

Kinchant Dam Water Users Association Inc.

Submission to QCA Irrigation Pricing Review

March 2019

Introduction

This submission to the Queensland Competition Authority’s (QCA) Irrigation Price Review 2020-2024 is from the Kinchant Dam Water Users Association (KDWUA). The Association was formed in 2012 to act as a representative body for SunWater customers in the Eton Distribution Scheme. The Association represents around 80% of the water allocation held in the Scheme.

The high cost of irrigation water has become the major concern for the viability of the Scheme with an increasing number of water allocations becoming dormant. Total water use in the scheme has declined over recent years despite some of the hottest and driest weather conditions in the area. Further, the large cost increases proposed by SunWater for this Review will further compound the situation of reducing water use.

Data available from SunWater shows a reduction in annual irrigation water usage from 55,704 Megalitres in 2002/2003 to 24,420 Megalitres in 2017/2018. Predictions that changing weather patterns will lead to dry patterns forming more regularly in the future should see water use increasing and not the situation we are currently in. The 2018/19 summer in Mackay reached record temperature levels and, although actual water use figures are not yet available, our members believe that use was significantly reduced in the scheme.

The Eton Distribution Scheme provides supplementary irrigation supplies for some 15,000 hectares of agricultural land with most of the area supplying sugar cane to Mackay Sugar Limited. As a supplementary irrigation scheme, it provides only around one third of the total annual water requirement for sugar cane with the balance coming from rainfall. Spring and early summer are the dry season when irrigation water should be applied to grow the crop following harvest. Not providing this irrigation water severely reduces crop size and has a significant negative impact on sugar production. The flow-on effect of this impacts on the viability of the Central Region sugar industry and of supporting industries. These impacts also affect the general community and all businesses leading to economic downturn for Mackay and region.

KDWUA is fielding a number of enquiries from our members on “handing back” their water allocations. There are provisions within the Water Act 2000 to surrender water allocations, but this action requires approval from the Resource Operations License holder for the Scheme – SunWater. The reason provided by members for hand-back of allocations is the unaffordability of current water prices. Water allocations are now being regarded as a liability rather than an asset by many Eton customers. We are very concerned that surrender of water allocations could be the “straw that breaks the camel’s back” for the Scheme.

We note that Section C (1.4) on the Minister’s Referral Notice for this Review requires QCA to “balance the legitimate commercial interests of the businesses with the interests of their customers, including considering less than cost reflective volumetric prices which are

necessary to moderate bill impacts for customers”. We look forward to consideration of this for the Eton Schemes.

In our submission below we cover a number of areas of SunWater’s Submissions to the QCA Review and the 2018-19 SunWater Network Service Plans for the Eton Bulk Scheme and the Eton Distribution Scheme.

Non-Routine Expenditure

Under the previous price path and at the direction of QCA, SunWater adopted a process of Options Analyses for determination of prudence and efficiency of non-routine expenditure projects. While this process has its merits, it has led to a situation where the cost of reporting became a significant component of project costs particularly for works that extend over a number of years. This is further compounded by the addition of overhead costs to all parts of the options analysis process.

SunWater has now adopted an abbreviated approach to options analysis but the current NSP’s for Eton are still indicating a level of reporting that appears excessive. This aspect of non-routine expenditure must be heavily scrutinised during the pricing review. It is our suggestion that a minimum project value be adopted for which detailed prudence analysis is required and that lesser value projects be managed on a local basis and not through the full SunWater Asset Management System. This would be a prime example of a situation where customers could be become more involved with SunWater in assessing the need for proposed minor projects and setting budgets.

The SunWater Asset Management System must be the subject of a rigorous independent assessment to ensure that only valid asset renewal and replacement projects are included in non-routine expenditure. It is understood that, in the past, minor works such as steel work patch painting, handrail repairs, drain desilting and air valve repairs have been included as renewal works. These works are clearly maintenance and should be done under operational budgets. This offers savings in labour, contractors and overheads in non-routine expenditure as labour and overheads are already covered under operations and, in some instances, negate the need to engage contractors.

As further demonstration of this, the Eton Bulk NSP is showing 26% of the total non-routine expenditure over the 5-year period is for “Other works” involving 49 projects at an average cost of \$15,700. The Eton Distribution NSP is also showing 26% of the 5-year total non-routine as “Other works”. The NSP does not give project numbers but as an example, the narrative under this item for 2019/20 reads;

“The balance of the program consists of third-party crane hoist inspections, a cable replacement at Oakenden pump station, fencing and signage refurbishments/replacements and Abingdon relift pump station sump pump guide replacements.”

Some of these works must surely be maintenance activities. Further, the need for crane hoist inspections could be eliminated by removal of the hoists and use of hired mobile cranes to lift pumps when required.

The Eton Distribution NSP is showing 5-year expenditure of \$642,000 (16% of total) on replacement of 83 customer water meters. As is discussed elsewhere in this submission, water use in Eton is very low due to high water and electricity costs with many customers not irrigating at all. It would not be prudent expenditure to replace operable meters that have not recorded any use in recent years.

Several items appear to be duplicated in SunWater Non-Routine works program for Eton Bulk in Appendix H of SunWater's submission. These should be categorised as maintenance. The Planning Order, 5216058 "Refurbish Kinchant Dam Borrow Pits – Clean and profile drains" appears in the 2021 FY, 2022 FY, 2023 FY and 2024 FY. The total cost of these orders is \$286,000. If this is not a mistake, then under SunWater's definition of Non-Routine work, these works should be classified as maintenance and taken out of the annuity.

Several of the Non-Routine projects within the Eton Bulk list as detailed by SunWater in their submission are Dam Safety upgrade works and should be subject to the final determination of Dam Safety Upgrade costs by the Government. One of these projects is scheduled to be completed this financial year (2018-19) "Construct reverse filter for the full length of Lucy Ck – Embankment toe to Leichardt Rd – Construction". This project is part of the Dam Safety Upgrade as recommended by the Expert Technical Panel and should be excluded from the annuity as the dam safety upgrade for Kinchant Dam was funded by Government.

We are very appreciative of the assistance SunWater have provided to our requests for further details on Eton Bulk Non-Routine projects but are most concerned that further investigation by SunWater has identified substantial savings on a number of projects. The latest advice is that the Lucy Creek Project may now move to a monitoring only phase with reduction in estimated cost of some \$700,000 in 2018/19. Further, a more detailed investigation by SunWater of fencing requirements along the Mirani Diversion Channel has reduced the budget cost from \$477,000 to \$89,000 for 2019/20 and 2020/21.

This raises our particular concern as to the level of scrutiny that SunWater applies to the non-routine programs or simply relies on data generated from the asset renewal program that does not include input from local knowledge of actual asset condition and risk.

The KDWUA recommends that SunWater's Asset Management System be the subject of a rigorous independent assessment to ensure that only valid asset renewal and replacement projects are included in non-routine expenditure. The prudence and efficiency of the Asset Management System and its ability to forecast costs must also be reviewed by QCA.

Electricity

Electricity costs are contributing to overall cost increases. While electricity costs continue to be treated as a pass through with costs allocated based on water use, SunWater has little motivation to drive for efficiency gains. Modelling should be conducted to look at ways to ensure customers and SunWater are not adversely impacted by movements in electricity prices.

The impact of treating electricity as variable costs for direct pass through in variable volumetric tariffs (ie Part B and D tariffs) is a major concern for the Eton Distribution and Bulk schemes which have significant pumping costs. Eton Distribution's cost per megalitre delivered in low water use years is double that in higher water use years due to the system being kept full to

supply a few customers. This indicates that a large percentage of electricity costs are fixed and, as a result, customers using their entitlements will be subsidising those do not use much of their entitlements.

Eton will face significant increases in volumetric charges as a result of State Government's direction to implement cost reflective volumetric charges (Part B and D tariffs) without any consideration of transitioning the increases to take into account impact. This Government direction will add to the difficulties customers are having coping with escalating electricity charges on farm.

There are two specific issues in regard to electricity for Eton.

Eton Bulk

The Eton scheme is based on water harvesting from the Pioneer River into an off-stream storage – Kinchant Dam. Water access entitlements from Kinchant Dam are only available as a result of pumping and not from natural stream flows as for most storages. Because of this, KDWUA recommends that all pumping (electricity) costs for Eton Bulk are a 100% fixed cost (Part A) and should not have a variable component (Part B) based on customer use in Eton Distribution.

Eton Distribution

Electricity cost for Eton Distribution is currently under time of use Tariff 62. A number of Eton pumping sites fall into Ergon's Large Business category and will move from the obsolete Tariff 62 to Demand Tariffs from 2020/21. This will see a significant jump in cost with the demand charge and supply charge under the new tariffs. SunWater's NSP does not show a step change in electricity costs from 2020/21. This again reflects SunWater's lack of incentive to adequately review electricity costs where pass through arrangements are awarded.

We strongly urge SunWater and QCA to focus on guaranteeing the correct price for electricity is used and then ensure it is allocated to a cost/ML for the setting of prices. This includes defining the cost as fixed or variable.

KDWUA recommends that the QCA establish the electricity unit cost per ML. This should not rely on averages using past water use. It should however reflect 15 years of data aligning electricity use with water use to establish the cost/ML of electricity. Out of that the fixed and variable costs for electricity can be allocated.

Eton Distribution Scheme Rules

A significant impost on the operational cost for Eton Distribution is that the channel system is kept filled all year to supply small offtakes for stock and domestic use. This increases the cost for acrolein treatment of weeds in the channel and restricts the amount of maintenance that can be undertaken with the system drained. Chemical treatment is costly and reducing the number of treatments would offer substantial savings.

SunWater's Scheme Rules and Targets for Eton include:

Stopping or restricting supply

SunWater may suspend or restrict supply in a number of circumstances, including:

- *during maintenance of SunWater's assets;*
- *if supply could cause SunWater to break the law;*
- *during a peak demand period, when rosters or rations may apply;*
- ***when the demand for water is so small it is impractical to supply it;***
- *infrastructure limitations which make delivery impractical;*
- *when there is a need to make special releases to maximise efficiency at times of limited supply; or*
- *during rain shutdown.*

Customers who require water all year round should make arrangements for on-farm water storage to provide their ongoing water requirements during interruptions.

The highlighted sections show that SunWater has clear authority to enforce on-farm storage and to halt supply during periods of no irrigation demand. These provisions have been in place for many years but have not been enforced. We request that SunWater be asked to provide the cost saving that would apply if the on-farm storage requirements were fully enforced.

The ability to stop supply for extended periods would also improve overall operational efficiency and may allow for a reassessment of the quantum of distribution losses required for the scheme.

KDWUA fully supports the enforcement by SunWater of the Scheme Rules particularly those that offer significant savings in maintenance costs.

The KDWUA recommends that the savings above be identified and then reflected in a reduction of costs being allocated to the scheme for this pricing review.

Eton Bulk Operations Indirect Costs - IGEM

SunWater's NSP for Eton Bulk now includes an amount of \$141,000 in 2018/19 for IGEM costs. This amount, if passed to irrigators, represents \$2.73 per megalitre per annum.

Kinchant Dam was the centre of controversy in March 2017 when heavy rainfall in the area caused flooding of surrounding towns and properties. Spillway overflow from the Dam was initially blamed for increasing the flooding. As an off-stream storage, the Dam has a very small natural catchment compared to the entire area surrounding which received the rainfall event. Also the Kinchant dam spillway does not have control gates.

Because of the controversy, the Chief Scientist was directed to investigate the flooding event. The Executive Summary of the Report includes the following:

The scientific data provided, consistent between all agencies, leads us to conclude rainfall as the dominant source of water flow in the catchment which experienced considerable flooding.

In addition, whilst not designed as a flood mitigation dam, Kinchant Dam did achieve some attenuation of peak flood flows from its catchment. However, given both the relatively small proportion of the overall catchment upstream of the dam and the timing and size of the peak dam outflows, we conclude that early release from the dam would have had little or no significant impact on subsequent flooding, due to the very heavy rainfall experienced.

It is very clear that Kinchant Dam has no impact on regional flooding from major rainfall events and thus, should not incur any IGEM costs.

Kinchant Dam does act as a detention basin for a small part of the Sandy Ck catchment due to the design of the structure having an emergency spillway which is 1 metre higher than the Full Supply Level. The volume available for flood storage is approximately 8 % of the storage volume at the full supply level. Although the impact on downstream flooding is very minor during major flooding it can have some impact to downstream areas during specific smaller rainfall events.

In further support of our position, we would submit that the proposal to pass the costs of the IGEM onto SunWater is flawed as the responsibility for providing flood information rests with the Bureau of Meteorology and Local Disaster Management Agencies, not SunWater. Data from SunWater's stream gauging stations is used by BOM and others for flood monitoring but these stations are also used by SunWater for normal dam operations. Water users already pay for their share of the costs of the stations for normal operations.

Dams do not produce floods and in most cases reduce flooding from upstream rainfall events through holding part of the flood volume and releasing at a lower rate than the flood event if the dam had not been in place. A prime example is the Peter Faust Dam on the Proserpine River. Completed and empty prior to the major Cyclone Joy event in the early 1990's, it stored almost the entire flood runoff for the rainfall with the cyclone and significantly reduced flooding in Proserpine and surrounding areas.

If QCA were to consider the cost be allocated to water users, water users would request the flood mitigation benefits from all dams be identified and then allocated a cost through the Head Works Utilisation Factor (HUF).

KDWUA recommends that the IGEM costs be passed through to the beneficiaries not water users.

SunWater Overhead Costs

All previous pricing reviews for SunWater schemes have identified overheads as the significant cost of operations. Despite SunWater undertaking a number of restructures and downsizing, flow on to reducing overheads has not occurred.

The following table compares overheads costs as presented in SunWater's NSP's for Eton Bulk and Distribution for 2016 and 2018/19 and shows an overall increase of some 50%.

	Operations	Preventative Maintenance	Corrective Maintenance	Total
2016 NSP Budget				
Distribution	363	191	138	692
Bulk	543	168	194	905
2016 Total Overheads				1,597
2018/19 NSP Forecast				
Distribution	745	445	450	1650
Bulk	514	204	60	778
2018/19 Total Overheads				2,428

Notes:

1. 2016 includes Other and Non-direct Costs; 2018/19 includes Other, Local Area and Corporate Support and Non-direct Costs
2. Numbers are in \$,000

Further, for 2018/19 these overhead costs make up 44% and 42% of the Routine Costs for Eton Distribution and Eton Bulk respectively.

KDWUA recommends that a very close examination of all aspects of SunWater's overheads costs must be undertaken as part of this Review.

Implement Access Charges

Eton Distribution has a large number of customers with very small water allocations. Data available indicates that some 57 customers have an allocation of less than 10ML. Prior to the current price path set by QCA, the scheme had a minimum charge applied to ensure small customers covered most of their cost of delivery. This is no longer the case with some smaller customers being charged as low as \$65 per annum for access to water all year round. This pricing policy puts the viability of the scheme at risk with larger customers subsidising the smaller customers. The use of an access charge is easier to account and budget for than a minimum charge.

KDWUA recommends that QCA should incorporate in the pricing modelling for Eton Distribution, an access charge in the revenue stream.

Recreation Costs

The Referral Notice Part C states that the cost of provision of recreation facilities from 1 July 2020 are to be excluded unless agreed to by customers. It has been noted in Appendix H of SunWater's submission that for Kinchant Dam Recreation area there are two non-routine projects for refurbishment of the only two toilet blocks in the Recreation area for a total cost of \$56k prior to the cut-off date. The costs of these two refurbishments were hidden in Other Works in the NSP. These refurbishments should be excluded from the annuity for Eton Bulk.

Another project in 2021FY described as Kinchant Dam – Refurbish Rec Area Pumping Plant also needs to be excluded.

Any costs either routine or non-routine costs associated with the Water Treatment Plant at Kinchant Dam need to be excluded after 2020 FY as this plant and associated pumping equipment only supply water to the recreation area, the Education Camp and probably one other customer. This service had been continued on a cost recovery basis by SunWater in the past with the Education Department paying the majority of the costs.

KDWUA recommends that the method used to extract these costs must be investigated to ensure that all costs for the provision and servicing of recreation area demands are excluded for this and future pricing investigations.

Routine Expenditure

The total routine costs for both the Eton Distribution and Eton Bulk need to be rationalised and brought more in line with actual expenditure and not the SunWater forecasts. This is very evident within the addendums recently released for both service contracts with the updated 2017/18 forecast cost with actuals. The forecast costs for the 2018/19 year show a step increase when compared to the actual costs over the 2016/17 and 2017/18 FYs. The 2018/19 forecast costs are unfortunately then used as the basis for the costs (and therefore charges) in outer years.

The table below highlights the jump in forecast cost above actuals in \$1,000s.

	Actual 2016/17	Actual 2017/18	Average Annual 2016-18	Forecast 2018/19	% Increase over Av 2016-18
Eton Distribution					
Electricity	\$ 194.4	\$ 458.4	\$ 326.4	\$ 650.0	99%
Insurance	\$ 207.5	\$ 191.1	\$ 199.3	\$ 200.7	1%
Operations	\$ 832.1	\$ 729.9	\$ 781.0	\$ 1,076.6	38%
Prev Maintenance	\$ 707.4	\$ 858.8	\$ 783.1	\$ 1,055.5	35%
Corr Maintenance	\$ 389.7	\$ 551.3	\$ 470.5	\$ 768.0	63%
TOTAL	\$ 2,331.1	\$ 2,789.5	\$ 2,560.3	\$ 3,750.8	46%
Eton Bulk					
Electricity	\$ 151.5	\$ 561.7	\$ 356.6	\$ 400.0	12%
Insurance	\$ 198.7	\$ 182.2	\$ 190.5	\$ 192.7	1%
Operations	\$ 423.4	\$ 679.2	\$ 551.3	\$ 685.5	24%
Prev Maintenance	\$ 319.7	\$ 381.1	\$ 350.4	\$ 407.0	16%
Corr Maintenance	\$ 67.5	\$ 140.8	\$ 104.2	\$ 156.3	50%
TOTAL	\$ 1,160.8	\$ 1,945.0	\$ 1,552.9	\$ 1,841.5	19%

KDWUA recommends that QCA investigate the use of the forecast 2018/19 water year as the base year in the SunWater financial model. KDWUA also recommends QCA review the allocation of all overheads as well as the prudence of them.

Dam Safety Upgrades

Equity – For many years the Dam Safety Upgrades undertaken by SunWater have been funded by Government through either reduced dividend payments from SunWater or through direct grants. Dams upgraded include Tinaroo, Fred Haigh, Kinchant etc. If the Government now intends to have irrigation customers within other schemes pay for some of the costs of upgrades

the question of equity between customers in different schemes must be considered. These upgrade works have very long useful lives and the inter-generational nature of these costs must be considered.

If the Government is to include future upgrade costs in the pricing arrangements for irrigation customers, there should be corresponding changes to the 'locked in' nature of the entitlements that irrigation customers hold. This is due to:

- The significant costs of most of these dam safety upgrades when compared to the initial costs of the dams;
- The 'locked in' nature of allocations and the limited nature and immaturity of the water market within each of the schemes which may be subject to dam safety upgrades,
- Irrigation customers had made a conscious decision either through the purchase of a farm or allocations or the agreement to participate in a scheme that supplied water to existing farms to take on an irrigation allocation. The inclusion of dam safety upgrades and subsequent increase in costs would be a significant variation to the parameters that most of the irrigation customers would have considered when becoming part of the scheme. These customers have very little opportunity to influence the outcomes of regulatory changes to improve dam safety and, in most cases, this is justified. If the dam safety improvements are incorporated into the irrigation charges, a mechanism should be put in place that would enable irrigation customers to surrender part or all of their allocations to the Government which would then become the customer of the service provider until the allocation was on-sold with full knowledge of the pricing regime that would apply in future.

Attachment – “Operating Cost and Finance Risk” by John Deguara, Commercial & Agribusiness Manager, SUNCORP, Mackay.