BUNDABERG REGIONAL IRRIGATORS GROUP

REPRESENTING MEMBER IRRIGATORS WITHIN THE BIA SUNWATER IRRIGATION SCHEME

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

BACKGROUND

Bundaberg Irrigation Area Scheme

- The Bundaberg Irrigation Area (BIA) Scheme was commenced in 1970 when the Queensland Government adopted a proposal to proceed with the first component of an irrigation supply scheme for the Bundaberg area. The scheme proposed construction of major storages on both the Kolan and Burnett rivers to supply urban, industrial and irrigation demands.
- The irrigation scheme also provided for replacement of underground water with surface water to assist in managing saltwater intrusion of aquifers, which at that time had been identified as of major concern to maintaining water supplies for urban and agricultural use.
- The BIA has quite different delivery costs across the scheme. River irrigators pump their water with their own infrastructure, and SunWater pumps and distributes channel water for channel-supplied irrigators through pumped re-lift systems to discretely different segments of the scheme.
- Significant differences in pumping heights and subsequent electricity costs exist between BIA segments. The sequence of re-lift systems in parts extends to over 157m to deliver to some users and delivery costs are scales of magnitude higher than elsewhere in the BIA where minimal or no (river irrigators) pumping is undertaken.

Water Policy Impacts Post 2000

- Circumstances have changed dramatically from when the BIA was first developed. Government policies throughout Australia which have been initiated by National Competition Policy (NCP) requirements now have a clear intention for the cost of water services to be paid by those who actually consume these services. This principle has been the basis of new and revised pricing policies by all Governments, and commitments undertaken within the COAG and NCP framework.
- Components of this which have direct impacts on water pricing for the current Bundaberg situation include:
  - 2004-2000 COAG Rural Water Policy
  - 2004 National Water Initiative (NWI)
  - 2005 Information Provided to National Water Commission on Queensland's compliance with NWI
  - Queensland Water Plan 2005 - 2010
- Government initiatives such as water trading have also significantly altered previous water supply cost dynamics within schemes, and have different impacts on individual schemes depending on the characteristics of each. In total river supply or gravity schemes the combination of cost recovery policies and trading may have no relevance to pricing structures within a scheme where delivery costs are the same wherever the water is used or traded and relocated to.

ECONOMIC EFFICIENCY OF RURAL WATER SUPPLY

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There is significant market failure within the BIA systems due to the postage stamp pricing system resulting in considerable economic efficiency loss.

- Water users and SunWater have recently been involved in a price review with a price path objective of establishing water charge structures which meet lower bound costs. However, there are a large number of BIA irrigators already paying substantially more than lower bound costs for their water while others do not pay lower bound.

  This pricing regime results in market signals that encourage irrational and inefficient behaviour in economic terms by irrigators and the consequence is significantly sub optimal social welfare.
- SunWater is currently unable to indicate whether some irrigators are already paying in excess of upper bound (includes rate of return on capital).
- Existing SunWater charges establish a substantial cross subsidy in the BIA where low cost segments paying above lower bound are contributing towards the delivery cost of high cost segments. Current SunWater price path policies and proposed charging structures will further increase this cross subsidy further compounding existing market failure
- The financial cross subsidy from low cost segments of the BIA to high cost segments is substantial at approximately $600,000 to $1M per year. Current price path policies adopted by SunWater do not remove this cross subsidy and have the potential to see it further increased beyond this current value. Economic efficiency as measured by producer and consumer surplus under this pricing regime will also be significantly diminished because the movement of water to its most highly valued use will be substantially impeded

SIMPLIFYING WATER ENTITLEMENTS

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- Members of BRIG have advocated for some time for the adoption of a simple and transparent nodal or segment charging system to apply for each particular segment where there are identifiable differences in the direct costs of delivery for water. SunWater has introduced an unnecessarily complicated segment based pricing structure which reflects actual costs (electricity for pumping) for new water distributed from Paradise Dam, (Attachment 1)
- “Old water” from Fred Haigh Dam utilises the same channel and delivery infrastructure is priced on a postage stamp system

There is scope to significantly simplify entitlements by reducing the differences and rationalising the pricing segments and adopting a simple transparent pricing system.

Delivery Costs & Charges Within The BIA

- BRIG members have persistently requested SunWater and the Department of Natural Resources, Mines and Water to adopt segment based water charges which reflect the true costs of delivery for the major segments of the BIA. SunWater and DNRM&W responses have consistently disregarded these requests. (Attachment 2)
- In 2005, BRIG commissioned a study to examine pumping costs within the BIA and this was subsequently forwarded to SunWater and others to reinforce the awareness of delivery costs within the BIA consistent with achieving transparent pricing structures.
- After further requests from BIA customers, SunWater recently produced a notional charge structure which if applied would recover lower bound costs as required under current price path processes. These notional transparent segment based prices are shown below compared with current prices and proposed SunWater Tier1 reference prices.

BIA Scheme Segment	2005/06 Water Year Price ($/ML)	**Notional Transparent Lower Bound Price ($/ML)**	Tier 1 Reference Price ($/ML)
Channel Delivery			
Gin Gin/ Bingera	(A) $34.40	(A) $38.62	(A) $36.45
	(B) $22.67	(B)* $16.40	(B) $26.03
	Tot. $57.07	**Tot. $55.02**	**Tot. $62.48**
Abbotsford	(A) $34.40	(A) $38.62	(A) $36.45
	(B) $22.67	(B)* $37.36	(B) $26.03
	Tot. $57.07	**Tot. $75.98**	**Tot. $62.48**
Gooburrum	(A) $34.40	(A) $38.62	(A) $36.45
	(B) $22.67	(B)* $8.48	(B) $26.03
	Tot. $57.07	**Tot. $47.10**	**Tot. $62.48**
Woongarra	(A) $34.40	(A) $38.62	(A) $36.45
	(B) $22.67	(B)* $13.35	(B) $26.03
	Tot. $57.07	**Tot. $51.97**	**Tot. $62.48**
Isis	(A) $34.40	(A) $38.62	(A) $36.45
	(B) $22.67	(B)* $39.88	(B) $26.03
	Tot. $57.07	**Tot. $78.50**	**Tot. $62.48**
River Systems			
Kolan R. & Burnett R.	(A) $9.76	(A) $6.16	(A) $6.01
	(B) $5.64	(B) $4.39	(B) $9.39
	Tot. $15.40	**Tot. $10.55**	**Tot. $15.40**

* Part (B) charge comprises cost of electricity for pumping in each segment.

As shown above, the cross subsidy in the BIA arises from River, Gin Gin/Bingera, Gooburrum and Woongarra irrigators paying above actual costs which are transferred to Abbotsford and Isis irrigators. This fails the equity and transparency requirements for COAG pricing systems. It also unduly complicates and constrains economically rational water trading. I.e. Trades from a low cost area to a high cost area do not carry the additional system costs which are incurred. Segmented pricing automatically captures the cost differential by allocating the correct delivery charge established for the segment to which the water is delivered and consumed.

2005-06 Price Review Process

- Current Queensland Government and SunWater policy which is being applied to the price review process excludes the option of properly implementing segmented pricing principles in the current price review. In the BIA, river irrigators for example pay substantially more than lower bound costs, with other lower cost channel segments similarly affected. Policies defined for application by both Tier 1 and Tier 2 specify that where irrigators are paying above lower bound costs, charges cannot be reduced. (Attachment 3)
- Further Queensland Government and SunWater policy setting has reinforced the existing lack of transparency for full cost recovery and continuation of the cross subsidy from low cost segments to high cost segments.
- The matter of contradiction of these policies with NCP and COAG policies, and whether customers who may be paying above upper bound costs are to suffer further from this policy is raised by BRIG.
- Recognition that equitable and transparent cost recovery principles as required under the NCP and COAG framework must be achieved in the current price review process is urgently required. The potential to see this inequity continued within the current price review and result in further overcharging and gross cross subsidisation beyond that which is already incurred is of great concern. BRIG is also concerned as to the degree of compliance which has been disclosed within reporting of Queensland Government initiatives within the COAG and NCP framework.

TAXES, FEES AND APPROVAL TIMES
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- There have been significant Capital Gains Tax Issues in relation to the creation of water trading rights and allocations in the BIA. The following example illustrates the issue

A BIA irrigator selling a farm, which was made up of two titles. One was sold prior to 1 July 2003 and as such no value in the sale price was allocated to water, which automatically went with the land. Both titles had been in the client's possession since before 1985 and as such were exempt from capital gains tax.

The second title was sold after 1 July 2003. The dilemma faced is that does the water right, being an asset that came into existence 01 July 2003, therefore attract Capital Gains Tax.

The sale price should be apportioned across all assets at a reasonable amount.

There is now a situation where Capital Gains Tax is applicable to the market value of the water rights.

That is, Sale Price less zero cost base will result in Capital Gains on the total market value of the water right.

The Department of Natural Resources and Mines (DNR&M) approached the Australian Taxation Office (ATO) in 2000 asking what issues would there be on the creation of the asset (water Right). ATO advice was that there would be no Capital Gain issue on the creation. I.e. "Rollover Relief" however this does not cover Capital Gains made from 01 July 03.

Enquiries to the ATO have indicated that there is no ruling to cover this as yet.

- There are significant time delays associated with permanent trades within the BIA. A notice of application to "*Transfer and or Change Water Allocation Bundaberg Water Supply Scheme"* with a proposed settlement date of 01/07/04 was not completed until 06/10/04. Several BRIG irrigators have commented on experiencing significant time delays.

OBSERVATIONS & CONCLUSIONS

The 1994 COAG Water Resource Policy provided in relation to water pricing:

- In general to adopt the policy of consumption based pricing, full cost recovery and the removal of cross-subsidies which are not consistent with efficient and effective service, use and provision. Where cross subsidies continue to exist they be made transparent.
- That where service providers are required to provide water services to customers at less than full cost, the cost of this be fully disclosed and ideally be paid to the service provider as a community service obligation.

Segment based charges applying actual delivery costs for water are the only means to equitably accommodate the characteristics of the different delivery arrangements and significantly differing delivery costs within the BIA scheme and achieve COAG, NCP and NWI requirements to achieve full cost recovery and no cross subsidisation. Segmented based charging also facilitates and allow for the market to improve water use efficiency in economic terms and provide irrigators with timely effective market signals.

The 2005 NCP assessment for water in Queensland was conducted by the National Water Commission and Queensland has received Competition Policy payments based on the Queensland Government's level of compliance with NWI presumably for adoption of NWI objectives and policies including the role of market mechanisms.

There are four key decisions that create the cross subsidy and economic inefficiency within the Bundaberg Scheme:

- The allocation of costs by simply dividing the total scheme cost equally within the scheme thereby ignoring the principle of transparent cost pricing;
- The high electricity costs for part of the Bundaberg scheme heavily dependent on pumping is cross subsidized by the irrigators with significantly lower pumping costs. By equally dividing the cost amongst the irrigators the equally divided price masks the cross subsidy and mutes the market signal/s

- By capping the price increase at $10 over the five-year period it leaves insufficient scope for a transparent price to be charged to the higher cost irrigators.
- By prohibiting price reductions the policy effectively removes the incentive to require transparent pricing to lower cost irrigators, as there is no possibility of a price reduction. This again compounds the problem of lack of transparency.
- The failure to allow for an adequate amount of CSO means there is no possibility of the discrepancy between the prices charged to the higher cost irrigators being recouped from the Queensland Government.

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