Burdekin River Irrigation Area Irrigators Committee

BRIAIC Water Pricing Input Paper

(Revision of the BHWSS Network Service Plans)

Irrigation Prices for SunWater Schemes: 2011-2016

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1. Executive Summary

The process of analysing the Network Service Plans (NSP's) requires the reader to comprehend linkages between numerous documents and datasets, which include both BHWSS NSP's, SunWater's issues papers on centralised costs, renewals, forecasting assumptions, asset management, asset valuation, headwork utilisation and supporting documentation such as Annual Reports. This is a time consuming and technically challenging process that would preclude many of SunWater's customers from fully understanding the final pricing methodology, costs and values.

Key issues identified by this analysis are as follows:

- Centralised costs (overhead/indirect) averaged 170% over labour for the BHWSS (Bulk and Distribution) for the price path. Averaging $5.3M per annum on a total direct cost base of $9.2M, this is very high by any businesses standard.
- Excluding electricity pricing risk from SunWater, removes any emphasis on the organisation to ensure its systems and processes are being maintained to the upmost operational efficiency. It also negatively impacts annual production decisions for farmers as their price risk increases with this option.
- Renewals annuity for the BHWSS is largely inconsistent with significantly different annuity balances provided in the 2008-9 and 2009-10 Annual Reports. A full review and assessment of this is required as the opening balance of negative $3.12M does not align to reported values.
- Overall, NSP's provide no low level detail which negatively impacts the assessment of cost allocation. Activity sets should breakdown their sub components to facilitate such a review. Eg. It is understood the weed control has been shifted from Corrective to Preventive which is significant, however no detail of sub-set activities are provided.
- NSP's refer to further detail such as costed Work Instructions, however no detail is provided to analyse efficiency of any such function. Supply of these documents is required.
- Elements such as 3rd Party Certified Management Systems are inferred as being required to meet legislative requirements. It is understood that the BHWSS has no legislative requirement to have 3rd party certification and such costs should be excluded.

2. Centralised Cost Impacts

Network Service Plans (NSP's) receive inputs from SunWater's corporate business model that impact bottom line costs. It is therefore imperative that the corporate model, its costs and method of application are analysed and compared to alternative models.

SunWater's document "Background paper QCA review of irrigation prices - Centralised costs – Jan 2011" discusses its corporate model and relevant costs as they are applied to NSP's. The document defines the rational for separating irrigation type costs for SunWater's other business activities and also the splits between the irrigation areas. The process itself is compared to IPART principles and other water service providers.

The core issue is the resulting costs to NSP's and the analysis of these figures when compared to a zero base budget. The document lists the below charts that show the joint (bulk/distribution) centralised cost to the Burdekin Haughton Water Supply Scheme (BHWSS).

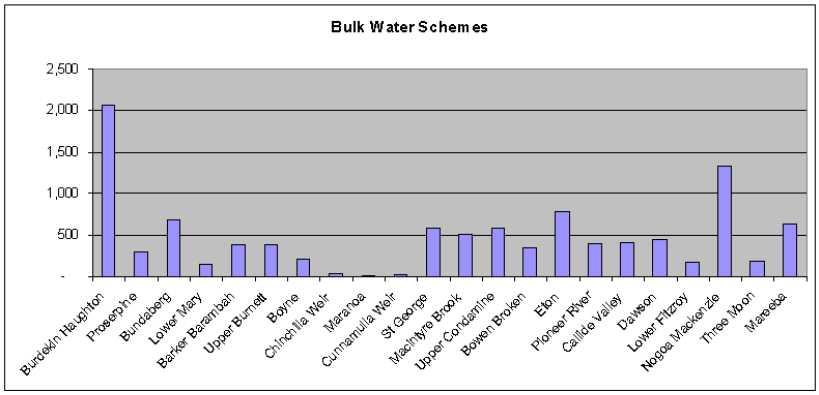

Fig 1 – SunWater's Centralsied Cost Paper - Fig 3

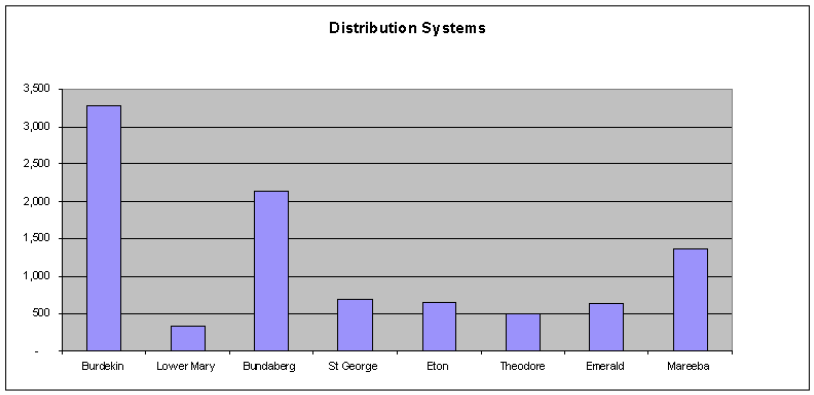

Fig 2 – SunWater's Centralsied Cost Paper - Fig 4

When analysing the NSP's for the BHWSS, these figures demonstrate an average cost impact of $5.35M p.a.

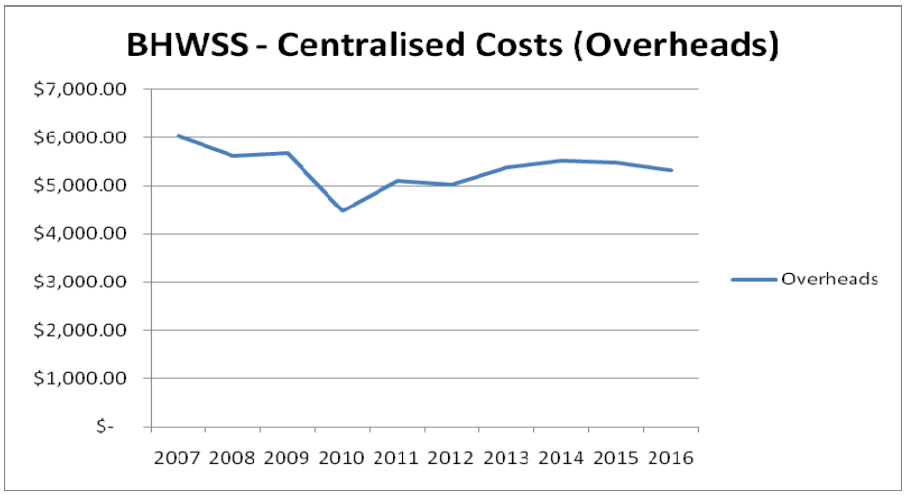

Fig 3 – Graph of Overhead/Indirect costs from BHWSS NSP's combined ('000)

Irrespective of the allocation distribution being applied between the irrigation areas, the key issue is to compare and where required, justify the annual $5.3M dollars being allocated to BHWSS and its irrigation pricing. The pricing methodology put forward by SunWater allocates costs by causality, labour costs then size and complexity which results in applied figures.

	2012	2013	2014	2015	2016
Overheads (Bulk + Distribution)	$ 5,032.00	$ 5,384.00	$ 5,519.00	$ 5,487.00	$ 5,329.00
Labour	$ 3,104.00	$ 3,149.00	$ 3,149.00	$ 3,149.00	$ 3,149.00
% on labour	162%	171%	175%	174%	169%

Table 1 – BHWSS Centralised and Labour Totals ('000)

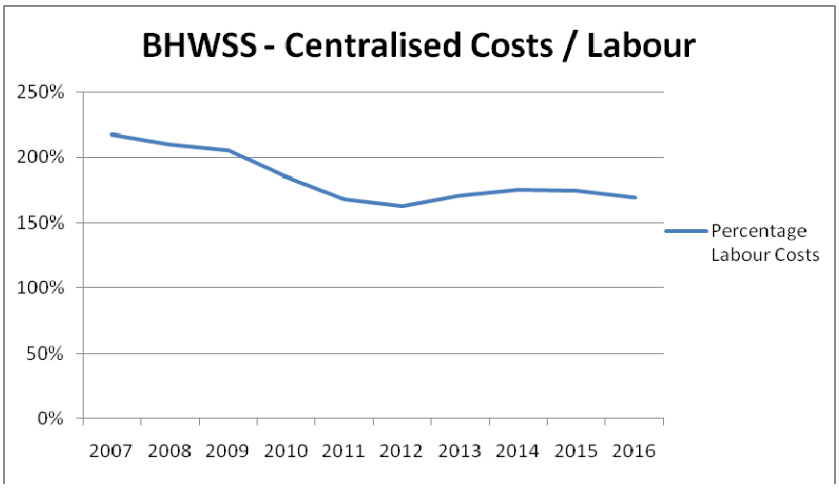

Fig 4 – Centralised costs (overheads) dividied by labour costs for the BHWSS

The above figure (fig 4) demonstrates an average 170% overhead on labour over the period 2011-2016, with a maximum of 175% in 2014.

When reviewing the BHWSS as a standalone business, the first question that must be answerd is whether $5.3M of overhead/indirect costs is efficient. The data presented in SunWater's NSP's shows a total cost (excluding overheads) averaging $9.3M p.a. for the BHWSS bulk and distribution systems. This represents a total average overhead percentage of 57% for the coming price path which by any business standard is exceedy high.

3. Electricity Price Risk

The BHWSS NSP prescribes the following electricity risk sharing methodology:

"Electricity costs are difficult to forecast accurately because volumes pumped, electricity consumption and electricity prices cannot be reliably projected. SunWater proposes that a risk sharing approach be applied to pumping costs going forward as outlined below:

- Electricity cost to be forecasts based on electricity prices escalated at CPI
- Volumes pumped to be forecast based on projected water use volumes
- Reconciliations of forecast cost vs actual cost to be maintained
- Appropriate overs and unders price adjustment to be incorporated into the next price path beginning 1 July 2016"

Based on this methodology, a base rate is shown within the NSP using the current $/ML costs multiplied over the projected ML usage (Ref Table 4.3, P28 of document #1015146).

Table 4-3 Forecast electricity cost – 2011/12

	Estimated Cost per ML ($/ML)	Projected Water Usage (ML pa)	Projected Cost ($'000 pa)
(Real dollars, $'000)			
Electricity	14.46	226539	3276

Fig 5 – BHWSS Distribution NSP – Table 4-3.

This methodology shifts all electricity price risk to the customer. It is noteworthy that this is a new practice and that SunWater's former price paths made estimations of electricity prices and accepted electricity price risk. It is understood that such a price risk for SunWater was an efficiency driver in that it forced the detailed review of pumping systems, operational strategies and usage projections to minimise electricity price impacts.

By excluding this risk from SunWater, it removes the emphasis of the organisation to ensure its systems and processes are being maintained to the upmost operational efficiency.

A review of cost impacts to end users demonstrates the annual price variability may be significant. The following table and chart (Tab 2 & Fig 6) represents estimated costs per ML using the BHWSS NSP usage data as listed above in Fig 5.

Projections Per ML (Distribution NSP Allocation)

	2011	2012	2013	2014	2015	2016
NSP's divided by allocation (No elec increase)	$ 65.34	$ 66.58	$ 66.83	$ 66.64	$ 66.69	$ 66.24
NSP's + 4% Electricity p.a.	$ 65.34	$ 67.18	$ 68.04	$ 68.49	$ 69.20	$ 69.45
NSP's + 8% Electricity p.a.	$ 65.34	$ 67.77	$ 69.05	$ 70.43	$ 71.92	$ 73.53
NSP's + 12% Electricity p.a.	$ 65.34	$ 68.36	$ 70.35	$ 72.57	$ 75.07	$ 77.86

Table 2 – BHWSS NSP $/ML with compounding percentage increases

Table 2 and Fig 6 divide the total electricity costs listed in the BHWSS NSP's by the projected based usage of 226539ML. Extrapolation of estimates are then calculated with compounded percentage increases as shown.

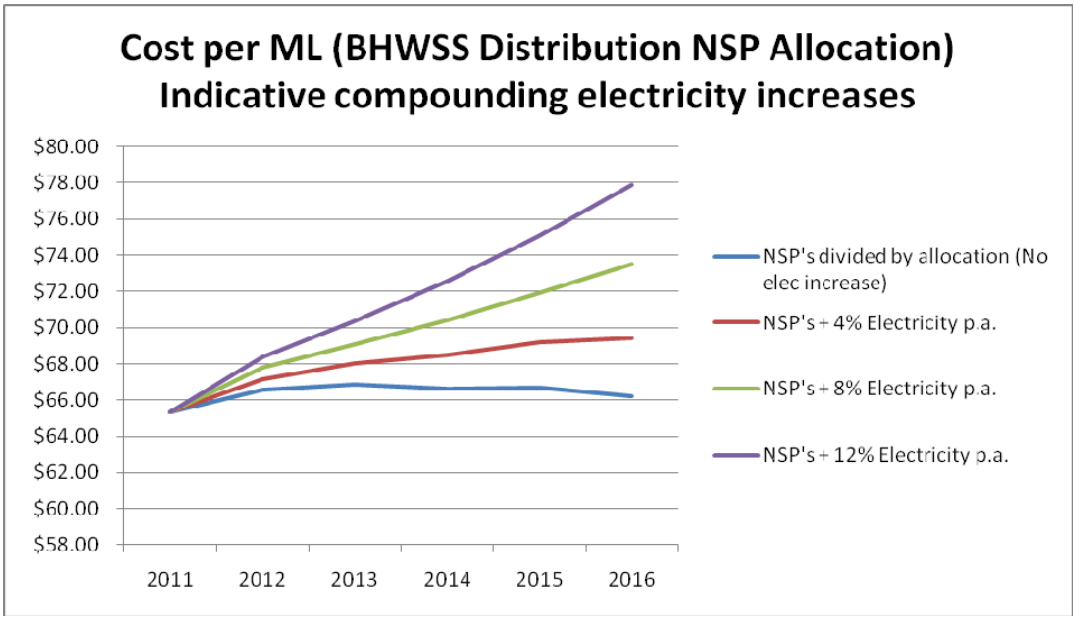

Fig 6 – Total NSP electricity with variable % increases (4%, 8%, 12%)

As SunWater applies a corporate pricing policy that integrates pricing risk, such as corrective maintenance risks (estimates of asset failures with variability), however it is now not prepared to accept any pricing risk in regard to electricity which indicates it may be time to discard this pricing model and shift to pure cost recovery.

If SunWater is no longer prepared to drive internal efficiency improvements via accepting pricing risk, it may be preferable to end users to have a direct costing system that identifies and collects all costs with no overhead/indirect methodologies being applied. This would eliminate costing risk to SunWater and provide true pricing transparency to customers.

4. Renewals Annuity

The BHWSS Distribution NSP lists an opening annuity balance of negative $3.12M in section 4.3.4. This data does not align to either the 2008-9 or 2009-10 SunWater annual reports, nor do these reports align.

The 2008-9 Annual Report illustrates a 2008-9 annuity balance of >$1.5M and the 2009-10 report illustrates a 2008-9 annuity balance of negative $0.5M. This is an officially reported difference of more than $2M in the consecutive annual reports.

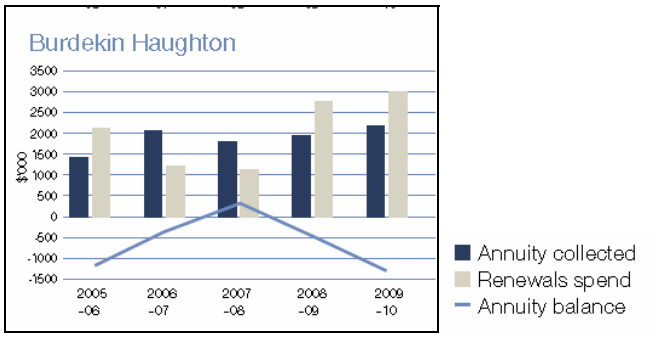

Fig 7 – Asset Sustainability – SunWater 2009-10 Annual Report (P 78)

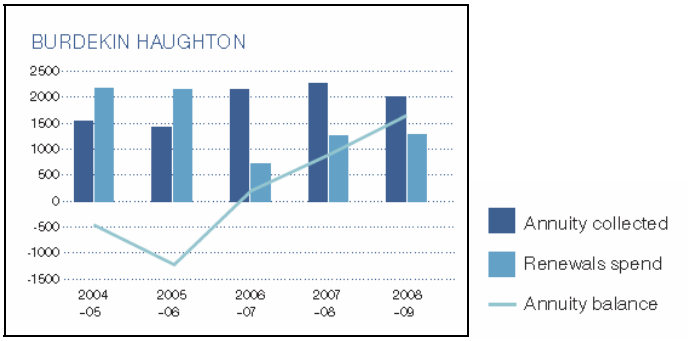

Fig 8 - Asset Sustainability – SunWater 2008-09 Annual Report (P 28)

If there was adjustments of renewals spend from the 2008-9 report to the 2009-10 report in the 2007-08 year, it must be defined and explained. This error appears to exacerbate the growing differential between annuity and renewals cost to the point that the BHWSS now shows an opening balance of negative $3.12M on data that appears far from consistent.

If the negative $3.2M position is to be believed, this would indicate SunWater has spent considerably more on renewals than it had planned. A full review of SunWater's renewal program (priority, risk, cost/benefit) would be required to assess the effectiveness and accuracy of this program to ensure the new price path doesn't result in a negative $9M end position.

5. Burdekin Haughton (Bulk Water) NSP Analysis

The NSP's have been analysed with commentary and issues listed. The following is an exception report that presents issues requiring further information and provides specific points for negotiation. The Executive summary of each NSP has been omitted from this review unless specific information is tabled in the summary that is not detailed within the document.

Section 3.2.3 – Supply Interruptions

This section defines the overarching customer service standards, however it does not define the actual results for current price path operations, nor does it cover cost implications to SunWater for these standards.

Point 1: SunWater to include service standard result data for review and contrast these to operating costs.

Section 3.2.4 Meter Reading

Meter reading costs are not defined. The statement that customers can enter meter readings should provide a projected saving if this protocol is to be routinely adopted

Point 2: SunWater to define meter reading costs and the projected savings from customer entered meter reads, or other processes such as technology improvements that will reduce these costs.

Section 3.3 Service Standards and Costs

The statement "There are also significant compliance costs associated with those assets and the ongoing management of WAEs. The delivery of water and other service cost aspects are relatively minor and often occur alongside compliance-based activities (e.g. monitoring).' [2] suggests a notable operation cost impact that is not defined, or discussed in context of future efficiency gains

Point 3: SunWater to define costs associated with compliance and how efficiencies are to be gained given the projected downward trend in operational direct costs in table 4.3.

Section 4.1.1 Operating Activities#

SunWater maintains 3rd Party Certification for ISO 9001, 4801 and 14001 being Quality, Safety and Environment respectively as stated on page 19 of document #1015073. It is noted that the operation of the BHWSS does not require SunWater to maintain such certifications by any Act or Regulation. Many organisations use such certifications to qualify for commercial contracts such as mining operations or large scale service contracts. If it confirmed that 3rd party certification is not legislatively required to operate the BHWSS, it must be assumed that these certifications and the substantial costs that come with maintaining such systems are a SunWater commercial business imperative for bidding for and/or maintaining external commercial contracts that should not be included in price path calculations.

Point 4: That SunWater qualifies the requirement to maintain 3rd party certified management systems for operating the BHWSS, calculate the total cost impacts of these systems, and removes these costs from the BHWSS cost base if not legislatively required.

Section 4.1.4 Recreational Activities

Noting SunWater will define its position on recreational activities post the QCA paper on this topic, further explanation of the costs listed are expected. The costs shown in table 4-2 do not define the function or objective of this cost pool, nor do they separate operational from capital costs.

Section 4.1.6 Other supporting activities

As tabled in Section 2 of this report, the issues of procurement efficiency have little to do with the centralisation of a procurement team and require considerably more information on how optimised procurement occurs within the region. In reviewing SunWater's procurement planning documents, there is statistical analysis of SunWater wide purchasing trends and risks, however there is little to no actual review or audit data of purchasing practices as they apply to Network Service Plans. Given this document does state there is a centralised procurement team, it is assumed this has brought efficiency gains to the BHWSS operation

Point 5: That SunWater defines the cost efficiency gains as they apply to the BHWSS from centralising procurement activities. Specifically, the labour/overhead costs applied to the BHWSS prior to centralisation and after centralisation.

Section 4.2.1 Operation Costs (general)

As stated in the NSP "Materials and contractor costs are based on the quantities required in the work instructions for the scheme. The unit cost of materials and contractors has been based on current unit costs, with adjustments made where those costs are expected to change in real terms." It is inferred that the Work Instructions have been reviewed for optimal efficiency and contain work unit quantities. This information would be of significant importance in ascertaining SunWater's efficiency as it is applied to the services.

Point 6: That SunWater provides copies of, or access to Work Instructions for review. These instructions should include the "quantities of work" required and the referenced unit costs as stated in the NSP.

Section 4.2.6 Operating costs by type

It is noted that when comparing direct costs of labour, electricity, materials, contractors and other, discounting the issue of static electricity costs, the overhead percentage increases throughout the price path.

Cat	Financial Year / Item	Actuals				Forecast	Price path				
		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
(Real dollars, $'000)											
Expenditure											
Expenditure by Type	Labour	672	981	981	749	808	820	832	832	832	832
	Electricity	59	62	67	69	75	75	75	75	75	75
	Materials	210	178	167	246	109	111	113	114	115	118
	Contractors	110	105	79	174	90	76	62	63	64	65
	Other	945	608	448	527	329	329	329	329	329	329
	Indirects & Overhead	1670	2315	2302	1543	1590	1598	1732	1805	1754	1678
	Revenue offsets	-81	-84	-99	-98	-95	-95	-95	-95	-95	-95
Total Operating Costs		3588	4164	3848	3209	2907	2914	3048	3124	3075	3002

Fig 9 – Extract from BHWSS NSP

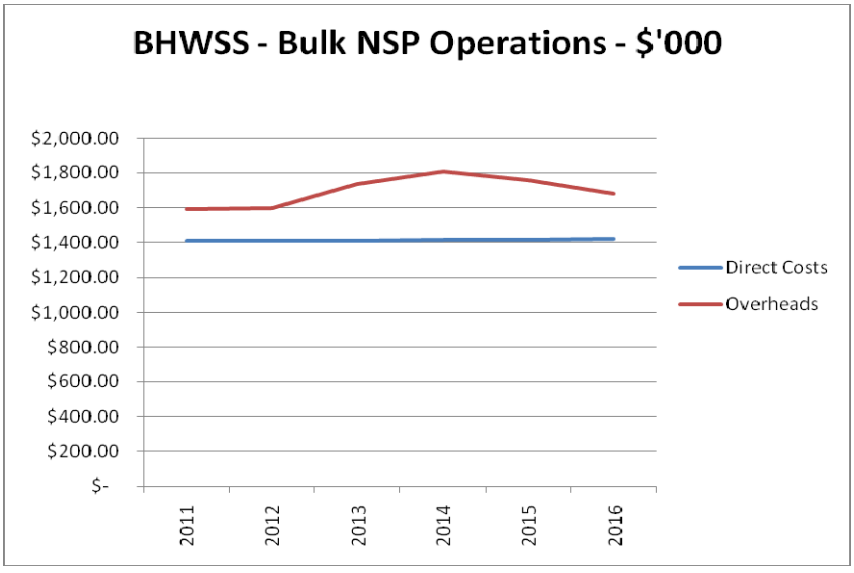

Fig 10 – BHWSS Bulk NSP Operations Cost (Total direct / indirect)

6. Burdekin Haughton (Distribution) NSP Analysis

Section 2.3 Customers and WDE's serviced

The NSP illustrates a distribution loss figure of 69% of total WDE's that results in physical water loss averaging 90,148ML. Given the NSP excludes cost impacts for channel lining (NSP Sect 5 final dot point) to respond to rising ground water issues, it is imperative SunWater provides further data on loss by type so that customers can gain an appreciation of risk. This should be separated into pump losses, metering inaccuracy factors, channel overflow losses, evaporation losses and remaining projected seepage losses.

Figure 2-3 Water usage

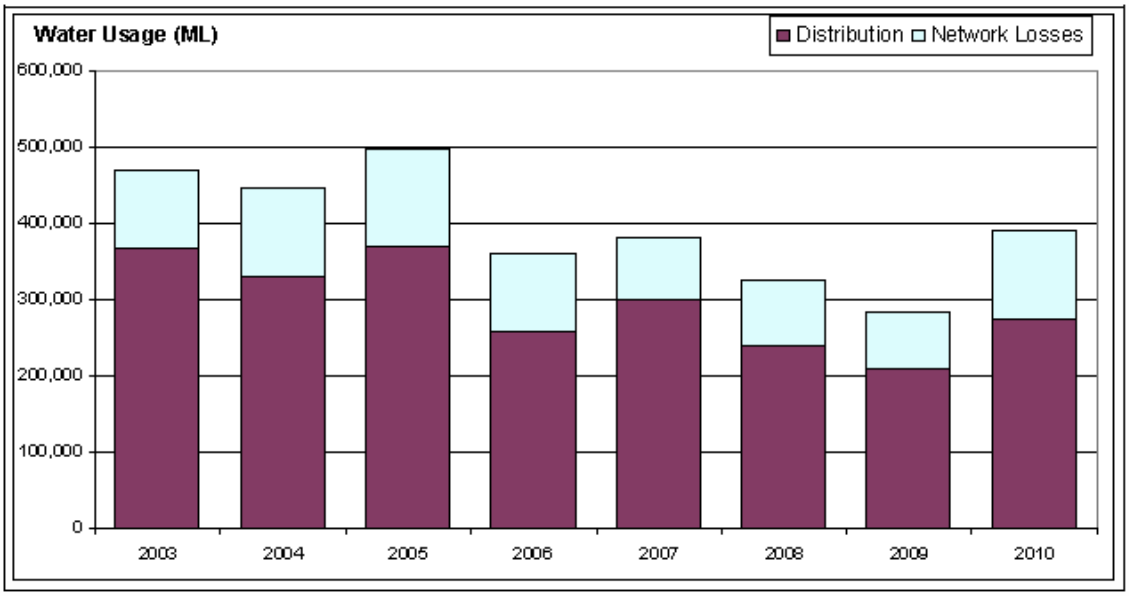

Fig 11 – BHWSS NSP Fig 2-3

Point 6: For SunWater to provide water loss data as prescribed above so that customers can ascertain the levels risk related to water loss recovery works

Section 3.2.3 Supply Interruptions

This section discusses shutdowns for in channel weed control such as Acrolein injections which require isolation for between 5 to 7 days. Weed control, specifically the control of in channel weeds and algae has been a significant issue for irrigators over the past five years with fewer treatments resulting in greater meter blockages and longer treatment periods for correction.

Given SunWater's documented reduction in service delivery costs over the current and projected price path, there is a legitimate concern that the core service of delivering water

that can pass through a meter will be further reduced in this price path as direct costs such as weed control are further reduced to cover overhead expenditure.

Point 7: That SunWater defines its weed control program with costs to provide confidence that this function is not being further degraded in an attempt to cover indirect costs.

Section 3.3 Service standards and cost

The statement on P19, "*It would be possible to fundamentally change the current asset management philosophy and to reduce expenditure and to increase the risk of major supply failure, as well as minor supply interruptions. However, SunWater does not believe this is prudent…*" appears to be a direct contradiction when reviewing the reduction in direct costs by activity type.

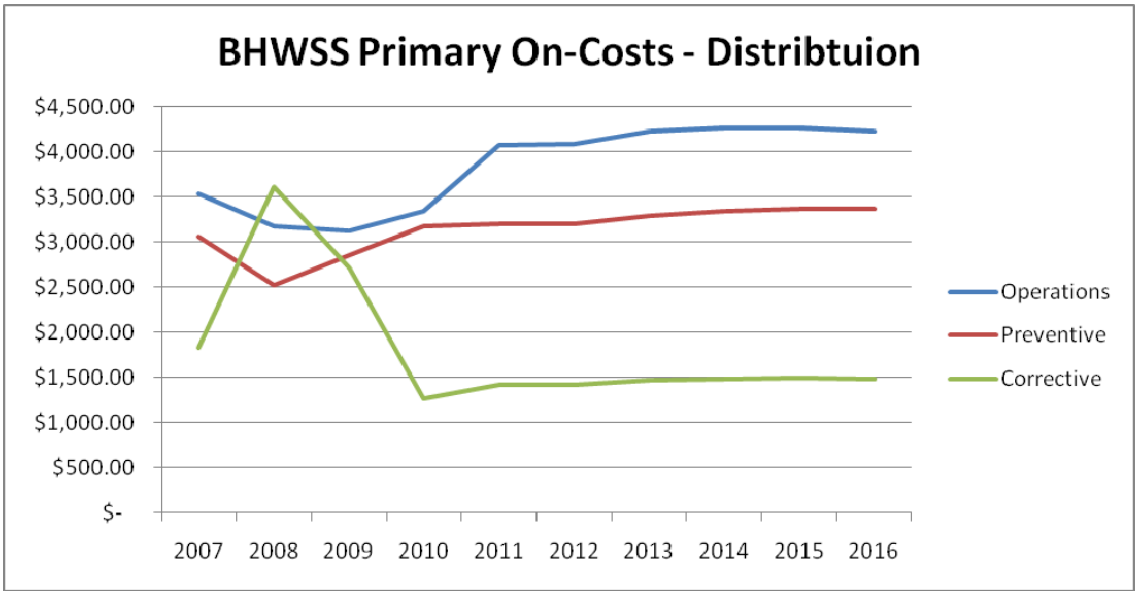

Fig 12 – BHWSS Distr NSP (Operations, Preventive, Corrective)

It is notable that the overall annual average costs of Operations, Preventive and Corrective represents an average $2.85M during the current price path and $2.99M during the projected price path. Most evident is the process by which this is to be achieved, is via an averaged reduction of $720k p.a. in corrective maintenace (From $2.16M in the current path to $1.44M in the projected path). It maybe interpreted that SunWater plans to "milk" assets by not repairing them. This pricing strategy may present an 'acceptable' growth in total costs, but masks the issues of increasing overhead percentages, reducing service standards and increasing renewals spend as has been evident in the current price path.

Point 8: That SunWater defines its asset consumption and operational risk methodology to support its case in reducing corrective maintenace.

Section 4.3.4 Renewals Annuity

The NSP prescribes renewals expenditure and annuity as follows.

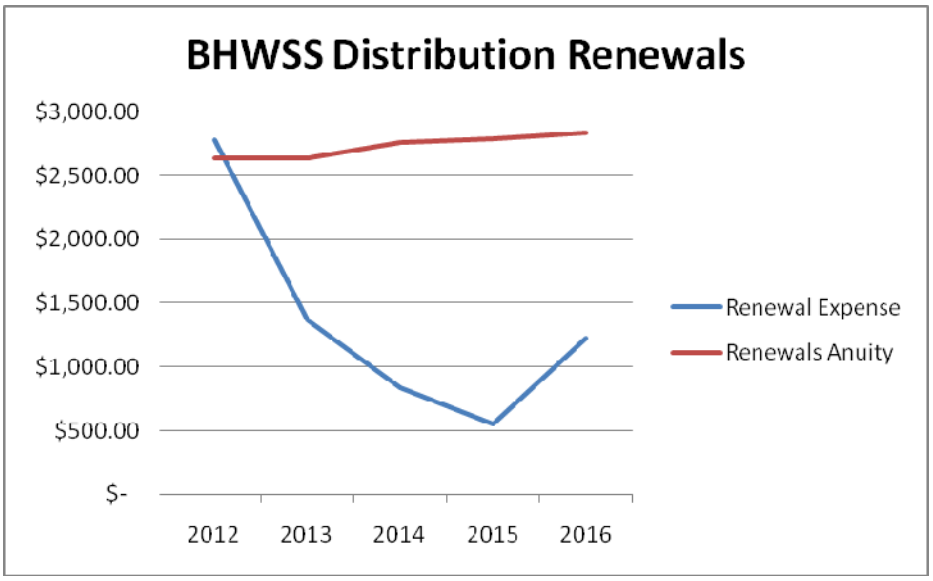

Fig 13 – BHWSS Distr NSP renewal data

This equates to a 2011-16 expense of $6.765M and revenue (annuity) of $13,658M. With an opening balance of negative $3.2M (which is not accepted as being correct based on annual report data), this assumes a final balance of $3.693M. This balance growth over the period is reported in the NSP as being a result of the rolling 20 year annuity over the 25 year expenditure profile. When reviewing the annuity process, it appears impossible for the current price path to result in a negative $3.2M loss. This would assume that SunWater failed to plan for projects in excess of $5M within the current path to result in such a large net differential.

Point 9: That SunWater provides further evidence to support its renewals expenditure profiles as to avoid such a large discrepancy as resulted from the current price path.