



Mary Valley Water Supply Scheme

Scheme submission to QCA

2020-21 to 2023-24

Submitted: 30 November 2018



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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 Mary 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 Mary Valley Water Supply Scheme was established to support irrigation in the sugar, dairy and horticulture sectors following construction of Borumba Dam in 1963. Water is released from Borumba Dam to supplement flows in the Mary River. The Pie Creek system is supplemented by channels and pipes distributing water diverted from the Mary River.

The Scheme is regulated under the Mary Basin Resource Operations Plan (ROP) issued in September 2011.

The water year runs from 1 July to 30 June.

The Scheme consists of two tariff groups, “Mary Valley” and “Pie Creek”.

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/ off-stream storages	Weirs	Other bulk water assets
<ul style="list-style-type: none"> Borumba Dam 	<ul style="list-style-type: none"> Imbil Weir 	<ul style="list-style-type: none"> Pie Creek Pump Station Gauging stations Measuring weirs Channels Pipelines Water meters

Source: Seqwater (2018)

2.3 Customer service standards

Service standards for the Mary Valley Water Supply Scheme are attached in Appendix 1.

Seqwater publishes a performance report each year on the Mary 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 (ML)	High priority (ML)
Mary Valley irrigators	184	17,598	-
Pie Creek irrigators	50	765	-
Gympie Regional Council	1	-	3,524
Seqwater (amenities)	-	-	120
Seqwater (distribution losses)	-	426	60
Seqwater	-	3,000	-
Seqwater (urban supply)	1	-	6,500
Industrial	2	40	60
Totals	266	21,829	10,264

Source: Mary Basin ROP; 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 %	Year	MP %
2007-08	14-100	2013-14	100
2008-09	100	2014-15	100
2009-10	100	2015-16	100
2010-11	100	2016-17	100
2011-12	100	2017-18	82
2012-13	100	2018-19	100

Source: Seqwater (2018)

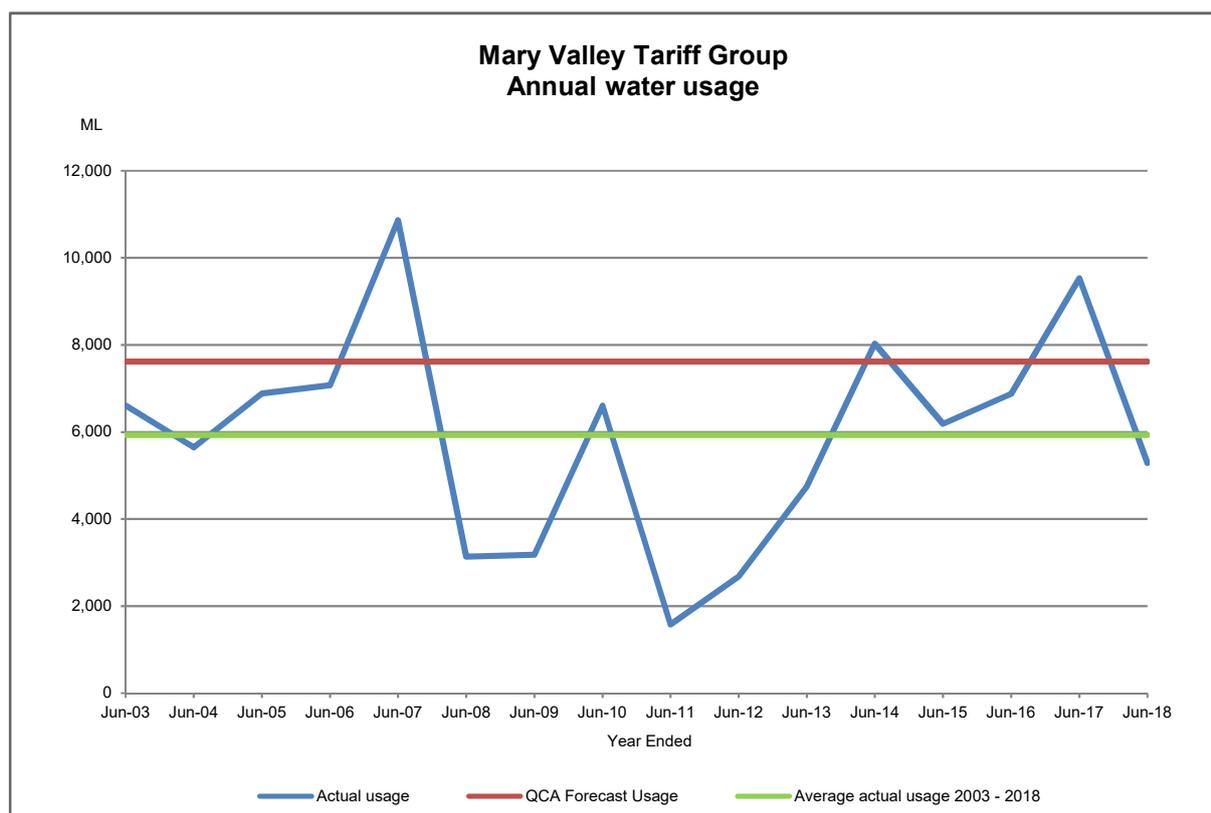
2.5.2 Water use

Figure 1 below shows the actual water usage per year from 2002-03 to 2017-18 for the Mary Valley tariff group.

Also shown is the usage assumption adopted by the QCA for the 2013-17 price path (extended to 2019) which is 7,618 ML or 43% 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 Mary Valley was 94% of the QCA's estimated usage due to continuing higher levels of water availability that may not continue into the future. 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 Mary Valley, this results in a water use forecast of 5,933 ML per annum, which is 34% of total nominal medium priority water allocations excluding losses.

Figure 1: Mary Valley tariff group water usage for years ending 30 June 2003 to 30 June 2018

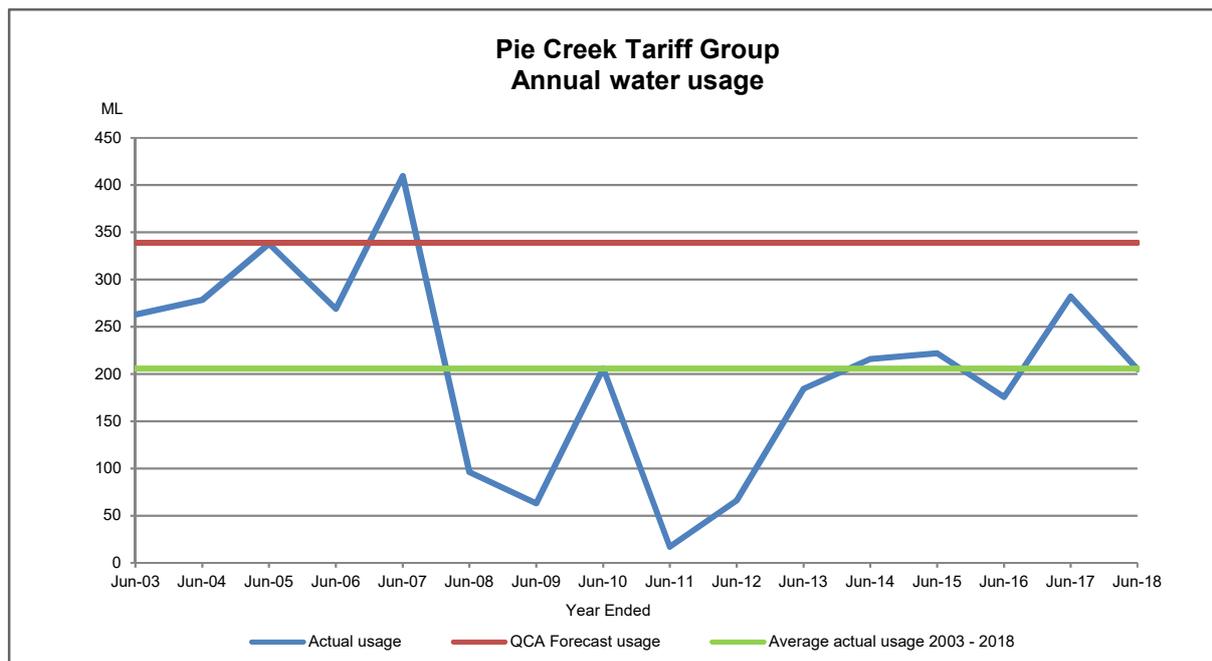


Source: Seqwater (2018)

Figure 2 below shows the actual water usage per year from 2002-03 to 2016-17 for the Pie Creek tariff group. Also included is the usage assumption for the QCA's approved price path for 2013-17 which is 339 ML or 44% of the nominal WAE. 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 Pie Creek was 65% of the QCA’s estimated usage. 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 Pie Creek, this results in a water use forecast of 206 ML per annum, which is 27% of total nominal medium priority water allocations excluding losses.

Figure 2: Pie Creek tariff group 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 Mary and Pie Creek which included five members. These groups were not formally elected by customers and were not decision-making groups. Rather they provided a small 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 in September 2018. All customers were invited to attend and 12 customers attended.

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 Mary Valley and Pie Creek reference group met on three occasions (28 May 2018, 17 August 2018 and 18 October 2018).

The key feedback provided by the reference group included:

- Seqwater discussed changes to the Headworks Utilisation Factor for the Mary. Customers appreciated the honesty of the discussion and agreed with the proposal to quantify the surplus and reinvest into the ARR. Customers likened the approach to an insurance payment which you may or may not use or forced savings for the future.
- Support for having an irrigation only ARR for transparency.
- Concern over high ARR balance being a liability for the scheme. This was one of the reasons for strong support to reinvest any surplus revenue into the ARR.
- Customers advised they were less sensitive to movements in the Part B charges as when they are wanting to use the water this has value; the Part A is where they are more sensitive.
- Strong support for the proposal to allocate costs as 95:5 fixed to variable costs. Some reasons given by customers include:
 - Maintains the value of the water
 - Creates incentives to trade water to people who will use it
 - Less incentive to 'cheat' the meter to overuse
- Seqwater discussed its intention to review the billing system to create improvements. Customers were supportive of this and raised the following points:
 - Customer desire to get bills out earlier
 - Customers would like access to water accounts to know what water they have used
 - Customers would like to be able to group together accounts where same customer has multiple accounts in different names.

3.2 Customer forum feedback

Seqwater presented to the Mary Valley and Pie Creek 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 Mary this also covered a discussion of the Headworks Utilisation Factor.

In the Mary Seqwater explained the issue relating to the HUF calculation. The previous review missed the cut off rule for the Mary which has meant the HUF should have been lower than the HUF used to calculate prices in 2012. Seqwater proposed that the surplus funds collected in water charges across the price path be reinvested into the annuity to reduce the balance and benefit future prices. Customers were supportive of this approach. It was also discussed that Seqwater would seek Government consideration of a reduction in the Part A charges for the 2019-20 year however this was a matter for Government and not part of the QCA's scope.

Water trading was a key discussion point from the customers. A suggestion was made for Seqwater to host a webpage to provide a 'noticeboard' where customers could indicate whether they had water for sale or were seeking to buy water. Seqwater will investigate this further to support customers.

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.

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

Table 4: Survey response data from forums

	Number of respondents	Question 1 – Seqwater's proposal		Question 2 – Our Service		Question 3 – more investigation?	
		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)
Mary Valley and Pie Creek	4	100%		75% (rated 7)	25% (rated 1)	75%	25% no response

Note: For question 2 responses, those rating 1 or 2 as unsatisfied with the service did not leave any written comments explaining this view.

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

4. Financial Performance

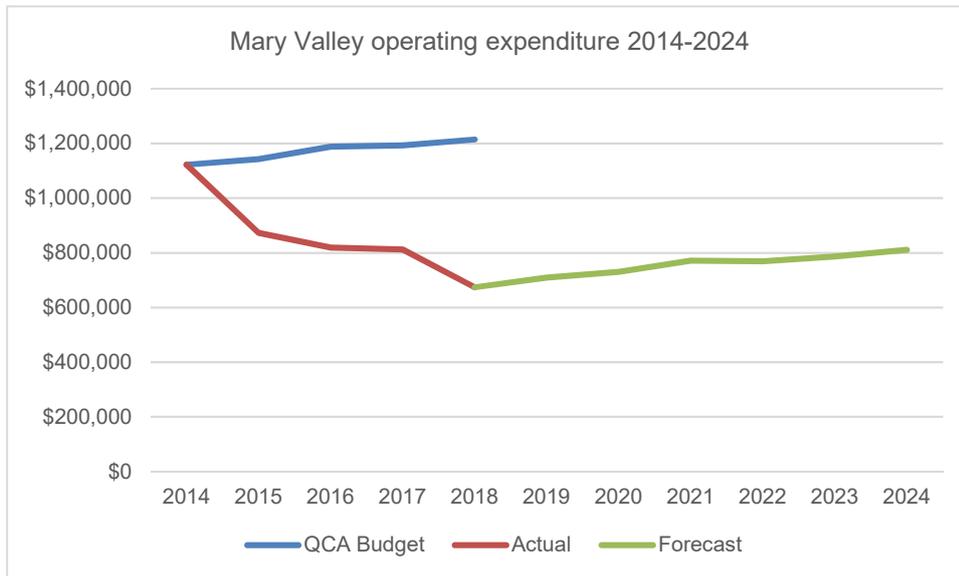
4.1 Operating expenditure

4.1.1 Overview

Over the past five years, Seqwater has spent 27% less than the QCA's operating expenditure allowance in the Mary Valley scheme and 13% less than the QCA's operating expenditure allowance in Pie Creek. This significant cost reduction was primarily due to lower labour costs, repairs and maintenance costs and other costs than the QCA allowed.

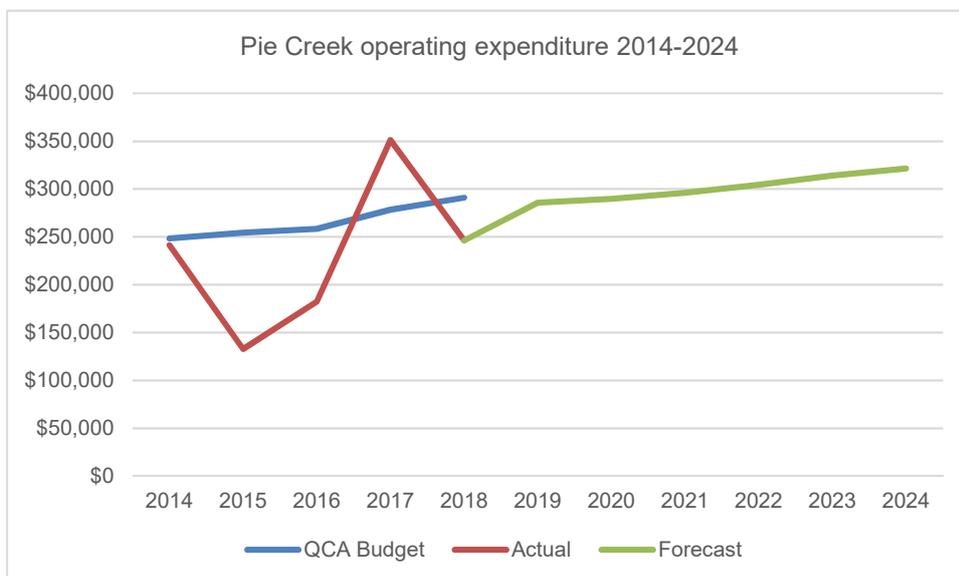
The following charts show the QCA's operating expenditure allowance compared to actual expenditure and forecast expenditure for the period 2013-14 to 2023-24 for both the Mary Valley and Pie Creek tariff groups.

Figure 3: Mary Valley operating expenditure comparison (\$ nominal)



Source: Seqwater (2018)

Figure 4: Pie Creek operating expenditure comparison (\$ 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 tables 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: Mary Valley 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	229,088	224,521	233,721	216,926	238,390	168,719	243,093	173,970	251,845	176,373
Electricity	27,274	3,935	27,956	7,500	28,655	11,413	29,372	484	800	10,196
Other	193,845	215,248	196,034	181,503	198,205	182,669	200,356	156,042	219,253	178,914
R&M	197,969	149,418	202,752	103,509	207,601	63,186	212,514	84,783	221,015	55,982
Rates	–	5,323	–	–	–	7,908	–	17,026	8,517	9,372
Dam safety	–	–	–	–	24,425	–	–	–	–	–
Consultation	7,175	–	7,354	–	7,538	–	7,727	–	7,920	–
Total direct	655,351	598,445	667,818	509,438	704,815	433,895	693,062	432,305	709,350	430,837
Indirect										
Operations	314,393	327,162	319,048	240,012	323,695	287,777	328,328	295,674	338,342	199,994
Non-infrastructure	32,024	29,223	32,325	20,993	32,621	28,913	32,911	26,014	33,734	7,479
Insurance	120,742	141,628	123,761	102,944	126,855	69,312	130,026	57,925	133,277	35,500
Total indirect	467,160	498,013	475,134	363,949	483,171	386,002	491,266	379,613	505,353	242,973
Total operating	1,122,510	1,096,458	1,142,952	873,387	1,187,986	819,897	1,184,327	811,918	1,214,703	673,810
Revenue										
Irrigators		417,259		452,894		528,405		626,746		521,286
CSO		40,577		47,255		11,532				
Total revenue		457,836		500,149		539,937		626,746		521,286

Source: Seqwater (2018)

Table 6: Pie Creek 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 \$								
Direct										
Labour	54,049	44,774	55,142	35,798	56,244	37,188	57,354	67,221	59,418	82,612
Electricity	24,443	13,986	25,054	32,393	25,680	10,244	26,322	31,612	30,106	20,461
Other	12,984	12,814	13,298	7,714	13,616	7,739	25,232	26,118	26,071	27,537
R&M	72,732	69,968	74,490	36,853	76,271	41,653	78,076	57,832	81,199	24,356
Rates	–	3,167	–	–	–	3,109	–	14,318	3,484	3,099
Dam safety	–	–	–	–	–	–	–	–	–	–
Total direct	164,209	144,709	167,984	112,758	171,811	99,933	186,984	197,101	200,279	158,065
Indirect										
Operations	67,322	78,074	68,319	15,261	69,314	66,279	70,306	134,807	72,450	73,406
Non-infrastructure	6,857	6,974	6,922	1,335	6,985	6,659	7,047	11,860	7,224	2,745
Insurance	9,993	11,722	10,243	3,474	10,499	9,503	10,762	7,509	11,031	1,617
Total indirect	84,173	96,770	85,484	20,070	86,798	82,441	88,115	154,176	90,704	77,768
Total operating	248,381	241,479	253,467	132,828	258,610	182,374	275,099	351,277	290,983	235,833
Revenue										
Irrigators		59,296		48,048		40,978		57,069		54,162
CSO - fixed		222,198		260,264		265,020		269,850		241,848
CSO - variable		8,508		25,154		20,141		33,343		23,710
Termination fee		–		–		16,192		–		–
Termination fee CSO		–		–		350,900		–		–
Total revenue		290,002		333,466		693,230		360,262		319,720

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. The material variances in the Mary Valley relate to:

- operational labour costs were less than budget mainly because a proportion of staff time was costed to the metering program as part of the renewals program for the scheme
- Repairs and maintenance costs were less than budget because fewer major maintenance projects were required to be undertaken.

The material variances in Pie Creek relate to:

- labour costs were lower than budget because improved work planning
- fewer system leakages and other failures reduced the amount of time staff were required to attend the scheme. Repairs and maintenance costs were less than budget because fewer major maintenance projects were required to be undertaken.

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 local council rates, were explained in the 2017-18 network service plan published on Seqwater's website.

4.1.3 2018-20 extended price path budget

The following tables set 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 amended to include additional costs as explained in section 4.1.1 above.

Table 7: Mary Valley forecast operating costs 2018-19 and 2019-20 (\$Nominal)

Operating cost category	2018-19 Budget \$	2019-20 Budget \$
Direct		
Labour	260,911	270,304
Electricity	820	841
Other	225,152	231,216
R&M	229,855	239,050
Rates	8,730	8,948
Dam safety	-	-
Consultation	8,118	8,321
Total direct	733,587	758,679
Indirect		
Operations	348,662	359,296
Non-infrastructure	34,577	35,442
Insurance	136,609	140,024
Total indirect	519,848	534,762
Total operating	1,253,435	1,293,441

Source: Seqwater (2018)

Table 8: Pie Creek forecast operating costs 2018-19 and 2019-20 (\$Nominal)

Operating cost category	2018-19 Budget \$	2019-20 Budget \$
Direct		
Labour	61,557	63,774
Electricity	30,859	31,630
Other	26,941	27,840
R&M	84,447	87,825
Rates	3,571	3,660
Dam safety	-	-
Consultation	-	-
Total direct	207,375	214,729
Indirect		
Operations	74,660	76,937
Non-infrastructure	7,404	7,589
Insurance	11,307	11,589
Total indirect	93,371	96,115
Total operating	300,745	310,845

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 9: Mary Valley 2018-19 Base Year Comparison (\$Nominal)

Cost category	QCA extended budget \$	Seqwater base year \$	Rationale for base year forecast
Direct			
Labour	260,911	183,323	Labour costs are shared between Mary Valley and Pie Creek and non-scheme activities and are allocated based on managerial estimates and work history
Electricity	820	7,800	
Other	225,152	103,436	This includes contractors (\$66,330), internal plant and fleet hire (\$13,158), external equipment hire (\$11,867) and regulatory water quality testing (\$9,519)
R&M	229,855	116,885	This includes civil maintenance contractors (\$60,000), general construction contractors (\$13,026).
Rates	8,730	9,606	Based on 2017-18 actual plus 2.5%

Dam safety	–	–	Next dam safety inspection will be in 2019-20
Consultation	8,118	–	Consultation costs are accounted for as part of indirect operations
Insurance	136,609	50,008	Seqwater allocates the overall insurance premium depending on the asset replacement costs.
Total direct	862,077	471,058	
Indirect			
Operations	348,662	212,530	Indirect costs based on the indirect allocators.
Non-infrastructure	34,577	8,479	
Total indirect	391,357	221,009	
Total operating	1,253,434	692,066	

Source: Seqwater (2018)

Table 10: Pie Creek 2018-19 Base Year Comparison (\$Nominal)

Cost category	QCA extended budget \$	Seqwater base year \$	Rationale for base year forecast
Direct			
Labour	61,557	58,787	Labour costs are shared between Mary Valley and Pie Creek and non-scheme activities and are allocated based on managerial estimates and work history
Electricity	30,859	30,859	No change to QCA approved amount
Other	26,941	18,293	Materials and consumables costs have been reduced and included in repairs and maintenance
R&M	84,447	81,000	Includes reactive maintenance (\$49,000) based on the historical average, mechanical contractor for the pump station (\$20,000), mowing (\$7,000) and electrical (\$5,000)
Rates	3,571	3,177	Based on 2017-18 actual plus 2.5%
Insurance	11,307	2,520	Seqwater allocates the overall insurance premium depending on the asset replacement costs.
Total direct	218,682	194,636	
Indirect			
Operations	74,660	87,815	Indirect costs based on the indirect allocators.
Non-infrastructure	7,404	3,503	
Total indirect	82,064	91,318	
Total operating	300,746	285,954	

Source: Seqwater (2018)

4.1.5 2021-24 budget forecast

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 tables set out the forecast operating costs for the scheme for 2020-21 to 2023-24.

Table 11: Mary Valley 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	207,261	213,685	219,902	226,300
Electricity	7,072	7,334	7,996	7,960
Repairs & Maintenance	122,766	125,946	129,183	132,503
Other	108,605	111,403	114,254	117,178
Local government rates	10,068	10,319	10,577	10,842
Dam safety inspection	26,202	3,760	–	3,950
Insurance	52,411	53,722	55,065	56,441
Total direct	534,385	526,168	536,977	555,175
Indirect				
Operations	228,437	234,148	240,001	246,001
Non-infrastructure	9,113	9,341	9,575	9,814
Total indirect	237,550	243,489	249,576	255,815
Total operating	771,935	769,657	786,553	810,990

Source: Seqwater (2018)

Table 12: Pie Creek 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	62,367	64,301	66,172	68,098
Electricity	27,978	29,013	31,636	31,494
Repairs & Maintenance	85,076	87,279	89,522	91,823
Other	19,173	19,652	20,143	20,647
Local government rates	3,329	3,413	3,498	3,585
Dam safety inspection	0	0	0	0
Insurance	2,641	2,707	2,774	2,844
Total direct	200,564	206,365	213,746	218,490
Indirect				
Operations	92,035	94,335	96,694	99,111
Non-infrastructure	3,672	3,763	3,857	3,954
Total indirect	95,707	98,098	100,551	103,065
Total operating	296,271	304,463	314,297	321,555

Source: Seqwater (2018)

4.2 Headworks utilization factor

The headworks utilization factor (HUF) is a calculation that seeks to apportion the share of headworks costs of water supply schemes (WSS) between high priority (HP) and medium priority (MP) water allocation holders. The HUF is effectively an allocation of costs between the irrigation and urban sectors. A HUF of 26% was calculated for the Borumba Dam headworks in the 2012-13 irrigation price review.

In preparation for the irrigation price review, Seqwater commissioned an independent review of the HUF inputs and calculations for the Mary Valley scheme. In the course of the review it was found that the 2012-13 HUF was overstated and should have calculated the medium priority headworks cost share at 11%.

In response to this finding, Seqwater has calculated the revenue difference between the two HUF values and has applied the surplus as an additional income line to the asset restoration reserve as set out in the table below.

4.3 Renewals

4.3.1 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 tables below.

Table 13: Mary 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)	-404,623	-369,134	-317,560	-197,064	14,545	87,643	40,418
Interest for year (2)	-25,087	-22,886	-19,689	-12,218	902	5,434	2,506
Revenue – irrigation	84,292	108,839	109,228	109,290	112,022	114,823	117,694
Revenue contribution - HUF change	12,016	62,276	102,418	117,414	120,349	123,358	126,442
Expenditure – non-meter (3)	-1,604	–	–	-2,877	699	-70,840	-39,600
Expenditure – meter upgrades	-8,303	-96,490	-71,461	0	-160,875	-220,000	-110,000
Flood costs not claimable	-25,826	-165	–	–	–	–	–
Closing Balance 30 June	-369,134	-317,560	-197,064	14,545	87,643	40,418	137,459

Source: Seqwater (2018)

Notes:

- (1) The irrigation share of the whole-of-scheme opening balance was apportioned according to the amended 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 amended HUF percentage of 11%.

Table 14: Pie Creek Tariff Group Asset Restoration Reserve

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	-28,002	40,259	108,558	164,386	239,396	320,313	408,235
Interest for year*	-1,736	2,496	6,731	10,192	14,843	19,859	25,311
Revenue – irrigation	71,155	65,947	65,360	64,783	66,402	68,062	69,764
Expenditure for year - non-metering	–	-144	-464	36	-328	–	-36,000
Expenditure for year - metering	-1,158	–	-15,798	–	–	–	-67,000
Closing Balance 30 June	40,259	108,558	164,386	239,396	320,313	408,235	400,309

Source: Seqwater (2018)

- * The interest rate is based on the Queensland Competition Authority's recommended weighted average cost of capital (WACC) of 6.2% post-tax nominal.

4.3.2 Renewals expenditure

4.2.2.1 2014-18 renewals

The following tables set out the renewals projects that were undertaken from 2013-14 to 2017-18. Actual expenditure is shown against QCA's renewals budgets for the scheme¹.

¹ Sourced from the QCA pricing model.

Table 15: Mary Valley renewals expenditure compared to budget 2013-14 to 2017-18

2013-14		2014-15		2015-16		2016-17		2017-18	
Budget	Actual								
\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
310,960	22,883	361,146	96,490	92,351	71,461	167,290	26,150	67,150	154,524

Source: Seqwater (2018)

Table 16: Pie Creek renewals expenditure compared to budget 2013-14 to 2017-18

2013-14		2014-15		2015-16		2016-17		2017-18	
Budget	Actual								
\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
271,565	1,158	21,416	144	12,598	16,262	13,102	-36	13,430	328

Source: Seqwater (2018)

In total, Seqwater spent \$627,000 less than the QCA allowed in the Mary Valley and \$314,000 less in Pie Creek.

As Seqwater's expenditure was within the QCA allowance, we submit that no further investigation is required into past expenditure, and that the QCA should rely on its previous review and conclude that this expenditure is prudent and efficient.

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, a total of \$236,285 being flood damage repairs carried out but not claimable under insurance was attributed to the scheme in 2013-14 and 2014-15. The irrigation share is set out in table 15 above.

4.2.2.2 2019-20 forecast renewals

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

Table 17: Mary Valley forecast renewals expenditure for 2018-19 and 2019-20 (\$Nominal)

2018-19 renewals budget		2019-20 renewals budget	
Metering	Non-metering	Metering	Non-metering
\$	\$	\$	\$
220,000	644,000	110,000	360,000

Source: Seqwater (2018)

Table 18: Pie Creek forecast renewals expenditure for 2018-19 and 2019-20 (\$Nominal)

2018-19 renewals budget		2019-20 renewals budget	
Metering	Non-metering	Metering	Non-metering
\$	\$	\$	\$
—	—	67,000	36,000

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 below.

Table 19: Mary Valley forecast renewals expenditure for 2020-21 to 2023-24 (\$Nominal)

2020-21		2021-22		2022-23		2023-24	
Metering \$	Non-metering \$						
82,797	13,625	–	18,262	–	–	–	18,056

Source: Seqwater (2018)

Table 20: Pie Creek forecast renewals expenditure for 2020-21 to 2023-24 (\$Nominal)

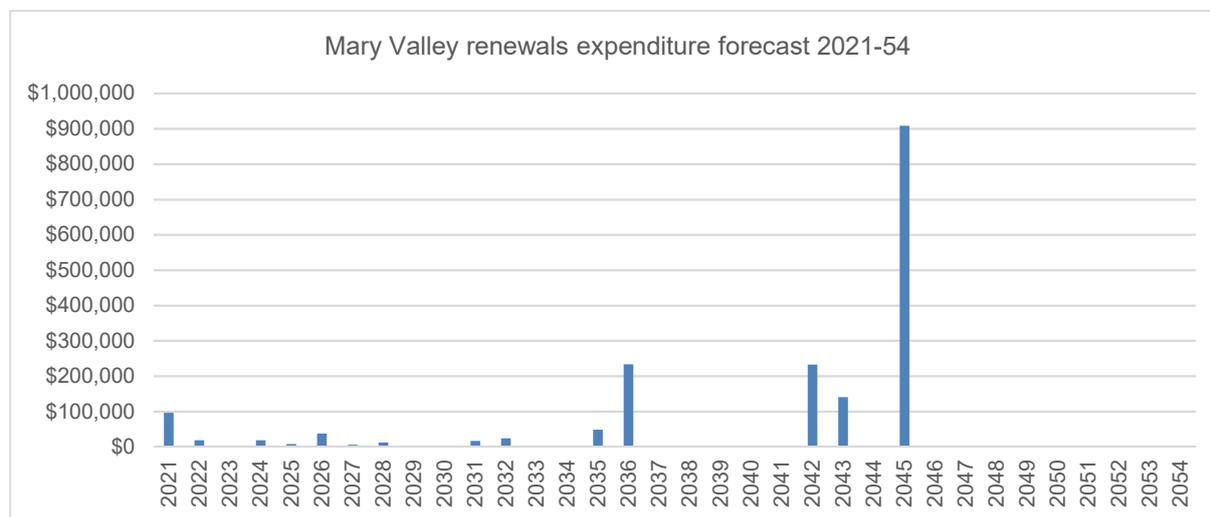
2020-21		2021-22		2022-23		2023-24	
Metering \$	Non-metering \$						
147,777	–	–	18,262	–	220,224	–	–

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.

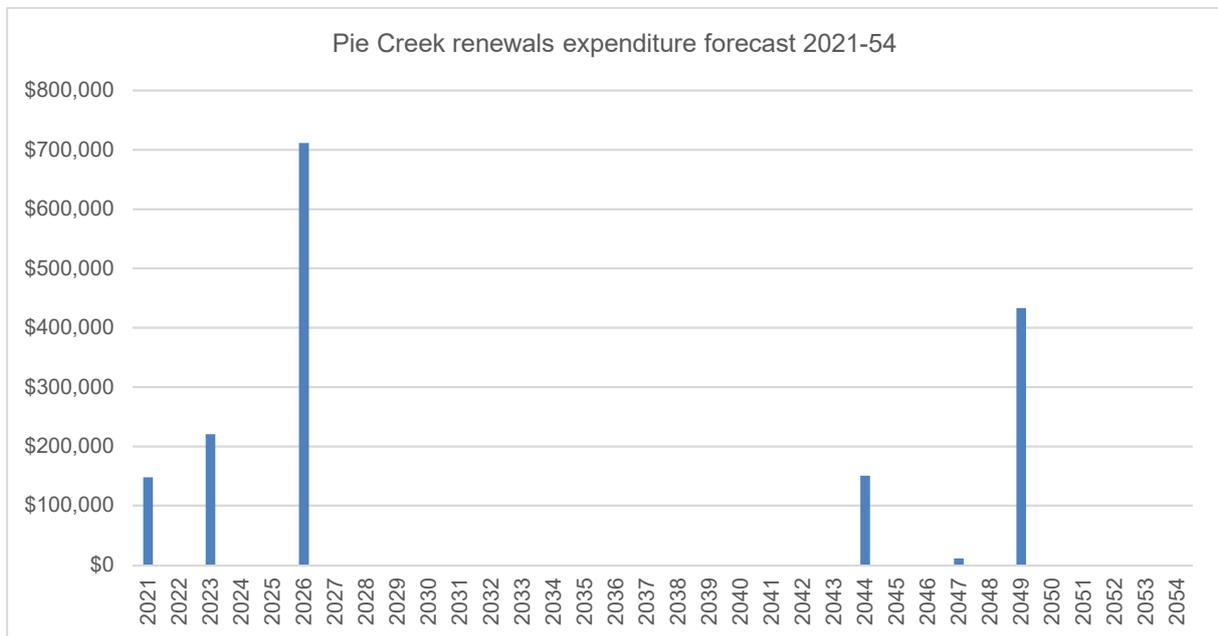
Proposed expenditure over the period 2020-21 to 2053-54 for Mary Valley and for Pie Creek is shown in the charts below.

Figure 5: Mary Valley renewals expenditure 2021-54 (\$ nominal)



Source: Seqwater (2018)

Figure 6: Pie Creek 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 21: Mary Valley total forecast medium priority maximum allowable revenue (\$Nominal)

Cost type	2020-21 \$	2021-22 \$	2022-23 \$	2023-24 \$
Direct operating costs	174,777	170,661	173,984	180,178
Indirect operating costs	142,945	146,519	150,182	153,937
Rolling Annuity	71,542	71,925	72,310	72,697
Revenue Offset	–	–	–	–
Efficiency Target	-1,169	-1,801	-2,466	-3,163
Maximum allowable revenue	388,095	387,305	394,010	403,649

Source: Seqwater (2018)

Table 22: Pie Creek total forecast medium priority maximum allowable revenue (\$Nominal)

Cost type	2020-21 \$	2021-22 \$	2022-23 \$	2023-24 \$
Direct operating costs	200,564	206,365	213,746	218,490
Indirect operating costs	109,259	111,990	114,790	117,660
Rolling Annuity	30,048	30,208	30,370	30,532
Revenue Offset	–	–	–	–
Efficiency Target	-1,187	-1,830	-2,516	-3,219
Maximum allowable revenue	338,683	346,733	356,390	363,463

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 cost reflective prices for Mary Valley and for Pie Creek are set out in the tables 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 23: Mary Valley tariff group proposed cost reflective water prices 2021-24 (Nominal \$/ML)

Tariff Group	Proposed tariff	2020-21 Proposed (\$)/ML	2021-22 Proposed (\$)/ML	2022-23 Proposed (\$)/ML	2023-24 Proposed (\$)/ML
Mary Valley	Cost reflective fixed Part A	16.94	17.37	17.80	18.24
	Cost reflective variable Part B	1.38	1.42	1.45	1.49

Source: Seqwater (2018)

Table 23: Pie Creek tariff group proposed cost reflective water prices 2021-24 (Nominal \$/ML)

Tariff Group	Proposed tariff	2020-21 Proposed (\$)/ML	2021-22 Proposed (\$)/ML	2022-23 Proposed (\$)/ML	2023-24 Proposed (\$)/ML
Pie Creek	Cost reflective fixed Part A	16.94	17.37	17.80	18.24
	Cost reflective variable Part B	1.38	1.42	1.45	1.49
	Cost reflective fixed Part C	373.82	383.17	392.75	402.57
	Cost reflective variable Part D	184.65	189.26	194.00	198.85
	Cost reflective bundled Parts A + C	390.77	400.53	410.55	420.81
	Cost reflective bundled Parts B + D	186.03	190.68	195.45	200.33

Source: Seqwater (2018)

5.1 Pie creek prices

In the previous review, the QCA recommended a smaller volumetric charge should apply, relative to the cost-reflective volumetric charge. This was in recognition of the transitional issues faced by this scheme. The QCA recommended a bundled volumetric charge that recovers only the variable electricity pumping cost of diverting water to Pie Creek from Mary River plus the cost-reflective bulk volumetric charge (Part B); and a bundled fixed charge that reflects the balance of variable costs.

Seqwater propose that these arrangements continue to support price stability and regulatory certainty. The Referral Notice section C(1.4)(a) allows the QCA to have regard to considering less than cost reflective volumetric prices that are necessary to moderate bill impacts for customers. The cost reflective Part D price for Pie Creek is significantly above the 2019-20 Part D price, therefore Seqwater proposes that the Part D continue to be below the cost target and increase with inflation only.

5.2 Termination fee revenue

A termination fee is applied when a distribution system water allocation is permanently transferred to the river. In this case, from Pie Creek to the Mary Valley scheme.

5.2.1 Previous review

The QCA recommended that the Pie Creek termination fee be based on 11 times the recommended (not the cost-reflective) Part C charge.

The QCA recommended that Seqwater should never recover the balance of any shortfall (in fixed cost revenue) from remaining customers.

However, if water allocations are transferred into the distribution system, Seqwater should retain the additional revenue. This would provide Seqwater with a revenue incentive to attract customers into distribution systems from which customers have exited.

5.2.2 Seqwater submission

In 2015-16, two customers transferred a total of 100 ML of water allocation from Pie Creek into the Mary Valley scheme. This reduced the volume of water allocations in the scheme from 835 ML to 735 ML. Seqwater received the QCA recommended termination fee of 11 times the recommended Part C charge. The Queensland Government paid 11 times the gap between the recommended and cost-reflective price as a CSO payment.

Consistent with the previous QCA review, we do not intend for remaining customers to pay higher charges as a result of exiting customers. Accordingly, we will continue to determine the cost-reflective fixed charge by dividing by the 835 ML, as per the previous review. This will mean remaining customers will be unaffected by the action of the exiting parties.

Subsequently, a different customer transferred 30 ML of water allocation into Pie Creek. This is consistent with the QCA's previous review that Seqwater seek additional customers to replace those exited. As Seqwater bears the risk of not finding a new customer, it also retains the benefit of the new customer. Accordingly, there should be no adjustment for this new customer and the Part C should continue to be calculated based on 835 ML.

Appendix 1: Mary Valley WSS service targets

These service targets were agreed at the Mary Valley Water Supply Scheme consultation forum held on 13 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.