



**Irrigation Infrastructure Renewal  
Projections - 2013/14 to 2046/47**  
Report - Pie Creek Tariff Group

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**Document Status**

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# 1. Introduction

Seqwater owns and operates the following seven irrigation schemes:

- ▶ Central Lockyer WSS;
- ▶ Lower Lockyer WSS;
- ▶ Logan River WSS;
- ▶ Mary River WSS;
- ▶ Cedar Pocket WSS;
- ▶ Warrill Valley WSS; and
- ▶ Central-Brisbane WSS.

Seqwater also owns and operates a distribution system, the Morton Vale Pipeline.

There are nine tariff groups associated with these schemes.

To assist with the determination of price paths, a forecast of future renewal expenditure is required at the individual tariff group level.

The renewal projections have been developed, in accordance with the scope and methodology separately documented in the Methodology report. The projections have been developed in separate reports, one for each tariff group.

This report outlines the projections for the Pie Creek Tariff group. It should be read in conjunction with the Methodology report.

## 2. Asset Information

### 2.1 Irrigation Infrastructure

A summary of Seqwater's irrigation infrastructure facilities and assets is provided in **Table 1** below.

**Table 1 Summary of Irrigation Infrastructure**

WSS Scheme	Tariff Group	Dams	Weirs	Off-Stream Storage	Other Key Assets
Mary River	Pie Creek	NA	NA	NA	Calico Creek Channel, Calico Creek Pipeline, McIntosh Channel, McIntosh Creek Pipeline, Pie Creek Main Channel, Pie Creek Pipeline, Pie Creek Pump Station, Rising Main, Flowmeters

A schematic drawing of the scheme is provided in Appendix A.

### 2.2 Relevant Asset Information

The following existing information was reviewed and where relevant, utilised to develop the renewal projections:

- ▶ Asset Register;
- ▶ Annual, 5 Year and Comprehensive Dam Safety Reviews and Assessments;
- ▶ Draft WSS 20 Year Programme of Work 2008/09 – 2028/29;
- ▶ 2011 Site Safety Assessments;
- ▶ Extracts from Financial Asset Register;
- ▶ 2009 Asset Valuation – Cardnos;
- ▶ 2010 Asset Valuation – Dams & Weirs – Cardnos; and
- ▶ Business Case - Irrigation Customer Meters Renewal (SM 12/13 02).

### 3. Projections

#### 3.1 Summary

A summary of the renewal and refurbishment projections for the period 2013/14 – 2046/47 is provided in **Error! Reference source not found.**

Further details are provided in Appendix B.

It should be noted that all values are in \$2012-13.

#### 3.2 Significant Projects

A list of projects that come under one of the following categories are outlined in Table 2 below:

- ▶ Scheduled between 2013/14 and 2016/17 financial years and having a project value greater than the average project value for that period; and
- ▶ A project that has an impact on the annuity of greater than 10%<sup>1</sup>.

**Table 2 Significant Projects**

Asset	Description of Work	Timing of Work	Project Value	Signif.*
Pie Creek Main Channel	Replacement of fencing (50% of total as shared with adjacent landowners)	2013/14	\$53k	HAV
Pie Creek Pump Station	Electrical refurbishment	2013/14	\$186k	HAV
Water Meters	Water Meter Renewal Program	Annually, commencing 2013/14	\$192k over 33 years	HAV Ref. Footnote 1

Notes: \*Significance: HAV – Higher than Average Value (for period from 2013/14 to 2016/17) IA – Project was assessed in April 2012 (refer Footnote 1 below) as having an impact on the annuity of greater than 10% (refer Section 3.3 for commentary).

<sup>1</sup> The impact on annuity was assessed in April 2012 when version 1 of this report was produced. At that time, the water meter renewal program had not been fully developed and included in the assessment. An updated assessment of impact has not been undertaken in updating this current version 3 of the report.

**Table 3 Summary of Renewal Projections**

Parent Asset	Expenditure Forecast Each Year (\$k)																	
	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	
Calico Creek Channel	-	-	-	-	-	-	-	-	-	204	-	-	-	-	-	-	-	-
Mcintosh Channel	-	-	-	-	-	-	-	-	-	63	-	-	-	-	-	-	-	-
Pie Ck Main Channel	73	-	-	-	-	-	-	-	-	460	20	-	-	-	-	-	-	-
Pie Creek Pump Station	186	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Flowmeters	20	20	11	11	11	11	11	11	11	3	3	3	3	3	3	3	3	3
<b>Total</b>	<b>279</b>	<b>20</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>730</b>	<b>23</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>

Parent Asset	Expenditure Forecast Each Year (\$k)																	
	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47	
Calico Creek Channel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mcintosh Channel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pie Ck Main Channel	-	-	-	20	-	-	-	-	-	-	-	-	-	73	-	-	-	-
Pie Creek Pump Station	-	-	149	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Water Flowmeters	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
<b>Total</b>	<b>3</b>	<b>3</b>	<b>152</b>	<b>23</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>76</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>8</b>

### 3.3 Additional Commentary

For some assets, the available asset data indicated the theoretical asset life was either expired or due to expire within the first four years. Where a site assessment was not able to verify the need to renew an asset within the first four years, the timing of the renewal was updated to occur beyond 2016/17 financial year. This was the case for the following assets:

- ▶ Calico Creek Channel Pipeline air valves (12) – useful asset life increased based on site visit.
- ▶ Calico Creek Channel Pipeline scour outlets (7) – useful asset life increased based on site visit.
- ▶ McIntosh Creek Pipeline air vents, air valve, scour outlet and isolating valves (6) – useful asset life increased based on site visit.
- ▶ Pie Creek Pipeline air valves (18) - useful asset life increased based on site visit.
- ▶ Pie Creek Pipeline scour outlets (15) - useful asset life increased based on site visit.

Commentary on projects that have a higher than average project value includes:

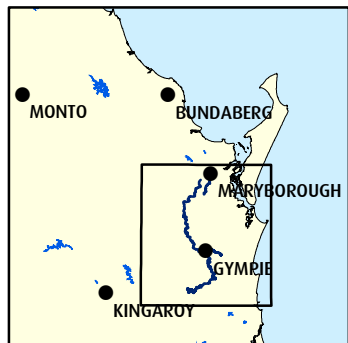
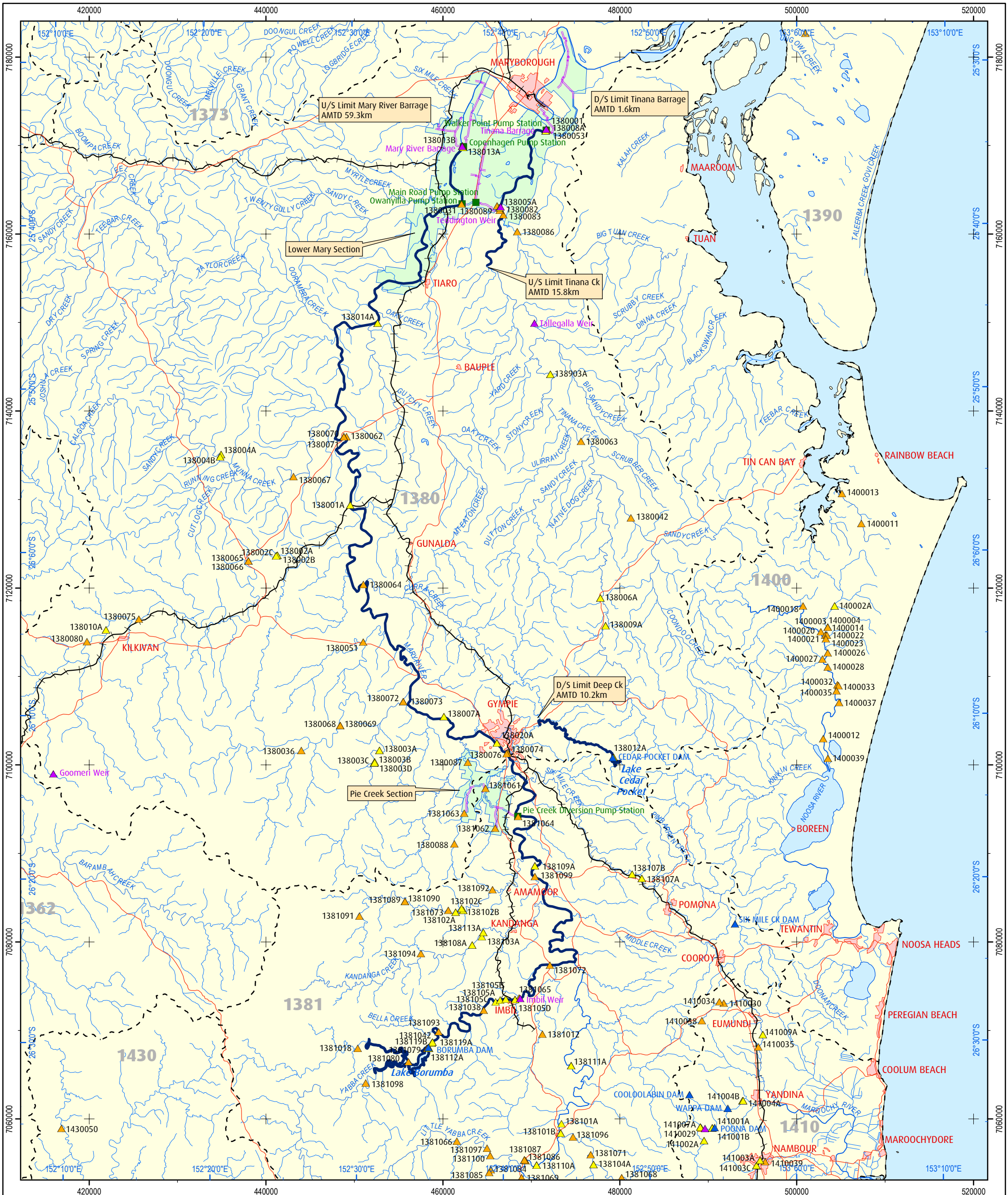
- ▶ Replacement of approximately 4.5km of boundary fence along Pie Creek Main Channel, Cost is 50% of total cost due to cost sharing with adjacent landowners.
- ▶ Refurbishment of electrical infrastructure at Pie Creek Pump Station including replacement of switchboard and cabling.

The cost estimate for the refurbishment of electrical infrastructure at Pie Creek Pump Station was initially identified as having a greater than 10% impact on annuity. However, detailed cost estimates have been undertaken resulting in a decrease in the cost estimates for this project.

For the forecasted renewal expenditure between 2013/14 and 2016/17, values were compared with Sunwater's renewals projections which were the basis of the SunWater irrigation prices for 2006/07 to 2010/11. When excluding the water meter upgrade costs which will be excluded from the annuity, it was noted the total value of Seqwater's renewal forecast was approximately 83% of Sunwaters. The difference is believed to be primarily due to Seqwater projections being based on more up-to-date information.



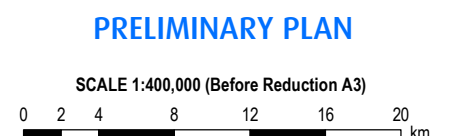
Appendix A  
Water Supply Scheme Schematic



LEGEND	
	Dam
	Weir
	Stream Gauging Station
	Water Quality Station
	Pump Station
	Water Supply Scheme
	Channel
	Pipeline
	Sub-Basin Boundary
	Major Roads
	Railway
	Gully
	Creek
	River
	Channel System WSS
	Urban Area

**NOTES**  
1. Stream Gauging and Water Quality Stations shown do not necessarily belong to SunWater.

**MAP INFORMATION**  
Black ticks indicate 20,000m intervals of the Universal Transverse Mercator Grid, Zone 56 (Mapping Grid of Australia), Australian National Spheroid.  
Blue ticks indicate Latitude and Longitudinal at 10 minute intervals.  
Coordinate System: Geocentric Datum of Australia, Transverse Mercator projection.



**MARY RIVER WATER SUPPLY SCHEME  
SYSTEM LAYOUT  
AUGUST 2002**



Prepared	IDH	Checked	Approved
Revision	Date	Remarks	
Drawing Number	A3-???????		

## Appendix B

# Renewal Projections

