Background paper

QCA review of irrigation prices

Treatment of costs related to Inflatable Rubber Dams

September 2011

Contents

1 Introduction

On 23 November, 2008 there was an unexpected rapid deflation of one of the inflatable rubber dams on Bedford Weir. In the ensuing release of water, a fatality occurred. In response to this event (the Bedford Weir incident), SunWater has decommissioned the inflatable rubber dam at Bedford Weir, and has deflated inflatable rubber dams at three other weirs in two water supply schemes:

- Mirani Weir and Dumbleton Weir (Pioneer River Water Supply Scheme); and
- Claude Wharton Weir (Upper Burnett Water Supply Scheme).

SunWater has received a complaint and summons from Workplace Health and Safety Queensland (WHSQ) alleging a failure to comply with the provisions of the Workplace Health and Safety Act 1995 (Qld) in relation to the unexpected rapid deflation of the Bedford Weir inflatable rubber dam. Trelleborg Engineered Systems Australia Pty Ltd (Trelleborg), the manufacturers of the rubber dams at Bedford Weir, has also been charged by WHSQ on similar terms. This matter is presently before the Industrial Magistrates Court. It is also possible that this matter may later be the subject of a coronial inquest.

The Queensland Competition Authority (QCA) is to recommend irrigation prices for the period 2012/13 to 2017/2018. The QCA has requested information about the costs associated with this event, including at Bedford Weir and other weirs. Specifically, the QCA has also asked SunWater to set out:

- how it proposes that these costs should be recovered; and
- the proposed remedial action to restore storage capacity at these weirs or otherwise mitigate the impact on water access entitlement (WAE) holders.

This paper responds to this information request, and is set out as follows:

- Section 2 describes the incident response costs since the incident to 30 June, 2011;
- Section 3 describes the costs to restore service capacity at each scheme affected;
- Section 4 comments on the impacts on service delivery;
- Section 5 sets out SunWater's proposals for cost recovery.
- Section 6 provides a conclusion.

2 Incident response and legal costs to 30 June, 2012

This section examines the past and forecast costs leading up to the commencement of the regulatory period (1 July 2012), in relation to:

- Incident response at Bedford Weir and other weirs; and
- Legal costs in relation to Bedford Weir and other weirs.

2.1 Incident response – Bedford Weir

Incident response costs arose from complying with the directives by Workplace Health and Safety Queensland, including removal of the inflatable rubber dam at Bedford Weir, transporting the inflatable rubber dam to Brisbane and paying for secure storage.

These costs total $605,607 to 30 June, 2011 and relate solely to Bedford Weir. None of these costs are recoverable under insurance. No further costs are forecast for 2011/12.

The costs have not been treated as renewals expenditure, and have not been included in the renewals annuity balance (or Asset Restoration Reserve or ARR) for the Nogoa Mackenzie Water Supply Scheme. However, the expenditure should be included at the same proportion as applied for renewals expenditure generally in the scheme (48%). The costs and amounts deducted from the ARR are set out in the table below.

Table 1. Incident response costs to 30 June, 2012 (Nogoa Mackenzie WSS)

	2008/09	**2009/10**	**2010/11**	**2011/12 (forecast)**	**TOTAL**
Total cost	$501,493	$72,077	$32,038	$0	**$605,607**
Allocation to irrigation sector	48%	48%	48%	48%	-
Amount recovered from ARR (irrigation sector)	$240,717	$34,597	$15,378	$0	**$290,691**

SunWater submits the ARR for Nogoa Mackenzie bulk water should be restated with this expenditure included.

We note that Halcrow's review of operating and renewals expenditure[1] stated that renewals costs for 'Investigate Inflatable rubber dam Post Deflation Incident 23Nov2008' had been identified as renewals expenditure, totaling $557,204 in 2008/2009 and $788,428 in 2009/2010.[2]

[1] Halcrow 2011. SunWater – Biloela Water Supply Schemes (Cluster 3), review of price paths 2011-2016. Final.

[2] Halcrow 2011. P71.

Halcrow also noted that $1,507,025 was budgeted for 2011, and this related to legal costs. Halcrow questioned whether legal fees should be classified as renewals expenditure. [3]For clarity, SunWater has not treated these legal costs as renewals expenditure (refer below).

Halcrow reviewed project cost estimates from SunWater's asset management systems that include the $1,507,025 budget estimate for legal costs but they failed to recognise the fact that this particular non-routine expenditure was not funded by the ARR.

2.2 Incident response – other inflatable rubber dams

The inflatable rubber dams at the three other weirs were deflated following the Bedford Weir incident. No specific operating costs were associated with this action over the period, nor were any costs incurred relating to renewals.

2.3 Legal costs - responding to the WHSQ charge

As set out above, SunWater has been charged under the *Workplace Health and Safety Act 1995*, along with the manufacturers of the inflatable rubber dam, Trelleborg. SunWater is responding to this charge.

SunWater has incurred some $1.87M in responding to this matter up to 30 June, 2011, and a further $781,631 is forecast for the 2011/12 year. The table below presents a year-by-year summary. The actual expenditure in 2010/11 plus the forecast expenditure for 2011/12 now exceeds the $1,507,025 budget estimate reviewed by Halcrow in March 2011.

Table 2. Legal costs to 30 June, 2012 (Nogoa Mackenzie WSS)

	2008/09	**2009/10**	**2010/11**	**2011/12 (forecast)**	**TOTAL (forecast)**
Legal costs	$55,712	$806,317	$1,008,147	$781,631	**$2,651,807**

The QCA has asked whether a portion of the legal costs should be allocated to the Pioneer River and Upper Burnett water supply schemes. SunWater does not believe this is appropriate, given the legal costs directly relate to the deflation of Bedford Weir inflatable rubber dam incident. Moreover, the directives made by Workplace Health and Safety Queensland relate solely to Bedford Weir, and not the other inflatable rubber dams. The charges made under the WH&S Act also relate solely to the Bedford Weir incident, as do the legal costs of defending that action.

In any case, SunWater has borne these costs entirely, net of insurance proceeds.

For clarity, these legal costs <u>have not</u> been deducted from the ARR.

[3] Halcrow 2011. P 72

3 Restoration costs

Restorative measures need to be taken in relation to the removal of the inflatable rubber dam at Bedford Weir and decommissioning of the inflatable rubber dams at Mirani, Dumbleton and Claude Wharton weirs, to place each scheme in their previous positions in terms of long-term service levels (or water allocation security objectives). This is discussed in section 4.

SunWater has undertaken options analysis for restorative measures at each weir. The options considered include structural measures, such as raising weirs using a fixed crest, and non-structural measures such as purchasing WAEs and surrendering those WAEs to the system. The costs for developing and assessing options to date (including legal and engineering advice on these options) have been treated as renewals expenditure, and deducted from the ARR. The table below presents the detailed information:

Table 3. Cost of investigation and option development to 30 June, 2011

	2008/09	2009/10	2010/11	TOTAL
Nogoa Mackenzie (Bedford Weir)				
Cost	0	0	$98,988	**$98,988**
Allocation to irrigation sector	48%	48%	48%	
Amount recovered from ARR (irrigation sector)	0	0	$47,514	**$47,514**
Pioneer (Dumbleton and Mirani weirs)				
Cost	$33,921	0	$182,394	**$216,315**
Allocation to irrigation sector	54%	54%	54%	
Amount recovered from ARR (irrigation sector)	$18,317	0	$98,493	**$116,810**
Upper Burnett (Claude Wharton Weir)				
Cost	0	$44,013	$102,816	**$146,829**
Allocation to irrigation sector	91%	91%	91%	
Amount recovered from ARR (irrigation sector)	0	$40,052	$93,562	**$133,614**

It is possible that some of these costs may be recoverable under insurance. The potential insurance recovery will be considered as part of the options analysis. Any future insurance proceeds relating to the incident response or restorative measures will be applied as revenue to the ARR. [4]

[4] For clarity, SunWater will not pass through proceeds from its Supplementary Legal Expenses insurance given it bears the total costs that relate to this insurance, as operating costs. Refer to Section 2.3.

SunWater is in the final stages of assessing options and expects that a decision will be made over the coming months. Accordingly, SunWater is not yet in a position to advise the QCA about its proposed expenditure on restoration in the 2011/12 year or beyond. Once decided, consequential changes will be required to the existing renewals program for these weirs. SunWater proposes that the costs, based on the Headworks Utilisation Factor (HUF) percentages, would be applied to determine the share of costs attributable to medium priority WAEs.

4 Impacts on service delivery

The QCA has asked SunWater to comment on the extent to which the Bedford Weir incident has impacted service delivery. The QCA noted that some customer submissions claim they have a decreased level of service due to the removal of the inflatable rubber dam, while other submissions say that SunWater has made additional releases from Fairbairn Dam to compensate for the loss of delivery.

The QCA has asked whether any such additional releases would return service to 100% of intended, and if so, the QCA observed that this may undermine the case for the Bedford Weir in the first place.

This section addresses these questions.

4.1 Compliance with Resource Operations License

As the storage owner, SunWater is required to comply with its Resource Operations License (ROL) and the associated Resource Operations Plan (ROP). The ROP contains the operational rules by which storages are operated and water is allocated to WAE holders.

The Department of Environment and Resource Management (DERM) is responsible for monitoring and enforcing compliance with the ROP.

SunWater provided reports to DERM as required under its ROP, about the incident at Bedford Weir and its proposed program for deflating the other inflatable rubber dams. In short, having complied with the ROP (and subsequent notifications about the incidents with DERM), SunWater has discharged its service obligations to customers through this time when the inflatable rubber dams have been deflated.

SunWater's obligations for restoring storage capacity are discussed in the following section.

4.2 Water availability

Since the Bedford Weir incident, announced allocations for medium priority have been at 100% due to the storage at Fairbairn Dam. Similarly, in the Pioneer WSS, medium priority announced allocations have also been at 100% throughout this time.

The medium priority announced allocation in the Upper Burnett has, however, been below 100% until recently. During this time, water was made available (seasonally assigned) from WAE held by Burnett Water Pty Ltd (a SunWater subsidiary) to medium priority entitlement holders free of charge. This was undertaken in accordance with a direction notice issued to SunWater by shareholding ministers.

Accordingly, customer's access to water since the incident has not been reduced. However, restorative measures are required to reinstate the schemes' storage capacities and thereby ensure long-term water availability (discussed below).

4.3 Need for Bedford Weir

Medium Priority WAEs in the Nogoa Mackenzie WSS have been at 100% since the incident. This is not to say that Bedford Weir, or the storage provided by the inflatable rubber dam, is redundant or that the need for it is 'undermined' as questioned by the QCA. Rather, Bedford Weir and the storage provided by the fixed crest and the inflatable rubber dam is important for maintaining the long-term performance of WAEs in the scheme particularly during prolonged dry periods when water supplies in the headworks storage are low.

Moreover, it is not the role of the QCA to determine whether or not certain storage capacity is required in individual water supply schemes to meet the performance requirements of the various WAE priority groups. Rather, this is a water planning function that is the responsibility of DERM as the resource regulator. Based on discussions to date, SunWater considers it is not likely that DERM would accept that no rectification action (such as reinstating the storage capacity) is necessary.

SunWater also notes advice from Minister Robertson (28 September, 2010) confirming the definition of bulk water assets as including those assets listed in the relevant ROL (and consequently the ROP) for each scheme. The ROP describes the Bedford Weir as inclusive of the inflatable rubber dam (refer also following section).

Indeed, SunWater has obligations in relation to rectifying the situation. This is discussed below.

5 Cost recovery

The QCA has asked how SunWater intends to recover the costs set out above, and in particular whether these costs are to be treated as renewals or operating expenditure.

This section examines in more detail the basis for the recovery of these costs. In summary, SunWater submits that:

- incident response costs are renewals costs (as opposed to operating costs), as they were one-off costs of a compliance nature, arising from directives made under the WH&S Act;
- post-event rectification costs are also renewals expenditure, as they are incurred to restore the service potential of the water supply scheme to its previous state. Moreover, rectification is required under SunWater's ROL; and
- legal costs associated with SunWater's response to the WHSQ charges relating to the Bedford Weir incident as set out in Section 2.3 are not renewals costs, and SunWater must bear these costs.

The arguments are set out below.

5.1 Definition of renewals expenditure and compliance costs

Section 1.1(a) of the Referral Notice (the notice) requires the QCA to recommend charges that recover "prudent and efficient expenditure on renewing and rehabilitating existing assets through a renewals annuity'. For example, 'compliance' has been specified as a prudent driver for capital expenditure by the QCA in undertaking price reviews for bulk water and distribution-retail entities in SEQ.

The notice is not specific about how compliance-related expenditure is to be recovered. However, expenditure made to comply with laws or changes to laws are generally accepted as prudent, and therefore are to be recovered in prices. Under a renewals approach, compliance-related expenditure is also necessary to maintain the service potential of the asset in perpetuity. Importantly, compliance costs are not related to expansion of the service capacity itself (augmentation).

Water storage assets require 'lumpy', infrequent renewals expenditure. Moreover, costs arising from a new compliance requirement are often significant. Treating these costs as renewals expenditure allows for such costs to be recovered over longer time periods, and avoids the potential price shocks or variations that would occur if they were treated as operating costs.

Furthermore, compliance costs are not always foreseeable, particularly where they arise from changes in law or regulation. Under a renewals approach, compliance expenditure that was not foreseen can be funded through the renewals annuity (via the ARR) and then smoothed through the re-calculation of the annuity at the next pricing period.

Given the above, one-off compliance costs that involve large expenditure are best dealt with as a renewals cost, rather than operating cost, even where these costs were not foreseeable or not originally included in renewals expenditure forecasts.

5.2 Are inflatable rubber dam costs compliance (and renewals) costs?

Expenditure required to comply with statutory or regulatory obligations is usually considered to be a compliance cost. New or additional compliance costs arise from changes to law, but can also arise because of a directive issued by a regulator.

SunWater submits that incidence response costs and rectification costs are clearly compliance-driven, renewals costs relating to maintaining service potential of the assets. This is discussed below.

5.2.1 Incidence response

Incident response costs relate to the removal of the Bedford Weir inflatable rubber dam and related expenditure, as directed under the WH&S Act.

The Ministers' Referral Notice requires the Authority to recommend prices that provide a revenue stream that allows SunWater to recover lower bound costs.[5] The notice specifically provides for the recovery of costs relating to compliance with workplace health and safety. The incident response costs for Bedford Weir were directly a result of directives issued under the WH&S Act.

Incident response costs were the first step in restoring the service capacity of the water supply scheme itself. Given that the inflatable rubber dam is not to be replaced, it would need to have been deflated, decommissioned and transported from site in any case. Similar costs will arise for the other inflatable rubber dams, which will also form part of the restoration costs in those schemes.

5.2.2 Restoration costs

As set out above, the conditions of the ROL applicable to each water supply scheme, – including the infrastructure to which it applies, are specified in the associated ROP.

As an example, the ROL for the Nogoa Mackenzie WSS states that:

> *"the water infrastructure to which the licence applies is detailed in the Fitzroy Basin Resource Operations Plan in Attachment 4.2D Nogoa Mackenzie Water Supply Scheme: Infrastructure Details"*

In this instance, Attachment 4.2D of the Fitzroy Basin Resource Operations Plan (ROP) describes Bedford Weir inclusive of the inflatable rubber dam.

Any changes to the ROP, including in relation to the specification of the infrastructure to which the ROL applies, must be approved by DERM in accordance with the *Water Act 2000* (section 105).

As discussed above, the prevailing favourable water supply conditions coupled with the implementation of short term strategies in the Upper Burnett has meant that there have been minimal impacts on customers' water availability in each of the three schemes where the rubber dams have been deflated. However, as also discussed above, action must be taken to reinstate the storage capacity in the longer term in order to avoid a reduction in water

[5] That is, operating, maintenance and administration costs and provision for asset renewal and rehabilitation through a renewals annuity.

availability during a future prolonged dry period. This, then, precludes consideration of the option of SunWater applying to DERM to amend the ROPs to exclude the inflatable rubber dams and the storage provided by them.

The QCA has asked for SunWater's view about whether the proceeds from the sale of water access entitlements (net of the cost of the initial raising) from the raising of Bedford Weir should be applied to the restoration costs. In its earlier submission about bulk water asset values[6], SunWater concluded that the statements made about the sale were similar to those relied upon by the QCA in concluding that certain revenues would be treated as contributed assets in its previous investigation into the Burdekin-Haughton. SunWater proposed to deduct the entire sale proceeds from the asset value for the Nogoa Mackenzie scheme.

However, SunWater does not accept that there was ever any intention for the proceeds from that sale (which occurred in the 1997/98 year) to be applied to future renewals or compliance related expenditure.

5.2.3 Legal costs

SunWater accepts that the arrangements established for the current irrigation price path did not contemplate unforeseen cost imposts outside of SunWater's control. In essence, the arrangements established with Tier 1 required SunWater to bear the risk of operating costs over the term of the price path. Accordingly, SunWater accepts that it must bear the legal costs associated with the Bedford Weir incident[7], as set out in section 2.3.

It should also be noted that these legal costs will continue into the 2011/12 year, which is beyond the term originally set for the current price path. Nonetheless SunWater accepts that the extension of the price path carried with it the underlying arrangements for cost risk initially set with Tier 1.

However, SunWater does not accept that it should bear these types of risks into the forthcoming price path, including any continuation of legal costs to the WHSQ charge or any subsequent coronial inquest into 2012/13 or beyond.

Indeed, the Referral Notice for this investigation requires the QCA to recommend regulatory arrangements to manage the risks associated with costs outside of SunWater's control. The legal costs associated with the Bedford Weir incident highlights the potential for cost imposts to arise that are outside the control of SunWater.

Moreover, a number of other imposts have occurred throughout the current period that have been outside SunWater's control, including responding to the Queensland Floods Commission of Enquiry. SunWater's Commission of Enquiry costs in relation its water supply schemes totaled $863,000 to 30 June 2011. SunWater has also borne these costs.

SunWater has made separate submissions to the QCA on the need for regulatory arrangements to cater for such instances.[8]

---

[66] Refer to SunWater's submission at http://www.qca.org.au/files/W-SunWater-Sub-SunWater-BulkAssetVal--1210.pdf

[7] Noting that SunWater also has insurance in relation to these costs, and expects some recoveries under this insurance.

[8] SunWater. Supplementary Information Review and Adjustment Triggers. February 2011

6 Conclusion

This paper responds to an information request by the QCA in relation to costs associated with inflatable rubber dams and arising from the Bedford Weir incident. SunWater has incurred costs associated with responding to this incident, and developing proposals for restorative measures to return WAE holders to the position they were previously.

These restorative measures are required in three water supply schemes: Nogoa Mackenzie, Upper Burnett and Pioneer. SunWater is yet to finalise its proposals for these restorative measures, but will do so in the coming months.

SunWater proposes to treat incident response costs as renewals expenditure in the Nogoa Mackenzie WSS, on the basis that these costs were required under law and were a first step in meeting the obligation to restore the service capacity of the scheme.

SunWater also submits that the costs of restorative measures to date is renewals expenditure in each WSS. These costs relate to options development and assessment, but will involve more significant expenditure over coming years when the final solution is implemented.

SunWater accepts that it must bear the legal costs of responding to the WHSQ charge until the end of the current price path given the pricing arrangements developed with the Tier 1 group. However, any costs that continue beyond 1 July, 2012 should be dealt with in accordance with the arrangements set for the next regulatory period.