately the current national agenda for water reform in Australia is progressing in such a way that many water dependent regional communities of NSW have found themselves taking a backward step from past efforts in water management. MRFF sees an opportunity for both industry and the NSW Government to work together to get the reform process back on track. The following diagram provides an outline of the ongoing challenges for water management in the Macquarie Valley in relation to the allocation, delivery and use of the resource, and the roles for government and industry.

More specific recommendations for actions the NSW Government could undertake to ensure the ongoing security and efficient management of water resources in the Macquarie for the benefit of economic and social development in central western NSW.

Figure 1: Roles of Industry and Government in Ongoing Challenges for Water Management



4. RECOMMENDATIONS

The recent *Strengthening Basin Communities* project undertaken by the Narromine and Warren Shire Councils outlines a number of imperatives and approaches that might be considered in a regional plan to address the social and economic issues of the water dependent Lower Macquarie region of central western NSW. As a member of the Project Steering Committee, MRFF supports the project findings and the submission of these reports (via the Narromine Shire Council) to this Inquiry.

MRFF has provided this additional submission to make some more specific recommendations to the Committee on actions that the NSW Government might undertake to ensure the ongoing security and efficient management of water access for water dependent industries in the Macquarie Valley.

Agriculture plays such an important role as the foundation of central western NSW communities as it underpins their economies. Development of further secondary and tertiary industry opportunities for the central western economy will rely heavily on a strong primary industry base.

Access to irrigation water is an important contributor to the regions agricultural diversity and productivity. For irrigated agricultural producers, their service providers and for other value-add industries to meet their private sector obligations of ongoing investment and innovation, they will rely on a secure legislative framework and a level playing field with industries based in other regional areas of NSW and Australia.

MRFF makes the following recommendations to the Standing Committee for steps that might be taken to achieve this:

Security of Access for Productive Purposes

- 1) **MRFF recommends that this Committee provide advice to the NSW Government on the impacts to the social and economic development of the central western region of continuing to decrease the share of water available for productive uses, which includes water for towns, stock and domestic uses, high security industries, and seasonal food and fibre production.**
- 2) **MRFF recommends that appropriate and clearly specified administrative structures are in place for and between the NSW and Australian Governments in relation to water management. This should include the separation of arms of government that hold water entitlement (be it for managed environmental purposes or other uses) from the regulatory, operational and compliance functions relating to such entitlement, as well as maintenance of the current division between the policy and regulatory role of the NSW Office of Water and the operations and delivery role of State Water.**
- 3) **MRFF recommends that the objectives for water management at the regional level are clearly aligned with broader regional planning objectives, such as Catchment Action Plans, Regional Development Australia and local government planning processes.**

- 4) **MRFF recommends that Government investment in water purchase is contingent on the completion of a cost-benefit analysis of the full range of options, including environmental works and measures, for achieving the sought objectives. The cost-benefit analysis should include the marginal benefit of the change (i.e. clear specification of the cause-effect relationship between the provision of additional water and environmental outcomes) and the flow-on impacts to rural and regional communities of decreasing the share of water for productive use.**
- 5) **MRFF recommends that the NSW Government ensure appropriate investment in monitoring and compliance activities in relation to water management. This should include increased efforts toward measurement and management of all types of water use, including interception from farm dams and forestry, managed environmental flows, and reasonable use guidelines for stock and domestic access.**

Efficient and Equitable Water Pricing

MRFF commends the NSW Government for their commitment to undertake a review of the existing water charging system for the management and delivery of bulk water in NSW. MRFF suggests that this Committee advise the NSW Government that the following issues should be included in this review on the basis that they may be affecting the relative competitiveness of water based industries in central western NSW.

- 6) **MRFF recommends that the cost-sharing arrangements for the capital and operating costs of Burrendong Dam be revisited to better reflect the purpose, and therefore beneficiaries, of this structure, particularly in relation to the dams flood mitigation capacity.**
- 7) **MRFF recommends that IPART review the 'user base' for regulated river operations to incorporate those who may be benefiting from State Water and NSW Office of Water services who are not currently paying for such services.**
- 8) **MRFF recommends that all managed environmental water licences, whether provided for within existing Water Sharing Plans or purchased on the water market, are subject to water charges on the basis that they are able to be stored, traded and delivered on demand. This relates specifically to the 160,000 ML Environmental Water Allowance in the Macquarie system, which has the same characteristics of a General Security Entitlement but is not subject to the same charges.**

Cooperative Investment in Water Infrastructure

MRFF notes the Terms of Reference relating to infrastructure needs in central western NSW. We believe that there are a number of specific areas for investment in important water infrastructure that the NSW Government could play a role in directly or otherwise.

- 9) MRFF recommends the expansion of the existing hydrometric gauging network on the Macquarie River and its key tributaries downstream of Burrendong Dam to improve river height predictions and extreme event warnings, such as during the 2010 flood event. There may be opportunities for funding via the Bureau of Meteorology, in particular their *Extension of Hydrologic Monitoring Systems Program*, or if efficiencies in regular river operations were able to be demonstrated, opportunities for industry partnerships could be pursued.
- 10) MRFF recommends that a weather radar station is required for the central western region. There is currently a 'black spot' in the central west not covered by the existing stations at Moree, Gunnedah, Wagga Wagga or Sydney. A station incorporating the area west of Dubbo, at Cobar for example, would not only assist the agricultural industry but would also be a benefit to the aviation industry, State Emergency Services, Rural Fire Authority and many others who rely on accurate weather information.
- 11) MRFF recommends the expedition of the roll-out of the \$200 million for on-farm irrigation modernisation earmarked for the Northern Basin to be delivered by the NSW Government as part of a suite of State Priority Projects under the *Sustaining the Basin Program*. Access to this program should extend to all irrigators, including those with groundwater entitlements.
- 12) MRFF recommends that opportunities for improving the efficiency of the operation of the Macquarie-Cudgegong river system for the benefit of *all* water users be considered. A number of potential projects have been identified via a subcommittee of the State Water convened Macquarie-Cudgegong Customer Service Committee but their progress has been impeded due, in part, to a lack of available funding and, more likely, due to the lack of a clear delegation of responsibility to State and Commonwealth government agencies. These projects include, but are not limited to:
 - Construction of an en-route storage or re-regulator at Gin Gin
 - Piping of the Crooked Creek and other effluent creek systems
 - Refurbishment of the Bora Regulator within the Macquarie Marshes
- 13) MRFF recommends that opportunities for improved management of the Macquarie Marshes be considered on the basis that it is likely that significant environmental improvements can be achieved without the need to decrease further the already limited share of water for productive uses in the region. Such opportunities include strategic land purchase, invasive pest management, environmental works and measures projects within the Marshes, and

improved compliance efforts.

- 14) MRFF recommends that there are a number of potential funding arrangements for the projects outlined above. These may incorporate partnerships between all tiers of government and with industry. MRFF, as representative of the Macquarie Valley irrigation industry, would be willing to be involved in a process that further explored each of these options.

5. FURTHER INFORMATION

MRFF thanks the Standing Committee on State Development for the opportunity to provide a submission to the Inquiry into economic and social development in central western NSW. We understand that regional hearings will be conducted as part of this Inquiry later in 2011. MRFF requests the opportunity to provide further information on the issues raised in this submission at one of these hearings.

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