



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

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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

WSS Scheme	Tariff Group	Dams	Weirs	Off-Stream Storage	Other Key Assets
Central Lockyer	Morton Vale	NA	NA	NA	Morton Vale Reticulation, Morton Vale Outlet Works, 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
- ▶ Dams Weirs Valuations 2010
- ▶ 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

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 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%.

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

Notes: *Significance: HAV – Higher than Average Value (for period from 2013/14 to 2016/17) IA – Project has an impact on the annuity of greater than 10% (refer Section 3.3 for commentary)

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	-	-	-	-	-	-	-	-	-	-	-	-	14	14	14	14	14
Total	0	31	0	0	0	0	0	0	0	3	0	0	14	14	14	14	14

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	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Total	14	14	14	14	14	14	14	89	14	14	14	14	93	30	14	14	14

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%:

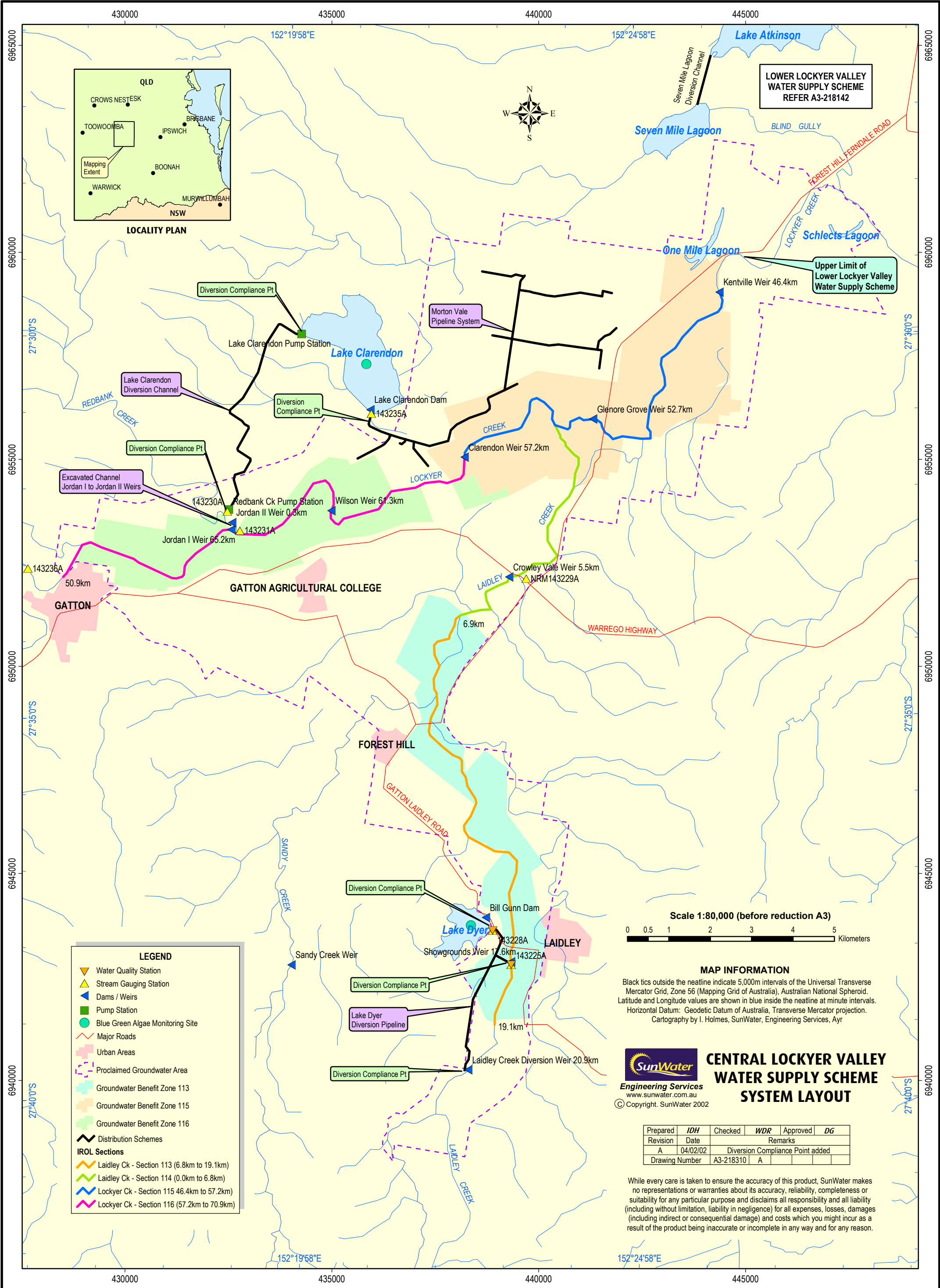
- ▶ The renewal work has been forecasted for when the valve is considered likely to reach the end of its useful life based on its age and typical useful asset life. The cost estimate shown is based on the replacement cost from the asset valuation data.

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**



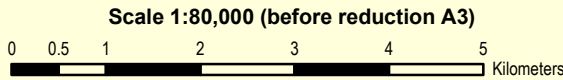
LOCALITY PLAN

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



**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

Parent Asset	Asset Details		Renewal Details			Expenditure Forecast Each Year (\$k)															
	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
Morton Vale Reticulation	Valve, 600Mm Butterfly Tyco	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Morton Vale Reticulation	Valve, 375Mm Sluice Tyco	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Morton Vale Reticulation	5403.10 Isolating Valve	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Morton Vale Reticulation	Handrails & Gate	Replace	-	Workshop - 31 Jan 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Morton Vale Reticulation	Inlet Baulk	Refurbish	Refurbish	FAMP	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Morton Vale Reticulation	Electric Chain Hoist	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Morton Vale Reticulation	Ladders, Handrails & Platform	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-
Morton Vale Reticulation	Trash Screen	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Morton Vale Reticulation	Trash Screen	Refurbish	Refurbish	FAMP	-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Morton Vale Reticulation	Ladder & Platform	Replace	-	Workshop - 31 Jan 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Flow Meters	Water Meters	Replace	Replace batch of 4 meters every year	Est	-	-	-	-	-	-	-	-	-	-	-	-	14	14	14	14	14
Total					0	31	0	0	0	0	0	0	0	3	0	0	14	14	14	14	14

Parent Asset	Asset Details		Renewal Details			Expenditure Forecast Each Year (\$k)															
	Asset Description	Works Description	Comments	Costing Source	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	Valve, 600Mm Butterfly Tyco	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-	-	-
Morton Vale Reticulation	Valve, 375Mm Sluice Tyco	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	16	-	-	-
Morton Vale Reticulation	5403.10 Isolating Valve	Replace	-	Static Asset Data	-	-	-	-	-	-	-	75	-	-	-	-	-	-	-	-	-
Morton Vale Reticulation	Handrails & Gate	Replace	-	Workshop - 31 Jan 2012	-	-	-	-	-	-	-	-	-	-	-	-	20	-	-	-	-
Morton Vale Reticulation	Inlet Baulk	Refurbish	Refurbish	FAMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Morton Vale Reticulation	Electric Chain Hoist	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	21	-	-	-	-
Morton Vale Reticulation	Ladders, Handrails & Platform	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Morton Vale Reticulation	Trash Screen	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-
Morton Vale Reticulation	Trash Screen	Refurbish	Refurbish	FAMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Morton Vale Reticulation	Ladder & Platform	Replace	-	Workshop - 31 Jan 2012	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	-	-
Water Flow Meters	Water Meters	Replace	Replace batch of 4 meters every year	Est	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Total					14	14	14	14	14	14	14	89	14	14	14	14	93	30	14	14	14