MACKAY IRRIGATION STAKEHOLDERS

SUBMISSION TO THE QCA

Prepared by: **Mackay Irrigation Stakeholders**

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EXECUTIVE SUMMARY

Introduction

This is a joint submission from Mackay Sugar Ltd, Canegrowers Mackay Ltd, Pioneer Valley Water and the Eton Irrigators Advisory Committee (herein Mackay Irrigation Stakeholders).

Mackay Irrigation Stakeholders have interests in the Pioneer Valley and the Eton SunWater Supply Schemes. MIS supports the position of both the Queensland Farmers' Federation and Canegrowers' Submissions. This submission reflects the principles of both these submissions, while highlighting specific local issues in the Pioneer River and Eton Schemes.

Our submission describes the history of the development of the Pioneer Valley and Eton Schemes, and provides specific responses to the issues papers developed by QCA.

History of development

Both the Pioneer and Eton Schemes were developed in stages. The Eton Scheme commenced in 1977, with the construction of Kinchant Dam. Development in Eton was essentially finalised in the early 1990s with the construction of the final stage of the Mirani Pump Station. The Pioneer Scheme development commenced in the mid 1950s, with the construction of Marian Weir. Development continued through the 1980s and 1990s with Mirani and Dumbleton Weirs and concluded with Teemburra Dam and associated reticulated areas in the late 1990's.

The cost of capital development in both schemes was shared between irrigators, the Queensland Government and the Commonwealth Government.

Mackay Irrigation Stakeholders have a library of historical documents, including the original Heads of Agreements that documented agreed irrigator contributions. MIS would be pleased to discuss and share these records with the QCA, should the Authority require further information.

Irrigation practice

Cane is the principle irrigated crop in both schemes. Irrigation practice is considered "supplementary" as available irrigation has not historically met full crop irrigation requirements.

Irrigation is used to manage the risk of low crop water availability at key times in the growing season. Since 2005, with the exception of 2008/09 and 2009/10, SunWater has made low available allocation announcements early in the season, with announcements increasing to 100% late in the season (March/April/May). Thus, growers tend to not irrigate in the first quarter of the water year when the crop can better cope with moisture stress, and hold announced allocation in their account for use in the most critical growth period late in the season between December and May.

Capacity to pay

The options available to customers in the Pioneer mean that the price elasticity of demand will not be high. This means that viability will be directly affected. The lack of options such as trading and the supplementary nature of irrigation will mean that many irrigators may simply reduce the level of irrigation per hectare.

This will lead to reduced profitability at a farm level, reduced cane supply at a regional level and less water deliveries. The lower elasticity of demand may mean revenue from price increases is not apparent. Detailed modelling at a farm system level is required to test unintended outcome of water price policy.

Tariff structure

In principle, Mackay Irrigation Stakeholders support:

- Two part tariffs, which reflect the fixed and variable costs for each scheme
- Maintaining tariff structures under which schemes were established – Eton scheme operates on postage stamp pricing while the Pioneer Valley Water Scheme has differential pricing.
- The continuation of the price cap as the form of price control
- Using CPI as the method for annual cost escalation
- The recovery of recreation costs from the communities that benefit from the use of these facilities.

Capital cost allocation

In principle, Mackay Irrigation Stakeholders support:

- The use of the Headworks Utilisation Factors (HUF) methodology as the mechanism to enable users share of capital costs to be distributed on the basis of the different benefits enjoyed by different priority entitlements
- The HUF method should be assessed on the basis of the performance of each scheme over the 15 year term which reflects the poorest hydrological performance for supply for medium priority use
- For each scheme, detailed explanation of the HUF calculation is required, including the reasons for chosen 15 year period and correlation with ROP water sharing rules.

The HUF is a mechanism to enable the users' share of capital costs to be distributed on the basis of the different benefits enjoyed by different priority entitlements. It does not establish what the users' share of the capital costs should be. MIS position is that the users' share of capital costs should be established using the cost sharing ratios of the initial capital investment in the scheme.

Spillway Upgrades

The Queensland Government has taken action to amend its dam safety requirements in the interests of public safety. Given that the beneficiaries of this policy change are the broader community, MIS position is that the Government should meet the full costs of capital upgrades to meet the higher safety standards.

Rate of Return

The materials that supported and documented major infrastructure decisions in both the Pioneer and Eton Schemes indicated that in addition to a share of capital costs, irrigators would be required to pay the prescribed operation and maintenance and overhead charges for the scheme. There was no mention of rate of return on capital assets. These

agreements were struck after capital charges for irrigation water allocation had been introduced in Queensland in 1990.

On the basis of these agreements, MIS believe that the application of a rate of return on headworks assets is not justified in the Pioneer and Eton Schemes.

Establishing the regulatory asset base

MIS consider a "line in the sand' approach be adopted to establishing SunWater's regulatory asset base (RAB). Such an approach recognises that SunWater was gifted assets and was not required to make efficient and prudent capital investment decisions.

Irrigators in both Eton and Pioneer Valley were required to contribute to the capital costs of some of the major infrastructure developments.

Should the line in the sand approach not be adopted by QCA, MIS believe that contributed assets should not be considered as part of the regulatory asset base (RAB) of the company. This approach is consistent with the current approach of Commonwealth Government investment in water infrastructure and pricing principle 6 of the National Water Initiative.

Recognition of specific local issues

In preparing its draft determination MIS urges the QCA to consider the specific localised issues in the Pioneer Valley and Eton Water Supply Schemes. These issues are discussed in detail in our submission and include:

- The basis of the original investment in scheme infrastructure, which included contributions from irrigators and the State and Commonwealth Government.
- That the beneficiary of spillway upgrades in the Pioneer Valley is the broader community, and as such Government should meet the full costs of capital upgrades to meet the higher safety standards.
- The supplementary nature of irrigation in the schemes means that an increase in water charges will reduce the utilisation of existing water allocations for irrigation purposes, thus reducing productivity further within the Mackay region. It is estimated that approximately 30% of growers would either reduce or cease using their current water allocations if water charges increased above the current levels.
- The deflation of Fabridams on Mirani and Dumbleton Weirs that have impacted on the reliability of supply in the Eton and Pioneer Schemes, increased pumping costs for the Eton Scheme and resulted in loss of access to the Pioneer Scheme due to siltation of Mirani Weir.
- SunWater's failure to rectify the Palm Tree Creek Outlet from Teemburra Dam and the source of funding to repair this relatively new piece of infrastructure
- The management of losses associated with deliveries to Mirani Diversion Channel irrigation customers in the Pioneer Scheme

Further information about QCA's process

MIS welcomes the consultation conducted by QCA to date. However, we are seeking additional information on QCA's approach to:

- Scrutinising SunWater's efficient costs & benchmarking these with similar businesses on a scheme by scheme basis;
- Determining users' share of costs (capital and operating) and those that should be met by government; and
- Assessing irrigator capacity to pay.

We look forward to the opportunity to respond to these issues prior to the preparation of a draft pricing determination.

1 INTRODUCTION

This submission has been prepared in response to the Queensland Competition Authority's (QCA) Issues Papers, in relation to its review of irrigation prices for SunWater Schemes (2011-2016). The submission is a joint submission of Mackay Sugar Ltd, Canegrowers Mackay Ltd, Pioneer Valley Water and the Eton Irrigators Advisory Committee (herein Mackay Irrigation Stakeholders).

Mackay Irrigation Stakeholders (MIS) have interests in the Pioneer Valley and the Eton SunWater Supply Schemes, and welcome this opportunity for further input to QCA's review process.

In this submission, MIS presents:

- an overview of the Pioneer Valley Scheme, including the history of infrastructure development, management and water use;
- a similar overview of the Eton Scheme;
- an overview of irrigation in the Mackay region, including farming practices and the impacts on the local economy post farm gate;
- an assessment of local irrigator capacity to pay; and
- our response to specific QCA issues papers.

2 PIONEER VALLEY WATER BOARD

2.1 MANAGEMENT OF SCHEME

Pioneer Valley Water Board (PVWB) is a statutory authority, established in 1996 that operates under the auspices of the Water Act 2000. PVWB is an irrigation infrastructure operator, supplying water to 246 irrigation customers in the Pioneer Valley. The area of operation of PVWB is located to the west of the city of Mackay.

PVWB operates across five reticulation areas, which total an estimated 22,000 hectares. PVWB supply network is a mix of natural creek systems and pumped and pressurised pipelines. A series of pump stations, pipes and channels enable flows to be diverted between creek systems. The total written down value of the assets of PVWB is $35 million.

PVWB is governed by 5 directors, who are appointed by the Governor in Council. Three nominations for directors are elected by member customers, one nominated by Mackay Sugar Co-operative Association Limited, and an independent director nominated by the three elected directors.

2.2 OVERVIEW OF PIONEER RIVER WATER SUPPLY SCHEME

SunWater has 5 customers in the Pioneer Valley Water Supply Scheme. SunWater supplies industrial customers, Mackay City and the Pioneer Valley Water Board directly. PVWB then supplies services to its 246 individual irrigation customers.

The total scheme has an estimated water allocation entitlement of 65,830ML, plus an additional 12,635ML of high priority entitlement held by SunWater. Water Access Entitlements for irrigation accounts for 59% of total entitlement

SunWater does not have established service standards for the Pioneer River WSS. SunWater holds the Resource Operations Licence for the headworks in the scheme and PVWB holds the Distribution Operations Licence to distribute water allocations.

2.3 OVERVIEW OF PIONEER VALLEY WATER BOARD

The five areas of the PVWB are distinct. Each area has its own pricing structure that is based on the actual costs (fixed and variable) of service provision. As well as meeting lower bound costs for the scheme, irrigators are still paying off loans taken out by PVWB to meet the capital cost contribution.

The five areas are:

- The Riparian Area (Supplied from the Pioneer River and Cattle Creek)
- Palmyra Area (Supplied from Bakers Creek with water diverted from the Pioneer River);
- Silver/McGregor Area (Supplied from Silver and McGregor Creeks and some channels with water diverted from Cattle Creek;
- Septimus Area (Supplied by pressurised pipelines with water pumped from Cattle Creek)

- Palm Tree Creek Area (Supplied by pressurised pipelines with water diverted from Teemburra Dam and Cattle Creek)

A summary of the number of PVWB customers, water allocations and the total nominal volume of these allocations is provided in Table 1.

Table 1 Key statistics for each area (as at October 2010)

Area	Number Customers	Number of water allocations	Nominal allocations
Riparian	140	169	24,300
Palmyra	40	53	6,161
Silver/McGregor	24	30	4,979
Septimus	29	34	4,157
Palm Tree Creek	40	55	7,793
TOTAL	**273***	**341**	**47,390**

Source - Pioneer Valley Water Board -(Inflated as some customers are in more than one area)*

2.4 HISTORY OF INFRASTRUCTURE DEVELOPMENT

A comprehensive timetable of the development of water infrastructure in the Pioneer Valley is provided in Appendix 1.

Early infrastructure development in the Pioneer Valley Area supported irrigation activities along the riparian areas of the Pioneer River. The reticulated areas of the scheme were developed from 1996, in conjunction with the construction of Teemburra Dam.

Teemburra Dam

Teemburra Dam was constructed in 1997 on Teemburra Creek. A Heads of Agreement between the Queensland Government Department of Primary Industries, the Mackay Sugar Co-operative Association Limited and the Mackay District Cane Growers' Executive regarding the Teemburra Dam Project was signed in September 1994.

The sugar industry, through the latter two organisations, committed to funding one third ($15 million) of the estimated cost ($56.7 million) of the project. Government funds were provided under the 1993 Sugar Industry Infrastructure Package and included Commonwealth Government funds.

Dumbleton Weir Stage 3

Dumbleton Weir Stage 3 was constructed in 1998. A Supplementary Heads of Agreement between the Queensland Government Department of Primary Industries, the Mackay Sugar Co-operative Association Limited and the Mackay District Cane Growers' Executive to incorporate Dumbleton Weir Stage 3 into the Teemburra Dam Project was signed in on 8th November 1995.

The project was designed to provide an additional 4,000ML per annum, of which 2,500ML was for the purposes of sugar cane irrigation and 1,500ML was for urban and industrial uses.

The sugar industry, through Mackay Sugar and Canegrowers, committed to funding 45% ($1.31 million) of the estimated cost ($2.9 million, plus contingencies) of the project. The Queensland Government committed to funding the balance of the project.

2.5 WATER USE

2.5.1 ALLOCATION AVAILABILITY

The water year in the Pioneer Valley is July to June. Allocation availability for the Pioneer Scheme is announced by SunWater. The final (end of season) allocation availability, excluding transfers, for the Pioneer Scheme is shown in Table 2.

Table 2 Allocation availability (final volume, excluding transfers)

Year	Nominal allocations (ML)	Final announced volume (ML)	%
2005/06	47,390	29,874	63%
2006/07	47,390	47,390	100%
2007/08	47,390	47,390	100%
2008/09	47,390	47,390	100%
2009/10	47,390	47,390	100%

Source - Pioneer Valley Water Board

The timing of available water is critical to customer irrigation decisions. While available allocations have been historically 100% by the end of the season, irrigation water is not always available at critical times in the crop cycle. Table 2 shows the timing of announced allocations since 2005/06.

Table 3 Timing of announced allocations (2005-2010)

2005/06		2006/07		2007/08		2008/09		2009/10	
Date	%	Date	%	Date	%	Date	%	Date	%
1 Jul	0%	1 Jul	0%	1 Jul	78%	1 Jul	100%	1 Jul	100%
1 Oct	16%	1 Dec	3%	1 Aug	84%				
1 Nov	22%	1 Jan	6%	1 Sep	100%				
1 Dec	25%	1 Feb	43%						
1 Feb	36%	1 Mar	100%						
1 Apr	53%								
1 May	61%								
1 Jun	63%								

Source - Pioneer Valley Water Board

The importance of this timing and its impact on irrigator decisions is discussed in more detail in Chapter 4.

2.5.2 WATER USE

A summary of the total usage in the Pioneer Valley Scheme, compared to available allocation is shown in Table 4.

Table 4 Usage compared to available allocation

Year	Total Usage	Available Allocation	Usage as % available
2005/06	13,467	29,874	45%
2006/07	7,265	47,390	15%
2007/08	8,753	47,390	18%
2008/09	9,543	47,390	20%
2009/10	18,489	47,390	39%

Source - Pioneer Valley Water Board.

3 ETON SCHEME

3.1 OVERVIEW OF THE ETON SCHEME

The Eton Scheme is located approximately 25 kilometres south-west of Mackay. The Scheme supplies irrigation water to an estimated 303 customers[1], who are predominantly canegrowers.

SunWater estimates that water allocation entitlements total 53,174ML. Of this:

- 51, 799 ML is held for irrigation purposes;
- 177 ML is held for urban water supply; and
- 1,198ML is held for "other" purposes.

In addition, SunWater holds 9,389ML for distribution losses in the network.

The Eton Scheme is managed by SunWater, who holds the Resource Operations Licence to operate the scheme.

3.2 HISTORY OF INFRASTRUCTURE DEVELOPMENT

The Eton scheme comprises of infrastructure including weirs and storages, open channels and reticulated pipelines. Key assets in the scheme include:

- Mirani Weir
- Mirani pump station and diversion channel
- Kinchant Dam, an offstream storage of the Pioneer River
- The Oakenden main channel
- Balancing storages
- Pumped reticulation areas

Kinchant Dam

Kinchant Dam was constructed in two phases - the first phase was completed in 1977 and in 1986 the dam wall was raised. When completed, Kinchant had a total capacity of 65,600ML, due to structural issues with the dam wall, capacity is now estimated to be 62,800ML.

In addition to the benefits to irrigation farmers, the original proposal highlighted that Kinchant Dam would provide an additional facility for aquatic sports.

The $21.8 million capital cost of Stage 1 of Kinchant Dam was met by[2]:

- $5 million for the Commonwealth Government

[1] Sunwater

[2] Department of Primary Industries Irrigation and Water Supply Commission Report on Eton Irrigation Project, February 1975, page 2

- balance of capital cost be met by annual appropriation by Parliament to the Construction Trust Fund of the Irrigation and Water Supply Commission

Revenue from water charges was forecast to be greater than operational and maintenance costs. The original agreement indicated that interest and sinking fund charges on expenditure from this fund are met from Consolidated Revenue. Surplus of revenue would be paid to Consolidated Revenue to provide a contribution towards these charges.

Mirani Pump Station

Mirani Pump Station was completed in three stages. Stage 1 comprising a diversion capacity of 2 m^3/sec was constructed in 1987 as part of Mirani Weir with the capital cost met by the Queensland Government. Stage 2 involving an additional 1 m^3/sec capacity was installed in 1992.

Work on Mirani Pump Station Stage 3 to increase the diversion capacity to 10 m^3/sec commenced in July 1993, and was finalised in 1994.

A discussion paper prepared by DPI Water Resources in 1992 was provided to growers to describe the options for augmenting the Eton Scheme through an upgrade to the Mirani Pump Station. The discussion paper proposed a 50% contribution from government, and 50% from water users and millers. Water users' contribution would be made through an annual charge, over and above normal water charges. A letter from the then Department of Primary Industries (dated 10th December 1992) clarified the proposed upfront capital and annual charges. Water users were asked to formally endorse a proposal in May 1993. This proposal included a total capital cost of $3.7 million, of which 50% would be recovered from water users (less the revenue from the sale of an additional 4500ML of allocation).

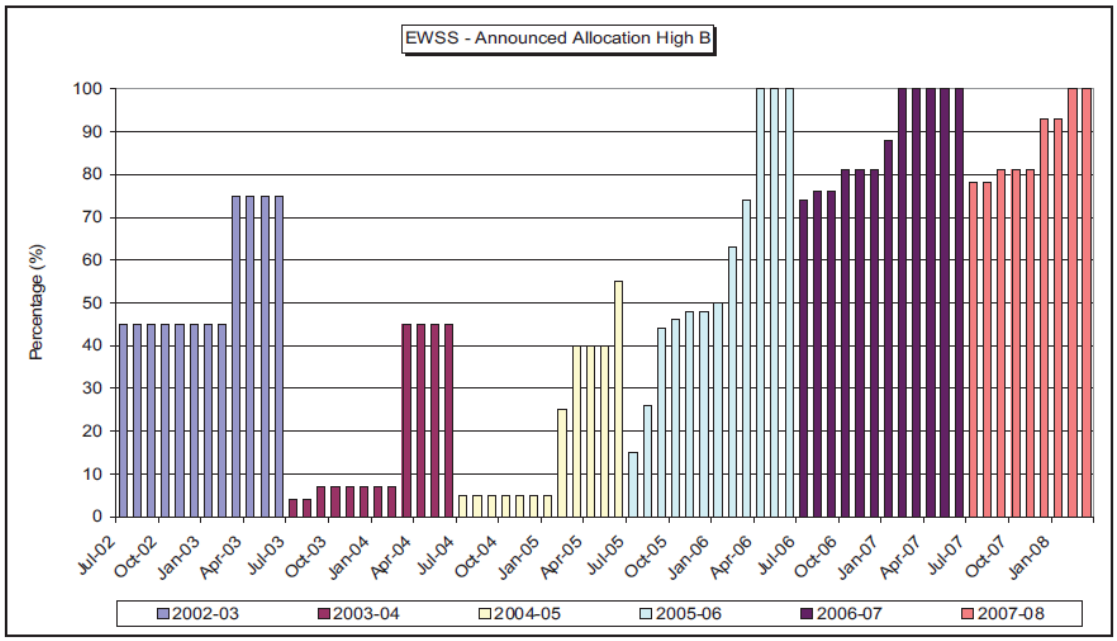
The discussion paper provided to growers to inform their decision included a description of the Government's policy for capital works funding. In this document, it states that water users are required to meet the full annual costs of operation, maintenance and overheads, and provide for asset refurbishment and replacement. Users are also expected to contribute towards the capital cost of development. There is no mention of a requirement to pay a rate of return on the State Government's share of the initial capital outlay.

3.3 WATER USE

3.3.1 ANNOUNCED ALLOCATIONS

The announced allocations for the Eton Scheme are shown in Figure 1. The water year for Eton Scheme operates from April to March.

Figure 1 Allocation announcements, Eton Scheme



Source: SunWater (2008) Eton Irrigator Advisory Committee Scheme report[3].

3.3.2 WATER USE

A summary of the total usage in the Eton Scheme, compared to available allocation is shown in Table 4.

Table 5 Usage compared to available allocation

Year	Total Usage (ML)	Available Allocation (ML)	Usage as % available
2002/03	45,143	49,670	90%
2003/04	21,938	28,532	77%
2004/05	17,290	29,036	60%
2005/06	20,341	54,084	38%
2006/07	17,834	51,136	35%
2007/08	15,654	51,647	30%

Source: SunWater Annual Reports.

[3] http://www.sunwater.com.au/__data/assets/pdf_file/0014/3281/IAC_Eton_Scheme_Report_2_April_2008.pdf

4 IRRIGATED AGRICULTURE IN THE PIONEER VALLEY & ETON SCHEMES

4.1 CANE

4.1.1 PRODUCTION

Sugar cane comprises the main crop in both the Pioneer Valley and Eton Schemes.

Canegrowers estimate that approximately 16,000ha of cane is grown in the Eton Scheme, and 15,500ha in the Pioneer Valley Scheme[4].

Since 2001, it is estimated that approximately 10,000 ha (9.5% of the then 95,000ha) of cane lands have been lost from production in the Mackay Sugar Region[5]. The primary reason for this reduction is the decision by landowners to use their land for other purposes, including the expansion of urban areas into cane growing country, the expansion of industrial areas and a push into rural residential living as result of the increased house prices in Mackay. Changes in the local labour force due to the influence from the mining sector have also contributed to losses of small rural cane farms by these highly paid buyers in the market.

4.1.2 IRRIGATION PRACTICES IN THE PIONEER AND ETON SCHEMES

When the schemes were designed, allocations were issued at a rate of 2-3ML/ha. The average evapotranspiration (ET) deficit (full crop requirement – average effective rainfall) for the region to maximise crop productivity is in the order of 6ML/ha. Thus irrigation is used by most growers to supplement effective rainfall, but not fully meet crop requirements.

In addition to supplementing effective rainfall at key times in the growing season, irrigation is also used as a management tool to water in fertilisers and herbicides at key times in the crop life cycle.

Irrigation water is used to manage the risk of low crop water availability at key times in the growing season. Since 2005 SunWater has made low available allocation announcements early in the season, with announcements increasing to 100% late in the season (March/April/May). Thus, growers tend to not irrigate in the first quarter of the water year when the crop can better cope with moisture stress, and hold announced allocation in their account for use in the most critical growth period late in the season between December and May.

4.2 SOCIO-ECONOMIC IMPACTS OF CANE PRODUCTION ON MACKAY REGION

Cane grown in the Pioneer Valley and Eton water supply schemes is milled by Mackay Sugar. Mackay Sugar operates 3 mills (Marian, Farleigh, Racecourse), sourcing cane from approximately 85,000 hectares of cane growing land to the north, south and east of Mackay. This is approximately 28,000ha of cane land per mill.

4 Canegrowers submission to MWRWSS

[5] Note, the Mackay region extends to the north, south and east of the Pioneer Valley Water Board and Eton Scheme areas.

Mackay Sugar:

- Employs approximately 530 people year round;
- Employs an additional 270 people during the crush period (23 weeks / year); and
- Spends an estimated $44 million per annum locally.

Additional to this, approximately 300 seasonal workers are employed in the cane harvesting sector during the crushing season.

CIE (2007) analysis of the Queensland sugar cane growing and milling industry found that, on average:

- 47.5% of growing inputs were sourced locally;
- 82.5% of milling inputs were sourced locally;
- 40% of milling profits are retained locally (as mills are grower owned).s
- there are 500 full time equivalent positions per mill area.

Reduction in available cane affects the viability of the mill, and in 2008 Mackay Sugar closed Pleystowe Mill due to the reduced production within the Mackay region. CIE (2007) estimates mill closures are a realistic possibility once more than 20 percent of cane production is lost.

Mackay Sugar conducts ongoing mill viability assessments and the continual decline of milling throughput is a concern for the business.

As well as ongoing loss of productive cane lands in the Mackay region, Mackay Sugar in recent years has also experienced the affects of reduced crops due to the lack of rainfall and irrigation allocations.

The proposal to increase water charges for the growing sector (capacity to pay), will reduce the opportunity of farmers to utilise their existing water allocations for irrigation purposes, thus reducing productivity further within the Mackay region.

Given the current economic situation, it is estimated approximately 30% of growers would either reduce or cease using their current water allocations if water charges increased above the current levels. At an estimated production loss of 20 tonne/ hectare would occur. This potentially would equate to a cane production loss of 220,000 tonne of cane for Mackay Sugar.

Under this scenario of productivity loss of 220,000 tonnes of cane would see the crushing season length reduce by 1 week, reducing the employment opportunities of 270 Mackay Sugar seasonal employees and 300 seasonal employees in the harvesting and field sector.

Mackay Sugar prepared a regional impact statement to determine the multiplier effects of a reduction in Mackay Sugar output of $5.1 million. The results of this study are shown in Box 1.

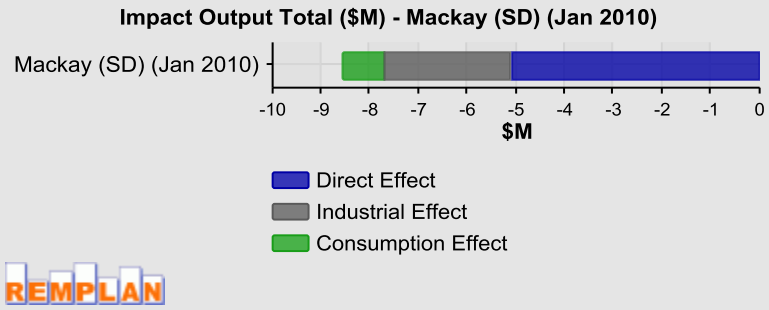
Box 1: Impact Report for Mackay Sugar Ltd[6]

Mackay Sugar commissioned an independent study to assess the regional economic impacts of a scenario of decreased output of $5.1 million. The results are presented below.

Impact on Output

From a direct decrease in output of $5.100 million it is estimated that the demand for intermediate goods and services would fall by $2.601 million. This represents a Type 1 Output multiplier of 1.510. These industrial effects include multiple rounds of flow-on effects, as servicing sectors decrease their own output and demand for local goods and services in response to the direct change to the economy.

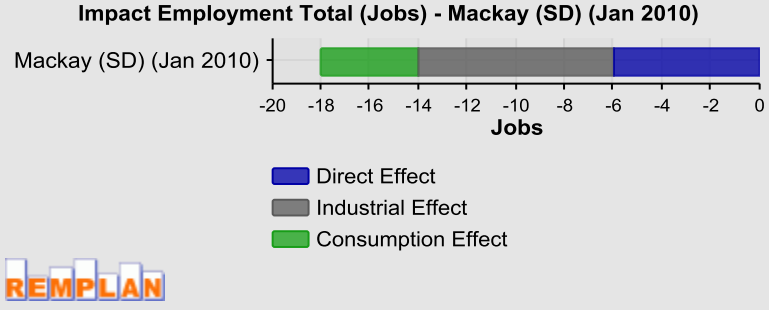
Total output, including all direct, industrial and consumption effects is estimated to decrease by up to $8.548 million. This represents a Type 2 Output multiplier of 1.676.



Impact on Employment

From a direct decrease in output of $5.100 million the corresponding loss of direct jobs is estimated at 6 jobs. From this direct contraction in the economy, flow-on industrial effects in terms of local purchases of goods and services are anticipated, and it is estimated that these indirect impacts would result in the loss of a further 8 jobs. This represents a Type 1 Employment multiplier of 2.333.

The consumption effects under this scenario are estimated to further reduce employment by 4 jobs. Total employment, including all direct, industrial and consumption effects is estimated to decrease by up to 18 jobs. This represents a Type 2 Employment multiplier of 3.000.



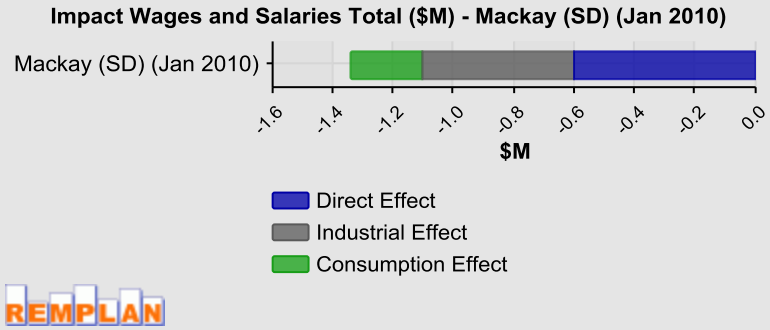
[6] Source: Compelling Economics Pty Ltd Report prepared for Mackay Sugar, January 2010.

Impact on Wages and Salaries

From a direct decrease in output of $5.100 million it is estimated that direct wages and salaries would decrease by $0.604 million. From this direct contraction in the economy, flow-on industrial effects in terms of local purchases of goods and services are anticipated, and it is estimated that these indirect impacts would result in the loss of a further 8 jobs and a further decrease in wages and salaries of $0.502 million. This represents a Type 1 Wages and Salaries multiplier of 1.831.

The consumption effects under this scenario are expected to further reduce employment in sectors such as retail therefore further decreasing wages and salaries by $0.236 million.

Total wages and salaries, including all direct, industrial and consumption effects is estimated to decrease by up to $1.342 million. This represents a Type 2 Wages and Salaries multiplier of 2.221.



5 RESPONSE TO SPECIFIC ISSUES PAPERS

The issues papers presented by QCA provide a comprehensive theoretical overview of the issues associated with this pricing review, and the range of options available to QCA as the decision maker.

However, the issues papers do not provide any clear direction of either SunWater's position or QCA's intended approach to the determination. In the absence of this detail, in the following chapters we provide our initial responses, and look forward to further discussion and consultation with both SunWater and QCA on these issues.

MIS note that the QCA is yet to release its issues paper on Irrigator Capacity to Pay. This issue is of critical importance to stakeholders in the Pioneer Valley and Eton Schemes, and as such we have prepared a more detailed discussion and analysis based on local situations to aid QCA's deliberations.

6 CAPACITY TO PAY

6.1 INTRODUCTION TO CAPACITY TO PAY

Comprehensive capacity to pay studies are rarely conducted in the arena of rural water pricing. Where they have been employed, they have generally been either very specific or almost superficial in their assessment of capacity to pay.

The most significant issue associated with this approach is the lack of principle articulated as a basis for assessment. In essence the studies themselves do not assess capacity to pay but rather potential impact to smooth the introduction of price increases.

Key considerations of the capacity to pay issues should include:

- any assessment should adequately inform the QCA at a scale appropriate to match decisions;
- any assessment should be based on indicators that are generally accepted measures of viability (such as those used by banks and business advisors); and
- the QCA should aim to establish transparent principles.

6.2 BASIS OF CAPACITY TO PAY

The basis of the capacity to pay should be articulated, documented and reported by scheme and industry groupings. Each scheme should be characterised by industry and customer types and the consideration of capacity to pay should aim to cover the vast majority of situations.

Where there is a high degree of homogeneity amongst irrigation farms in terms of allocations, irrigation systems, enterprise areas and productivity, a single assessment for a scheme may be adequate.

Where there are significant differences between farms in terms of these characteristics a more disaggregated approach should be adopted.

For the Pioneer Valley any capacity to pay study should consider the following groups at a bare minimum:

1. The Riparian Area - sugarcane (high and low usage per ML)
2. Scheme supplies – sugarcane
3. Septimus Area - sugarcane
4. Eton – sugar cane

These should be considered to illustrate differences in water usage, costs and farm size facing diverse customers.

6.3 KEY OBSERVATIONS IN THE PIONEER & ETON SCHEMES

The range of situations facing the irrigtaors in the Pioneer and Eton Schemes should be based on at least 4 different situations.

Many of the options available to customers mean that the price elasticity of demand will not be high. This means that viability will be directly affected. The lack of options such as trading and the supplementary nature of irrigation will mean that many irrigators may simply reduce the level of irrigation per hectare.

This will lead to reduced profitability at a farm level, reduced cane supply at a regional level and less water deliveries. The lower elasticity of demand may mean revenue from price increases is not apparent. Detailed modelling at a farm system level is required to test unintended outcomes of water price policy.

7 TARIFF STRUCTURE

In principle, Mackay Irrigation Stakeholders support:

- Two part tariffs, which reflect the fixed and variable costs for each scheme
- Maintaining tariff structures under which schemes were established – Eton scheme operates on postage stamp pricing while the Pioneer Valley Water Scheme has differential pricing.
- The continuation of the price cap as the form of price control
- Using CPI as the method for annual cost escalation
- The recovery of recreation costs from the communities that benefit from the use of these facilities.

8 SPILLWAY UPGRADES

It is difficult for MIS to debate the technical merits of spillway upgrades, including the proposed upgrade to Teemburra Dam. However, the allocation of the capital costs of the upgrade is of critical importance. In principle, and consistent with the NWI, MIS believe that costs recovery from parties that benefit from a spillway upgrade should reflect their proportional share of the benefits.

The Queensland Government has taken action to amend its dam safety requirements in the interests of public safety. This policy aims to protect the community by reducing risks such as unacceptable damage to property, economic loss, injury and loss of life resulting from dam failures. The policy is consistent with the standards set by the Australian National Committee on Large Dams (ANCOLD).

Given that the beneficiaries of this policy change are the broader community, MIS believe that the Government should meet the full costs of capital upgrades to meet the higher safety standards.

The QCA Issues Paper (pg 6) identifies Teemburra Dam as having upgrade works commenced in 2010. This is an error as it is understood that upgrade works for Teemburra Dam are scheduled to occur in 2025.

Upgrade of Kinchant Dam under the spillways program has commenced. MIS seeks clarification of what component of the estimated $30 million project is for spillway upgrade and what component is to address embankment stability issues that have existed for a very long period of time.

9 CAPITAL COST ALLOCATION

In principle, Mackay Irrigation Stakeholders support:

- The use of the Headworks Utilisation Factors (HUF) methodology as the mechanism to enable users share of capital costs to be distributed on the basis of the different benefits enjoyed by different priority entitlements

- The HUF method should be assessed on the basis of the performance of each scheme over the 15 year term which reflects the poorest hydrological performance for supply for medium priority use
- For each scheme, detailed explanation of the HUF calculation is required, including the reasons for the chosen 15 year period and correlation with ROP water sharing rules.

In relation to the Pioneer Valley Scheme, SunWater owned high priority entitlements should be included in the HUF calculation for Teemburra Dam.

It should be noted that the HUF is a mechanism to enable the users' share of capital costs to be distributed on the basis of the different benefits enjoyed by different priority entitlements. It does not establish what the users' share of the capital costs should be.

MIS position is that the users' share of capital costs should be established using the cost sharing ratios of the initial capital investment in the scheme (see Sections 2.4 and 3.2). A line by line assessment of capital projects is required to do this robustly.

10 RATE OF RETURN

The economic principle of applying a rate of return is to ensure that an entity earns an appropriate rate of return on the capital it has invested to conduct its operations. This allowance is intended to represent the opportunity cost of that capital – in other words the value that society could have obtained by using these resources for other purposes.

SunWater (and its predecessor) did not make a decision as to whether investment in the Eton and Pioneer Schemes was economically efficient and prudent use of Government funds. These decisions were made by the funders of the capital projects. The infrastructure was in effect gifted to SunWater, with the company required to own and operate the asset.

The Heads of Agreement for Teemburra Dam Project (signed in 1994) required irrigators to meet the prescribed operation and maintenance charge. There was no mention of rate of return on capital assets. Also this agreement was struck after capital charges for irrigation water allocation had been introduced in Queensland in 1990. Similarly, the materials provided to irrigators to inform their decision to invest in the upgrade of the Mirani Pump Station did not mention a rate of return.

On the basis of these principles, MIS believe that the application of a rate of return on bulk assets is not justified in the Pioneer and Eton Schemes.

If this principle is not adopted by QCA, and a rate of return is to be applied by QCA it should be negotiated with users in each scheme (i.e there should be multiple rates of return for different schemes). The weighted average cost of capital should reflect that SunWater is low risk enterprise.

MIS position is that a rate of return for the Queensland Government should not be applied to any capital costs.

11 ESTABLISHING THE REGULATORY ASSET BASE

MIS urge QCA to revisit the NSW experience in establishing SunWater's regulatory asset base (RAB). The NSW regulator, the Independent Pricing and Regulatory Tribunal (IPART) drew a "line in the sand" on capital expenditure made before 1997. Only those capital investments that were considered efficient and prudent after this date were included in the RAB of State Water (and its predecessor organisations). The 1997 date was identified as IPART first assessed the efficiency of the service provision in 1996. Thus, IPART could be confident that State Water had a sufficiently robust approach to asset management and planning to ensure that future capital investments were efficient and prudent. MIS consider that a similar approach should be adopted by QCA, and the RAB of SunWater be set at zero at 1 July 2011.

Should the line in the sand approach not be adopted by QCA, MIS believe that contributed assets should not be considered as part of the regulatory asset base (RAB) of the company. This approach is consistent with the current approach of Commonwealth Government investment in water infrastructure and pricing principle 6 of the National Water Initiative

> *New contributed assets (i.e. grants/gift from government contributions and contributions from customers (e.g. developer charges)) should be excluded or deducted from the RAB or offset using other mechanisms so that a return on and of the contributed capital is not recovered from customers.*

Given that the sugar industry, irrigators and the Commonwealth Government contributed capital to the development of both the Pioneer and Eton Schemes, these contributions should not form part of the initial RAB to be established for SunWater as at 1 July 2011.

12 REQUIREMENTS OF IRRIGATORS IN THE PIONEER VALLEY & ETON SCHEMES

12.1 RECOGNITION OF SPECIFIC LOCAL ISSUES

In preparing its draft determination urges the QCA to consider the specific localised issues in the Pioneer Valley and Eton Water Supply Schemes. These issues have been discussed throughout the document, and include:

- Consideration of the original investment in scheme infrastructure when establishing SunWater's regulatory asset base. Infrastructure in the Pioneer Valley and Eton Schemes was paid for by irrigators, the Commonwealth Government and the Queensland Government. The infrastructure was in essence gifted to SunWater, and thus SunWater should not expect a return on capital for these assets.
- Spillway upgrades are being undertaken as a result of a change in government policy for the benefit of society. Given that the beneficiaries of this policy change are the broader community, MIS believe that the Government should meet the full costs of capital upgrades to meet the higher safety standards. The QCA Issues Paper (pg 6) identifies Teemburra Dam as having upgrade works commenced in 2010. SunWater has not consulted irrigators in the Pioneer Valley regarding these works. If irrigators were the intended beneficiaries of the infrastructure upgrade, then one could presume (as with other capital works), consultation with local stakeholders would have occurred.
- The supplementary nature of irrigation in the schemes means that an increase water charges will reduce the utilisation of existing water allocations for irrigation purposes, thus reducing productivity further within the Mackay region. It is estimated that approximately 30% of growers would either reduce or cease using their current water allocations if water charges increased above the current levels.

There a number of infrastructure specific issues in the Eton and Pioneer Schemes that MIS are highlighting here and request that they be considered by QCA at the appropriate time. These are as follows.

Fabridams on Mirani and Dumbleton Weirs

The tragedy associated with sudden deflation of the fabridam on Bedford Weir at Blackwater in December 2008 led to SunWater being directed to deflate the fabridams on Mirani and Dumbleton Weirs in the Pioneer River. These have remained deflated since December 2008 and raise the following concerns

1. Impact on reliability of supply for irrigation in the Pioneer Valley Scheme due to decrease storage capacity.
2. Impact on reliability of supply for irrigation in the Eton Scheme due to decreased diversion opportunity from Mirani Weir.
3. Increased pumping costs for the Eton Scheme due to lower water level in Mirani Weir.

4. Loss of access to water supply for Pioneer Valley Scheme irrigators due to extensive siltation of Mirani Weir.

Palm Tree Creek Outlet from Teemburra Dam

The variable discharge cone valve outlet from the dam failed some three years after the dam was completed. This outlet supplies the upper section of the Pioneer Valley Scheme and, despite a number of repair attempts by SunWater, rectification is still awaited. With the variable outlet inoperable, SunWater is limited to releasing at a fixed discharge rate regardless of downstream demand. This has the potential to impact on supply reliability in the Pioneer Valley Scheme.

MIS seeks clarification of how SunWater is funding the repair attempts of this outlet valve and of the eventual rectification of the matter. If it is being funded from asset renewal funds for the Pioneer Valley Scheme we require explanation of this in view of the fact that the work is rectifying a failure of very new infrastructure.

Mirani Diversion Channel Irrigation Customers

Although the Mirani Diversion Channel is principally used to carry water pumped from the Pioneer River to Kinchant Dam, farms that the channel traverses were provided with outlets from the channel to draw irrigation water directly. When the Teemburra Dam component of the Pioneer Valley Scheme commenced these farms were granted water allocations from the Pioneer Valley Scheme to be supplied through the Mirani Diversion Channel under arrangements with SunWater. SunWater incurs significant water losses through the channel and Pioneer Valley Scheme irrigators are concerned that SunWater may seek to deduct losses from their individual water allocations to cover their losses. MIS seeks clarification of this matter.

12.2 INFORMATION ABOUT THE QCA PROCESS

Mackay Irrigation Stakeholders have actively participated in QCA's review process to date, and looks forward to further dialogue and discussion regarding the setting of SunWater's prices for schemes.

Specifically, we are seeking additional information on QCA's approach to:

- scrutinising SunWater's efficient costs & benchmarking these with similar businesses;
- determining users' share of costs (capital and operating) and those that should be met by government; and
- assessing irrigator capacity to pay.

We look forward to the opportunity to respond to these issues prior to the preparation of a draft pricing determination.

APPENDIX 1 – TIMETABLE OF INFRASTRUCTURE DEVELOPMENT

Year	Infrastructure	Purpose	Investors
1954	Marian Weir	Provision of water to sugar mills	Queensland Government
1977-1993	Kinchant Dam	Irrigation supply	Queensland Government Commonwealth Government
1977-1993	Mirani Pump Station & Diversion Channel	Irrigation supply	Queensland Government
1977-1993	Eton Water Supply Scheme	Irrigation supply	Queensland Government
1982	Dumbleton Weir Stage 1	Urban water supply	Mackay City Council
1986	Mirani Weir	Enable diversion to Kinchant Dam and Eton Water Supply Scheme and for irrigation on Lower Pioneer River	Queensland Government
1992	Dumbleton Weir Stage 2	Increase urban water supply and additional supplemented irrigation supply	Queensland Government Irrigators
1993	Mirani Pump Station Stage 3	Augment irrigation supply	Queensland Government (50%) and irrigators (50%)
1996	Reticulated component of Teemburra Dam Project	Irrigation supply	Sugar industry
1997	Teemburra Dam	Urban, Industry and irrigation supplies	Queensland Government (2/3), Sugar industry organisations (1/3)
1998	Dumbleton Weir Stage 3	Increased urban and irrigation supply	Queensland Government (55%), Sugar industry organisations (45%)