



**Irrigation Infrastructure Renewal  
Projections - 2013/14 to 2046/47**  
Report - Cedar Pocket Tariff Group

September 2012

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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 Cedar Pocket 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	Cedar Pocket	Cedar Pocket Dam	NA	NA	Flowmeters

A schematic drawing of the scheme is provided in 3.3.

### 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 and Technical Asset Register
- ▶ 2009 Asset Valuation – Cardnos;
- ▶ 2010 Asset Valuation – Dams & Weirs – Cardnos;
- ▶ Cedar Pocket Dam Facility Asset Management Plan 2012; 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 Table 3.

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 included in the Annuity and 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.*
Cedar Pocket Dam	Repair of drainage on right-hand embankment	2014/15	\$18k	HAV/IA
Cedar Pocket Dam	Replacement of electrical reticulation to valves	2019/20	\$27k	IA
Cedar Pocket Dam	Renewal of telemetry assets	2020/21	\$34k	IA
Cedar Pocket Dam	Renewal of electricity supply assets	2025/26	\$30k	IA
Cedar Pocket Dam	Refurbishment of outlet valves	2024/25	\$28k	IA
Water Meters	Water Meter Renewal Program	Annually, commencing 2013/14	\$106k 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 2 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	
Cedar Pocket Dam	-	18	-	-	-	-	42	47	-	-	-	28	30	-	-	-	-	
Water Flowmeters	7	7	6	6	6	6	6	6	6	2	2	2	2	2	2	2	2	
Total	<b>7</b>	<b>25</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>48</b>	<b>53</b>	<b>6</b>	<b>2</b>	<b>2</b>	<b>30</b>	<b>32</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</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
Cedar Pocket Dam	34	-	-	-	-	-	-	-	-	-	27	41	-	-	-	-	30
Water Flowmeters	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total	<b>36</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>29</b>	<b>43</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>32</b>

### 3.3 Additional Commentary

The following commentary is provided on projects listed in Table 2 as having an annuity of greater than 10%:

- ▶ Repair of the drainage on the Cedar Pocket Dam embankment around the access stairs to valve house has been scheduled to address existing drainage problems
- ▶ The other four renewal projects are based on forecasts of when the associated assets are considered likely to reach the end of their useful life based on their age and typical useful asset life.

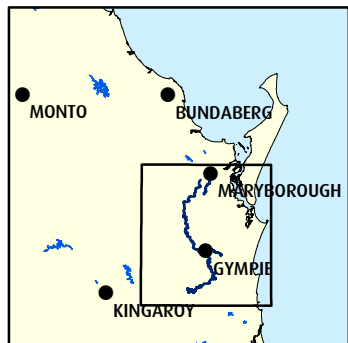
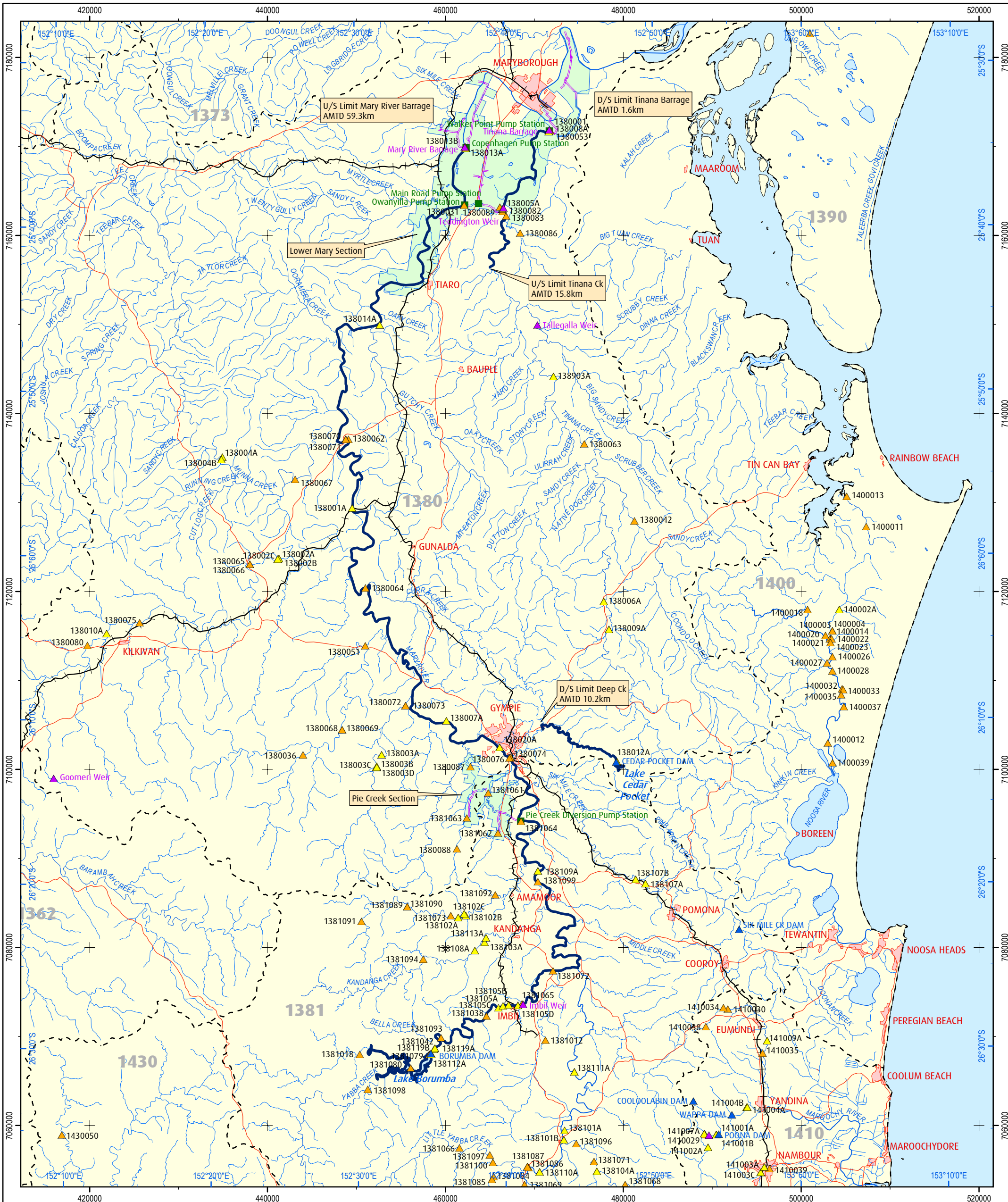
For the forecasted renewal expenditure between 2013/14 and 2016/17, values were compared with Sunwater's renewals projections which were the basis of the SunWater irrigation prices for 2006/07 to 2041/42. It was noted the total value of Seqwater's renewal forecast was approximately 58% of Sunwater's projections. 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

Note: Mary River WSS Scheme Schematic provided, showing location of Cedar Pocket Dam in relation to scheme.



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.

**PRELIMINARY PLAN**

SCALE 1:400,000 (Before Reduction A3)  
0 2 4 8 12 16 20 km

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



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

## Appendix B

# Renewal Projections

Asset Details		Renewal Details			Expenditure Forecast Each Year (\$k)																																	
Parent Asset	Asset Description	Works Description	Comments	Costing Source	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	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
Cedar Pocket Dam	Electricity Supply	Replace	-	Est	-	-	-	-	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30
Cedar Pocket Dam	Elect Reticulation To Valves	Replace	-	DCE	-	-	-	-	-	-	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	-	-	-	-	-	-	-	
Cedar Pocket Dam	Telemetry	Replace	-	DCE	-	-	-	-	-	-	-	34	-	-	-	-	-	-	-	-	-	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cedar Pocket Dam	Water Level Recorder	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	
Cedar Pocket Dam	Embankment	Refurbish	Repair drainage on right bank	FAMP/DCE	-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cedar Pocket Dam	Outlet Valve	Refurbish	Require painting - Outlet Valves	FAMP	-	-	-	-	-	-	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cedar Pocket Dam	Fence	Replace	Replace 80m Fence	FAMP/DCE	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Water Flowmeters	Flowmeters	Replace	Water Meter Renewal Program	-	7	7	6	6	6	6	6	6	6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
<b>Total</b>					<b>7</b>	<b>25</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>48</b>	<b>53</b>	<b>6</b>	<b>2</b>	<b>2</b>	<b>30</b>	<b>32</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	