BURDEKIN RIVER IRRIGATION AREA COMMITTEE

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Queensland Competition Authority
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Dear Authority Members,

The Burdekin River Irrigation Area Irrigators' Committee (BRIAIC) is pleased to provide a response to the Issues Papers released to inform the QCA's current review of pricing for SunWater Schemes from 2011-2016.

BRIAIC represents approximately 200 irrigators who irrigate farms in the SunWater operated Burdekin Haughton Water Supply Scheme area.

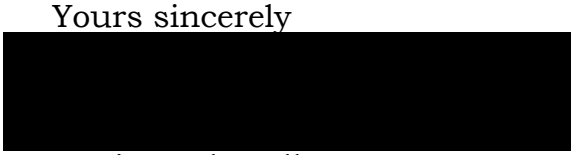
There are a number of policy issues that are left untouched by the Issues Papers. Additionally the QCA has provided little to no information as to the significance of issues the papers raise in terms of potential impact on prices. BRIAIC encourages the QCA to provide stakeholders with a clear and timely indication of which issues will be decided at a state-wide level and which will require specific discussion at a scheme level.

Our submission provides comments on each of the Issues Papers presented to date, as well as providing background information on the development of the scheme. Should the QCA require additional information relating to this development, BRIAIC would be happy to assist.

BRIAIC is disappointed that the QCA is yet to release the Capacity to Pay Issues Paper. In our submission, we outline some of our expectations in relation to capacity to pay studies and some background information about the irrigation sector in the Burdekin. We seek specific guidance from the QCA as to the process for involving stakeholders in the consideration of this issue.

Should you have any specific questions arising from our submission, please don't hesitate to contact me. I can be reached on 0429 181 276 or mario.barbagallo@bigpond.com. BRIAIC looks forward to ongoing dialogue and discussion with the QCA in the next phase of this review.

Yours sincerely



Mario Barbagallo
Chairman

Burdekin River Irrigation Area Irrigators' Committee

Response to:
QCA Issues Papers

Irrigation Prices for SunWater Schemes: 2011-2016

November 2010

Contents

1. Executive Summary

Introduction

The Burdekin River Irrigation Area Irrigators' Committee (BRIAIC) is pleased to provide a response to the release of six Issues Papers released by the Queensland Competition Authority (QCA) to inform the setting of irrigation prices for SunWater Schemes from 2011-2016.

The majority of the concerns raised in this submission relate specifically to issues associated with the Burdekin Haughton Water Supply Scheme (BHWSS).

This submission responds directly to the issues papers and also raises more general issues of policy and process. General issues are addressed first and specific Issues Papers are addressed in the second part of this submission. This is done deliberately as until the general issues are addressed, many of the specifics outlined in the Issues papers are of secondary concern.

The Issues Papers and Process

BRIAIC has a number of general concerns associated with the Issues Papers process followed by QCA. Specifically,

1. There are a number of policy issues that are left untouched by the Issues Papers. Additionally the QCA has provided little to no information as to the significance of issues the papers raise in terms of potential impact on prices. Finally, the QCA has also provided little indication of its future intentions or focus.

2. The QCA should provide clear and timely indications as to which of the issues will be decided at a state-wide level and which will require specific discussion at a scheme level. For the majority of issues, there are varying circumstances facing each WSS. Consequently, detailed and formalised discussion at the WSS level should be conducted in a transparent and information rich environment. In particular, indication of the effect of alternatives on indicative prices at the WSS level must be provided.

3. The QCA should explicitly present its view of the implications of the provisions of the National Water Initiative (NWI) for its determinations.

4. The paucity on information provided on the justification of spillway upgrades and associated costs is of specific concern to stakeholders of the Burdekin region. The QCA should take steps to ensure that the policy basis underlying spillway upgrades is open and transparent before providing advice on pricing alternatives.

5. The lack of an issues paper on matters relating to capacity to pay; and the failure to provide time to provide comment on this particular issue should be corrected.

6. An absence of an overarching strategic objective for the QCA in the deliberations associated with the Issues Papers released to date.

We are generally concerned that the process outlined to date does not provide an adequate basis for a constructive, detailed and productive discussion of issues. This is an undesirable consequence of the failure of the papers to indicate the position of the QCA on each of the issues addressed. Finally, failure to provide and integrated overview of the issues addressed and of the QCA's overall position will promote a fragmented and disjointed discussion.

Specific Responses to each Issues Paper

Form of Regulation

The Burdekin is a WSS with a high degree of water supply reliability. BRIAIC supports the general principle that SunWater as a monopoly service provider, should be subject to commercial imperative of identifying mechanisms to reduce costs at time of low water sales. However, the high reliability of water supply in our region means that the mix of part A and Part B prices has a relatively small incentive on the operations of SunWater.

Attention should be focussed on the impacts of the mix between a Part A and Part B charges on irrigation practices and associated environmental issues. BRIAIC wish to discuss the form of regulation at a WSS level to allow explicit consideration of potential water use efficiency impacts and environmental issues associated with groundwater accessions in the region.

Tariff Structure

This Issues Paper provides an overview of the issues associated with free allocation. As stated this situation exists in the Burdekin, and SunWater does not receive community service obligation (CSO) payments or any other form of subsidy for providing free allocation.

BRIAIC is aware that its members are contributing to cover the costs associated with the provision of free allocations in the scheme. However, we are unsure if the current costs associated with the provision of the free allocation are significant. It is apparent that the decision that irrigators should bear these costs in the Burdekin was made by Government. We believe that the first step in making any future decision in relation to free allocation is information on costs and the outline of a process of discussion with Burdekin stakeholders. Free allocations should also be taken into account in the discussion of HUFs if their reliability has been altered by the dam construction. The Government and SunWater should further investigate the possible declaration of a CSO in this case.

In principle BRIAIC believes that recreational costs should not be recovered from SunWater customers, but from the communities that benefit from the use of recreational facilities and services.

BRIAIC has concerns regards the transparency and detail of SunWater activity cost accounting. The first step in jointly considering recreational costs is to adequately document the magnitude

of these costs for each scheme. SunWater should develop a strategy for its recreational areas that would enable a discussion with paying customers on the appropriate direction policy to employ these assets, whether it be, user pays charging, handing over the responsibility or maintaining current arrangements.

BRIAIC is satisfied that the current arrangements regards drainage charges are appropriate. It is apparent that SunWater has lifted its performance in managing the drainage network and we trust that this will continue.

Rate of Return

BRIAIC feels that this Issues Paper does not adequately examine the whether a rate of return should be applied to SunWater. Since the last price path determination, the NWI has been signed by the States including Queensland. This agreement has a number of specific comments relevant to rural water pricing which should serve as the basis for revisiting the rate of return and asset base.

Any rate of return on new assets should be based on the risk free rate. SunWater is a diverse enterprise with different customers. The paper has not adequately examined the volatility of the actual income of SunWater. This assessment should take into account that future income is determined over time by the regulatory pricing regime itself. Any rate of return must reflect that SunWater is low risk enterprise.

Capital Cost Allocation

BRIAIC agrees in principle that customers should contribute towards charges associated with scheme headworks on the basis of reliability of their water supply. The HUF approach is an attempt to provide a logical and formulaic approach to this issue.

Until principles are articulated and detail is provided for each WSS it is difficult to assess whether the HUF methodology achieves its aim of representing an appropriate share of storage capacity. This issue should be subject to further investigation and discussion with Burdekin stakeholders.

Asset Consumption

BRIAIC is happy to support the continuation of a renewals annuity approach. At a local level the current approach to communicating and gaining feedback on a local asset maintenance schedules has not been regular, updated or made transparent. The QCA should play a constructive role in setting expectations around these consultation processes.

Capacity to Pay

The consideration of capacity to pay should be based on assessment at an individual WSS basis. The results of these assessments and the level of detail required will vary between WSSs.

It is of genuine concern that the lack of an issues paper on this issue to date signals an intention to not appropriately undertake this analysis for any proposed price paths.

If this analysis is carried out in a simplistic manner and does not fully take into account profit risks the price determination itself could not be considered robust. Complexity has to be taken to account, for example in the current year, though sugar prices are relatively high, cane production has been severely cut in the Burdekin region due to rainfall conditions (see the main body of the submission for more detail). This impact on cane quality will continue into future seasons and depress industry income. A simplistic assessment of current world sugar prices would find an entirely different conclusion on capacity to pay that that which exists in reality.

Funding of Spillway Upgrades

The BRIAIC is alarmed that the QCA process has flagged large costs for spillway upgrades in the Burdekin. As the issues paper indicates, there is little debate about the technicalities of dam safety up-grades. Before consideration of the cost allocation within a short time frame the relevant authorities should engage with local representatives to examine the costs and benefits of any upgrade. The imposition of arbitrary performance standards is having unintended water pricing consequences across a range of water management issues.

The discussion of impactors and beneficiaries pays approaches is not definitive. As the Government is imposing these new regulations for the 'benefit' of the wider community there should be a requirement for Government to articulate benefits and also be responsible for costs so that these investments meet efficiency tests.

Next Steps

BRIAIC looks forward to the opportunity to discuss the Issues papers with the QCA. We are also ready to respond to the Capacity to Pay Issues Paper when it is released.

2. Introduction

2.1 Overview of this submission

The Burdekin River Irrigation Area Irrigators' Committee (BRIAIC) is pleased to provide a response to the Issues Paper released by the Queensland Competition Authority (QCA) to inform the setting of irrigation prices for SunWater Schemes from 2011-2016.

This response relates specifically to the Burdekin Haughton Water Supply Scheme (BHWSS). It includes:

- an outline of the role of the QCA;
- an overview of the BHWSS – highlighting relevant information about the scheme and its customers;
- a history of infrastructure development in the BHWSS;
- a discussion of BRIAIC's position on spillway upgrades; and
- a discussion on irrigator capacity to pay.

2.2 Overview of the role of the QCA

BRIAIC acknowledges that the QCA has a unique and difficult role providing oversight to monopoly pricing processes. We are encouraged that the Authority through this Irrigation Prices for SunWater Schemes: 2011-2016 review will provide an active source of influence on the pricing policies of a government monopoly provider.

Through corporatisation, governments seek to achieve productive and allocative efficiency. It is critical that institutions such as the QCA play an active role in depoliticising utility pricing in improving the efficiency of utilities, and improving the pricing of their services.

Reforms should over time encourage efficiency, equity and the appropriate allocation of resources. We hope that this results not only in preventing monopolies from abusing their monopoly position, but encouraging agencies such as SunWater to move towards operating at least cost and maximum efficiency.

It is noted that the QCA should have regard to the potential impacts of its determinations on customers. This point is critical as it emphasises that regulation is not just about economic efficiency. Community expectations of SunWater services are broader than this. If regulation and the policy framework do not recognise this the outcomes won't have the community support necessary to be sustainable.

SunWater operates infrastructure that is relevantly new. Improving the productivity of its operations and services should be the focus of its activities at this stage. BRIAIC is concerned that the focus of the QCA should be on ensuring that the regulatory framework encourages dynamic efficiency within SunWater.

3. The Burdekin Haughton Water Supply Scheme

3.1 Scheme infrastructure

3.1.1 Storages & weirs

The major storage that services the BHWSS is Burdekin Falls Dam. This is owned and operated by Sunwater. The dam is operated in conjunction with four weirs - Clare Weir and Gorge Weir on the Burdekin River, and Val Bird and Giru weirs on the Haughton River.

Burdekin Falls Dam provides the region with the majority of its water requirements, although supplies are also sourced from the Haughton River.

3.1.2 Channels & pump stations

Sunwater provides network services to three areas within the BHWSS.

The “Old Irrigation Area” - Clare, Millaroo and Dalbeg Irrigation Areas - is served by major pump stations located on Clare Weir. The pump stations divert water into main channels on each bank of the river and then to customers by a system of distribution channels. Channels in these areas are a mix of earth and concrete lined, with a smaller pipeline in the Dalbeg area.

The “New Irrigation Area” is serviced by the Tom Fenwick Pump Station, which lifts water into the Haughton and Barratta Main Channels, to provide water to customers between the Burdekin and Haughton rivers. The Haughton Main Channel supplements the Haughton River and Giru groundwater area. In the new area, balancing storages provide buffers for fluctuations in supply. Channels in the new area are a mix of earth and concrete lined, with some pipelines

The “Leichhardt Downs Area”, is serviced by the Elliot Main Channel. This area has the potential to be extended eastwards towards Bowen. This region is a mix of earth and concrete lined channels, with some pipelines.

3.2 Scheme customers

The Burdekin Haughton Water Supply Scheme (BHWSS) is a work in progress. It started with the construction of Gorge and Blue Valley Weirs in 1953 and 1963, followed by the construction of small irrigation schemes in Dalbeg, Millarooo and Clare as well as major headworks – the Burdekin Falls Dam.

The Burdekin Haughton Water Supply Scheme (BHWSS) is operated by SunWater. Services are provided to an estimated 408 customers in the scheme, as well as bulk services to supplement groundwater supplies, to the North and South Burdekin Water Boards. SunWater’s customers include irrigation farmers, urban water suppliers including Townsville City Council, and industrial users including sugar mills and quarries.

Synergies (2010) provides estimates of water access entitlements for various purposes. A summary of these estimates is included in Table 1. The level of free allocation water is notable.

Table 1 Water access entitlements

	Nominal volume of water access entitlement (ML)	Notes
Bulk services	631,860	
Channel network services	320,000	
Water for Bowen Project	40,000	Reserve
Townsville City Council reserve	110,000	
Free allocation (NBWS / SBWB)	185,000	
SunWater medium priority	180,000	Includes 60,000ML for Burdekin- Moranbah Pipeline

Source: Synergies (2010).

A summary of the nominal volumes water allocations, as provided by the Resource Operations Plan, is provided in Table 2.

Table 2 Summary of water allocations

Allocation type	Current nominal volume	Maximum volume permitted under the ROP	Projected nominal volume
High priority	99,998	203,800	99,998
Medium priority	979,594	1,299,178	979,594
Total	1,079,592	1,502,978	1,079,592

Source: DERM[1]

The scheme supplies water to approximately 26,000 ha of farmland. Plans exist to extend the scheme. It could service 50,000 ha once fully developed. Water supplies for the BRIA channel distribution systems are sourced from the Burdekin River, with various pump station combinations used to deliver water to the constructed channel networks.

[1] http://www.derm.qld.gov.au/water/trading/allocations/tables/burdekinhaughton_location.html

4. A history of irrigation development in the Burdekin

4.1 Infrastructure development

Table 3 provides an overview of the major storage infrastructure in the BHWSS. The Gorge Weir was completed in 1953, and the most recent development Burdekin Falls Dam in 1987.

Table 3 Overview of storage infrastructure in the Burdekin Haughton

Storage infrastructure	Age (yrs)[2]	Purpose[3]
Burdekin Falls Dam	23	Agriculture, industrial use, flood control, municipal water supply
Gorge Weir	57	Agriculture
Clare Weir	32	Agriculture, municipal water supply
Blue Valley Weir	48	Agriculture
Giru Weir	33	
Val Bird Weir	27	

The BRIA was originally commissioned in the 1950s with construction of the Clare, Millaroo and Dalbeg systems. The development of Burdekin Falls Dam in the 1980s lead to further expansion of the area, including establishment of the Elliot, Haughton and Barratta channel networks.

4.2 Objectives of scheme development

The Burdekin River Irrigation Area Scheme was established in the 1980s as a national development project founded on national support. The principal objective of the Scheme was to provide water supplies for the irrigation of sugar cane and rice crops to promote economic growth and regional development in North Queensland.

Other objectives of the Scheme were to provide water supplies for:

- the irrigation of existing cane assignments along the Haughton River to stabilise and increase production;
- further agricultural development;
- urban and industrial development in the major centres of the region, particularly Townsville/Thuringowa; and
- the future installation of a 500MW hydro-electric power station at the Burdekin Falls.

[2] Synergies (2010), pg 37.
[3] http://www.bom.gov.au/water/about/waterResearch/document/BurdekinRiver.pdf

The BRIAIC wish to remind the QCA that the Burdekin Falls Dam was fully financed by a Commonwealth Government grant. The overall investment in the headworks and distribution was based on economic viability criteria assessed by the Commonwealth.

It is interesting to note that the possibility of establishing a privately owned irrigation area within the overall system was discussed during the negotiation over funding. Governments were aware of this possibility with the Burdekin District Cane Growers Executive raising this issue with the then minister for Primary Industry, John Kerin, in 1984.

It is also worth noting that the original scheme remains under-utilised. The basis of the original up take of irrigated farms was on the basis of a fully developed area sharing all headworks costs. The fixed cost component of operations and maintenance has been actually higher over the past 20 years than that envisaged by irrigators under a fully developed scenario.

Schemes such as the BHWSS were developed in a vastly different political and economic era. It has been noted that it is quite probable that irrigation infrastructure development would be vastly different if it were being developed today.

4.2.1 The auctioning of service irrigation blocks

The Queensland State Government elected to develop a section of the serviced area by, in the main, resuming land at dry land valuation principles and reselling developed land at irrigated land values.

Twenty-two auctions for land purchases in the Burdekin River Irrigation Area were held between Friday 25th March and the 25th June 1998. They were conducted by the Department of Natural Resources and various agents. One hundred and eighty six parcels of land sold, constituting an area of 13,433.4 hectares. Realised prices totalling $67,030,220 were received.

The situation and use of an auction process is very different to other recent irrigation developments. For example in the Coleambally region of NSW a ballot was undertaken to encourage people to the area. Contributions were minor and were not based on maximising returns to the State.

The use of the auction system in the Burdekin is unique and represents an alternative approach to capital cost recovery by the Queensland State Government.

The fixed component of a utility charge is payment for the operational, maintenance and some capital costs. The actual capital cost to the State Government has been significantly offset.

4.2.2 Development costs associated with the scheme

The development costs associated with the Burdekin Falls Dam were approximately $130 million. The funding for the dam was contributed as a Commonwealth grant.

It should also be noted that BRIA Irrigators are not the only beneficiaries of the Burdekin scheme. This relates to the headworks utilisation factors. Water that is unallocated should be assigned a HUF as it is held by SunWater and represents the undeveloped nature of the WSS.

4.3 Relevance to rate of return

The concept of a "return" implies an outlay by the owner of the assets. There may be assets vested in the operator of an irrigation scheme which involved no outlay at all by that operator. BRIAIC believe that the rate of return should only be applied to investments that are made with full knowledge of any rate of return requirement stipulated by the Queensland Government.

Under the development scenarios in Queensland this could only include future costs that enhance either storage capacity or system efficiency. Any future investment should be made in consultation with SunWater customers.

Since the last determination there has been the introduction of the National Water Initiative which explicitly recognises the issue of legacy costs within jurisdictions.

4.3.1 Legacy costs

The BRIA was well established prior to COAG agreement on National Competition Policy and the NWI and the area should not be treated any differently to other schemes existing prior recent water reforms. To do so places BRIA Irrigators at a competitive disadvantage within Australia.

The National Water Initiative pricing paper includes statements that:

> *"10. It is common practice for some jurisdictions to draw a 'line-in-the-sand' to differentiate between past (legacy) investment decisions and new investment decisions"*
>
> And that:
>
> *"12. Some jurisdictions have not drawn a 'line in the sand' (defined a legacy date) and therefore do not currently differentiate between legacy investment decisions and new investment decisions."*

In NSW for example the "line in the sand" approach of putting a nil value on previously constructed irrigation assets was based on the view of the IPART that it believed that many of the rural water infrastructure assets were put in place in the late nineteenth and early twentieth century because it was a government priority at the time to expand agriculture and rural development. Water prices had until recently contained substantial subsidies and there was never any stated intention by governments across Australia to fully recover these charges.

The Tribunal at the time did not believe that irrigators, originally attracted into agriculture by the provision of heavily subsidised infrastructure, should now be expected to pay commercial returns on assets that would not have been put in place if they had been subject to commercial scrutiny.

This means that users should not be charged depreciation or a rate of return on pre 1997 expenditure.

BRIAIC believe the QCA should explicitly establish a ‘line in the sand’ as a basis of asset values for Queensland in line with NSW and Victorian policy.

The date of this ‘line’ should be established based on an assessment of relevant knowledge available at the time to irrigators and that has demonstrable impact on stakeholder investment decisions.

This will then allow the focus of efficiency gains to be the most cost effective way of moving forward within the constraints imposed by the legacy of assets that exist. This decision would then allow constructive and informed processes to be developed regarding asset maintenance and encourage SunWater to concentrate on service to its customers.

A line in the sand approach would recognise that the legacy of past decisions is actually a set of liabilities including management of potentially ill suited infrastructure and environmental issues. Strictly these costs are a legacy of past decisions made by Government now borne by water users.

5. Funding of spillway upgrades

5.1 Overview

SunWater is proposing to spend $148 million to upgrade Burdekin Falls Dam.

As outlined in the PWC issues paper, dam safety upgrades are undertaken to ensure the structural integrity of the dam, and to minimise the potential for dam failure in the case of extreme flood event. These upgrades are therefore undertaken to reduce the risk of unacceptable damage to property, economic loss, injury and loss of life.

SunWater's dam safety program was prompted by the Bureau of Meteorology's (BoM's) review of rainfall data over the past 100 years, with new predictions suggesting a much larger extreme rainfall event than that assumed previously may be possible.

5.2 Policy background

Dam safety would have been an integral component of storage infrastructure and consequently a cost incurred at the time of construction. Changes in official rainfall expectations have necessitated up-grades of safety provisions.

As the issues paper indicates, there is little debate about the technicalities of dam safety up-grades, with predetermined protocols giving little scope for local initiatives. Cost allocation is, however, another matter. As the issues paper shows, National Competition Policy and NWI principles imply that costs recoveries from beneficiary parties should reflect their proportional share of the benefits.

The first problem is to define the benefits and the second is to measure them. These problems are addressed, to an extent, in the issues paper with the conclusion that an 'impactor pays' approach may be the preferred basis for cost allocation.

The State Government has taken action in dam safety in the interests of the Qld community and therefore should take full responsibility for spillway upgrade costs.

The BRIAIC believe that prior to the QCA establishing pricing principles the full costs and benefits of such upgrade proposals should be specified. This information is a basic requirement of informed discussion of who should pay for existing risks and potential benefits.

QCA pricing principles should also take into account the significant equity issues involved, eg scheme customers are captive to their scheme and can't vary their demand to reduce the impact of higher fixed charges to cover spillway upgrade costs mandated by the Queensland Government.

The arguments in the Issues Paper in regard to the application of impactors and beneficiaries pays approaches are not conclusive and fail to take into account that government is imposing these regulations for the 'benefit' of the Queensland community.

The implications for schemes of financing a share of the capital costs and the payment of a rate of return on the investments should be established after the costs are known and principles established to exclude the requirement for a rate of return to be gained from a small subset of beneficiaries.

5.3 Response in other jurisdictions

5.3.1 New South Wales

In NSW, dam safety compliance costs (made after the 1997 line in the sand date), were shared between two impactors. IPART ruled that 50 per cent of costs should be passed through to bulk water users, with Government covering the costs of the remaining 50 per cent on behalf of the community.

IPART's rationale for allocating some costs to government was that regulatory requirements resulted from changing the standards which natural and built infrastructure is required to meet and in requiring increased levels of environmental resource and asset management. Thus, it was determined that not all of the costs associated with changes in regulatory requirements should not be incurred by the current users of the dams.

5.3.2 Victoria

In Victoria, the Essential Services Commission has ruled that the capital expenditure associated with dam safety upgrades is treated like any other capital expense and passed through to customers through prices (subject to meeting expenditure efficiency requirements). However, where government provides grants to cover these activities (either fully or partially), the government component of the upgrade is not included in the asset base and is therefore not passed through to customers.

6. Irrigator Capacity to Pay

6.1 Agriculture in the Burdekin Region

The Burkedin is located in the arid tropics and crops are fully irrigated. Approximately 95% of the irrigated area is under sugar cane. Annual horticulture crops including mangoes, capsicums, eggplant, rockmelons, squash, pumpkins, watermelons and sweet corn are also grown.

In 2006, it was estimated that the Burdekin region has some 960 farms operated by 556 farming enterprises, 125 harvesting groups, 4 mills and produces 8.03 million tonnes of cane from 69,700 hectares of cultivated land under cane. The regional yield average in 2006 was 115 tonnes/hectare with an average commercially recoverable sugar content (CCS) of 14.9.

The Delta area is the traditional area with sugar cane been grown for over 100 years and where an average farm produces around 11,000 tonnes of cane.

The BHWSS was developed in the late 1980s, early 1990s, has larger farms than the Delta area, and generally more effective layouts with an average farm producing 18,000 tonnes of cane.

The Burdekin is the premier cane growing region in Australia where its climate and irrigation produce large crops with low levels of seasonal variability.

Irrigators respond to higher water prices by deciding to continue their existing levels of water or adjusting downwards. An irrigator may respond by:

- leaving land fallow;
- applying less water and risking yield loss;
- switching to crops that require less water; and
- investing in more efficient irrigation techniques.

Sugar is the largest user of irrigation water in Queensland. The demand for water is complex as some inputs are fixed in the medium term and others such as fertiliser and water are variable. There are also substitution possibilities, for example better irrigation management may mean a higher labour requirement.

The demand for irrigation water then depends on its price, its contribution to production, the price of substitute inputs, if available, and the prices for outputs.

In the Burdekin the ability to vary water without significant yield loss is not available. Estimation of the change in water applied with a given price increase is measured by the price elasticity.

Elasticities of demand are likely to vary between different price levels, between different types of water users and over time.

Irrigation costs currently take up a large proportion of costs. These were estimated to be 14.7 to 16.3% of total cash cost of farmers in the Burdekin region in 2006, depending on farm size (Burdekin Regional Advisory Group, 2007).

As part of a strategic plan for the industry developed in 2007 a number of activities to increase productivity have been undertaken in the area. In particular reducing costs to address and decline in terms of trade over time.

The Regional Advisory Group (RAG) report showed that at the time (2006) for the Burdekin to be sustainable a sugar price of $325 per tonne is required.

A number of financial indicators were used in the RAG analysis. The report's authors defined viable to mean making a net profit after tax sufficient to provide the farmer with a basic wage. Based on a debt to equity ratio of 1:2, this requires a return on capital greater than 2.5% per annum. They also defined sustainable to mean receiving an adequate return on investment to repay debt and replace capital. Based on a debt to equity ratio of 1:2, this requires a return on capital greater than 5.0% pa.

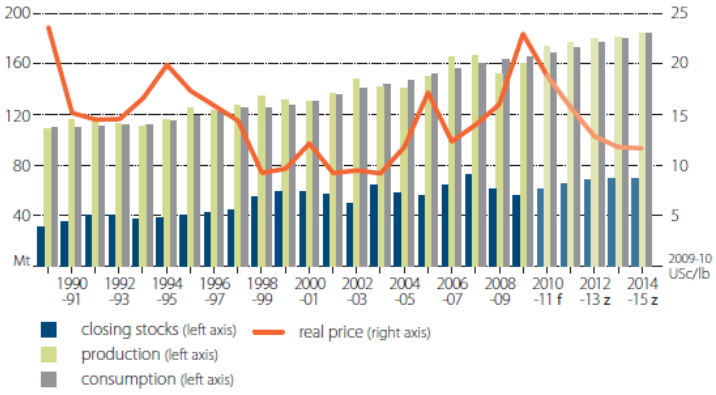
This type of information should be utilised in any capacity to pay assessment.

6.1.1 World sugar market indicators

The world indicator price for sugar (Intercontinental Commodities Exchange no.11 spot, fob Caribbean) is forecast to average US23.1 cents a pound in 2009-10, which is US7.2 cents a pound higher than 2008-09, and the highest in real terms since 1989-90 (ABARE 2010).

As noted in Figure 1, ABARE is forecasting the real price of sugar to drop over the next few years. Given the importance of exports to the Australian industry, note should be taken that the sugar price will be negatively affected over the medium term by a high Australian dollar.

Figure 1 World sugar market indicators



Source: ABARE 2010.

ABARE notes that current high world sugar prices often leads to an over investment in sugar production capacity throughout the world. Once planted, a sugar cane crop can be harvested annually for up to six years in some countries. This explains why there has been a history of relatively short price spikes in the world sugar market, followed by longer periods of lower prices.

It will be important that assessment of capacity to pay take into account market volatility and run a risk assessment of any outcomes.

It is important to realise that capacity to pay studies require a holistic consideration of profits to the industry to avoid simplistic and potentially incorrect assessments. In the current season prices have been historically high. However, of an expected 9.1 million tonnes of cane in the Burdekin currently 2.9 million tonnes remains unharvested[4]. This cane is estimated to be 'stood over' to next year which risks the chance of a significant reduction in CCS levels in the cane. Additionally, the compaction associated with the necessary harvesting on wet soils lowers yields in subsequent years. Local industry participants have expressed their willingness to be involved in informing relevant capacity to pay studies.

If capacity to pay analysis is carried out in a simplistic manner and does not fully take into account profit risks the assessment cannot be considered adequate. For example in the current year, though prices are relatively high, production has been severely cut in the Burdekin region due to rainfall conditions. This impact on cane quality will continue into future seasons.

BRIAIC look forward to responding specifically to the capacity to pay paper when it is released.

6.2 Groundwater issues in the Burdekin

The lower Burdekin is a conjunctive water use scheme. That is, water is sourced from both surface and groundwater. The Delta section of the area is mainly reliant on groundwater (approximately 80-90% of water used), and the BHWSS uses mainly surface water, approximately 80% (SKM 2009).

The aquifers below the BHWSS are hydrogeologicaly different to the highly transmissive aquifers of the Delta. It is very complex and the recharge and discharge across the area is variable. Groundwater levels are rising rapidly in the BHWSS irrigation area and threatening agricultural production.

The further development and adoption of farm management practices that reduce recharge or increase discharge from the groundwater are critical. Pricing policies may play a role in environmental policies by encouraging application efficiency. This role should be considered prior to a blanket recommendation on the split of part A and part B charges is made on SunWater operational grounds.

[4] Personal communication, John Pratt Sucrogen.

7. The role of QCA and economic regulation

The BRIAIC encourage the QCA in line with the intent of economic regulation of the 1980s to play an active role in ensuring a competitive market. The economic regulation process and information should enable the QCA to test for monopoly rents in SunWater's Burdekin scheme revenues.

SunWater operates infrastructure that is relatively new. Improving the productivity of its operations and services should be the focus of its activities at this stage. BRIAIC believes that the focus for the QCA in this price determination should be on ensuring that the regulatory framework encourages dynamic efficiency within SunWater.

8. References

ACIL Tasman (2001) Review of Water Resource Management Expenditure in the NSW Department of Land and Water Conservation and State Water Business. A report to IPART.

ABARE (2010) Sugar Outlook to 2014-15. Paper at Outlook 2010 Canberra.

Burdekin Regional Advisory Group (2007) Burdekin Regional Plan Review. Sugar Industry Reform Program 2004

SKM (2009) Groundwater Science Plan – A science plan for the sustainable management of the Lower Burdekin Groundwater System.

9. Appendix 1 – National Water Initiative Pricing Principles

There are a number of matters that need to be considered in establishing the initial asset base. These include:

a) the methodology used to value the initial asset base (including decisions on whether and where to draw a 'line in the sand'). In establishing this initial value, consideration is given to the extent to which past capital expenditure is deemed to be excessive for the needs of current users or was contributed by others and therefore excluded from the initial asset base; and

b) the way in which contributed assets are dealt with in the establishment of the initial, and the rolled forward, asset base.

10. It is common practice for some jurisdictions to draw a 'line-in-the-sand' to differentiate between past (legacy) investment decisions and new investment decisions. Where a line in the sand is drawn, an opening RAB value is set (which essentially locks in the past rate of return on previous investments). The RAB is then updated (or rolled forward) each year to reflect prudent capital additions, disposals and depreciation).

11. The principles distinguish between past (legacy) investment decisions made prior to the legacy date and new investment decisions made after the legacy date.

12. Some jurisdictions have not drawn a 'line in the sand' (defined a legacy date) and therefore do not currently differentiate between legacy investment decisions and new investment decisions.

Source: National Water Initiative Pricing Principles.