Coleambally IRRIGATION

Murray Irrigation Limited
ABN 23 067 197 933

IPART Review of Bulk Water Prices from 2006/2007

- Preliminary Comment on Key Issues

A report prepared by Marsden Jacob Associates for Coleambally Irrigation Cooperative Ltd and Murray Irrigation Ltd

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1. Introduction

Marsden Jacob Associates (MJA) has been engaged by Coleambally Irrigation Co-operative Limited (CICL) and Murray Irrigation Limited (MIL) to prepare this submission as part of these organisations' participation in the review by the NSW Independent Pricing and Regulatory Tribunal (IPART) of bulk water prices for the period from 1 July 2006.

The submission provides a brief outline of key financial and economic issues identified for the review, based on a preliminary examination of submissions made by State Water Corporation (State Water)[1] and the Department of Natural Resources (DNR).[2] The submission does not purport to present all issues of relevance, and importance, to CICL, MIL and their customers. Other issues of relevance will be covered in submissions by the NSW Irrigators' Council and separate submissions made by CICL and MIL subsequent to the public release of the IPART consultant's report..

A brief explanation has been provided of why the identified issues are relevant to IPART's review; and some preliminary suggestions offered on how these issues might be addressed by IPART.

1.1. Backgound

CICL was formed in 2000 whilst MIL was formed in 1995, when government-owned Irrigation Areas and Districts were privatised and ownership transferred to irrigators. Each irrigator landowner is a shareholder in the company, with shares held in proportion to the water entitlements held by each member.

The CICL irrigation area was constructed to make use of water diverted westward as a result of the Snowy Mountains Hydro-Electric Scheme. It covers an area of 79,000 ha held in 452 farms and supports a population of approximately 1200 people. The town of Coleambally was constructed specifically to support irrigated agriculture, with construction commencing in the late 1950s and the town officially being opened in 1968. CICL has a bulk license of 629 GL of water which is used for the irrigation area. Water is diverted to the area from the Murrumbidgee River at Gogelderie Weir. Drainage water flows via Yanco and Billabong Creeks before entering the Murray River much of the drainage water is reused downstream of Coleambally.

MIL is Australia's largest private irrigation company, supplying irrigation water to 1400 family farm businesses covering 2416 irrigation holdings in southern NSW. MIL's area of operation stretches from Mulwala in the east, to Moulamein in the west - over 800,000 hectares of farmland north of the Murray River.

Irrigation water is purchased in bulk from State Water Corporation (State Water) and supplied as a 'retail' service to individual irrigators through distribution infrastructure owned, maintained and operated by CICL and MIL. Both CICL and MIL undertake all

[1] *Bulk Water Pricing Submission to the Independent Pricing and Regulatory Tribunal*, State Water Corporation, September 2005.

[2] *Submission to IPART to set Water Resource Management Charges for 1 July 2006*, NSW Department of Natural Resources, September 2005.

activities connected with distribution of water including metering and billing and delivery of customer services through offices and depots across each Irrigation Area.

Irrigation water supplied to CICL and MIL's customers is used for crops such as rice, wheat, barley, oats, canola, soybeans, maize, sunflowers, lucerne, grapes, prunes and pastures for sheep and cattle. Irrigated agriculture is the foundation of the social and economic well being of towns and regional businesses across the two Irrigation Areas. Irrigation has transformed what used to be marginal dryland country into highly productive irrigated land, which produces a diverse range of food products that ends up on the dinner tables of many Australians. Export of produce is also an important market with for example 80% of rice destined for overseas markets.

1.2. Why this review is crucial to the CICL's and MIL's customers

The outcome of this review will have a significant, or even dramatic, impact on the commercial and economic interests of CICL and MIL and each of their end-use customers. The purchase of bulk water from State Water comprised some 20 per cent of total business costs for CICL in 2004/05, and some 21 per cent for MIL and an even higher proportion of water supply costs. These costs are passed on, in full, to CILC's and MIL's customers, as neither business has any capacity to absorb cost increases.

Both State Water and DNR's proposals to IPART signal substantial increases in expenditure, well above levels required to provide bulk water services over the recent past. Should IPART accept the expenditure proposals made by State Water and DNR, the price paid by CICL's and MIL's customers would rise over the next 5 years; and possibly rise even further if IPART removes the wholesale discounts received by both organisations. The estimated price impact on customers is significant, with the average bulk water charge rising by over 200% in MIL and 35% in CICL under State Water's proposals for the year 2005/06.

Note that Table 10.7 in State Water's submission indicates a 5.1% decrease in charges in the Murrumbidgee to General Security holders for 2006/07. Whilst this may be the case for State Water's river diversion customers, CICL's calculation indicate a significant increase in bulk water prices for its customers in the irrigation district.

The proposed increase in bulk water comes at a time when CICL's and MIL's customers face unrelenting input cost and price pressure from competitive domestic and international markets. This places pressure on end-use customers to be more innovative and efficient. It also invariably results in downward pressure on real prices for the agricultural products they produce. It is simply not sustainable for the end users of bulk water to allow providers of a key input to be permitted to increase costs (and prices) above efficient levels.

2. Key Issues for the IPART review

This section contains a brief comment on issues that have been identified from a preliminary review of both State Water's and DNR's submissions to IPART. The comments include a brief initial statement of why these issues are important to CICL, MIL and their customers; and make preliminary suggestions of what IPART might consider doing to address the issues.

2.1. Issues arising from IPART's 2005 review of bulk water prices

IPART undertook a review of bulk water prices during late 2004 and the early part of 2005. That was the fifth regulatory review of NSW bulk water services since 1996.[3]

The last review was intended to set prices for bulk water services across NSW for a period of at least three years. Part of the review included an assessment by MJA and Cardno MBK (MJA-Cardno), as independent consultants to IPART, of the prudency and efficiency of State Water's operating and maintenance (Opex) and capital expenditure (Capex). There was no comparable assessment undertaken by independent consultants of expenditure for services provided by the (then) Department of Infrastructure and Natural Resources (DIPNR).

The outcome of MJA-Cardno's review was presented to IPART in a Final Report submitted in May 2005.[4] The MJA-Cardno Final Report identified a number of critical issues facing the newly corporatised State Water. A crucial issue was that State Water's management and financial reporting systems did not appear adequate for the tasks it was required to undertake, or for IPART to satisfactorily review State Water's costs.

Because of the limitations of State Water's systems, the MJA-Cardno Final Report noted that State Water was not able to respond satisfactorily to detailed queries about:

- why such substantial increases in cost were forecast in virtually all major areas of Opex compared to actual expenditure levels in the preceding three years (2000-01 through 2003-04); and
- why reported Opex that State Water asserted were likely to largely fixed (which MJA-Cardno accepted) varied significantly between years and between valleys in State Water's 'Valley Accounts';
- what services provided to bulk water users, what obligations to be discharged and what assets to be serviced had not been completed satisfactorily in the previous three years that may justify an increase in costs for the business.

[3] IPART published Determinations on bulk water pricing in 1996, 1997, 1998 and 2000.

[4] *Review of Capital Expenditure, Asset Management, and Operating Expenditure of State Water Corporation*, MJA and Cardno MBK, 4 May 2005.

As noted by IPART in its 2005 Determination,[5] *MJA-Cardno did not have sufficient confidence in the robustness of the information provided by State Water at the valley level to apply its recommended cost reductions to specific valleys*.[6] Indeed, as noted by MJA-Cardno in its Final Report to IPART:

- *Even at the end of the review process, after State Water had considered the criticisms contained in the MJA-Cardno draft report (which are largely retained in this final report), State Water was still not able to satisfactorily explain the links between (substantially higher) forecast costs and achievement of efficient discharge of obligation or service delivery to customers*.[7]
- *State Water's predecessor organisations (with the existing managers and staff) developed an operating regime capable of achieving Opex levels well below those judged 'efficient' by IPART in the 2000 Determination while still meeting legal and service obligations.* [8]
- *No material change in function, obligation or service standards, post 2003/04 or the next regulatory period, was identified that justifies an increase in total Opex costs in State Water's forecasts.*[9]

MJA-Cardno recommended that IPART allow total Opex costs at an 'efficient baseline' amount equivalent to an average of the previous three years of actual costs (from 2001/02 through 2003/04). However, this recommendation was qualified to the extent that *if* (additional Opex) *resources are deemed necessary, the quantum and timing will be matters of judgement that are best made by IPART or State Water's owner*.[10]

MJA-Cardno also concluded that State Water had achieved considerable 'efficiency gains' in its capital expenditure program (i.e. actual capital expenditure was consistently (and significantly) below forecasts – even in the (then) current year). However, it was MJA-Cardno's view that this was *most likely achieved by organisational inertia rather than an explicit management-endorsed business strategy. That is, State Water was not capable of committing capital expenditure at the level forecast - primarily because design and planning of major projects was not sufficiently developed. Such an outcome was deemed 'imprudent' by MJA-Cardno because it occurred each year, demonstrating Capex forecasts are biased by excessive optimism (or excessive caution) that is inconsistent with sound business practice. This outcome was also considered to be 'imprudent' because it has the regulatory impact of consistently allocating a higher than necessary cost onto State Water's customers.*[11]

It is relevant to this current review that IPART appears to have placed greater weight on the qualifications to MJA-Cardno's recommendations, than the actual recommendations of 'efficient baseline' for both Opex expenditure and capital expenditure. Instead of accepting either the recommendations of 'efficient baseline' Opex expenditure made by MJA-Cardno

5 *State Water Corporation and Water Administration Ministerial Corporation Bulk Water Prices for 2005/06*, IPART Determination Nos 8 and 9, 2005, August 2005.

6 p. 11, *Op Cit.*

7 p. ESii, MJA-Cardno.

8 p. ESxii, *Op Cit*

9 *Ibid.*

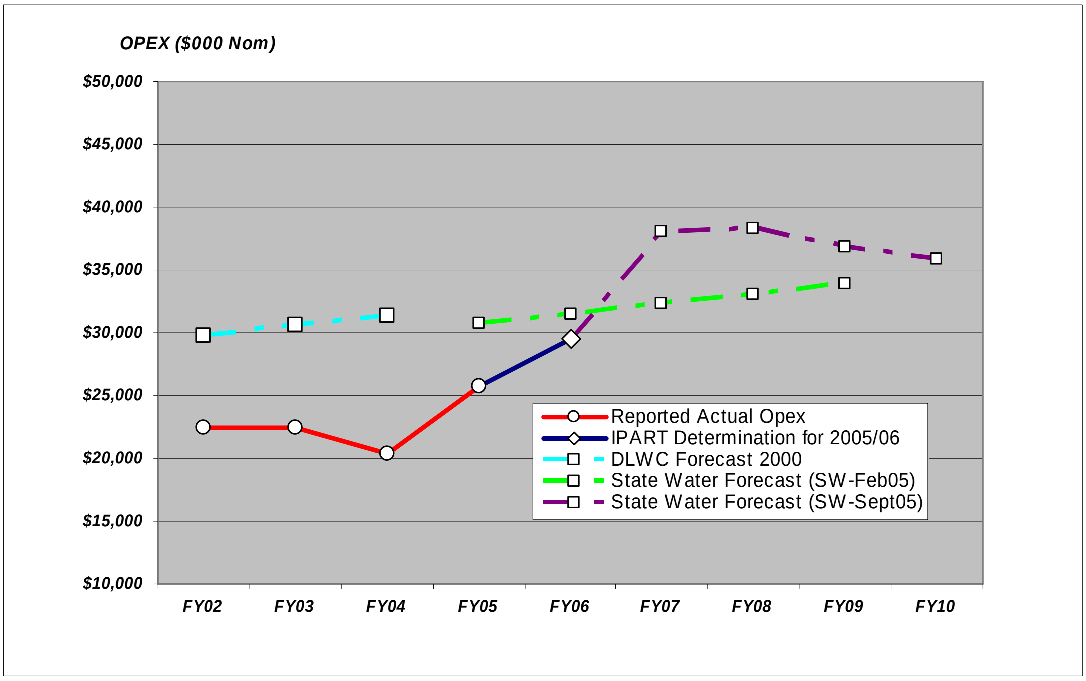
10 p. ESv, *Op Cit.*

11 p. ESxiv, *Op Cit.*

or the proposals made by State Water, IPART *decided to also use the costs established for the 2001 determination in reaching its decision for 2005/06.*[12] In effect, IPART appears to have used its own estimate of what it says was *MJA-Cardno's recommended cost reductions at an aggregate level*[13]to compare inflation adjusted values for 2005/06 determined by IPART at the 2001 review. Most importantly, IPART adopted the inflation-adjusted 2001 Determination values for the 2005/06 year – even though the MJA-Cardno Final Report showed conclusively that State Water had achieved substantially lower actual expenditure in the previous three years.[14] IPART subsequently allowed State Water an Opex amount of some $36.54 million for 2005/06 – compared to MJA-Cardno's (qualified) 'efficient baseline' Opex of $21.7 million.

As shown in Chart 1 below, State Water's latest submission to IPART contains an estimate of the forecast Opex for 2006/07 onwards that is different to the forecast contained in its (final) submission to IPART's 2005 review. It is also of direct interest to note that State Water's actual expenditure for all previous years from 2001/02 through 2004/05 is, and has remained, substantially below State Water's own forecasts This reinforces the basis of the recommendations in MJA-Cardno's Final Report to IPART that State Water's forecasts be subject to detailed scrutiny.

CHART 1: STATE WATER ACTUAL AND FORECAST OPERATING EXPENDITURE



It is noted that IPART has appointed PB Associates to undertake the latest assessment of prudence and efficiency of State Water's (and DNR's) costs. It remains of vital importance

12 p. 11, IPART *Op Cit.*.

13 *Ibid.*

MJA notes that the 'aggregate' MJA-Cardno figure adopted by IPART (shown in Table 3.1 of IPART's 2005 Determination) totalled $37.96 million for 2005/06 compared to State Water's proposed forecast of $51.76 million. The 'efficient baseline' amount contained in MJA-Cardno's recommendation (based on the average of actual expenditure) totalled just $21.7 million.

14 IPART's 2005/06 Determination does not appear to provide a clear and transparent explanation for this aspect of its deliberations.

to State Water's customers that IPART ensure that State Water's (and DNR's) cost and performance are subject to rigorous and transparent examination so that future cost allowances are no more than required for efficient service delivery.

The above are just a few examples of issues identified in the MJA-Cardno Final Report. MJA notes that IPART's Determination for the 2005/06 period *encourages State Water to prepare an additional submission that takes into account the findings of MJA-Cardno's review of its projected expenditures, as well as comments made by stakeholders in their submissions to the 2005/06 review*.[15] A preliminary review of State Water's response to this invitation suggests that State Water has, once again, failed to provide sufficiently specific and quantified responses to the issues raised in the MJA-Cardno Final Report. While some additional explanation, and some specific examples, are provided where State Water forecasts increases in cost, there appears to be very little evidence to support the qualitative claims being made.

2.2. Expenditure forecasts

Both Opex and Capex expenditure in all valleys is forecast to rise significantly. MJA estimates using the data provided in the latest State Water submission that Opex will increase by 45% in the next regulatory period. State Water assert that this significant increase is driven by rising staffing costs (and staff numbers), IT and accommodation costs. State Water says (for example) that higher costs are to ensure that its offices are *more suitable to staff and customers*,[16] although the submission also asserts that cost increases are required to deliver increased services to customers, meet obligations and maintain assets – although detailed evidence is <u>not</u> provided on which customers are not being serviced, which obligations are not being met, or which assets are being run down.

The increase in staffing costs also remains at odds with the potential for cost savings in operations with the increased deployment of SCADA and remote control, contracting out of services or revising the relatively high permanent manning at dams. The preliminary review of State Water's submission shows that State Water has identified some areas of potential cost reduction (for example, the potential for operating cost savings is demonstrated for the Duck Creek Regulator[17]), but no action appears to be contemplated to achieve these savings until after Corporatisation is 'fully bedded down', that is for at least three years. MJA also notes that the increase in annual IT costs claimed by State Water are not consistent with the statements made in the previous State Water submission to IPART in relation to the required upgrade of the financial and management accounting system in response to corporatisation.

MJA also note that State Water has presented estimates of price rises that would result if there was unrestrained application of its forecast costs, with increases in annual bills of up to 3979.2% (for the North Coast). While it is acknowledged by State Water that *the impacts of unconstrained prices … cannot be implemented as they stand,*[18] the discussion that follows

[15] p. 33, IPART *Op Cit.*

[16] p.89, Vol 1, State Water submission.

[17] See Appendix 7, Vol 2, State Water submission.

[18] p. 134, Vol. 1, State Water 2005 submission.

The full quote by State Water is "*It is clear that the impacts of unconstrained prices <u>are significant</u>, are unsustainable and cannot be implemented as they stand* (emphasis added). However, the minimum bill impact is shown as 23.2% which is much more than merely "significant".

suggests that State Water is contemplating a future where cost increases of the magnitude indicated would be passed on to customers by, or soon, after the end of a 5 year period of continuing *operating subsidy from the Government* because State Water *has an imperative to achieve efficient full-cost recovery within 5 years.*[19]

Making such comments in the same submission that forecasts substantial increases in cost, well above levels actually achieved in the recent past, shows that State Water has little sympathy or understanding of customer concerns. MJA-Cardno's Final Report noted that the people who have been appointed to manage State Water Corporation are (on the whole) the same people that were responsible for managing State Water in its former manifestations. They were the people who provided the cost information to IPART for the 2000 bulk water review, which IPART largely accepted. State Water should be pressed very hard to come up with evidence to support any significant cost increase.

2.3. Accountability for expenditure

State Water's Annual Reports indicate an over-recovery in both the Murray and Murrumbidgee Valleys. MJA believes it is reasonable to expect State Water to demonstrate that money collected for works and operations in a valley is actually spent for that purpose in the valley. This is central to engaging end-use customers in the review and gaining their trust, support and confidence. But State Water's submission contains very little specific information of this type. For example, State Water has consistently failed to satisfy customers that the funds collected through water charges in the Murrumbidgee River have been used for works and operations in that valley (although we are advised that in the Murrumbidgee valley State Water staff are moving to address this deficiency. There is concern that capital annuities paid over past decades for future works have been applied to other activities (or been retained by Treasury through the annual Departmental budget process). Customers in general expect greater accountability for the funds they contribute to management of assets in their valleys. State Water's latest submission does not address the issue of accountability for funding of valley operations and capital works.

IPART should require State Water to improve its performance in terms of accounting for the funds provided by customers. In particular, State Water should be required to present a statement showing how annuity amounts have been spent.

2.4. Opportunities for more efficient operation overlooked

Contrary to the State Water assertions made in the current and previous submissions, customers (and Irrigator bulk water customers in particular) have very little meaningful input to capital works and operational planning at valley level. State Water customers are seeking to promote better water and infrastructure management at a valley level.

The irrigation area bulk water customers in the southern Murray-Darling Basin together are larger than State Water in terms of customers (accounting for 8,000 plus water users) and account for more than 60% of all bulk water deliveries in NSW. This should provide opportunities to operate the river network more efficiently by leveraging of the capital and operational capabilities of the irrigation area bulk water customers, particularly in the

19 *Ibid.*

Murray and Murrumbidgee Rivers. This comment also applies in relation to considerable investment being made by customers in the central and northern valleys in improved measurement of river diversions.

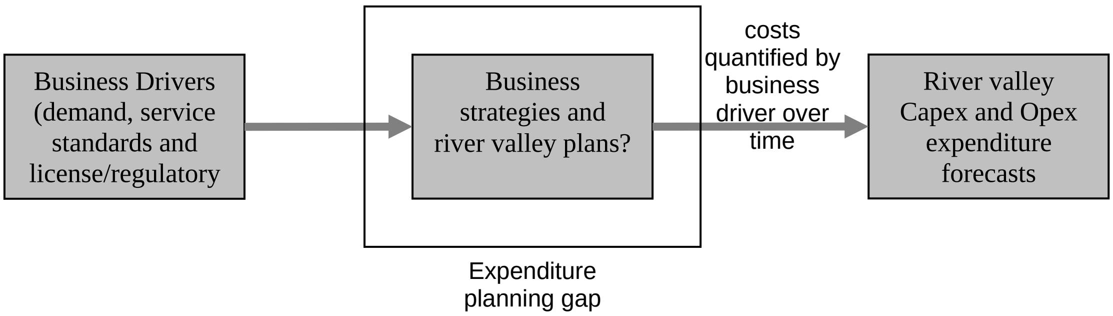
IPART should require State Water to examine the cost effectiveness of enhanced operational integration with large bulk water customers. CICL and MIL will endeavour to identify areas where their organisations could provide a competitive service to State Water. With State Water's cooperation, this may be extended to providing IPART with costed proposals for some of State Water's operating and maintenance activities to be undertaken by CICL and MIL e.g. SCADA and other operational support.

2.5. Deficiencies in expenditure planning identified by MJA-Cardno in 2005

The MJA-Cardno Final Report identified a gap in State Water's capital and operating expenditure planning. It was concluded that a reasonable summary of obligations was presented in State Water's submission to IPART's (concurrent) review of the Interim Operating Licence, and an outline of business strategies is presented in State Water's Annual Reports. But no linkage is provided between all obligations, business strategies, costs and service standards in any of these documents, or in all of them combined.[20]

Sound and reasonable regulation requires that expenditure be transparently linked to principle business drivers such as demand, standards of customer service, regulatory obligations and asset condition. Chart 2 illustrates the typical expenditure planning process followed by regulated infrastructure providers in Australia; and the gap in State Water's expenditure planning process.

CHART 2 : TYPICAL EXPENDITURE PLANNING PROCESS FOLLOWED BY REGULATED INFRASTRUCTURE PROVIDERS



State Water's latest submission provides a comprehensive , and qualitative, description of business drivers including 46 business drivers covering dam safety, OHS, environmental and risk management and detailed valley expenditure forecasts. The gap in the State Water planning process may account for the observation that of the 46 business drivers identified in the submission only 2 have been presented with meaningful information about costs (Fish Ladders and Dam Safety).

[20] p. ESiv, MJA-Cardno, *Op Cit.*

2.6. Using the NWI to justify positions and costs

It is noted that both State Water and DNR place emphasis on obligations arising from the Intergovernmental Agreement on a National Water Initiative (NWI) in terms of justifying increased costs.

While it is recognised that the NWI imposes clear obligations on NSW, and by inference on State Water (and DNR), the agreement does not create an opportunity *per se* to incur costs that are not efficient, nor linked clearly to efficient discharge of the obligations created. Nor is there any explicit obligation for state regulators to impose such costs on water users, particularly where other beneficiaries exist or where governments discharge their assigned obligations for purposes other than providing water for productive use.

Furthermore where costs are increased because of the increased demands or expectations of the urban and wider community, irrigators cannot be expected to pay these higher costs. This issue of particular significance in the NSW Murray, where the benefits of the regulated rivers system are so widely dispersed in the regional and urban community. Furthermore, State Water and DNR's added emphasis on the NWI would appear at odds with that expressed by the Federal Government (Refer to the attached Media Release by the Hon Gary Nairn MP, 9th November 2005).

It is also noted that the NWI links a range of Objectives (paragraph 23) to Best Practice Pricing (paragraph 64), Community Service Obligations (paragraph 66), Certainty and Confidence (paragraph 93) and Full Cost Recovery (paragraph 65). Each of these issues is relevant to IPART's considerations. As noted above, it is important for IPART to ensure that State Water's costs are no more than required for well-managed, efficient operation at a level that meets customers' reasonable service expectations, efficiently discharges State Water's obligations and reasonably maintains the service capability of State Water's assets.

It is also important for IPART to address how costs should be shared between productive water users and other beneficiaries, including how to ensure that Government bears its legitimate Community Service Obligations (CSOs) without passing on such costs to productive water users. Such an approach was implemented by IPART through sharing allocated costs by fixed percentage for discrete activities (or Product Codes). However, MJA-Cardno's Final Report queried whether State Water's management systems were being used to record accurate allocation of costs at the activity level.[21] It is of concern that both the State Water and DNR submissions remain silent on such a critical element.

The NWI also makes it clear that the issue of affordability is relevant. IPART will be aware that such issues have been taken up by Ofwat (the UK water regulator) to argue that regulated businesses should examine ways to defer future investment so as to minimize price impacts on customers. This will be a relevant argument if IPART concludes that cost rises are required.

[21] Mis-allocation of costs at an activity (Product Code) level was one possible explanation for variation in costs that State Water asserted were generally fixed.

2.7. Conflict with some of State Water's own objectives – Social responsibility etc.

The *State Water Corporation Act 2004* under its "*Other Objectives*" indicates that State Water is:

(b) to exhibit a sense of social responsibility by having regard to the interests of the community in which SWC operates; and

(d) to exhibit a sense of responsibility towards regional development and decentralisation in the way in which it operates.

MJA's advice and assistance to CICL and MIL will, of necessity, be focussed on 'economic' issues related to State Water's (and DNR's) proposals. The key issues of economic relevance that fall within IPART's remit arise where such objectives are translated by law into explicit obligations that require State Water (and DNR) to incur business cost.

However, it is valid for Irrigators to argue broader economic impacts if prices rise substantially, and these arguments will be put strongly and clearly in separate submissions by CICL, MIL and the NSW Irrigators' Council – and supported by quantified examples and verifiable evidence (where that is available).

It is recognised that IPART's responsibilities do not extend to 'regulating' the flow-on economic impacts of its Determinations; and the most that IPART can do if these impacts are inevitable is to require future prices to be transitioned to full, efficient cost recovery over a (relatively) short timeframe. However, even if IPART has no legal power to deal directly with such matters, where IPART is convinced that economic structural impacts would result, it does have a responsibility to end users to recommend that Government address relevant issues.

2.8. Promote open contestability/competition to achieve efficiencies

The MJA-Cardno report recommended that State Water should be encouraged (or even compelled by IPART) to 'market test' its costs and the cost of services provided by DNR. As noted above, CICL and MIL will attempt to assist IPART in this area by identifying areas of State Water's (and DNR's) activities that could be competitively provided by either or both organisations. Where possible, CICL and MIL will prepare robust, transparent and auditable estimates for providing services to State Water – and present these to IPART and in any Public Forums. Both organisations will also consider the merits of putting an 'offer on the table' that includes a statement of willingness to undertake provision of the services at the price offered. That would give IPART a potentially credible reference point for assessing State Water's (and DNR's) projected costs.

It will also be important for IPART's consultants, PB Associates, to obtain comparative cost data from other operators, even though it is recognised that practical challenges arise in 'translating' such information into 'benchmarks' that IPART could apply directly to State Water's (and DNR's) activities.[22] Given the difficulties identified in the MJA-Cardno Final Report, it is likely that comparative performance indicators would assist in 'interpreting' cost

[22] Such challenges arise because there are aspects of State Water's (and DNR's) operations that involve substantial differences in asset type, distribution and service delivery modes to other Australian operators, not to mention climate, topography, geography and distance.

information provided by State Water (and DNR). Even if this only assisted in comparing operations across the valley/regions classified by State Water and DNR, it would be of considerable assistance to IPART.

2.9. Security of supply needs to be consistent with the Water Sharing Plan.

Murray Irrigation has previously supported State Water's proposal to increase high security entitlement charges relative to general security entitlement charges. The concern over relative charges arises from that fact that in the recent low allocation years the fixed charge per unit of general security water available has been substantially higher than the fixed charge per unit of high security water available.

Differentiation of security for water supply is an issue that should be considered by IPART in the 'price-service' nexus, although it does not appear to have done so in previous bulk water determinations. Clearly, service quality and service attributes have an impact on cost, and an impact of customers' perception of value.

There are precedents where security of supply has been considered in a regulatory pricing review.[23] As a general principle, even where restrictions apply, urban storages are invariably supplied at a higher level of supply security than rural and/or irrigation services. Where this occurs, there is an economic argument to be made that 'the value' reflected in the different security of supply be 'translated' into a pricing regime, with lower security attracting a lower share of costs. Note that Murray Irrigation does not support paying a premium for scarcity, rather the company supports paying a higher fixed charge because of the requirement to consider high security water availability in the next year, when making allocation announcements for general security irrigators.

2.10. Risk assignment

State Water is proposing a statistical treatment of supply variability risk involving assignment of supply risk by reference to average conditions, overlaid by 1 standard deviation, revenue shortfall adjustment mechanism etc. This is clearly intended to have the effect of effectively passing 100% of all business risk to customers.

IPART must review whether this is a fair and reasonable mechanism for sharing supply/revenue risk. Transfer of all business risk is very clearly a challenging issue for customers operating in fiercely competitive domestic and export markets, who have no equivalent mechanism to manage sharing of risk with their customers..

It is recognised that one of the basic principles of economic regulation is that users should pay the full efficient cost of receiving services, including all the efficient costs of managing risk. This includes revenue volatility risk, which appears to be the intention behind State Water's proposals in this area. The basic argument that regulators (worldwide) have used to support transfer of full efficient costs to consumers is that it justifies adopting a lower value for the Weighted Average Cost of Capital (WACC). State Water's proposal looks somewhat mechanistic and may not be the most reasonable of the alternatives available. It is

[23] Such matters are currently being considered by the Victorian ESC in its review of rural water pricing.

intended that MJA examine other alternatives for sharing of supply/revenue risk as part of a more detailed and later submission to IPART.

However, it is crucially important – particularly given State Water's suggestion that IPART adopt what is clearly an excessively high value for the WACC – that IPART carefully consider the mechanisms for sharing supply/revenue risk and integrate this with its considerations on the cost of capital.

2.11. Bulk discounts

In previous bulk water Determinations, IPART has acknowledged that there is a rational basis for offering discounts to the Irrigator bulk water customers. In the case of CICL wholesale discounts were provided for reasons largely contained within State Water's previous submissions including:

- The requirement to provide a single meter reading at the bulk water offtake, rather than the 832 farm meter outlets.
- Billing as a single entity as opposed to 832 farm outlets.
- Delivery of water via CICL's Main Canal at no cost and no provision for seepage and leakage losses (i.e. transmission losses covered by CICL).
- The incorporation of high security water supply to water users on the Coleambally Outfall Drain – a problem area for Government which is now the responsibility of CICL.
- The transmission of water via CICL's infrastructure to Yanco Creek.
- The extensive monitoring of:
  - Groundwater levels;
  - Chemicals in both channel and drainage water;
  - Cropping information including crop water use;
  - Biodiversity criteria; and
  - Soil EC.

It should also be noted that CICL at its cost ($150K) has installed the latest technology (an Accusonic Meter) for metering large flows at its diversion point from the Murrumbidgee River. CICL through its SCADA system makes instantaneous flow data available to State Water. In addition CICL pays for an independent check of the calibration of the Accusonic Meter on the basis of three assessments per year. This information is provided to both State Water and DNR. In terms of water delivery to CICL's offtake point from the river, the travel time is approximately 7 days. CICL in collaboration with its customers submits a rolling 7 day water order with State Water and advises daily of divergences from that order to maximize delivery efficiency. This in itself is a significant service provided to State Water and provides State Water with the opportunity to maximize water sales. The alternative is for State Water to collect the orders for the 832 farm outlets on a daily basis.

The creation of MIL which combined 2,400 licence holders into one licence significantly reduced the government water services required in the NSW Murray with obvious cost savings for State Water and government provisions of water resource management services.

Murray Irrigation provides State Water with the following information which greatly simplifies and reduced the operations costs for State Water:

- Daily water order and four day advance water order;
- Access to live extraction rates, 24hours per day;
- Externally validated monthly actual diversion and escape flows;
- Predicted annual diversions updated after significant events, for example allocation announcements. This information is essential for planning and river operations which is done by River Murray Water;
- Completed annual transfer forms for any shareholders transferring water to or from Murray Irrigation's licence;
- Murray Irrigation takes responsibility for meter reading, billing, water use, rice hydraulic loading, stormwater drainage management and monitoring of its 2,400 shareholders; and
- Murray Irrigation incurs significant annual costs through the fully audited reporting process required to present this and other compliance information to government.

DNR are seeking to increase water resource management costs because of implementation of the National Water Initiative. For both CICL and MIL, implementation of the National Water Initiative will require increased investment in share and water entitlements registers. These costs will be met by the Irrigation Corporation shareholders. The economies of scale for DNR where Murray Irrigation has only five water access licences for over 1.7 million unit shares are dramatic. In the case of water resource management the efforts of the CICL and MIL to manage their land and water resources sustainable combined with transparent reporting of activities is directly assisting DNR to meet it's water resource management responsibilities.

In terms of monitoring and reporting to meet DNR licence compliance requirements you are encouraged to visit both CICL and MIL's Annual Environment Report which can be accessed at http://env.colyirr.com.au/aer2005/ and www.murrayirrigation.com.au. This monitoring and reporting function costs CICL in the order of $250K per annum and MIL up to $500,000.

The complexity and cost to both CICL and MIL of reporting has now increased as a result of the formation of Catchment Management Authorities. The formation of the Catchment Management Authority whilst sold on the basis of cutting through 'red tape' is now adding another layer of bureaucracy with its additional reporting arrangements.

In summary, the essential argument in relation to bulk discounts is that Irrigators should not have to pay more than a reasonable allocation of the costs of providing bulk water. That is, the costs allocated to Irrigators should only be those that are clearly and transparently associated with providing the services Irrigators receive. For example, it is clear that Irrigators should not be allocated any costs associated with metering and billing of diversion customers, or Irrigators in other valleys.

A secondary issue is how tariffs and prices are used by State Water (and DNR) to recover costs that can be demonstrated to be fair and reasonably allocated. IPART has previously applied the discount to a fixed tariff component linked to entitlements. It may be possible to adopt a different tariff structure for bulk water supply to Irrigators, with different price levels for (say) the volumetric component to other customer segment; or alternatively a fee for service.

The objective in tariff design and pricing that IPART might choose to adopt, should be that pricing provide signals for efficient use of water <u>and</u> allows sensible investment decisions to be made by Irrigators and their end-user customers. It is also important for IPART to ensure that bulk water charges take into account only reasonable and efficient costs that can be allocated in a fair and transparent way to each customer segment <u>and/or</u> beneficiary. IPART should also require State Water (and DNR) to take into account the cost and revenue impacts on customers of its tariff design and pricing principles.

2.12. Regulatory Asset Values

MJA note that IPART has previously implemented a 'minimum commercial viability' form of the CoAG 'Upper Bound' pricing principle for other sectors of the NSW water industry with assets assigned a 'line-in-the-sand' asset value that is sufficient to achieve a revenue stream that assures commercial viability at efficient cost levels. MJA is of the view that IPART should be consistent with previous approaches and policy interpretation. This should result in determining an opening asset value that is either:

(1) based on a zero 'line-in-the sand' value at 1997; or

(2) be just sufficient to ensure State Water (and DNR) is able to maintain commercially viable businesses (at efficient cost levels) going forward.

The asset value so obtained should be used in combination with estimates of efficient Opex and Capex costs that are no more than sufficient for State Water (and DNR) to discharge its obligations – adjusted to review any contributions from Government or customers.

IPART's consideration of asset values should also take into account amounts contributed by State Water's customers through asset annuity payments over the last several decades; particularly in the period since IPART was given a role by Government to oversee bulk water prices.

MJA note that IPART would need to undertake cashflow modelling to estimate the likely outcome of adopting the above approach for setting initial regulatory asset values. Such modelling should be undertaken by IPART and released as part of the information sharing process in IPART's review. This would greatly assist end-use customers' understanding of issues surrounding commercial viability and is likely to show that initial regulatory asset values required to meet a minimum 'commercial viability' condition would be significantly lower than the asset value proposed by State Water.

2.13. WACC

State Water has suggested that IPART adopt a pre-tax WACC value of 7%, without providing any arguments or evidence that justifies this rate. A 7% (pre-tax) WACC is clearly not consistent with IPART's previous determinations for the Urban water sector, which was set at 6.4% real, pre-tax in the most recent (2004) Determination.

In considering this issue in respect of bulk water pricing, IPART should take into account the issues outlined below.

- IPART's own precedents, which should produce a maximum WACC value around 6.4% (real, post-tax), subject only to any update to the Commonwealth Treasury Bond rates used to estimate the Risk Free Rate in the Capital Asset Pricing Model (CAPM)).
- The likelihood that State Water will pay no tax (this assumes that, like Victoria's non-Metropolitan water businesses) State Water's assets will be valued for Statutory and Tax purposes using historic accounting data, rather than the RAB proposed by State Water. This would result in State Water having a zero (or very low) tax liability, which would be inconsistent with maintaining the assumption that tax is paid at the statutory tax rate (or some other figure adjusted within the CAPM/WACC formulae to account for an 'effective' tax rate).
- IPART should then deal with tax costs separately as a line item in the Revenue Building Block model, which would also give State Water a clear long-term incentive to continue to maintain 'efficient' tax arrangements.
- The Victorian ESC's recent decision for the water sector, which set the WACC using a significantly lower value for the Equity Beta (of 0.75, instead of 0.9 adopted by IPART in its latest Urban water Determination). This would be consistent with implementation of a reasonable for managing supply/revenue risk that was fair and reasonable, and produce a WACC value that is some 30 basis points lower than adopted by IPART for Urban water.
- The arguments developed by the Office of the Regulator General (now ESC) which support the use of the 'Vanilla', real, post-tax version of the CAPM, which would justify IPART adopting the same version of the CAPM as the Victorian ESC (and the QCA and ESCoSA).
- SW's proposal to adopt a gearing target of just 20%, which would lower both the Debt Margin and the Equity Beta values in the CAPM/WACC formulae because it reduces the risk that SW would default on any debt payments.

Acceptance of these recommendations by IPART would result in a WACC of around 5.0%, reducing SW's revenue by some $6.0 million/year (if the RAB is set at $300 million) without compromising a sensibly interpretation of the CoAG 'commercial viability' principle.

3. Conclusion: Summary of Key Issues

As noted in the introduction to this submission, should IPART accept the expenditure proposals made by State Water and DNR the estimated price impact on customers would be substantial, with the average bulk water charge rising by over 200% in MIL and 35% in CICL under State Water's proposals. These price rises will have a significant, even dramatic, impact on the commercial and economic interests of CICL and MIL and each of their end-use customers.

Given these impacts, it is crucial that IPART carefully considers all issues relevant to its review of efficient bulk water prices for the period from 2006/2007. In this submission a number of key financial and economic issues have been identified for the review, based on a preliminary examination of submissions made by State Water Corporation (State Water) and the Department of Natural Resources (DNR). These issues can be summarised as follows:

- **Problems with financial reporting systems**. An assessment by MJA and Cardno MBK, as independent consultants to IPART for its 2005 review of bulk water prices, identified that State Water's management and financial reporting systems did not appear adequate for the tasks it was required to undertake, or for IPART to satisfactorily review State Water's costs. This situation appears not to have changed. A preliminary review of State Water's response to this invitation suggests that State Water has, once again, failed to provide specific and quantified information to support its cost claims.
- **Lack of evidence to support expenditure forecasts**. Significant increases in Opex and Capex expenditure are forecast by State Water in the next regulatory period (in the case of Opex, estimated by MJA to be at least 45%). State Water asserts that these increases are required to deliver increased services to customers, meet obligations and maintain assets. However detailed evidence is <u>not</u> provided to support this claim such as information on which customers are not being serviced, which obligations are not being met, or which assets are being run down.
- **Accountability for expenditure**. State Water's latest submission does not address the issue of accountability for funding of valley operations and capital works. It does not show how annuity amounts have been spent.
- **Opportunities for more efficient operation overlooked**. Opportunities to operate the river network more efficiently by leveraging of the capital and operational capabilities of the irrigation area bulk water customers, particularly in the Murray and Murrumbidgee Rivers, have been overlooked by State Water.
- **Deficiencies in expenditure planning**. There is a gap in State Water's capital and operating expenditure planning. Sound and reasonable regulation requires that expenditure be transparently linked to principle business drivers such as demand, standards of customer service, regulatory obligations and asset condition. However these linkages are not revealed in State Water's planning documents.
- **Costs associated with the NWI.** State Water justifies increased costs in part on obligations imposed by the National Water Initiative (NWI) but does not clearly link costs to efficient discharge of the obligations created. Furthermore it fails to indicate why any such costs should be borne by irrigators instead of the wider community.

- **Conflict with State Water's objectives**. Under the *State Water Corporation Act 2004* State Water has obligation to take into account social responsibility and regional development issues. Substantial price rises will clearly have regional economic impacts.
- **Promote open contestability**. State Water should be encouraged (or even compelled by IPART) to 'market test' its costs and the cost of services provided by DNR.
- **Ensure security of supply is consistent with the Water Sharing Plan**. Differentiation of security for water supply needs to be considered by IPART in the 'price-service' nexus, although it does not appear to have done so in previous bulk water determinations.
- **Risk assignment**. State Water is proposing a statistical treatment of supply variability risk that is clearly intended to have the effect of effectively passing 100% of all business risk to customers. IPART must review whether this is a fair and reasonable mechanism for sharing supply/revenue risk.
- **Bulk discounts**. Irrigators should not have to pay more than a reasonable allocation of the costs of providing bulk water. That is, the costs allocated to Irrigators should only be those that are clearly and transparently associated with providing the services Irrigators receive. On that basis, IPART should acknowledge, as it has in previous determinations, that there is a rational basis for offering discounts to the Irrigator bulk water customers.
- **Regulatory asset values**. IPART should be consistent with previous approaches and policy interpretation. This means that it should determine an opening asset value that is either:
    - based on a zero 'line-in-the sand' value at 1997; or
    - be just sufficient to ensure State Water (and DNR) is able to maintain commercially viable businesses (at efficient cost levels) going forward.
- **WACC**. State Water has suggested that IPART adopt a pre-tax WACC value of 7%, without providing any arguments or evidence that justifies this rate. A 7% (pre-tax) WACC is clearly not consistent with IPART's previous determinations for the Urban water sector, which was set at 6.4% real, pre-tax in the most recent (2004) determination.