Irrigation Infrastructure Renewal Projections - 2013/14 to 2046/47

Report - Lower Lockyer Tariff Group

September 2012

Document Status

Version	Date	Author	Reviewed	PCG Approval
1	20/4/12	AL/GH	MD	
2	23/4/12	GH	MD	
3	19/9/12	GH	MD	

Contents

Table Index

Appendices

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 Lower Lockyer 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
Lower Lockyer	Lower Lockyer	NA	Brightview Weir, Buaraba Creek Weir, O'Reilly Weir, Potters Weir, Sippels Weir	Atkinson Dam	Buaraba Creek Channel, Brightview Channel Rising Main, Buaraba Creek Supply Pipeline, Brightview Channel, Buaraba Creek Diversion Channel, Gauging Stations, Observation Bores, Atkinson Pump Station, Seven Mile Lagoon Diversion Channel, 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;
- Atkinson Dam Facilities Asset Management Plan (FAMP) 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 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%[1].

Table 2 Significant Projects

Asset	Description of Work	Timing of Work	Project Value	Signif.*
Potters Weir	Rehabilitation to repair scour bypass of weir	2013/14	$60k	HAV
Sippels Weir	Rehabilitation to repair scour bypass of weir	2013/14	$72k	HAV
Brightview Weir	Rehabilitation of embankment	2043/44	$2070	IA
Brightview Channel	Desilting	2016/17	$66k	HAV
Brightview Channel	Replacement of fencing (50% shared with adjacent landowners)	2013/14	$47k	HAV
Water Meters	Water Meter Renewal Program	Annually, commencing 2013/14	$870k 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).

[1] 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
Atkinson Dam	40	20	-	-	60	15	30	125	22	21	21	-	-	-	45	-	45
LL Distribution	206	-	-	66	43	141	-	10	78	349	106	-	-	93	77	141	-
Water Flowmeters	158	158	22	22	22	22	22	22	22	16	16	16	16	16	16	16	16
Total	**404**	**178**	**22**	**88**	**125**	**178**	**52**	**157**	**122**	**386**	**143**	**16**	**16**	**109**	**138**	**157**	**61**

NB. Cell contents in this sheet are commonly linked to cells in Renewals sheet

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
Atkinson Dam	112	217	5	-	-	10	-	66	-	-	154	-	21	31	-	-	-
LL Distribution	59	66	94	139	-	-	66	83	187	15	2	210	82	3,137	28	46	66
Water Flowmeters	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
Total	**187**	**299**	**115**	**155**	**16**	**26**	**82**	**165**	**203**	**31**	**172**	**226**	**119**	**3,184**	**44**	**62**	**82**

3.3 Additional Commentary

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

- Repair of scour bypass of Potters Weir by installing sheet pile wall to stop significant leaking.
- Repair of scour bypass of Sippels Weir by installing sheet pile wall to stop significant leaking.
- De-silting of Brightview Channel including repair of drainage benches to ensure efficient transfer of water.
- Replacement of 4km of boundary fencing along Brightview Channel. Cost is 50% of total cost due to cost sharing with adjacent landowners.

The following commentary is provided on the Brightview Weir embankment rehabilitation project listed in Table 2 as having an annuity of greater than 10%:

- The renewal work has been forecasted for when the embankment 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. The renewal work will most likely comprise of rehabilitation of the embankment and be less than the cost of replacement.

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 130% of Sunwaters. The difference is believed to be primarily due to:

- Seqwater projections being based on more up-to-date information.
- Seqwater projections include more expenditure on distribution infrastructure including the repair of Potters and Sippels Weirs.

Appendix A

Water Supply Scheme Schematic

435000 440000 445000 450000 455000 460000

152°24'58"E 152°29'58"E 152°34'58"E

6970000 6965000 6960000 6955000

27°25'0"S 27°30'0"S

LOCALITY PLAN

LEGEND

- Water Quality Station
- Stream Gauging Station
- Dams / Weirs
- Pump Station
- Blue Green Algae Monitoring Site
- Urban Areas
- Major Roads

Distribution Schemes

- Other Distribution Schemes

IROL Sections

- Lockyer Ck - Brightview Weir Storage Area.
- Lockyer Ck - D/S Brightview Weir to Buaraba Ck Junction.
- Lockyer Ck - Buaraba Ck Junction to O'Reillys Weir.
- Atkinson Dam Ponded Area, Brightview Ch & Buaraba PL & Supply Ch.
- Buaraba Ck - D/S of Buaraba Ck Diversion Weir.
- Woolshed Creek.
- Blind Gully.

N W E S

BUARABA CREEK

Buaraba Creek Diversion Weir 15.8km

143224A

Buaraba Creek Diversion Channel

Diversion Compliance Pt

Atkinson Dam Spillway

Diversion Compliance Pt

Buaraba Creek Pipeline

Atkinson Dam

Lake Atkinson

143234A

143222A

Diversion Compliance Pt

Atkinson Dam Pump Station

Buaraba Creek Supply Channel

COOMINYA CONNECTION ROAD

Diversion Compliance Pt

Potters Weir 17.0km

Sippels Weir 23.8km

143210B

BR1 Supply Channel

Brightview Channel

Seven Mile Lagoon Diversion Channel

Diversion Compliance Pt

Diversion Compliance Pt

Diversion Compliance Pt

Seven Mile Lagoon

BLIND GULLY

Diversion Compliance Pt

FORESTHILL FERNDALE ROAD

Schlects Lagoon

One Mile Lagoon

LOCKYER CREEK

Kentville Weir 46.4km

Lower Limit of Central Lockyer Valley Water Supply Scheme

Brightview Weir 36.4km

WOOLSHED CK

Fishway

PLAIN CREEK

Lake Clarendon

CENTRAL LOCKYER VALLEY WATER SUPPLY SCHEME REFER A3-218310

CREEK

LOCKYER

WARREGO HIGHWAY

GATTON AGRICULTURAL COLLEGE

SPRING CREEK

BRISBANE VALLEY HIGHWAY

Lake Wivenhoe

O'Reilly Weir 1.4km

143207A

Fishway (IROL)

LOWOOD

BRISBANE RIVER

Scale 1:75,000 (before reduction A3)

0 0.5 1 2 3 4 5 Kilometers

MAP INFORMATION

Black tics 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

SunWater

Engineering Services

www.sunwater.com.au

LOWER LOCKYER VALLEY WATER SUPPLY SCHEME SYSTEM LAYOUT

Prepared	*IDH*	Checked	*WDR*	Approved	*DG*
Revision	Date	Remarks			
A	30/01/02	CENTRAL LOCKYER VALLEY W.S.S.			
Drawing Number	A3-218142				

Document: Z:\data\rtm_sth_mgt_plans\lockyer\drawings\arcinfo\216142a.mxd
Printed: Wednesday, January 30 2002 01:56:37 PM

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
Atkinson Dam	Office Building	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Atkinson Dam	General Storage	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Atkinson Dam	Project Storage	Replace	-	Est	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Atkinson Dam	Core Shed/Storage	Replace	-	Est	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Atkinson Dam	Fencing	Replace	-	Buss Case 2012	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-
Atkinson Dam	Outlet Works To Pstn	Refurbish	Refurbish metal items and install kickboards around handrails	20yr PW	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Atkinson Dam	Bulkhead Gate	Replace	-	20yr PW	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Atkinson Dam	Monorail & 1 Tonne Crane	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-
Atkinson Dam	Trash Screens	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	116	-	-	-	-	-	-	-	-	-
Atkinson Dam	Trash Screens	Replace	-	20yr PW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Atkinson Dam	Valve, 914Mm Butf	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	-	-	-	-	-	-	-	-	-
Atkinson Dam	Valve, 914Mm Butf	Refurbish	Assess in advance and then refurbish as required	20yr PW	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-
Atkinson Dam	Valve, 914Mm Butf	Refurbish	Gate Valve No1 - OK	20yr PW	-	-	-	-	-	-	-	-	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Atkinson Dam	Access Roads And Carpark	Refurbish	Roadwork - seal road	FAMP	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Atkinson Dam	Spillway Control Structure	Refurbish	Sluice Gate 1 Assembly - Gate unable to be opened. Gear box and gate to be repaired.	FAMP	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Atkinson Dam	Spillway Control Structure	Refurbish	Sluice Gate 2 Assembly - Gate unable to be opened. Gear box and gate to be repaired.	FAMP	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Atkinson Dam	Spillway Control Structure	Refurbish	Discharge Channel - Rock Protection or Gabian	FAMP	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Atkinson Dam	Main Wall Embankment	Refurbish	Refurbishment : Repair to rip rap & access road - major maintenance - when dam low .	20yr PW	-	-	-	-	-	-	-	-	-	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	-	-	-	-	-	-
Atkinson Dam	Main Wall Embankment	Refurbish	Refurbishment : Repair to rip rap & access road - major maintenance - when dam low .	20yr PW	-	-	-	-	-	-	-	-	-	-	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	-	-	-	-	-	-
Atkinson Dam	Observation Bores (15)	Replace	-	Est	-	-	-	-	-	-	-	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Atkinson Dam	Hydraulic Piezometer System	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Atkinson Dam	Pressure Relief Wells (19)	Replace	-	Workshop	-	-	-	-	-	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Atkinson Dam	Piezometer Huts	Replace	-	DW Val 2010	-	-	-	-	-	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Atkinson Dam	Telemetry	Replace	-	DW Val 2010	-	-	-	-	35	-	-	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-
Atkinson Dam	Water Level Recorder	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	-	-	-	-	-	-	-	-	-	-	-	-	-
Atkinson Dam	Outlet Works Switchboard	Replace	-	FAMP	-	-	-	-	-	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Atkinson Dam	Main Building Switchborad	Replace	-	FAMP	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ll Distribution	Buaraba Creek Channel	Refurbish	Desilt channel	Bus Case	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-
Ll Distribution	Brightview Channel Rising Main Flow Meter At 207.30M	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ll Distribution	Buaraba Creek Supply Pipeline Air Valve 1 At 24.40M	Replace	-	Static Asset Data	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ll Distribution	Buaraba Creek Supply Pipeline Air Valve 2 At 1770.30M	Replace	-	Static Asset Data	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ll Distribution	Buaraba Creek Supply Pipeline Double Air Valve 1 At 1551.40M	Replace	-	Static Asset Data	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ll Distribution	Buaraba Creek Supply Pipeline Pipework (Rising Main Only)	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819	-	-	-	-	-	-	-
Ll Distribution	Buaraba Creek Supply Pipeline Sluice Valve 1 At 259.10M	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ll Distribution	Buaraba Creek Supply Pipeline Valve At 1237.50M	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ll Distribution	Brightview Channel Earthworks	Refurbish	Refurbish Channel Banks:- Sandstone country - piping erosion of road and bank.	DCE	-	-	-	66	-	-	-	-	66	-	-	-	-	66	-	-	-	-	66	-	-	-	-	66	-	-	-	-	66	-	-	-	-	66	-	-	-
Ll Distribution	Brightview Channel Fencing	Refurbish	50% of Total Cost (shared with adjacent landowners)	DCE	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47	-	-	-	-	-	-	-
Ll Distribution	Brightview Channel Grids And Gates	Replace	-	Static Asset Data	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ll Distribution	Brightview Channel Access Road	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	77	-	-	-	-	-	-	-	-
Ll Distribution	Brightview Channel Scour Valve At 2263.1M	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ll Distribution	Brightview Weir Embankment	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2158	-	-	-	-	-	-	-
Ll Distribution	Brightview Weir Protection Works	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	267	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Parent Asset	Asset Details Asset Description	Works Description	Renewal Details Comments	Costing Source	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	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
LI Distribution	Buaraba Ck Diversion Channel Earthworks	Refurbish	Refurbish: Channel side slope erosion/piping in fill areas - stabilisation with road base - Costs ($5.5K & $15.9K incorrect)- work put off from 03 for Aitkinson	Bus Case	-	-	-	-	30	-	-	-	-	30	-	-	-	-	30	-	-	-	-	30	-	-	-	-	30	-	-	-	-	30	-	-	-	-
LI Distribution	Buaraba Ck Diversion Channel Gate Control Equipment	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LI Distribution	Buaraba Ck Diversion Channel Solar Panel	Replace	-	WORKSHOP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LI Distribution	Buaraba Creek Weir Valve, 400Mm Gate Keystone	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	-
LI Distribution	Observation Bores	Refurbish	Bore replacement program - Replace 40% of bores, every 10 years	Workshop - 31 Jan 2012	-	-	-	-	-	86	-	-	-	-	86	-	-	-	-	86	-	-	-	-	86	-	-	-	-	86	-	-	-	-	86	-	-	-
LI Distribution	Gauging Stations-Lower Lockyer	Replace	-	Workshop - 31 Jan 2012	-	-	-	-	-	-	-	-	-	40	-	-	-	-	-	-	-	-	-	40	-	-	-	-	-	-	-	-	-	40	-	-	-	-
LI Distribution	O'Reilly Weir R/Bank Access Road	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LI Distribution	Potters Weir Structure	Refurbish	Repair scour bypass	DCE	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LI Distribution	Atkinson Pump Station Control Building	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LI Distribution	Atkinson Pump Station Control System	Replace	-	Est	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-
LI Distribution	Atkinson Pump Station Autodialler	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	-	-	-	-	-	-	-	-
LI Distribution	Atkinson Pump Station Flowmeter	Replace	-	workshop	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	-	-	-	-	-	-	-
LI Distribution	Atkinson Pump Station Switchboard, Ralcrest	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53	-	-	-	-	-	-	-	-	-
LI Distribution	Atkinson Pump Station Pump, 25Mm Sump	Replace	-	workshop	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-
LI Distribution	Atkinson Pump Station Pump Unit 1	Refurbish	-	workshop	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LI Distribution	Atkinson Pump Station Actuator, Elec Rotork	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LI Distribution	Atkinson Pump Station Motor, 75Kw Elec Tyco	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	-	-	-	-	-
LI Distribution	Atkinson Pump Station Pump, Tyco	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54	-	-	-	-	-
LI Distribution	Atkinson Pump Station Pump Unit 2	Refurbish	-	workshop	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-
LI Distribution	Atkinson Pump Station Valve	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26	-	-
LI Distribution	Atkinson Pump Station Motor	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	-	-	-	-
LI Distribution	Atkinson Pump Station Valve	Replace	-	Static Asset Data	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	-	-	-	-
LI Distribution	Sippels Weir - 23.8Km	Refurbish	Repair scour bypass	DCE	72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LI Distribution	Sippels Weir Outlet Valve	Refurbish	Butterfly - 200mm - replace @ 10 years interval- actual cost	20yr PW	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-
LI Distribution	Seven Mile Lagoon Diversion Channel 1568M	Refurbish	Refurbish: Desilt Channel including Desilt of Reg Structure	Bus Case 2012	20	-	-	-	-	20	-	-	-	-	20	-	-	-	-	20	-	-	-	-	20	-	-	-	-	20	-	-	-	-	20	-	-	-
LI Distribution	Seven Mile Lagoon Diversion Channel Fencing	Refurbish	50% of Total Cost (shared with adjacent landowners)	Bus Case 2012	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-
LI Distribution	Seven Mile Lagoon Diversion Channel Grids And Gates	Replace	-	Static Asset Data	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LI Distribution	Seven Mile Lagoon Diversion Channel Regulating Structure	Replace	-	20yr PW	-	-	-	-	-	-	-	-	-	-	-	-	-	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Flow Meters	Water Meters	Replace	FlowMeter Renewal Program	-	158	158	22	22	22	22	22	22	22	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
				Total	**404**	**178**	**22**	**88**	**125**	**178**	**52**	**157**	**122**	**386**	**143**	**16**	**16**	**109**	**138**	**157**	**61**	**187**	**299**	**115**	**155**	**16**	**26**	**82**	**165**	**203**	**31**	**172**	**226**	**119**	**3184**	**44**	**62**	**82**