Warrill Valley Water Supply Scheme

Scheme submission to QCA

2020-21 to 2023-24

Submitted: 30 November 2018

Contents

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1. Introduction

1.1 Review context

The Queensland Competition Authority (QCA) has been directed by the Queensland Government to recommend irrigation prices for the Warrill Valley Water Supply Scheme (the Scheme) for the four-year regulatory period 1 July 2020 to 30 June 2024. Prices are to recover the efficient operating, maintenance and administration costs, and an annuity to recover renewals expenditure.

2. Scheme Details

2.1 Scheme background and context

The Scheme was established following the construction of Moogerah Dam in 1961. The Scheme provides water for the irrigation of about 8,000 ha of farms as well as for urban and industrial water users. The Scheme is regulated under the Moreton Water Management Protocol and managed under the Warrill Valley Water Supply Scheme Operations Manual.

The water year runs from 1 July to 30 June.

The Scheme consists of one tariff group, “Warrill Valley”.

2.2 Infrastructure details

The table below sets out the bulk water assets, owned and operated by Seqwater, that comprise the scheme.

Table 1: Bulk water assets

Dams	Weirs	Other bulk water assets
• Moogerah Dam	• Upper Warrill Diversion Weir • Kents Lagoon Diversion Weir • Aratula Weir • Warrill Creek Diversion Weir • Warroolaba Creek Diversion Weir • West Branch Warrill Diversion Weir • Churchbank Weir • Railway Weir	• Gauging stations • Customer water meters • Upper Warrill Creek Diversion Channel

Source: Seqwater (2018)

2.3 Customer service standards

The service standards are published on the Warrill Valley WSS page on Seqwater’s website.

In 2017-18 Seqwater met all its service targets. The performance report was published on the Warrill Valley WSS page on Seqwater's website.

2.4 Customers and water entitlements serviced

The following table sets out the distribution of water allocations amongst classes of customers.

Table 2: Ownership of water allocations

Customer type	Number of customers	Medium priority volume (ML)	High priority volume (ML)
Irrigation	275	20,158.5	–
Urban	2	–	254
Seqwater	7	3,725	5,696
Totals	**288**	**23,883.5**	**5,950**

Source: Moreton Resource Operations Plan June 2014; Seqwater (2018)

Note: Irrigation customers yet not be verified against the definition given in the Referral Notice

2.5 Water availability and use

2.5.1 Water availability

The announced allocation determines the percentage of nominal water allocation volume that is available in each water year.

The following table sets out the announced allocations for the current year plus the historical position for the twelve years starting 2007-08.

Table 3: Announced allocations history

Year	MP %	High Class C %	Year	MP %	High Class C %
2007-08	0	N/A	2013-14	100	N/A
2008-09	5-71	N/A	2014-15	100	100
2009-10	30-72	N/A	2015-16	100	100
2010-11	56-100	N/A	2016-17	100	100
2011-12	100	N/A	2017-18	100	100
2012-13	100	N/A	2018-19	100	100

Source: Seqwater (2018)

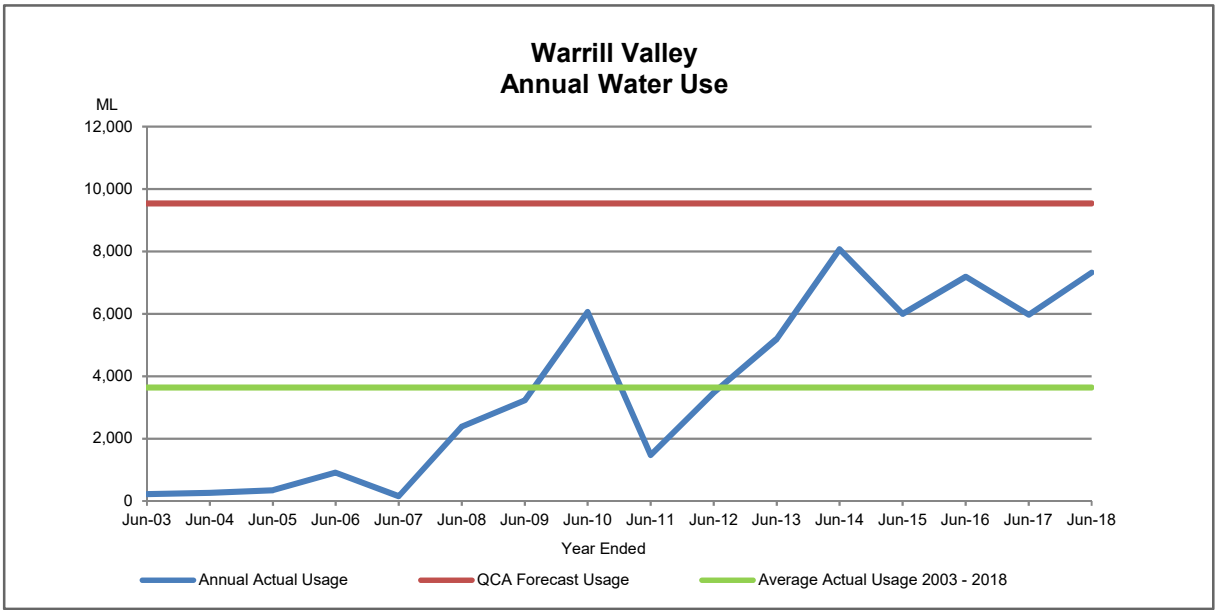
2.5.2 Water use

Figure 1 below shows the actual water usage per year from 2002-03 to 2017-18.

Also shown is the usage assumption adopted by the QCA for the 2013-17 price path (extended to 2019) which is 9,541 ML or 47% of the nominal volume. The QCA's usage assumption has been extrapolated to prior years for comparison purposes only. Average water usage over the period has also been included for comparison purposes.

Over the price path, water usage in Warrill Valley was 72% of the QCA's estimated usage despite continuing high levels of water availability. Seqwater submits that forecast water deliveries should be based on the most accurate and reliable data available and be the most likely forecast. Accordingly, we submit that a simple 15-year average be used to determine the water use forecast. In Warrill Valley, this results in a water use forecast of 3,640 ML per annum, which is 18% of total nominal medium priority water allocations excluding losses.

Figure 1: Annual Scheme water usage for years ending 30 June 2003 to 30 June 2018



Source: Seqwater (2018)

3. Irrigation Customer Consultation

Seqwater is committed to customer engagement as required under its Statement of Obligations. Annual Customer engagement includes customer forums and web-based information. Attendance at forums is open to all irrigation customers of the Scheme and other stakeholders. All customer or stakeholder submissions in relation to the annual NSPs will be published on Seqwater's website along with Seqwater's responses and decisions.

In preparation for this price review, Seqwater undertook additional customer engagement to gain feedback for its submission to QCA. This included establishing customer reference groups and expanding the content for the annual forum.

A customer reference group was established for the scheme which included five members. This group was not formally elected by customers and was not a decision-making group. Rather the members provided a small reference group with whom we could share matters of

detail and seek feedback for how to most appropriately share information with the wider scheme at the forums.

The annual forum was held this year on 17 September 2018. All customers were invited to attend and 13 customers attended.

After the forums were held, an additional customer expressed interest in joining the reference group and attended the following reference group meeting.

Customers were also invited to complete a survey to provide feedback to Seqwater either online or at the forums.

3.1 Reference group feedback

The Warrill reference group met on three occasions (1 June 2018, 21 August 2018 and 1 November 2018).

The key feedback provided by the reference group included:

- Support for the proposal to reinvest surplus revenue above cost target into the renewals account
- Support for the proposal to allocate costs as 95% fixed, 5% variable. Customers noted this reduces the Part B prices which has the added benefit of creating disincentive for water theft.
- The customers sought further information from Seqwater regarding dam safety costs, examples of renewals and other costs – action followed up at forum. The final reference group meeting also noted the reduced costs which were further actioned from the forum.

3.2 Customer forum feedback

Seqwater presented to the Warrill Valley irrigators at the forum including an annual update on operations and renewals activities, then provided more detail regarding the cost position and pricing proposals for the upcoming price review. These messages were consistently provided to each scheme in the same format. Although some schemes had differences for example where the scheme is a shared scheme, such as in the Warrill this also covered a discussion of the Headworks Utilisation Factor.

Meter replacements were the key discussion point at the forum. Seqwater informed customers that 30 flow meters were replaced in 2017-18 and this work continuing to be a significant part of scheme works. The Warrill customers were very supportive of Seqwater's proposal in particularly indicating strong support behind the 95:5 split of fixed to variable costs.

3.3 Survey results

Three questions were asked in the survey:

1. Do you support Seqwater's proposal for your scheme? Yes, No or Unsure
2. How satisfied are you with the services Seqwater provides to you? Rate from 1 to 7 where 1 = Entirely unsatisfied and 7 = Entirely satisfied.

3. Would you like more government investigation for this price review? Please note that additional investigation by the QCA will incur a cost for irrigation customers. Yes, No, or Unsure.

Ten responses were received at the forum. This data is provided below.

Table 4: Survey response data from forums

		Question 1 – Seqwater's proposal		Question 2 – Our Service		Question 3 – more investigation?	
	Number of respondents	Positive responses (Yes)	Negative or neutral responses (No or Unsure)	Positive responses (6 or above)	Negative or neutral responses (5 or below)	Positive responses (No)	Negative or neutral responses (Yes or Unsure)
Warrill Valley	10	100%		90%	10% (rated 4 neutral)	90%	10% rated unsure

Note: There may have been some confusion with question 2 given the rating scale as those rating 2 meaning mostly unsatisfied did not leave any written comments explaining this view, therefore it may have been misread as 1 meaning positive.

These results indicate strong customer support for Seqwater proposal and indicate limited interest in further investigation.

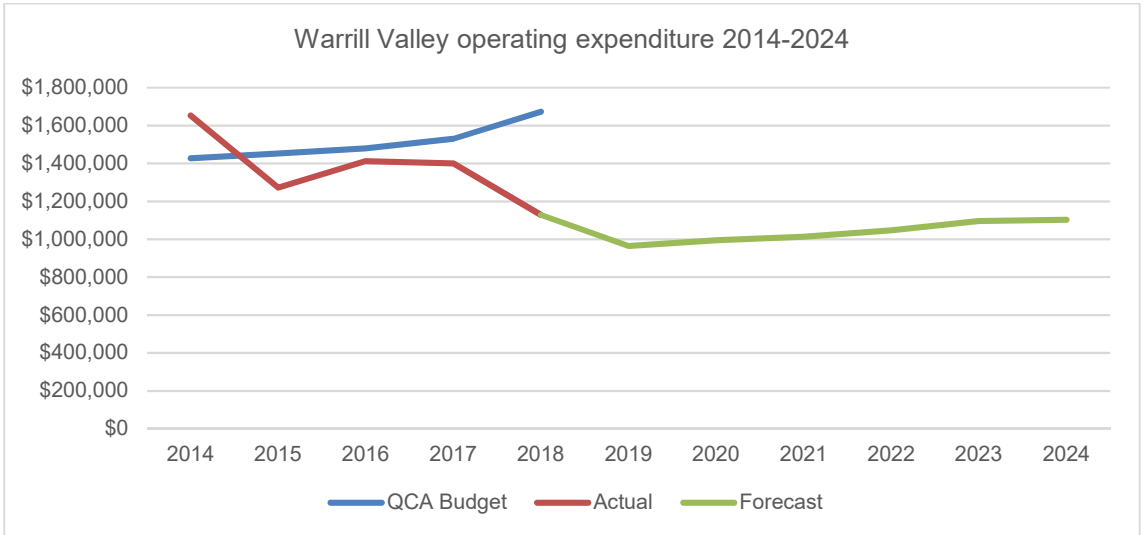
4. Financial Performance

4.1 Operating expenditure

4.1.1 Overview

Over the past five years, Seqwater has spent 9% less than the QCA's operating expenditure allowance in the Warrill Valley scheme. This significant cost reduction was primarily due to lower labour costs, repairs and maintenance costs and other costs than the QCA allowed.

Figure 2: Warrill Valley operating expenditure ($ nominal)



Source: Seqwater (2018)

4.1.2 2013-18 extended price path cost/budget comparison

The forecast operating costs set as a budget target by the QCA for the 2013-17 regulatory period extended to 2017-18 and the corresponding actual costs and actual revenues are set out in the table below. The 2017-18 forecast costs were calculated by applying the QCA's cost escalation rates to the 2016-17 forecast operating costs.

Table 5: 2013-17 price path budget and actual costs extended to 2017-18 ($Nominal)

Operating cost category	2013-14		2014-15		2015-16		2016-17		2017-18	
	Budget $	Actual $	Budget $	Actual $	Budget $	Actual $	Budget $	Actual $	Budget $	Actual $
Direct										
Labour	327,016	337,092	333,630	353,939	340,295	347,258	347,009	353,023	359,501	420,529
Electricity	11,679	7,677	11,971	11,580	12,270	7,406	12,577	8,852	12,891	8,123
Other	236,272	332,734	239,119	268,839	241,949	241,517	244,759	195,541	329,382	154,157
R&M	296,246	284,695	303,404	109,092	310,660	125,773	318,012	136,295	330,733	88,050
Rates	44,946	67,724	46,069	71,006	47,221	77,505	48,402	88,161	90,365	99,378
Dam safety	–	–	–	–	–	–	24,643	5,763	–	–
Consultation	7,175	–	7,354	–	7,538	–	7,727	–	7,920	–
Insurance	38,342	44,974	39,301	39,359	40,283	29,146	41,290	25,822	42,322	14,440
Total direct	**961,676**	**1,074,896**	**980,847**	**853,815**	**1,000,217**	**828,605**	**1,044,418**	**813,457**	**1,173,115**	**784,677**
Indirect										
Operations	422,503	530,743	428,759	383,715	435,003	530,232	441,230	538,703	454,687	331,079
Non-infrastructure	43,036	47,408	43,441	33,562	43,838	53,272	44,228	47,395	45,334	12,381
Total indirect	**465,539**	**578,151**	**472,199**	**417,277**	**478,841**	**583,504**	**485,458**	**586,098**	**500,021**	**343,460**
Total operating	**1,427,215**	**1,653,047**	**1,453,047**	**1,271,092**	**1,479,058**	**1,412,109**	**1,529,876**	**1,399,555**	**1,673,136**	**1,128,137**
Revenue										
Irrigators		539,159		506,452		521,708		531,481		535,995
CSO										
Total revenue		**539,159**		**506,452**		**521,708**		**531,481**		**535,995**

Source: Seqwater (2018)

Variances between budget and actual expenditure have been explained in the annual network service plan for each year. The network service plans are published on Seqwater's website. Material variances relate to:

- Over the price path, labour costs have been reduced through improvements in scheme operations
- Repairs and maintenance costs have been reduced by more efficient use of resources
- Other costs were lower than budget mainly because water quality monitoring costs were much lower than expected.

During the price path, Seqwater found additional costs that were not previously costed to the scheme and consequently, were not included in the cost base submitted to the QCA in the previous price review. In these cases, Seqwater has amended the 2016-17 forecast base costs before applying the QCA's escalation rates through to 2018-19. These adjustments, relating to the costs of vehicles and mobile plant and to local council rates were explained in the 2017-18 network service plan published on Seqwater's website.

4.1.3 2019-20 extended price path budget

The following table sets out the extended budgets for 2018-19 and 2019-20. The 2018-19 and 2019-20 budgets were calculated by applying the QCA's escalation rates to the 2017-18 extended budget.

Table 6: Forecast operating costs 2018-19 and 2019-20 ($Nominal)

Operating cost category	2018-19 Budget $	2019-20 Budget $
Direct		
Labour	372,443	385,851
Electricity	13,214	13,544
Other	338,325	347,520
R&M	343,962	357,720
Rates	92,625	94,940
Dam safety	–	–
Consultation	8,118	8,321
Total direct	**1,168,687**	**1,207,896**
Indirect		
Operations	468,555	482,846
Non-infrastructure	46,467	47,629
Insurance	43,380	44,465
Total indirect	**558,401**	**574,940**
Total operating	**1,727,088**	**1,782,836**

Source: Seqwater (2018)

4.1.4 2018-19 Base year

Seqwater submitted its entire operating costs program to the QCA for its review, as part of the bulk water price investigation. This was based on a base year of 2018-19. To ensure consistency, we have adopted the QCA's approved 2018-19 costs as the base year to forecast operating costs. This is consistent with the referral notice. Costs associated with the management of recreation activities were removed.

Table 7: 2018-19 Base Year Comparison ($Nominal)

Cost category	QCA extended budget $	Seqwater base year $	Rationale for base year forecast
Direct			
Labour	372,443	259,254	20% of labour costs that relate to recreation and catchment management activities have been excluded. This reduces the amount to be recovered to $259,254
Electricity	13,214	8,999	12.5 % of electricity costs that relate to recreation and catchment management activities have been excluded. This reduces the amount to be recovered to $8,999.
Other	338,327	91,451	The QCA budget allowed $205,000 for scientific consultants. This amount has not been spent and is not forecast. Recreation costs relating to water quality management have been excluded. This reduces the amount to be recovered to $91,451.
R&M	343,962	174,332	The budget for general maintenance which has been reduced over the price path has been further reduced by 12.5% to remove recreation related costs. Includes fencing cost allowance for 5km of fence repair and maintenance per year.
Rates	92,625	101,862	Based on 2017-18 actual plus 2.5%
Dam safety	–	–	Next dam safety inspection will be in 2022-23
Consultation	8,118	–	Consultation costs are accounted for as part of indirect operations
Insurance	43,380	20,342	Seqwater allocates the overall insurance premium depending on the asset replacement costs.
Total direct	**1,212,069**	**812,944**	
Indirect			
Operations	468,555	335,911	Indirect costs based on the indirect allocators.
Non-infrastructure	46,467	13,421	
Total indirect	**1,727,091**	**349,332**	
Total operating	**1,727,091**	**1,162,277**	

4.1.5 2021-24 budget forecast

The price path commences on 1 July 2020. In preparing these operating cost forecasts, Seqwater began with the scheme's direct operating costs budget for 2018-19 as the base year. Consistent with the referral notice, costs associated with the management of recreation activities were removed.

The scheme's share of the corporate insurance premium proportional to the value of scheme assets was calculated and included.

The scheme's share of indirect costs, proportional to the total of scheme direct costs was calculated and added to give the total forecast operating costs in the base year. These costs were then escalated by an allowance for CPI and projected forward to 2020-21 to 2023-24.

The following table sets out the forecast operating costs for 2020-21 to 2023-24.

Table 8: Operating costs budget for 2020-21 to 2023-24 ($Nominal)

Operating cost category	2020-21 Budget $	2021-22 Budget $	2022-23 Budget $	2023-24 Budget $
Direct				
Labour	275,043	283,569	291,821	300,313
Electricity	8,159	8,461	9,226	9,184
Repairs & Maintenance	183,047	187,765	192,572	197,501
Other	95,864	98,267	100,730	103,254
Local government rates	106,758	109,427	112,163	114,967
Dam safety inspection	0	7,427	27,528	7,803
Insurance	21,319	21,852	22,399	22,959
Total direct	**690,190**	**716,769**	**756,437**	**755,981**
Indirect				
Operations	310,307	318,064	326,016	334,166
Non-infrastructure	12,379	12,689	13,006	13,331
Total indirect	**322,686**	**330,753**	**339,022**	**347,497**
Total operating	**1,012,876**	**1,047,522**	**1,095,459**	**1,103,479**

Source: Seqwater (2018)

4.2 Renewals

4.2.1 Asset Restoration Reserve

In September 2017, Seqwater engaged Indec Consulting to undertake an independent review of the Asset Restoration Reserves (ARR) for each of Seqwater's irrigation schemes. On the recommendation of the consultant, Seqwater has recast the ARR for this scheme and the updated account is presented below.

For the purposes of this review and for more meaningful reporting going forward, Seqwater has elected to report the irrigation-only share of the asset restoration reserve which is set out in the table below.

Table 9: Warrill Valley WSS Asset Restoration Reserve 2013-14 to 2019-20 ($Nominal)

Asset Restoration Reserve	2013-14 Actual ($)	2014-15 Actual ($)	2015-16 Actual ($)	2016-17 Actual ($)	2017-18 Actual ($)	2018-19 Estimate ($)	2019-20 Estimate ($)
Opening Balance 1 July (1)	-62,586	-182,615	-315,133	-479,335	-497,358	-474,716	-757,814
Interest for year (2)	-3,880	-11,322	-19,538	-29,719	-30,836	-29,432	-46,984
Revenue – irrigation	51,125	66,939	67,379	67,630	69,321	71,054	72,830
Meter upgrades	-112,034	-180,833	-207,398	-54,041	-2,363	-297,000	-237,600
Other renewals (3)	-41,264	-7,302	-4,645	-1,893	-13,481	-27,720	-19,800
Flood costs not claimable	-13,975	–	–	–	–	–	–
Closing Balance 30 June	-182,615	-315,133	-479,335	-497,358	-474,716	-757,814	-989,368

Source: Seqwater (2018)

Notes:
(1) The irrigation share of the whole-of-scheme opening balance was apportioned according to the HUF percentage of 11%.
(2) The interest rate is the Queensland Competition Authority's recommended weighted average cost of capital (WACC) of 6.2% post-tax nominal.
(3) The irrigation share of non-metering renewals expenditure was apportioned by the HUF percentage of 11%.

4.2.2 Renewals expenditure

4.2.2.1 2014-18 renewals

The following table sets out the renewals projects that were undertaken from 2013-14 to 2017-18. Actual expenditure is shown against QCA's renewals budgets for the scheme[1].

Table 10: Renewals expenditure compared to budget 2013-14 to 2017-18

2013-14		2014-15		2015-16		2016-17		2017-18	
Budget $	Actual $	Budget $	Actual $	Budget $	Actual $	Budget $	Actual $	Budget $	Actual $
259,584	263,096	233,269	247,217	164,523	249,624	101,895	71,254	127,393	124,914

Source: Seqwater (2018)

In total, Seqwater spent $69,000 or 8% more than the QCA allowed. The variance is mostly attributable to expenditure of $118,000 in the 2016-17 and 2017-18 year to install safe access to the Aratula Weir offset by savings in other projects.

Details of the renewals expenditure including explanations of variances from Seqwater's budget are set out in the annual network service plan for each year. The network service plans are published on Seqwater's website.

In addition to the above, an amount of $127,047 being flood damage repairs carried out but not claimable under insurance was attributed to the scheme in 2013-14. The irrigation share is set out in table 9 above.

4.2.2.2 2019-20 forecast renewals

Forecast renewals expenditure for 2018-19 and 2019-20 is set out in table 11 below.

[1] Sourced from the QCA pricing model.

Table 11: Forecast renewals expenditure for 2018-19 and 2019-20 ($Nominal)

2018-19 renewals budget		2019-20 renewals budget	
Metering $	Non-metering $	Metering $	Non-metering $
297,000	252,000	297,000	180,000

Source: Seqwater (2018)

4.2.2.3 2021-24 forecast renewals

Forecast renewals expenditure for the next price path period of 2020-21 to 2023-24 is set out in the table below.

Table 12: Forecast renewals expenditure for 2020-21 to 2023-24 ($Nominal)

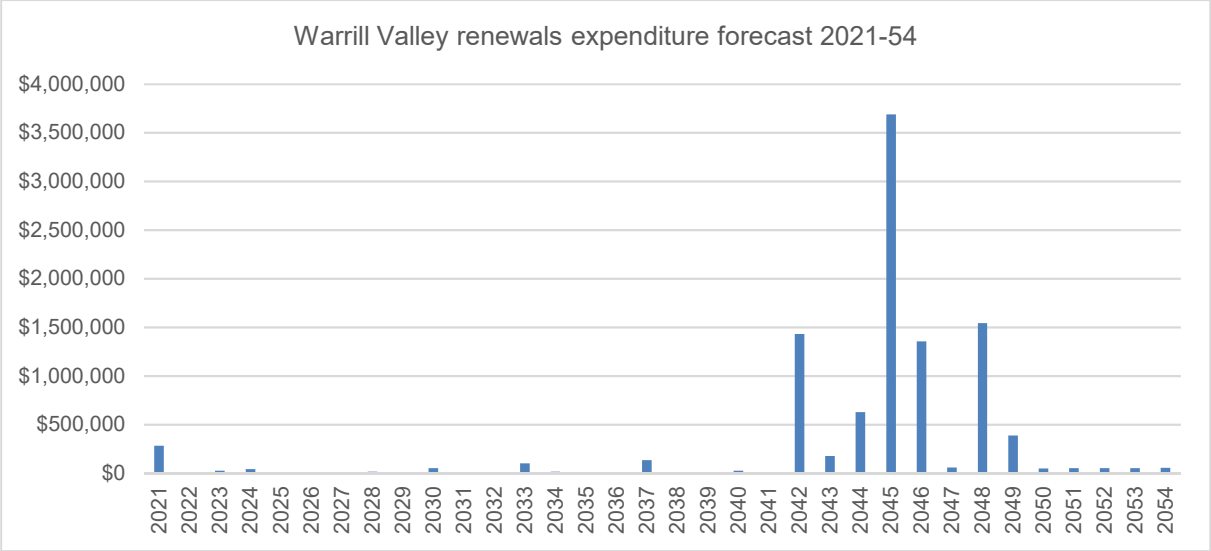
2020-21		2021-22		2022-23		2023-24	
Metering $	Non-metering $	Metering $	Non-metering $	Metering	Non-metering	Metering	Non-metering
281,929	26,202	-	-	-	26,427	-	43,453

Source: Seqwater (2018)

Seqwater is proposing a 30-year rolling annuity. Each year, the 30 year forecast rolls forward one year so that there is constantly a 30-year forecast of costs in the annuity calculation.

Proposed expenditure over the period 2020-21 to 2053-54 for the Warrill Valley scheme is shown in the chart below.

Figure 3: Warrill Valley renewals expenditure 2021-54 ($ nominal)



Source: Seqwater (2018)

5. Total costs and proposed prices

The cost recovery target for irrigation prices includes the components of a lower bound cost target such as the costs of operations, administration, maintenance and renewals. Each of

these components have been discussed in the sections above. Together they form the cost recovery target for irrigation prices.

The total maximum allowable revenue (MAR) for medium priority water allocations is shown below.

Table 13: Total forecast medium priority maximum allowable revenue ($Nominal)

Cost type	2020-21 $	2021-22 $	2022-23 $	2023-24 $
Direct operating costs	226,132	235,562	250,329	248,615
Indirect operating costs	206,776	211,945	217,244	222,675
Rolling Annuity	104,783	105,391	106,005	106,622
Revenue Offset	-12,414	-12,724	-13,043	-13,369
Efficiency Target	-1,661	-2,558	-3,501	-4,491
Maximum allowable revenue	**523,615**	**537,616**	**557,034**	**560,053**

Source: Seqwater (2018)

Seqwater considers that most of our costs do not vary with water use. Accordingly, we consider it appropriate to recover the majority of costs through the fixed charge. We have calculated the prices needed to recover these costs over the price path period, such that they increase smoothly by 2.5% and are not impacted by one-off costs.

Seqwater's proposed prices for Warrill Valley are set out below. These are based on our interpretation of the referral notice.

The cost recovery target for irrigation prices includes the components of a lower bound cost target such as the costs of operations, administration, maintenance and renewals. Each of these components have been discussed in the sections above. Together they form the cost recovery target for irrigation prices.

Table 14: Warrill Valley proposed cost reflective water prices 2021-24 (Nominal $/ML)

Tariff Group	Tariff	2020-21 Proposed ($)/ML	2021-22 Proposed ($)/ML	2022-23 Proposed ($)/ML	2023-24 Proposed ($)/ML
Warrill Valley	Cost reflective fixed Part A	21.68	22.23	22.78	23.35
	Cost reflective variable Part B	1.74	1.79	1.83	1.88

Source: Seqwater (2018)

Appendix 1: Warrill Valley WSS service targets

These service targets were agreed at the Warrill Valley Water Supply Scheme consultation forum held on 6 May 2014.

Planned shutdowns

Definition: A planned shutdown occurs when customers' supply is interrupted or restricted due to the performance of work by Seqwater that is planned in advance.

In managing planned shutdowns, Seqwater recognises that the following are important service issues:

- That you will be notified about a shutdown so that you can plan ahead;
- The timing of the shutdown should suit most customers;
- The duration of the shutdown should minimise the impact on customers while enabling Seqwater to perform maintenance on the Scheme.

Planned shutdowns – timing target

The timing of all planned shutdowns will be set following consultation with the Irrigation Consultation Forum (for a shutdown affecting a large part of the scheme) or customer groups or individuals (for shutdowns effecting small areas).

Planned shutdowns – duration target

Seqwater will complete all planned shutdowns within the period notified to customers unless later varied by agreement with the groups originally consulted, or unless circumstances arise that are beyond Seqwater's control, such as adverse weather conditions.

Planned shutdowns – notice target

For shutdowns planned to exceed 2 weeks, 8 weeks written notice will be provided to each customer affected by the shutdown. A reminder notice will be sent 2 weeks before the commencement of the shutdown.

For shutdowns planned to exceed 3 days but are less than 2 weeks, at least 2 weeks written notice by letter, fax, telephone, text, email or verbal advice will be provided to each customer affected by the shutdown unless the shutdown is opportunistic in which case less than 2 weeks' notice may be given.

For shutdowns planned to be less than 3 days, at least 5 days' notice will be provided at least verbally to each customer affected.

Each notice will state the start date, and anticipated shutdown duration.

Note: A courtesy reminder may be placed in the local newspaper one week before the planned shutdowns commence.

Unplanned shutdowns

Definition: An unplanned shutdown is an unforeseen or unplanned failure of Seqwater's water delivery infrastructure that stops or restricts the supply of water to a customer for more than 2 hours (including emergency repairs). It does not include events that are beyond Seqwater's control (e.g. power failure,

or storm) and does not include interruptions to supply caused by errors in estimating water demand and releases, or the taking of water without authorisation.

Unplanned shutdown – duration targets

- Unplanned Shutdowns will be fixed so that at least partial supply can be resumed to those customers requiring water within 48 hours of Seqwater being notified of the event.
- Some events may interrupt supply greater than the above standard and are excluded from these targets. Seqwater will publish these events from time to time.

Unplanned shutdown – notice target

Seqwater will notify all affected customers requiring water verbally or by email, text, telephone, radio announcement or fax of the likely duration of the interruption to supply within 24 hours of learning of the event, or by the end of the first business day following the event, whichever is the earlier.

Unplanned shutdown – meter repairs target

Faults causing restrictions to supply will be repaired within one working day of Seqwater being notified.

Frequency of interruptions to supply

No customer will experience more than 6 planned or unplanned interruptions per water year (as defined above).

Complaints

Seqwater will provide an initial response to all complaints in writing, including email, or by telephone within 5 working days of receiving a complaint by the customer.

Seqwater will either resolve a customer's complaint, or provide a written response providing reasons why the complaint has not or cannot be resolved within 21 days of receiving the complaint.