

4 November 2019

**Queensland Competition Authority** 

**GPO Box 2257** 

**BRISBANE QLD 4001** 

# Response to the Rural irrigation pricing review 2020-24

# **Costs relating to Moura Off-Stream Storage (MOSS)**

In QCA final report 2012-17 in was mentioned that MOSS was built specifically for the Queensland Nitrates plant.

"The MOSS, which has been in operation since 1999, is located on the right bank of the Dawson River near the town of Moura just upstream of Moura Weir. It was built to increase the total storage capacity near Moura due to increased demand, specifically for the Queensland Nitrates' plant. The MOSS has earthen embankments and a grassed spillway."

Therefore it is not unreasonable for irrigators not directly benefiting from the storage to request that costs relating to MOSS do not get allocated to them. The fact that proposed costs are significantly higher for this storage than any other storage within the Dawson system further reinforces that fact that costs are not being allocated correctly or equitably. 100% of the costs should be allocated directly to the HP users and medium priority uses should not have to bear any of the costs.

#### **Duplication of risk assessments**

### Non-routine project list - 2019/20 to 2052/53

| 2022 | 0000051542 | WLBD | 04-01 | 5159370 | DAW-<br>MOS | Moura Offstream Storage - Study -<br>Comprehensive Risk Assessment | 158.5 |
|------|------------|------|-------|---------|-------------|--|-------|
|      |            |      |       |         |             | Moura Offstream Storage - Study - 5 Yearly                         |       |
|      |            |      |       |         | DAW-        | Comprehensive Safety Inspection & Report (by 1                     |       |
| 2023 | 0000002856 | WLBD | 04-01 | 5224158 | MOS         | Jun 2017) (Tier 1)   | 47.9  |
|      |            |      |       |         | DAW-        | Moura Offstream Storage - Study - 20yr Dam                         |       |
| 2024 | 0000048343 | WLBD | 04-01 | 5224206 | MOS         | Safety Review (by 1 Jun 2027) (Tier 2)                             | 341.9 |

There appears to be a lot of duplication with regards to Risk Assessments particularly with regards to the Moura Off-stream Storage. To have comprehensive risk assessments undertaken each year (2022, 2023, 2024) seems unreasonable when a lot of the data assessed would be similar each year.

Similarly in the previous price path there was no mention of 5 yearly comprehensive reviews for renewals expenditure except for the Moura Offs-stream Storage. Considering it now makes up 8.5%



of renewals expenditure (approximately \$138,000 / yr) you need to question why it wasn't in the previous price path. Have Sunwater found a way to increase their revenue basis on the back of charging inflated comprehensive risk assessments. You also must question how you can complete risk assessments on 5 weirs for the same cost as doing the same thing on one off-stream storage.

Questions are also raised on prudent and efficient costs with regards to the Moura Off-stream Storage when Sunwater is spending nearly 4 times the cost per ML than similar instream weirs that would have cost significantly more to construct in the first place.

**Total Non-Routine Projects Costs (2020-2053)** 

| Storage | Total Cost<br>(\$) | Storage<br>Volume | Cost<br>(\$/ML) |
|---------|--------------------|-------------------|-----------------|
| DAW     | 6,293,401          |                   |                 |
| GLE     | 7,600,982          | 17700             | 429             |
| GYR     | 7,558,069          | 16500             | 458             |
| MOS     | 10,810,588         | 2820              | 3834            |
| MOU     | 5,183,923          | 7700              | 673             |
| NHW     | 8,576,107          | 11300             | 759             |
| ocw     | 2,956,026          |                   |                 |
| THW     | 4,761,753          | 4760              | 1000            |
| Total   | 53,740,848         |                   |                 |

A lot of the non-routine project costs for MOSS relates to the pumping infrastructure. In the instance below why was the pump refurbished 2 years before it was replaced completely?

| 2027 | DAW-MOS-PST-PUN-001-PUM | Moura Offstream Storage - Refurbish -<br>Flygt 1 Cumec Submersible Pump #1 (Tier<br>2) | 48.8  |
|------|-------------------------|--|-------|
| 2029 | DAW-MOS-PST-PUN-001-PUM | Replace 1 Cumec Flygt Submersible Pump   | 937.1 |

When it costs less than \$100,000 to buy a completely brand new pump (see recent tax invoice below) you have to question how it costs 10 times this amount to replace and install it. When questioned about the cost even local Sunwater management could not fathom how it was costing this much. Given that these pumps are refurbished every 6 years regardless of use they should probably never need replacing and the assumed asset life comes into question.



#### TAX INVOICE **Xylem Water Solutions Australia Limited** NATIONAL BRANCHES - PHONE: 131 914 O BOX 6767 SILVERWATER NSW 1811 Sydney, Orange, Brisbane, Adelaide, Perth. PHONE (02) 9832 6200 FAX (02) 9832 6490 Mackay, Darwin, Melbourne, Karratha, Newcastle ABN 28 000 632 622 ACN 000 832 922 Kalgoorie, Townsville, Mt las & Tasmania DELIVER INVOICE NO 6073468.1 SOLD DATE DESPATCH DOCKET NO CUSTOMER ORDER NO JOB NO ORDER DATE NET AMOUNT ORDERED DESCRIPTION ON B/ORDER 35018350089 CP3501.835 830 215kW B 500 Pumps \$ 78,353.50 Ea 10%

More detailed investigation needs to occur with regard to costs and allocations relating the MOSS as presently a considerable cost is being born by users who are not benefiting from the storage.

## **Orange Creek Weir**

During the previous price path considerable expenditure from the annuity balance was allocated to analysis of Orange Creek Weir.

#### Investigate reinstatement of the weir - ORANGE CREEK WEIR

Year: 2015

Current estimate: \$213k

Options analysis completed: No

This project is an options analysis to examine the merits of reinstatement of the Orange Creek Weir to operational condition. This project is in direct response to customer feedback at the IAC meeting.

This was done on the basis that if found to be structurally sound then Sunwater would make an application to DNRME to have the usable volume (UV) held in the storage to be added to the announced allocation process for the Upper Dawson. Reports found that the weir was sound however no application has been made to DNRME. Unless Sunwater makes this application further costs which amount to nearly \$3m in the 30 year annuity period should not be allowed to be included in the annuity budget as the water volume stored in this storage is not benefiting the users being charged. The following extract from the Fitzroy Basin ROP clearly show that the UV in Orange Creek Weir is not being recognised in the announced allocation process.



UV

Useable volume (UV) for a storage, is the volume of stored supplemented water that can be used to supply water allocations through to the end of a water year and is calculated as—

UV = ASV-DSV

#### where-

*adjusted storage volume* (ASV) means the storage volume, in megalitres, equating to the current storage level adjusted for the projected storage loss (SL).

*projected storage loss* (SL) means the combined evaporation and seepage losses, in megalitres, that are expected to occur from the storages through to the end of the water year.

*dead storage volume* (DSV) means the volume of water, in megalitres, that cannot be released or used from the storage under normal operating conditions.

For the purposes of this section-

UV for the Upper Dawson sub-scheme is the sum of the useable volumes for Glebe Weir, Gyranda Weir, Theodore Weir, Moura offstream storage and Moura Weir.

UV for the Lower Dawson sub-scheme is the useable volume for Neville Hewitt Weir.

Evaporation and seepage is specified in millimetres for each month in table 5 for each of the sub-schemes. To determine the projected storage loss (SL), the value next to the current month is multiplied by the current surface area of the storage. The storage loss for each summed to give the total storage loss.

DSV is specified for each of the storages in attachment 12, part 1.

Storage volumes are derived from the relevant storage volume/level curve referenced in attachment 12, part 1.

## 20 year vs 30 year renewals program

Sunwater has proposed a 30 year planning period with regard to renewals expenditure. We would argue that Sunwater can't budget currently more than 5 years out in advance let alone go out to 30 years with any level of accuracy. This is evidenced by the following:

| Price<br>Path | Year    | Project  | \$ '000 |
|---------------|---------|--|---------|
| 2012/17       | 2026/27 | Moura Offsteam Storage - Study: 20 yr Dam Safety Review (by 1 June 2027) | 60      |
| 2020/24       | 2024    | Moura Offstream Storage – Study – 20yr Dam Safety Review (by 1 Jun 2027) | 341.9   |

In the previous price path a 20 year Dam Safety review was only going to cost \$60,000 now 7 years later the same study will cost \$341,900. Considering there shouldn't be any direct materials they couldn't have contributed to the cost. You would also have hoped that knowledge gained and processes developed in the interim should have actually made the study cheaper. Therefore the only direct cost that could have increased is wages which have definitely not increased by this amount.

Sunwater is now forecast to spend approximately \$138,000 on average each year on Comprehensive Inspection and Assessment reports. Whilst we believe these costs are excessive what they are doing is showing that many of the assets that were forecast to be replaced or refurbished on the 30 year renewal timeline have a lot more life in them than what was budgeted for. This however is not recognised in the annuity process as all assets are replaced and costed for when their usable life expires.

When comparing the Annuity spend budgeted in the last price path 2012-17 to similar years in the 2020-24 price path there are major differences. Not only are they significantly higher (on average over 400% higher) in a third of the years the differences are well over 1000%. How can this give irrigators confidence that Sunwater is able to budget forward projects accurately? Whilst we understand some projects get delayed it doesn't explain the extent of these differences.



# **Comparison of Budgeted Annuity between Price Paths**

| Year | 2012-17<br>(\$'000) | 2020-24<br>(\$'000) | %<br>Difference |
|------|---------------------|---------------------|-----------------|
| 2020 | 489                 | 234                 | 48%             |
| 2021 | 174                 | 252                 | 145%            |
| 2022 | 186                 | 575                 | 309%            |
| 2023 | 0                   | 529                 |                 |
| 2024 | 42                  | 709                 | 1687%           |
| 2025 | 134                 | 1355                | 1011%           |
| 2026 | 327                 | 857                 | 262%            |
| 2027 | 112                 | 2041                | 1822%           |
| 2028 | 93                  | 767                 | 825%            |
| 2029 | 175                 | 2368                | 1353%           |
| 2030 | 705                 | 1486                | 211%            |
| 2031 | 111                 | 2848                | 2566%           |
| 2032 | 87                  | 747                 | 859%            |
| 2033 | 736                 | 553                 | 75%             |
| 2034 | 401                 | 1886                | 470%            |
| 2035 | 759                 | 1079                | 142%            |
|      | 4531                | 18289               | 404%            |



# Fixed price below cost-reflective

In the previous price path the Bulk Customers in the Dawson were always above cost-reflective prices therefore increases were limited to CPI. The question needs to be asked is why in 2020-21 the scheme is below cost-refelective and prices have increased from \$18.04 to \$20.69.

Table 93 Tariff groups with existing fixed price below cost-reflective and existing volumetric prices above cost-reflective—bulk WSS (\$/ML, nominal)

| Tariff group  | 2019–20 c        | urrent prices         | 2020–21 cost-reflective prices |                       |  |
|---|------------------|-----------------------|--------------------------------|-----------------------|--|
|   | Fixed<br>(\$/ML) | Volumetric<br>(\$/ML) | Fixed<br>(\$/ML)               | Volumetric<br>(\$/ML) |  |
| Barker Barambah—River   | 25.93            | 4.60                  | 50.68                          | 4.25                  |  |
| Bundaberg   | 13.06            | 1.31                  | 13.89                          | 1.19                  |  |
| Callide Valley—Callide and Kroombit<br>Creek                  | 18.50            | 8.84                  | 87.33                          | 7.57                  |  |
| Callide Valley—Benefited Groundwater<br>Area                  | 18.50            | 8.84                  | 87.33                          | 7.57                  |  |
| Cunnamulla  | 31.75            | 3.58                  | 32.03                          | 1.89                  |  |
| Dawson Valley—River (medium priority river customers)         | 18.04            | 2.01                  | 20.69                          | 1.59                  |  |
| Dawson Valley—River (medium priority local management supply) | 13.98            | 2.01                  | 20.69                          | 1.59                  |  |
| Dawson Valley—River (high priority local management supply)   | 42.77            | 2.01                  | 108.51                         | 1.59                  |  |
| Dawson Valley—River at Glebe Weir                             | 16.18            | 2.01                  | 20.69                          | 1.59                  |  |



According to the recent Network Service Plan (Table 5 below) it is showing that the scheme in 2018/19 is showing a surplus of \$2,537,400 as it has done the previous 5 years. This certainly does not indicate that the scheme is not profitable and well above cost-reflective prices as such prices for Dawson Valley – River (medium priority river customers) should continue to only increase by CPI. Since the Distribution System on the Dawson has move to Local Management Authority the tariff group Dawson Valley – River (medium priority local management supply) should no longer exist as they are being supplied the same water as river customers therefore should incur the same costs.

Table 5: Service contract financial summary<sup>1</sup>

| Dawson Valley<br>Service Contract  | 2014/15<br>Actual<br>\$'000 | 2015/16<br>Actual<br>\$'000 | 2016/17<br>Actual<br>\$'000 | 2017/18<br>Estimate<br>\$'000 | 2018/19<br>Forecast<br>\$'000 |
|------------------------------------|-----------------------------|-----------------------------|-----------------------------|-------------------------------|-------------------------------|
| Revenue                            |                             |                             |                             |                               |                               |
| Irrigation                         | 527.9                       | 868.5                       | 877.8                       | 815.7                         | 1087.0                        |
| Community Service Obligation       | -                           | -                           | -                           | -                             | -                             |
| Industrial <sup>2</sup>            | 1663.2                      | 1693.9                      | 1913.4                      | 1858.4                        | 1904.9                        |
| Urban <sup>2</sup>                 | 560.9                       | 581.1                       | 623.0                       | 654.9                         | 671.3                         |
| Revenue transfers <sup>3</sup>     | 215.9                       | 222.4                       | 234.0                       | 314.6                         | 80.7                          |
| Drainage                           | -                           | -                           | -                           | -                             | -                             |
| Other                              | 330.1                       | 16.2                        | -                           | 2.0                           | 2.0                           |
| Insurance<br>proceeds – flood      | -                           | -                           | -                           | -                             | -                             |
| Revenue Total                      | 3297.9                      | 3382.0                      | 3648.2                      | 3645.7                        | 3745.8                        |
| Less – Routine expenditure         | (589.9)                     | (766.8)                     | (743.2)                     | (886.9)                       | (955.4)                       |
| Less – Non-routine expenditure     |                             |                             |                             |                               |                               |
| Annuity funded                     | (298.2)                     | (440.4)                     | (467.9)                     | (397.4)                       | (253.0)                       |
| Non annuity<br>funded <sup>4</sup> | (3.2)                       | -                           | -                           | -                             | -                             |
| Surplus (deficit)                  | 2406.6                      | 2174.8                      | 2437.1                      | 2361.4                        | 2537.4                        |

Totals may not add due to rounding.

Forecast revenues for industrial and urban customers are based on current contractual arrangements.

<sup>3.</sup> Revenue transfers represent the cost of bulk water supplies delivered through the distribution system(s). The revenue accrues to the distribution system before it is transferred to the Bulk Water Service Contract as a contribution to the cost of the bulk water service. The QCA established the transfer cost for irrigation supplies at the cost reflective bulk water tariff. From 1 October 2018, due to the expected transfer of the Dawson distribution system to Theodore Water Pty Ltd, revenue transfers will be nil and instead appear as revenue from irrigation.

<sup>4.</sup> This is expenditure which has not been funded by irrigation customers.



# 2012-17 Renewals Annuity

Over the previous price path the renewals annuity has been seriously underfunded. Some of the reasons can be explained by the QCA Final report 2012-17 showing considerable underfunding for each of the years in the price path.

Queensland Competition Authority

Chapter 6: Recommended Prices

Table 6.1: Total Costs for the Dawson Valley WSS (Real \$'000/ML)

|                               | Actual Costs |         |         |         |         |         | Future Costs |         |         |         |         |
|-------------------------------|--------------|---------|---------|---------|---------|---------|--------------|---------|---------|---------|---------|
|                               | 2006-07      | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13      | 2013-14 | 2014-15 | 2015-16 | 2016-17 |
| SunWater's<br>Submitted Costs | 1,179        | 985     | 1,144   | 1,296   | 1,255   | 911     | 962          | 988     | 992     | 981     | 972     |
| Renewals<br>Annuity           | 65           | 89      | 108     | 107     | 110     | 14      | 16           | 18      | 32      | 39      | 39      |
| Operating Costs               | 1,128        | 908     | 1,050   | 1,204   | 1,146   | 902     | 951          | 975     | 965     | 947     | 938     |
| Revenue Offsets               | -14          | -11     | -14     | -14     | -1      | -5      | -5           | -5      | -5      | -5      | -5      |
| Draft Report                  |              |         |         |         |         |         |              |         |         |         |         |
| Authority's<br>Total Costs    | -            | -       | -       | -       | -       | -       | 853          | 872     | 877     | 864     | 869     |
| Renewals                      | -            | -       | -       | -       | -       | -       | -63          | -58     | -34     | -21     | 1       |
| Operating Costs               | -            | -       | -       | -       | -       | -       | 921          | 934     | 916     | 890     | 873     |
| Revenue Offsets               | -            | -       | -       | -       | -       | -       | -5           | -5      | -5      | -5      | -5      |
| Return on<br>Working Capital  | -            | -       | -       | -       | -       | -       | 1            | 1       | 1       | 1       | 1       |
| Final Report                  |              |         |         |         |         |         |              |         |         |         |         |
| Authority's<br>Total Costs    |              |         |         |         |         |         | 875          | 894     | 899     | 884     | 891     |
| Renewals                      |              |         |         |         |         |         | -45          | -41     | -18     | -6      | 14      |
| Operating Costs               |              |         |         |         |         |         | 925          | 940     | 921     | 895     | 882     |
| Revenue Offsets               |              |         |         |         |         |         | -5           | -5      | -5      | -5      | -5      |
| Return on<br>Working Capital  |              |         |         |         |         |         | 1            | 1       | 1       | 1       | 1       |

Note: Costs are presented for the total service contract (all sectors). Costs reflect SunWater's latest data provided to the Authority in October 2011 and may differ from the NSP. Source: SunWater (2011ap) and QCA (2011 and 2012).



Even though from an operating point of view the scheme was very profitable (see Table 5 above) where the scheme had an operating surplus of well over \$2m each year. Increased funds should have been allocated to the annuity balance over this period and irrigators should not have to face increased costs in the current price path because the annuity balance was drawn down by Sunwater. It is very hard to explain how in Table 4 below Sunwater's Annuity balance is only \$418,300 when QCA was showing it should be \$3,023,700 in the same period.

These discrepancies need to be investigated thoroughly and the cost imposition of the increased annuity funding being borne by the irrigators in the current price path be rectified to recognise the accounting errors of the past.

Table 4: Annuity balance1

| Dawson Valley Bulk Water Service<br>Contract | 2017/18<br>Actual<br>\$'000 | 2018/19<br>Forecast<br>\$'000 | 2019/20<br>Forecast<br>\$'000 | 2020/21<br>Forecast<br>\$'000 | 2021/22<br>Forecast<br>\$'000 | 2022/23<br>Forecast<br>\$'000 | 2023/24<br>Forecast<br>\$'000 |
|--|-----------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Annuity                                      |                             |                               |                               |                               |                               |                               |                               |
| Opening balance <sup>2</sup>                 | 711.6                       | 614.2                         | 418.3                         | 910.7                         | 1675.0                        | 2198.1                        | 2824.1                        |
| Non-routine spend                            | (167.0)                     | (258.7)                       | (234.3)                       | (252.4)                       | (574.9)                       | (529.5)                       | (708.7)                       |
| Insurance proceeds receipts (if applicable)  |                             |                               |                               |                               |                               |                               |                               |
| Prior year                                   | -                           | -                             | -                             | -                             | -                             | -                             | -                             |
| Current year                                 | -                           | -                             | -                             | -                             | -                             | -                             | -                             |
| Annuity contribution <sup>3</sup>            | 16.3                        | 16.8                          | 17.1                          | 963.5                         | 1000.1                        | 1027.0                        | 1046.4                        |
| Interest/financing costs                     | 53.3                        | 46.0                          | 31.3                          | 53.2                          | 97.9                          | 128.5                         | 165.1                         |
| Sunwater – Closing Balance                   | 614.2                       | 418.3                         | 232.4                         | 1675.0                        | 2198.1                        | 2824.1                        | 3327.0                        |
| QCA - Closing Balance                        | 2859.9                      | 3023.7                        |                               |                               |                               |                               |                               |
| Difference                                   | (2245.7)                    | (2605.5)                      |                               |                               |                               |                               |                               |

- 1. All financial figures are nominal. Totals may not add due to rounding.
- The difference in the closing balance for 2019/20 and the opening balance for 2020/21 relates primarily to expenditure incurred prior to the start of the 2012 price path. These amounts have been carried forward to 2020/21 so that they can be considered as part of the QCA's review of expenditure for the new irrigation price path.
- 3. The annuity contribution is included in the prices paid by customers. It was set by the QCA for 2012/13 to 2016/17 and is rolled forward with the Consumer Price Index for 2017/18, 2018/19 and 2019/20. Thereafter the annuity contribution is based upon Sunwater's forecast.

In summary the costings that are being allocated to medium security users go way beyond what is necessary and cost effective. These factors should be taken into account when looking at the price path going forward and as the system is paying for itself and many of the costs that have been forecast are excessive there should be no reason why prices should increase.

Regards,

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