



**Irrigation Infrastructure Renewal  
Projections - 2013/14 to 2046/47**  
Report - Morton Vale 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 Morton Vale 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**

| <b>WSS Scheme</b> | <b>Tariff Group</b> | <b>Dams</b> | <b>Weirs</b> | <b>Off-Stream Storage</b> | <b>Other Key Assets</b>  |
|-------------------|---------------------|-------------|--------------|---------------------------|--|
| Central Lockyer   | Morton Vale         | NA          | NA           | NA                        | Morton Vale Reticulation,<br>Morton Vale Outlet Works,<br>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;
- ▶ Clarendon Dam Facilities Asset Management Plan (FAMP) 2011; 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 that come under one of the following categories is provided 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.*               |
|---|-----------------------------|------------------------------|----------------------|------------------------|
| Morton Vale Reticulation Outlet Works                 | Refurbish inlet baulks      | 2014/15                      | \$13k                | HAV                    |
| Morton Vale Reticulation Outlet Works                 | Refurbish inlet screens     | 2014/15                      | \$18k                | HAV                    |
| Morton Vale Reticulation Main Channel Isolation Valve | Refurbish valve/s           | 2037/38                      | \$75k                | IA                     |
| Water Meters  | Water Meter Renewal Program | Annually, commencing 2015/16 | \$194k over 31 years | HAV<br>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  |
| Morton Vale Reticulation | -                                    | 31        | -         | -         | -         | -         | -         | -         | -         | 3        | -        | -        | -        | -        | -        | -        | -        |
| Water Flowmeters         | -                                    | -         | 17        | 17        | 17        | 17        | 17        | 17        | 17        | 3        | 3        | 3        | 3        | 3        | 3        | 3        | 3        |
| <b>Total</b>             | <b>0</b>                             | <b>31</b> | <b>17</b> | <b>17</b> | <b>17</b> | <b>17</b> | <b>17</b> | <b>17</b> | <b>17</b> | <b>6</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  |
| Morton Vale Reticulation | -                                    | -        | -        | -        | -        | -        | -        | 75        | -        | -        | -        | -        | 79        | 16        | -        | -        | -        |
| Water Flowmeters         | 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>3</b> | <b>3</b> | <b>3</b> | <b>3</b> | <b>3</b> | <b>78</b> | <b>3</b> | <b>3</b> | <b>3</b> | <b>3</b> | <b>82</b> | <b>19</b> | <b>3</b> | <b>3</b> | <b>3</b> |

### 3.3 Additional Commentary

The following projects, that have a higher than average project value, have been identified as being required as a result of condition and criticality assessment completed as part of the FAMP development process:

- ▶ Refurbishment of inlet baulks as identified in FAMP.
- ▶ Refurbishment of inlet screens as identified in FAMP.

The following commentary is provided on the Main Channel Isolation Valve refurbishment project listed in Table 2 as having an annuity of greater than 10%:

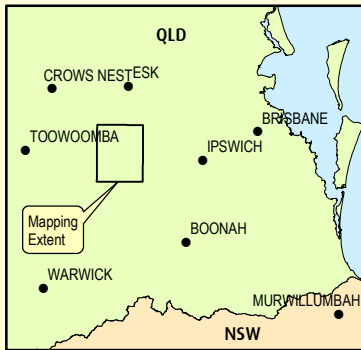
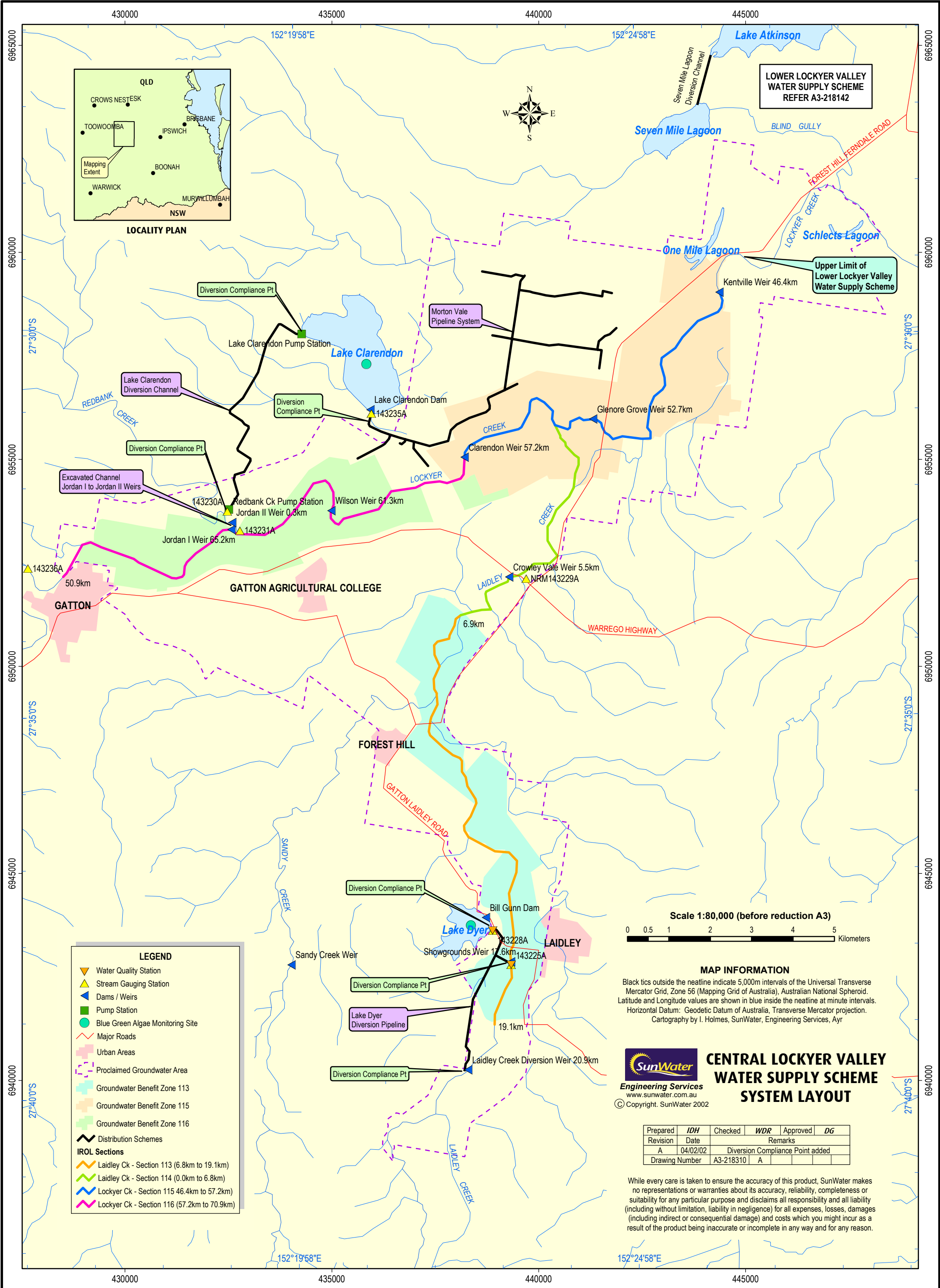
- ▶ The renewal work has been forecasted for when the valve is considered likely to reach the end of its useful life based on its age and typical useful asset life. The cost estimate shown is based on the replacement cost from the asset valuation data.

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 43% of Sunwaters. The difference is believed to be primarily due to:

- ▶ Seqwater projections being based on more up-to-date information.
- ▶ Seqwater projections include no expenditure in the years 2013/14, 2015/16 and 2016/17.



Appendix A  
**Water Supply Scheme Schematic**



**LOWER LOCKYER VALLEY WATER SUPPLY SCHEME**  
 REFER A3-218142

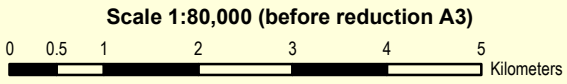
**Upper Limit of Lower Lockyer Valley Water Supply Scheme**

**LEGEND**

- Water Quality Station
- Stream Gauging Station
- Dams / Weirs
- Pump Station
- Blue Green Algae Monitoring Site
- Major Roads
- Urban Areas
- Proclaimed Groundwater Area
- Groundwater Benefit Zone 113
- Groundwater Benefit Zone 115
- Groundwater Benefit Zone 116
- Distribution Schemes

**IROL Sections**

- Laidley Ck - Section 113 (6.8km to 19.1km)
- Laidley Ck - Section 114 (0.0km to 6.8km)
- Lockyer Ck - Section 115 (46.4km to 57.2km)
- Lockyer Ck - Section 116 (57.2km to 70.9km)



**MAP INFORMATION**

Black ticks outside the neatline indicate 5,000m intervals of the Universal Transverse Mercator Grid, Zone 56 (Mapping Grid of Australia), Australian National Spheroid. Latitude and Longitude values are shown in blue inside the neatline at minute intervals. Horizontal Datum: Geodetic Datum of Australia, Transverse Mercator projection. Cartography by I. Holmes, SunWater, Engineering Services, Ayr

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**CENTRAL LOCKYER VALLEY WATER SUPPLY SCHEME SYSTEM LAYOUT**

| Prepared       | IDH       | Checked                          | WDR | Approved | DG |
|----------------|-----------|----------------------------------|-----|----------|----|
| Revision       | Date      | Remarks                          |     |          |    |
| A              | 04/02/02  | Diversion Compliance Point added |     |          |    |
| Drawing Number | A3-218310 | A                                |     |          |    |

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## Appendix B

# Renewal Projections

