



Murray Irrigation Limited  
ABN 23 067 197 933

Response to  
Productivity Commission  
Discussion Draft Report

Rural Water Use and the  
Environment: The Role of Market  
Mechanisms

*July 2006*



## **Introduction**

Murray Irrigation Limited welcomes the opportunity to comment on the Productivity Commission's draft report. This submission contains brief comments on aspects of the draft report which are of most relevance to Murray Irrigation and its shareholders. Murray Irrigation is a member of NSW Irrigators' Council and is broadly supportive of NSW Irrigators' Council's submission to the draft report.

Since our formation in March 1995 Murray Irrigation and its irrigators have responded to successive rounds of government water reforms which have directly impacted on our business and our shareholders businesses. In addition to government imposed reforms the company has developed policies and changed its operations to improve water use efficiency, minimise the impact of irrigated agriculture in our local and downstream environments and control costs.

Murray Irrigation believes this experience makes the company well qualified to comment on the recommendations in the draft report which directly relate to the business and regulatory environment the company and its shareholders operate in. Our experience is centred on the southern Murray Darling Basin, which is significant in the context of total water use in both the Murray Darling Basin and Australian water use.

The emphasis of the Productivity Commission's report is on the benefits to society of expanded trade in water entitlements. We are seriously concerned not with trade itself, but with the current inadequacy of the institutional arrangements which will underpin trade. The characteristics of many water entitlements such as reliability and deliverability are poorly defined and poorly understood. Water use is not well regulated in many areas, and not measured with any accuracy. The rush to expand trade within this shaky institutional framework will have significant impacts on the rights of third parties, including the environment.

Comments on the draft report are structured following the headings and preliminary findings in the draft report.

## **About Murray Irrigation**

Murray Irrigation Limited is an unlisted public company which has access to 1,495,171 entitlements in the NSW Murray Regulated River Water Source. The majority of Murray Irrigation entitlements are for general security water and Murray Irrigation's general security water access licence represents 72% of the NSW Murray general security entitlements.

Murray Irrigation was formed as a privatised irrigation company in early 1995 when the NSW Government transferred ownership of the Murray Irrigation area and districts to irrigators. At privatisation each customer was issued with Murray Irrigation shares and water entitlements in proportion to their previous permanent allocation.

Murray Irrigation supplies irrigation water to 2,410 landholdings across 748,000 hectares of farmland in southern NSW and town water supplies to four communities. These landholdings are operated by approximately 1,400 commercial farm businesses. We operate 2,956 kms of earthen supply channels and 1,421 kms of stormwater escapes; water is supplied to landholdings through approximately 3,900 dethridge outlets. The company is a major regional employer, with 130 staff, 70 of whom are based in Deniliquin, 39 in Finley and 21 in Wakool. Murray Irrigation's annual revenue varies according to water availability, from a high of \$50.2 million in 2000/01 to \$33.5 million in 2002-03. Murray

Irrigation's water price is about 50% fixed, based on water entitlements owned and 50% variable, based on annual water use. Murray Irrigation operates a Water Exchange to facilitate the sale and purchase of water and has an interest in two complementary business activities. MILCast concrete products is a wholly owned subsidiary of Murray Irrigation and AWMA Pty Ltd, a specialist supplier automated water management infrastructure to the irrigation industry is a joint venture company.

## **Murray Land and Water Management Plans**

Murray Irrigation is also the implementation authority for the Murray Land and Water Management Plans (LWMPs) a 30 year natural resource management program developed around a strong community-government partnership. The LWMP program has Government funding with contributions from federal and state natural resource management programs from 1995 to 2010. The landholder contributions are in the form of levies on water fees, council rates, cash and in-kind contributions to works on their properties. Government landholder cost shares vary from 100% landholder funded to 100% Government incentives based on levels of public and private good.

The LWMPs are extremely important to the local environment as they provide an integrated approach to managing the region's natural resource management issues. The LWMPs are also vital to Murray Irrigation as they improve the sustainability of the businesses of our shareholders and therefore our business and the region. Irrigation organisations have typically managed only the delivery of irrigation water to landholders and the provision of stormwater relief. Mismanagement of irrigation water on farm can contribute to rising water tables. Rising beneath drains, highly saline groundwater, in turn, contributes to poor quality water in drains and stormwater systems. The LWMPs have created a missing link between the two core operations of the irrigation organisation – the supply and stormwater networks.

Along with the Total Farm Water Balance and Rice policies, the LWMPs allow us to maintain a level of influence over irrigation water once it passes through the wheel onto a farm. Improvements in on farm environmental performance make management of our business easier.

The four component plans are based on the geographic sub-districts of Cadell, Denimein, Wakool and Berriquin. While the boundaries of the Berriquin, Denimein and Wakool LWMPs reflect the boundaries of Murray Irrigation's supply and stormwater escape operations, the Cadell plan extends beyond to incorporate dryland farming, private irrigation schemes, and river pumpers along the Murray River. The Murray LWMPs address the full spectrum of land and water management issues.

## **On-Farm Works**

The LWMPs aim to facilitate adoption of improved farm management practices. The 2010 target is to have 90% of commercial farm businesses adopt key best management practices. Farm planning is seen as a fundamental first step in setting long term goals and developing a framework for best practices on farm.

These plans cover integration of irrigation supply and stormwater escapes, water recycling and storage, water use efficiency, and native vegetation protection and enhancement. Irrigation recycling systems are encouraged to improve water use efficiency and prevent off-farm discharge of nutrient rich or pesticide affected water. Farm storages are designed to retain all irrigation water and the first flush of rainfall on farm. Effective recycling systems increase irrigation efficiency, control stormwater runoff and reduce accessions to the watertable.

Incentives for vegetation management include protection of areas of native remnant vegetation, revegetation with locally indigenous species for biodiversity outcomes, as well as establishment of deep-rooted perennial vegetation to control salinity.

The implementation of these plans provides close and regular contact with irrigators as they work to reduce the environmental impacts of irrigation, improve their farm productivity and respond to changes in the climate, markets, water policy and regulation which affect their access to water and farm viability. Enclosed is a copy of Murray Irrigation's sustainability report which describes in detail the performance of our business with particular emphasis on environmental performance.

## **Reform and Murray Irrigation**

Murray Irrigation attended the Industry Roundtable organised by the Productivity Commission in June 2006. Murray Irrigation observed the majority of participants in the Roundtable represented government or research organisations and we were surprised by their assertions that water reform progress was slow.

Since the early 1990s, the company and its shareholders have been subject to successive regulatory changes which have directly impacted on water availability (both total water availability and within season availability) and increased the cost of water. Table 1 summarises the primary changes to the business environment which Murray Irrigation and its shareholders operate in since the early 1990s. Change has been continuous – our irrigators would say relentless. Significant progress has been made by governments, irrigation supply organisations and irrigators in the regulation of surface water in the NSW Murray. In addition, participation in consultative and political process has consumed significant company financial and human resources.

We do recognise that reform in some other areas may have been slow, and regulatory failure by governments is a significant issue. However reforms in the NSW Murray have been substantive and have fundamentally altered the way water is owned and used. It is important that the Productivity Commission recognises that significant change has already occurred.

Table 1 – Summary of major government reforms impacting on Murray Irrigation

Year	Reform
1993	<ul style="list-style-type: none"> <li>• Barmah/Millewa Forest Allocation 50GL NSW high security water</li> </ul>
1995	<ul style="list-style-type: none"> <li>• Murray Irrigation Limited formed when the Government owned NSW Murray Irrigation Districts and Area was separated from Government               <ul style="list-style-type: none"> <li>○ Water Management Works Licence and Environment Protection Licence</li> <li>○ Separation Deed to provide 30GL for environmental flows in the Murray River</li> <li>○ Murray Land and Water Management Plan funding deed signed with the NSW Government</li> <li>○ Expansion of permanent trade across the Murray Irrigation area</li> </ul> </li> </ul>
1996	<ul style="list-style-type: none"> <li>• Murray Darling Basin Ministerial Council Cap on surface water diversions in the Basin announced</li> <li>• NSW Government announces major water reform package               <ul style="list-style-type: none"> <li>○ Bulk Water Pricing referred to Independent Pricing &amp; Regulatory Tribunal (previously Government Pricing Tribunal)</li> <li>○ \$1.35 per entitlement collected to fund government investigation of environmental projects.</li> <li>○ Water Reform package to included environment flows</li> </ul> </li> </ul>
1996-97	<ul style="list-style-type: none"> <li>• Arrangements to ensure compliance with the Murray Darling Basin Council Cap implemented by the NSW Government. In Murrumbidgee Valley Cap management arrangements restrict annual trade</li> </ul>
1998	<ul style="list-style-type: none"> <li>• Snowy Water Inquiry</li> <li>• Water Sharing Plan Committee established to develop the Water Sharing Plan and environmental flow package for the NSW Murray</li> <li>• Outcomes of Snowy Water Inquiry</li> <li>• Corporatisation of Snowy Mountains Hydro-electric Authority</li> </ul>
2000	<ul style="list-style-type: none"> <li>• Legislative overhaul of NSW Water Legislation – Water Management Act separation of land and water</li> </ul>
2001	<ul style="list-style-type: none"> <li>• 30GL removed from Murray Irrigation’s licence, adaptive environmental water, in the NSW Murray Water Sharing Plan</li> <li>• Barmah/Millewa Forest Allocation Enhanced</li> <li>• Living Murray Initiative</li> <li>• Living Murray First Step Decision</li> </ul>
2004 2005	<ul style="list-style-type: none"> <li>• Water Management Amendment Act</li> <li>• Gazettal Water Sharing Plan for the NSW Murray</li> <li>• National Water Initiative</li> <li>• NSW legislative change to comply with the National Water Initiative, including penalties for NSW Irrigation Corporations with rules which conflict with the National Water Initiative</li> </ul>
2006	<ul style="list-style-type: none"> <li>• Barmah/Millewa Forest Allocation released ~ 500 GL</li> <li>• New constitution adopted by Murray Irrigation shareholders which removes barriers to trade in water entitlements               <ul style="list-style-type: none"> <li>○ Murray Irrigation Water Entitlements register established which allows encumbrances to be registered against water entitlements</li> </ul> </li> <li>• Interim arrangements to expand interstate trade between NSW, Victoria and South Australia based on tagging</li> <li>• Exit Fees and other institutional arrangements affecting water trade referred to ACCC.</li> </ul>

## Entitlements and allocation regimes can be improved

### PRELIMINARY FINDING

*Unbundling water entitlements from water use approvals should be completed by all states as a matter of priority. (Page XX)*

Murray Irrigation supports this recommendation. Transaction time and costs for annual transfers are increased where regulators have not separated water use approval from water entitlement ownership.

Murray Irrigation has two key policies which regulate water use on farm.

1) The Total Farm Water Balance Policy

Introduced in 1997, this limits the volume of water which can be used on a landholding per year to between 4 and 6 ML/ha.

2) Rice Growing Policy

Rice growing is only permitted on soils classified as suitable for rice growing and that rice water use on approved paddocks is below an annual maximum.

The existence of these two policies, particularly the Total Farm Water Balance policy combined with our computerised systems allow the Company to administer annual transfers simply, with minimal transactions costs and no direct charges to irrigators.

### PRELIMINARY FINDING

*There may be further opportunities to simplify the specification and reduce the number of types of water entitlements. (Page XX)*

Murray Irrigation does not support the rationalisation of the number of entitlements where rationalisation involves combining, into the one entitlement, water from valleys which have different characteristics and behaviours. Farm businesses have made significant investments based on existing arrangements, rationalisation of entitlements which results in changes to the characteristics of the existing entitlements is inappropriate.

In the NSW Murray the majority of water entitlements for consumption are described clearly in the gazetted Water Sharing Plan. The opportunities to rationalise the different types of water entitlements are limited and have marginal benefits.

### *Preliminary Finding:*

*Unbundling water entitlements into tradeable water share and delivery share components may be beneficial in areas where there is substantial congestion of water delivery. (Page XXII)*

Murray Irrigation supports the development of tradeable delivery share components and recommends urgent action to address issues related to the “congestion” at the Barmah/Millewa choke on the Murray River, when demand for water downstream of this point exceeds the river’s capacity to supply. This needs to be done before governments allow further and accelerated expansion of permanent trade in entitlements. It is also relevant to the delivery of environmental water to ICON sites which are downstream of the Barmah/Millewa Choke and changes to the Murray Darling Basin Agreement which may arise from permanent trade.

Murray Irrigation has raised this issue with Governments since the mid 1990s, however Governments have demonstrated no ability or interest in addressing this issue because of the economic benefits

associated with the growth in irrigation developments in Victoria and South Australia. In the case of the Murray River, Governments have been too slow to address congestion issues or integrate with other government policies which has exacerbated congestion issues. For example, Governments have pursued the expansion of both annual and permanent trade without adequately addressing the congestion issues associated with water delivery and changes in the timing of irrigation demand as a consequence of the trade.

Murray Irrigation is increasingly required to use the company's infrastructure to help State Water and River Murray Water meet their downstream water supply requirements. The company has observed the impacts of congestion issues on the Murray and Edward Rivers and our channel system is excluded from inter-government discussion on channel capacity sharing.

Governments have established rules for the Murray River which limit annual and permanent trade upstream and downstream of the main physical constraint the Barmah/Millewa choke. However, this policy is simplistic; it does not consider how water trading may change the pattern of irrigation demand, possibly increasing congestion.

Murray Irrigation's observation is that transfers, both annual and permanent, involve the transfer of water from irrigators who either don't use it, or who use it in autumn and spring, to crops which require water in January and February, the period of peak demand. This exacerbates existing congestion problems in the Murray River. This observation is supported by the findings of the MDBC report on its interstate trading pilot study.

Furthermore, with the exception of the bulk water diverters such as Murray Irrigation and Goulburn Murray Water's gravity diversion points, the state regulators have no effective capacity to regulate water supply to other licence holders when the introduction of restrictions is necessary. There are legitimate concerns regarding the metering of hundreds of individual farmers who divert water directly from the rivers.

The first step in establishing a market for flow share is to define the flow share; there is an urgent need to define flow share in the Murray River.

Murray Irrigation agrees there will be case by case examples where the benefits of developing delivery flow shares and markets in flow share could not justify the administrative costs.

Murray Irrigation to date has not developed tradeable delivery shares. We have a simple policy during times of restriction which limits each individual landholding to access to one flow share. The flow share is dependent on the extent of restrictions, but would normally be at least 6 ML/day. This policy is administratively simple i.e. low cost, easy to implement and easy to understand. It also reflects the telescopic design of a supply system designed to deliver water assigned to farmland. The company will revisit this policy as a result of changes to our constitution which now allow all except five water entitlements to be sold from a landholding, combined with the increasing scale of farm businesses.



#### PRELIMINARY FINDING

*Recognising the connectivity between groundwater and surface water systems is fundamental to the efficient management of water resources. In highly connected systems, failure to incorporate these linkages may reduce or counteract the benefits achieved in other areas of reform, including water trade. Undertaking further research on groundwater systems and their connectivity to surface water, and developing effective accounting systems, are essential to address this issue. (Page XXII)*

NSW investment in groundwater management and regulation of groundwater extractions has historically been inadequate with systems poorly understood and extractions poorly monitored. The issues raised in the draft report about connectivity between groundwater and surface water systems are real.

Murray Irrigation supports the need to better understand groundwater systems and the connection of these systems with surface water systems. Research must be integrated into government's decision making process. In NSW the Water Sharing Plans for groundwater systems are nearly finalised as is the groundwater entitlement reduction package funded by the Australian Water Fund and the NSW Government. These groundwater plans have not addressed inter-connectivity issues or water quality issues but trade in groundwater entitlements is being encouraged by Government policy. We believe this will exacerbate the impact of groundwater extraction on surface water systems because trade is most likely to occur from licences with high salinity water to licences with lower salinity water. In the southern Murray Darling Basin lower salinity licences are the ones with a closer connection to the surface water system. Encouragement of trade without first understanding and addressing connectivity issues is irresponsible.

#### PRELIMINARY FINDING

*Excluding groundwater extractions from the Murray-Darling Basin Cap significantly reduces its effectiveness in managing the health of the Murray-Darling River system. (Page XXIII)*

The Cap on diversions from the Murray-Darling Basin was announced 11 years ago, in 1995. Implementation of the Cap in NSW resulted in significant changes to annual allocation policies for surface water irrigators, primarily reductions in the maximum announced allocation and reduced access to unregulated flows. At the time Murray Irrigation advised government, irrigators with groundwater licences would "go underground" to meet their business water requirements. This has proven correct.

It is disappointing governments are only now gaining some appreciation of the wider implications of government policies – a decade later. This situation highlights the importance of irrigation industry organisations, exposed to and connected with industry behaviour and trends, to have meaningful input into the development of government policy and implementation.

Murray Irrigation does not support any proposition which supports joint groundwater and surface water Caps. Groundwater extractions should be managed by State regulators to avoid reduction on river flows. If this involves cancellation or reduction of groundwater licences then compensation should be paid to licence holders. Surface water users should not be penalised by Government's failure to address an obvious consequence of the introduction of a Cap on surface water diversion in the Murray Darling Basin.

#### PRELIMINARY FINDING

*Return flows need to be accounted for in entitlement specifications and/or resource management policies. Adaptive management and the use of interim measures in high priority areas may be necessary. (Page XXIII)*

Changes in return flows have and will continue to occur as irrigation supply organisations and irrigators strive to improve water use efficiency with impacts on both water availability for the environment and downstream water users who have previously enjoyed access to these flows. Capacity to measure and define returns flows is limited. Returns flows are likely to have already been dramatically reduced in the regulated southern Murray Darling Basin because of the introduction of the Cap and successive years of drought.

In the Murray Irrigation area which is dominated by duplex soils the statement in the report that “existing entitlements and allocations are based on expectations that when water is applied on-farm, some proportion of that water returns to the river system through seepage or run-off” is not relevant to the Murray Irrigation area because of these soil types.

#### PRELIMINARY FINDING

*Governments and utilities should enable entitlement holders to carry over water individually, with adjustment to allow for storage and evaporation losses. Appropriate charging for storage management and allocation structures will be required to address third party impacts. (Page XXIV)*

*Uniform carryover arrangements across districts are unlikely to be appropriate given different water management objectives, storage capacity, evaporation losses, and potential third party impacts. (Page XXIV)*

Murray Irrigation supports the use of carryover, provided its application does not impact on the property rights of other irrigators. Murray Irrigation also supports the recommendation that appropriate charges and evaporation losses should apply to carryover to recognise third party impacts. Decisions to introduce carryover need to be made valley by valley and where the valley is in the Murray Darling Basin, its introduction needs to cognizant of the Cap management arrangements applying.

In the NSW Murray general security licence holders are able to carryover up to 50% of their entitlements to the following irrigation season. The introduction of this high level of carryover is a result of: 1) changes to annual allocation policy in the NSW Murray to ensure Cap compliance, and  
2) political unrest with zero starting allocations for general security licence holders in late winter and early spring.

Carryover provides individual general security licence holders with greater risk management options. In the recent years of low annual allocations, carryover has proved a valuable risk management tool. Murray Irrigation also believes the carryover facility has resulted in better irrigation decisions by irrigators, as the “use it or lose it” mentality fades. Annual water use in the NSW Murray since the introduction of carryover suggests this policy tool has acted to suppress water use. Substantial use of carryover provisions in recent years in the region has made the annual allocation process more

difficult for irrigators to understand. It has also resulted in internal conflicts as a result of the disparity between irrigators' access to water during the season.

Murray Irrigation does not support the introduction of carryover for high security entitlements, including carryover of high security environmental entitlements, which would be a nonsense. In the NSW Murray allowing carryover of high security entitlements would corrupt the basis for the allocation of high security entitlements.

#### PRELIMINARY FINDING

*Trading unused seasonal allocations across districts may improve inter-temporal water-use choices where carryover is not available in all districts. (Page XXXIV)*

Carryover provides both sellers and buyers with benefits and improves water use choices for buyers.

#### PRELIMINARY FINDING

*For many storage systems, storage capacity share arrangements offer entitlement holders greater management over the storage and the use of water to which they are entitled. Governments and water utilities should provide for storage capacity share arrangements where the benefits exceed the costs.*

*Where capacity sharing is not feasible, more frequent and pre-scheduled allocation announcements and/or continuous accounting would improve information to irrigators on likely water availability, and thereby, assist water-use investment decisions. (Page XXXIV)*

Storage capacity sharing for entitlement holders is more easily implemented where water resources are not shared between states.

The complexity of the Murray Darling Basin Agreement, River Murray Water's reliance on data from the States for River flows and diversions results in delayed allocation announcements and restrictions on access to water resource assessments. NSW has improved the transparency and clarity of the information associated with annual allocations. It has also moved to pre-scheduled allocation announcements. This is supported by Murray Irrigation.

However, the information the formal allocation announcement is based on is, at best, two weeks old when the allocation announcement is made. Daily information about NSW and Victorian shares of water in storage are not publicly available. In spring water availability often improves quickly, at the same time irrigators are making critical crop planting decisions. More frequent allocation announcements would be beneficial along with publicly available information about NSW and Victorian shares of water in main storages.

Information probabilities about future water availability provided by Government is poorly understood and often misinterpreted by irrigators. Improving the timeliness, quality and irrigators' comprehension of announced allocations and seasonal outlook information will result in better decision making by irrigators, including decisions about both water use and water trade.

## **Reduce or remove constraints to trade**

### PRELIMINARY FINDING

*Relaxing restrictions on who can participate in water trade would improve the economically efficient water use of rural water. (Page XXV)*

Murray Irrigation generally supports this statement. Our experience is that the opening of annual markets in particular has resulted in substantial economic benefits. The benefits of the annual market were particularly evident in 2002/03 when our annual allocation was only 8% of entitlements and 25% of the water used in the region that year was transferred in through annual trades.

### PRELIMINARY FINDING

*Remaining restrictions on trade in seasonal allocations should be transparently reviewed and removed where justified. Timetables for review should be transparent and progress and findings publicly reported. (PageXXVI)*

Restrictions on trade in seasonal allocations cannot be justified and should be removed immediately. In Murray Irrigation's experience restrictions on annual trade are used in individual valleys to help manage Cap compliance. Murray Irrigation recommends Cap compliance should be achieved by annual allocation policies, for example, maximum announced allocation and level of carryover. Restrictions on annual trade curtail (and diminish) the property rights of individual licence holders. Specific examples of the limitations on annual trade which cannot be justified were provided to the Productivity Commission in our earlier submission to this inquiry.

### PRELIMINARY FINDING

*Existing government funded water exchanges should operate on a cost recovery basis consistent with the principles of competitive neutrality. (Page XXVI)*

A range of water exchanges and agents for water are emerging, each is competing for sellers and to an extent buyers to list water for sale. What is more important to the operation of water markets is transparency of information, ease of use and error rate not whether an exchange is operating on the basis of full cost recovery. (The cost of operating Murray Irrigation's exchange is so low that it would be un-economic to recover them.)

### PRELIMINARY FINDING

*Approval processes and associated costs involved in trading seasonal allocations should be benchmarked to best practice. Independent performance reviews should be conducted periodically. (Page XXVI)*

Increasing costs and delays in processing annual transfers is an important issue for irrigators. The organisations responsible for processing transfers are monopolies. In principle Murray Irrigation supports this recommendation. Public disclosure of performance will be necessary to improve performance. Inclusion of private irrigation corporations in the benchmarking would improve the usefulness of this recommendation.

## Constraints to trading in water entitlements

### PRELIMINARY FINDING

*Exit fees and other unjustified limits on trade out of an irrigation district constrain trade in entitlements, impede adjustments and should be removed.*  
(Page XXVII)

Murray Irrigation does not support this finding.

The National Water Initiative provides tacit support to the role of Exit Fees to protect the third party interests associated with trade in water entitlements. Murray Irrigation engaged independent consultants, at significant cost, to calculate its Exit Fee. Our approach was to use the principles established by the Murray Darling Basin Commission in the document “Principles for the Development and of Access and Exit Fees.”

The NSW Irrigation Corporations were encouraged by the NSW Government to develop their Exit Fees based on these principles. The Exit Fee is based on fixed operating and capital costs and is effect the NPV of an access fee, which is seems is a legitimate charge for an Irrigation Corporation. Murray Irrigation, when electing to charge an Exit Fee in preference to an annual access fee was based on the following rationale;

- Murray Irrigation is an irrigation supply company whose costs are largely fixed irrespective of annual water deliveries. The company’s revenue is reliant on income received from fixed charges on entitlements and water usage charges. The Directors are responsible for ensuring the company remains solvent and for decisions which are in the best interests of the company. Collection of an Exit Fee on water entitlements transferred from our licence is a suitable tool to help the company management the financial risk associated with a reduction in water entitlements on our licence.
- The company minimises its exposure to its bad debtors through its credit policy, where water supply to landholdings whose payments are outside the terms of our credit policy is stopped. This means income protection is inextricably linked to water entitlements and water use. In January 2006 Murray Irrigation changed its constitution to allow all except five water entitlements to be sold or transferred from a landholding. As a result of the constitutional changes an Access Charge would place the company at greater financial risk. An Access Charge would be in the order of \$10,000 or more per landholding per year. In a situation where only five water entitlements remained on a landholding and there was no annual water use for irrigation, it would be difficult and time consuming for the company to recover the unpaid account. The choice of an Exit Fee in preference to an Access Charge was quite deliberate and was intended to avoid increasing bad debtors.

In addition to introducing an Exit Fee Murray Irrigation has made a number of changes to its rules associated with the transfer of water entitlements. As a package this had provided significant opportunity to expand trade in water entitlements both within Murray Irrigation and to individuals who do not own land in Murray Irrigation. This package of changes is largely overlooked in the Productivity Commission’s draft report, associated working paper and also in the report recently released by ABARE which also criticises exit fees.

The changes introduced by Murray Irrigation are as follows:

- Transfer of water entitlements from our licence is consistent with the limits set by the National Water Initiative.
- Murray Irrigation water entitlements can be owned by non-landholders.
- All except five water entitlements can be transferred from a landholding.  
(The five water entitlements are effectively a stock and domestic water supply).
- No Exit Fee applies to water transferred to another landholding within Murray Irrigation.
- Separate water entitlement, landholding and share registers have been established with facility for registration of encumbrances on the water entitlements register.
- A one off Exit Fee to apply as part of Murray Irrigation's charges policy where entitlements are transferred from our licence.

Our shareholders overwhelmingly endorsed these changes at a special general meeting held in January 2006.

In forming Murray Irrigation, the NSW Government transferred the risk of current and future infrastructure management, operation and the fiscal viability of the scheme to the Directors of the unlisted public company. The environmental risks both current and future were also transferred to Directors. During the separation process it was not envisaged that Murray Irrigation would be forced by Government to allow transfer of water entitlements out, with all limits on transfers to be removed over time.

In fact one of the models considered during the formation of the company was to establish an infrastructure company. Ownership of the water licences would remain with the irrigators. This model was rejected by Government because of risks to the infrastructure company which would be dependent on the water entitlements for revenue but unable to regulate the entitlements. The discussion in the draft report and staff working paper does not adequately address the substantive differences in ownership of irrigation infrastructure assets between NSW, Victoria and South Australia. The business environment applying to Murray Irrigation compared with Goulburn Murray Water, which is a government authority are substantially different. Financial failure of Goulburn Murray Water is a sovereign risk, financial failure of Murray Irrigation is a private risk.

The different ownership structures, to date, have resulted in quite different approaches and performance between the two organisations. The different ownership structures between NSW and Victoria make the development of a common policy approach to this issue extremely difficult.

A much more sophisticated debate about suitable approaches to the issues confronting irrigation supply organisations as a result of new government regulations is required. This approach should be inclusive of the organisations which own the water entitlements, and should recognise their interests.

The *Stranded Irrigation Assets* Productivity Commission Staff Working Paper proposed a number of strategies for addressing stranded assets which may result from the expansion of trade in water entitlement in addition to the introduction of Exit Fees.

Strategy one suggests reconfiguring of irrigation assets. This recommendation could only be applied on a case by case basis. Murray Irrigation believes, in the foreseeable future, it will be rarely practical to abandon substantial parts of our infrastructure. Implicit in government documents about Exit Fees and stranded assets is that stranding of irrigation assets is widespread and Irrigation Corporations have

introduced barriers to avoid reconfiguration and or rationalisation of infrastructure. Whilst this may be the case in some districts, this situation does not apply to Murray Irrigation.

Strategy two suggests reducing costs and revaluation of the asset base downward to reflect reduced demand. The strategy assumes that reduced demand will reduce operating costs and reduce the requirements for depreciation. Without closure of whole sections of channel systems to reduce operation and maintenance costs this strategy is also impractical.

Strategy three recommends introducing higher access charges for remaining irrigators. One of Murray Irrigation's objectives of introducing the Exit Fee was to remove the third party impacts of individual sale of entitlements, in line with National Water Initiative guidelines. The reason why Murray Irrigation has chosen a policy which protects the third party interests is because it aligns with the company's aims and objectives. As part of the communication process to gain shareholder support for the proposed changes to our constitution, the potential impact of the Exit Fee on the value of water entitlements was recognised by our members. Despite these potential impacts the proposed changes were unanimously supported by our shareholders.

Strategy four proposes future investment funded by borrowings. This approach is different to the current annuity approach which Murray Irrigation is required to have by the NSW Government. This approach has some merit and would be supported by some irrigators hoping to defray expenditure to the next generation. It only addressed the costs associated with capital whereas the Exit Fee includes recovery of future fixed operating costs. These costs are a substantial part of the Exit Fee.

#### PRELIMINARY FINDING

*Approval processes and associated costs involved in trading in water entitlements should be benchmarked to best practice. Performance reviews should be conducted periodically. (Page XXVII)*

Private Irrigation Corporations should be included in the benchmarking. Increased transaction costs associated with trade in water entitlements is an unavoidable consequence of the separation of land and water and the development of water entitlement registers.

## Implications of freeing up water trade

### PRELIMINARY FINDING

*Constraints to trade are generally greater for water entitlements than for seasonal allocations. Relatively unconstrained trade in seasonal allocations and emerging derivative water products already mean that water is moving to higher value uses. Constraints to trade in water entitlements should be removed to build on these gains. (Page XXVIII)*

Significant barriers to annual trade from the Murrumbidgee Valley to the Murray Valley exist. The significant reduction in water trade out of Murrumbidgee Irrigation, show in table 3.5, page 44, Staff Working Paper is an example of the impact of annual trade barriers. These barriers and their impact on the movement of water between the Murray and Murrumbidgee Valleys should not be overlooked.

Murray Irrigation generally supports the expansion of trade in water entitlements. However, removal of constraints is unwarranted where 1) systems are poorly understood and or water rights are poorly or inadequately defined and water use is badly regulated and measured will impact on both existing development and the environment and 2) where constraints protect the financial viability of group irrigation schemes.

### PRELIMINARY FINDING

*Irrigators are generally well informed about water-use choices and are best positioned to make sound decisions about allocating water to privately productive uses. There may, however, be a need for governments to improve information on biophysical characteristics of water use common across property boundaries. (Page XXIX)*

Murray Irrigation agrees with this finding.

### PRELIMINARY FINDING

*The management, performance and activities of water utilities have important implications for the efficient use of rural water on – and off-farm. Improving incentives to manage water resources to maximise community benefits, and removing unjustifiable impediments to their activities, are likely to improve water use efficiency. (Page XXIX)*

State Governments have adopted different institutional structures for their water utilities. The privatised irrigation corporations are an example of an effective model which provides incentives combined with a regulatory framework to improve the efficiency of our business. Murray Irrigation believes a combination of both incentives and regulation is important to improving performance.



PRELIMINARY FINDING

*Government subsidies to encourage the use of specific irrigation technologies need to be carefully designed to be capable of yielding net public benefits. If this approach is adopted, they are unlikely to improve the economically efficient use of water. (Page XXIX)*

Murray Irrigation challenges this finding. Conclusions about efficient water use in irrigated agriculture should not be made in isolation from decisions about the most efficient use of other resources available to farmers, in particular land and labour. The most profitable farm businesses are not necessarily those businesses with the highest return per megalitre used.

In addition, since 1995 Murray Irrigation's shareholders have received a range of incentives to improve land, water and vegetation management in our area of operation. These incentives are administered by Murray Irrigation as part of the Murray Land and Water Management Plans and are funded by State and Commonwealth Governments. The Government contributions of \$67.5 million have leveraged an investment from this community over 10 years of \$347 million, with a very high proportion of the Government funding invested in on-ground water efficiency.

## Markets can help address environmental flows

### PRELIMINARY FINDING

*Planning processes aid the efficient allocation of water between environmental and non-environmental uses. However, over-reliance on them can crowd out more efficient and effective market mechanisms. (Page XXXI)*

In the NSW Murray the Water Sharing Plan has been gazetted and enacted. The Plan was developed with input from the community and government over more than four years. It contains a range of rules which describe how the available water is shared between the environment and irrigators and between irrigators.

Overlying this planning process is the Living Murray Initiative, which seeks to recover an additional 500GL a year, on average, to provide environmental flows to the identified environmental assets in the Murray River. In addition Water For Rivers is also seeking to recover in the order of 275GL for the Snowy River. These are very significant volumes of water to attempt to recover from presumably the combined Murray, Murrumbidgee and Goulburn River systems.

This water needs to be recovered from outside the planning process. However, the storage and release of this water needs to be incorporated within the planning process so that it does not negatively impact on the property right which the enacted water sharing plans provide.

### PRELIMINARY FINDING

*Opportunities to source water for environmental purposes through infrastructure investment, at a cost below the current price for entitlements, appear limited. Further sourcing of water through “water saving” infrastructure investment may reduce water available for other uses. (Page XXXII)*

Murray Irrigation agrees the least cost infrastructure investments in water savings have been harnessed and there is significant risk that future investment in infrastructure projects which attempt to reduce river losses are highly likely to reduce water available to other users; they will require very close scrutiny.

Infrastructure investment projects, where the entitlements recovered are from licensed entitlements, are a potential source of water. However, irrigators will be willing sellers to government where the price paid is higher than the market rate.

In South Australia the operational losses associated with the barrages, Lake Alexandrina and Lake Albert need to be tackled by Government. Losses in South Australia are part of their entitlement flow, and could be recovered as part of the 500GL target for the Living Murray.

## **A portfolio of water products is needed**

### PRELIMINARY FINDING

*A portfolio of water products will be required to deliver increases in environmental flows in a timely and cost-effective manner.*

*Environmental objectives of the Living Murray Initiative can be more effectively addressed through a range of water products.(Page XXXII)*

Murray Irrigation agrees with these findings. Murray Irrigation is keen to be involved in exploring ways different water products and water markets could be used to assist meet the Living Murray Initiative, water recovery target.

In considering water products Murray Irrigation believes the following principles are important to the effectiveness of the products developed and irrigator support.

- 1) The nature of water entitlements purchased, leased etc. for the environment remain the same as the water entitlements of the seller. The Barmah/Millewa Forest Allocation is an example of an environmental allocation where this did not occur. As a consequence there continues to be widespread community animosity about this allocation, with irrigators believing they have been treated unfairly by government. Another example is some of the 30GL recovered from our licence, above the Barmah/Millewa choke. This was delivered as a regulated flow to an environmental asset downstream of the choke at a time when irrigators could not have transferred water from above the choke to a licence downstream. Different rules should not apply to environmental water.
- 2) Arrangements for options, where irrigators guarantee certain volumes for the environment based on annual allocation should not erode the water available in a capped environment. This is a subtle complexity which demands these options are evaluated and are consistent with the Murray Darling Basin Cap on diversions. Six years of drought has altered the view of water availability.

## **Markets need to be supported by broad reforms**

### PRELIMINARY FINDING

*A number of factors have the potential to significantly affect the quality and availability of water from rivers in the Murray – Darling Basin in the longer term. If not addressed, they will substantially reduce stream flow in the Murray – Darling Basin, thereby counteracting efforts to source water for the river systems. (Page XXXIII)*

Murray Irrigation agrees with this statement. These concerns are not new. The National Water Initiative and its pursuit of trade in entitlements will exacerbate these problems. The draft report would be greatly improved by linking this finding with its other findings about removal of trade barriers. It would also be useful to priorities for where these issues urgently need to be addressed prior to the further expansions of trade in surface and groundwater entitlements.

## **Markets can address flow objectives flexibly and cost effectively**

### PRELIMINARY FINDING

*Many river flow objectives require sourcing additional water for environmental purposes. There are often more flexible and cost-effective ways to achieve these objectives than purchasing entitlements and investing in infrastructure. (Page XXXIII)*

Murray Irrigation supports this statement, although development of a market is reliant on being able to clearly define what product you require, in many system this knowledge is in its infancy.

### PRELIMINARY FINDING

*Creating new; tradeable rights to rights to river capacity may be required to help reduce river heights or reduce un-seasonal flooding.(Page XXXIV)*

The practicality of this finding will be limited to smaller systems than the Murray River.

## **Conclusion**

**Murray Irrigation broadly supports the findings of the draft report with the exception of recommendations to remove the Exit Fee on water entitlements which NSW Irrigation Corporations including Murray Irrigation have recently introduced. The section on trade barriers could be improved by including a discussion about the how the nature of ownership of the assets impacts of the choice of strategies to mitigate the risk of sale of water entitlements from a region.**

**The report could also be improved by highlighting the potentially negative consequences of expanding trade in water entitlements in systems which are poorly defined, regulated and measured, and identify the areas of greatest risk. For example, trade in groundwater, where groundwater is connected to surface water systems.**