



**Lower Murray Water**  
Exposure Draft Water Plan  
2008-09 to 2012-13

July 2007

**Part C**

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# C1. Outcomes for First Regulatory Period

## C1.1 Service standards and other outcomes

LMW has met outcomes or made progress in line with expectations in the Statement of Obligations, services standards, environmental obligations, water quality, and other obligations and initiatives outlined in the inaugural Water Plan 2006-07 – 2007-08.

Table 1 summarises LMW's progress against other outcomes for the first regulatory period, with Appendix A providing the detail.

**Table 1 Progress in Delivering Outcomes**

<b>Outcome</b>	<b>Progress</b>	<b>Comment</b>
Statement of Obligations	Ongoing	<b>Refer to Appendix A</b>
Service Standards	Being Developed	No Service Standards were proposed for the first regulatory period. LMW is developing a Customer Charter for rural services, a draft to be submitted to the ESC by 2 July 2007
Unbundling of Water Entitlements	Completed	The Unbundling of water entitlements took effect from 1 July 2007, however LMW has introduced changes to tariffs from 1 July 2006. This was in direct response to customer community concerns about price increases when water permanently transfers out of an Irrigation District.

## C1.2 Delivery of key capital projects

Table 2 summarises progress on key capital projects planned for the first regulatory period.

**Table 2 Delivery of key capital projects**

<b>Project</b>	<b>Progress</b>	<b>Comment</b>
Robinvale High Pressure System	In progress	Contracts have been awarded for the supply of pipe.  Tenders are being assessed for the supply of pump sets. Concept designs completed various field studies are underway.
Water Wheel/Meter Replacements	Ongoing	Surface water diverters meter replacement for irrigation is excepted to

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be completed within 2 years.

Irrigation district programs are expected to take up to 10 years to complete.

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### C1.3 Actual capital expenditure associated with the delivery of outcomes

Table 3 shows the capital expenditure forecast for the first regulatory period compared with updated actual and forecast capital expenditure.

**Table 3 Capex associated with outcomes \$M 1/1/07**

	<b>Forecast Capex 1<sup>st</sup> Water Plan</b>	<b>2006-07 Actual Capex</b>	<b>Revised 2007-08 Forecast Capex</b>	<b>Total Capex</b>	<b>Comment</b>
Irrigation	<b>31.38</b>	6.91	24.69	<b>31.60</b>	Robinvale project on track
Drainage	<b>0.24</b>	0.21	0.27	<b>0.48</b>	Brought forward pump renewals
Domestic & Stock	<b>0.98</b>	0.32	0.34	<b>0.66</b>	Projects removed from program
Surface Water Diversions	<b>1.76</b>	0.75	1.00	<b>1.75</b>	Meter program on track
Corporate	<b>0.86</b>	0.23	1.60	<b>1.83</b>	Construction cost escalation above forecast.
<b>Total</b>	<b>35.22</b>	8.42	27.90	<b>36.32</b>	

### C1.4 Changes in legislative obligations

No relevant changes in legislation impact the Rural business.

### C1.5 Drought Related Outcomes

Goulburn Murray Water (GMW) determines an annual allocation for bulk entitlement holders in the Murray system based on storage levels. Irrigation is limited to the bulk entitlement allocation limit, unless irrigators require a limited term transfer from the water trading market. GMW has announced zero allocation for 2007-08, which will restrict irrigation unless there is a carry over allocation from 2006-07 by individual irrigators or water is acquired through limited term transfer.

If storage levels improve GMW can increase the allocation. LMW has budgeted on an increased allocation from 25% in September 2007 to 60% 2008.

Increased allocations from permanent trades has primarily been for surface water diversions and has averaged 20,000ML in the last 5-7 years.

## C2. Service Outcomes

LMW service outcomes are documented in:

- ▶ Customer Charter (Rural) – Draft Only
- ▶ Statement of Obligations
- ▶ Environmental Obligations
- ▶ Water Quality Obligations
- ▶ Other Obligations

LMW has submitted a draft Customer Charter to the ESC, which contains proposed service outcomes for the regulatory period.

The following section overviews customer consultation on service outcomes and summarises LMW's key service outcomes for the regulatory period.

### C2.1 Overview of Customer Consultation

LMW Customer consultation includes:

- ▶ Customer Service Advisory Committees (CSAC)
  - Merbein Irrigation District
  - Red Cliffs Irrigation District
  - Robinvale Irrigation District
  - Millewa Rural District
  - Surface Water Diverters
- ▶ Public Notices
- ▶ Customer Complaint Tracking

LMW's Customer Service Advisory Committees typically meet 2 or 3 times a year. There have been 12 meetings since the first Water Plan. Topical issues covered over the various meetings included master plans for the irrigation districts, irrigation start/stop schedules, unbundling of water entitlements, water availability and service standards.

At the last meeting held for each committee the following was covered:

- ▶ Operating costs and programs
- ▶ Capital expenditure summary and priorities
- ▶ Renewals vs RAB approach to pricing
- ▶ Revenue projections
- ▶ Tariff increases

During 2006 LMW initiated a project to introduce a system to provide formal tracking and reporting on key customer interactions. The emphasis is on tracking customer complaints through to resolution, but

all significant customer interactions are tracked to assist in improving corporate performance and reporting. Some workflow improvements have formalised and support key customer related processes.

A new Telephone Management System and a LMW Customer Call Group structure. This has improved Customer Service and enabled staff peak loads to be better managed.

### **C2.1.1 Service Standards**

LMW has completed a draft of its Customer Charter (Rural) and submitted it to the ESC, incorporating the requirements of the Customer Code.

The Charter includes core service standards that are proposed for rural services. These standards are to be reviewed by the ESC.

### **C2.1.2 Guaranteed Service Levels**

GSL's were listed for discussion by all Customer Service Advisory Committees. Refer to C2.4.1.

## **C2.2 Regulatory and government obligations – Business as usual**

The following section deals with outcomes that LMW will deliver, which are due to obligations placed on the business from government and regulatory agencies.

### **C2.2.1 Statement of Obligations**

LMW's Statement of Obligations was recently reissued, for commencement on 1 July 2007 and outlines most of the major obligations for compliance by LMW during the regulatory period.

LMW has no new obligations added to the Statement of Obligation for the 2008-09 – 2012-13 regulatory period, however there has been several modifications to the existing Statement of Obligations since the 2006-07 – 2007-08 Water Plan.

Obligations introduced since the first regulatory period are set out in Table 4.

**Table 4 Obligations introduced during first regulatory period**

<b>Title</b>	<b>Obligations</b>
Research and Knowledge	Must identify research needs, priorities and how to meet needs.
Sustainability	Responsibilities to improve sustainability beyond water savings.
River Health	Incorporate environmental management obligations to LMW through plans agreed by LMW to protect, resolve or improve waterways and wetlands within LMW System.
Smart Water Fund	Participate in Smart Water Fund.



Table 5 lists LMW's obligations in the Statement of Obligations dated with associated financial implications.

**Table 5 Statement of Obligations**

Obligation Topic and Drivers	Target and Outcomes	Financial implications (\$000's 1/1/07)	
		Capex	Opex
<b>Corporate Governance</b>	Refer C2.2.1.1	Nil	Nil
<b>Preparation &amp; Delivery of Water Plan</b>	LMW must deliver a water plan to the ESC before the end of the second review period.	Nil	250
<b>Customer and Community Engagement</b>	LMW will engage its customers and community in planning processes, so that the services it provides reflect the needs and expectations of customers.  Through the Customer Charter and consultation through the Water Plan process LMW meets this obligation  Refer to C2.3	Nil	468
<b>Managing Risks</b>	Refer C2.4.1.2	Nil	14
<b>Responding to Incidents and Emergencies</b>	Refer C2.4.1.3	Nil	Nil
<b>Managing Assets</b>	LMW manages its assets through it's Asset Management Plan. Through its asset maintenance system, LMW holds all relevant information.	Nil	867
<b>Conserving and Recycling Water</b>	Refer C2.4.1.4	Nil	Nil
<b>Efficiency of Rural Distribution Systems</b>	Implementing programs to assess efficiency of LMW's rural distribution system, and reduce losses.	tba	tba
<b>Responding to Drought</b>	Drought response plan is developed	Nil	75
<b>Regional and Local Government Planning</b>		Nil	Nil
<b>Research and Knowledge</b>		Nil	Nil
<b>Sustainable Management</b>	Response to Climate Change	Nil	Nil
<b>Environmental Management Systems</b>		Nil	Nil
<b>Blue-Green Algae Blooms</b>		Nil	Nil
<b>River and Aquifer Health</b>		Nil	Nil
<b>Monitoring River Health</b>		Nil	Nil
<b>Providing Concessions and Rebates</b>		Nil	Nil
<b>Compliance</b>		Nil	Nil

### **C2.2.2 Corporate Governance**

LMW is a State owned Government Business Enterprise. The Water Governance Act varied the form and title of LMW and established new governance arrangements that took effect from 1 July 2007. Lower Murray Urban and Rural Water Authority is now Lower Murray Urban & Rural Water Corporation.

LMW continues to operate under the Water Act 1989 and is responsible to the Minister for Water, Environment and Climate Change and now the Treasurer for the governance and performance of the Corporation.

The Board has the following Committees to assist in its governance role:

- ▶ Audit Committee
- ▶ Governance Committee

### **C2.2.3 Risk**

Although LMW has a comprehensive risk register, during the first regulatory period work has been undertaken to revise plans and processes to ensure that risk management is consistent with AS/NZS 4360:1999 Risk Management.

LMW's risk management framework is an ongoing process of identification, analysis, evaluation, treatment, monitoring and review. The process uses a generic consequence, likelihood and risk matrix and is applied to all areas across the business, except Water Quality which utilises HACCP. The risk profile is regularly reviewed and updated.

LMW has worked to establish a risk management culture that recognises risks in daily activities, which are appropriately addresses and managed.

### **C2.2.4 Emergency Management Plan (EMP)**

LMW is involved in a number of Emergency Management Planning actions, which it is obligated to complete under the Statement of Obligations.

LMW also has its own internal Emergency Management Plan consisting of numerous contingency plans, databases and standard operating procedures and participants to a number of Municipal Emergency Plans.

LMW's Risk Management Policy provides a corporate framework with more specific Contingency Plans developed for critical assets such as pump stations. LMW has improved the availability and management of risks through coordinated file management on the intranet and document management system.

## C2.2.5 Environment obligations

**Table 6 Environment Obligations**

Obligation Topic and Drivers	Target and Outcomes	Financial implications (\$000's 1/1/07)	
		Capex	Opex
3.0 Catchment, Waterway and Groundwater Management			
3.1 Irrigation Discharges	Continue to work with Mallee CMA to assist irrigators to adopt best practice irrigation methods	Nil	Nil
	In conjunction with the Mallee CMA and EPA develop appropriate monitoring regimes for irrigation drainage discharges.	Nil	50
3.2 Environmental Flows	Nil	Nil	Nil
3.3 Waterway Management	Nil	Nil	Nil
3.4 Releases from Storages	Nil	Nil	Nil
3.5 Groundwater Management	Nil	Nil	Nil
3.6 Saline Discharges	Monitor irrigation drainage discharges to surface waters	Nil	75
	Encourage continued recycling of drainage water were practicable.	Nil	Nil

## C2.3 New Obligations

There are no new obligations proposed in the second regulatory period for the rural business of LMW.

## C2.4 Service Standards

LMW is in the process of developing a Customer Code and Customer Charter. Over the development of the code and charter, LMW has met with its Customer Service Advisory Committees to consult on the content of the documents, specifically service standards. Service standards are set out in Appendix B.

### C2.4.1 Guaranteed Service Levels

LMW is not proposing to introduce Guaranteed Service Levels as service levels have not been clarified and history does not exist for the service standards agreed on. This option was discussed with customers during Customer Service Advisory Committee meetings in April 2007.

## C3. Revenue Requirement

### C3.1 Overview of revenue requirement

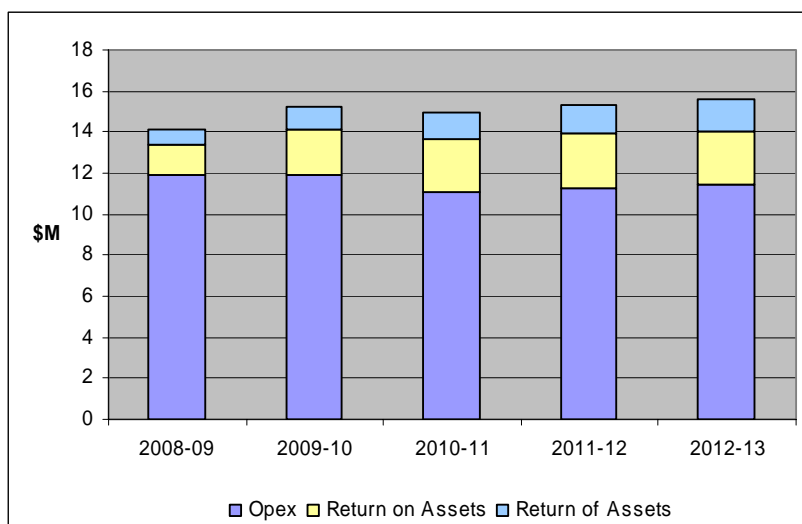
LMW's revenue requirement increases gradually over the regulatory period. Operational expenditure remains relatively stable, however regulatory depreciation and return on assets increase due to LMW's capital expenditure plan. Renewals annuity is zero due to LMW's move to a RAB approach for pricing.

LMW's derivation for revenue requirement is in Table 7 and Figure 1 below.

**Table 7 Total Revenue Requirement (\$M 2007-08)**

	2008-09	2009-10	2010-11	2011-12	2012-13
<b>Revenue requirement</b>					
Operating expenditure	11.95	11.95	11.10	11.27	11.42
Return on assets to 30/6/08	0.94	0.89	0.85	0.81	0.77
Regulatory depreciation of assets to 30/6/08	0.54	0.52	0.52	0.52	0.51
Return on new assets	0.51	1.31	1.70	1.82	1.87
Regulatory depreciation of new assets	0.22	0.58	0.78	0.90	0.99
Renewals annuity	-	-	-	-	-
Adjustments from last period	-	-	-	-	-
Benchmark tax liability	-	-	-	-	-
<b>Total revenue requirement</b>	<b>14.17</b>	<b>15.25</b>	<b>14.95</b>	<b>15.31</b>	<b>15.56</b>

**Figure 1 Revenue Requirement 2008-09 – 2012/13 (\$M1/7/07)**



## C3.2 Operating Expenditure

### C3.2.1 Overview of operating expenditure

LMW’s planned regulatory operating expenditure totals \$57.69 million over the regulatory period. The planned operating expenditure reflects initiatives expected to yield efficiency savings of 7.7% over the regulatory period. All expenditure is expressed in real 2007-08 dollars unless otherwise specified.

Figure 2 shows total operating expenditure by product since 2004-05 and forecast total expenditure over the regulatory period.

**Figure 2 Actual and planned operating expenditure 2004-05 – 2012/13**

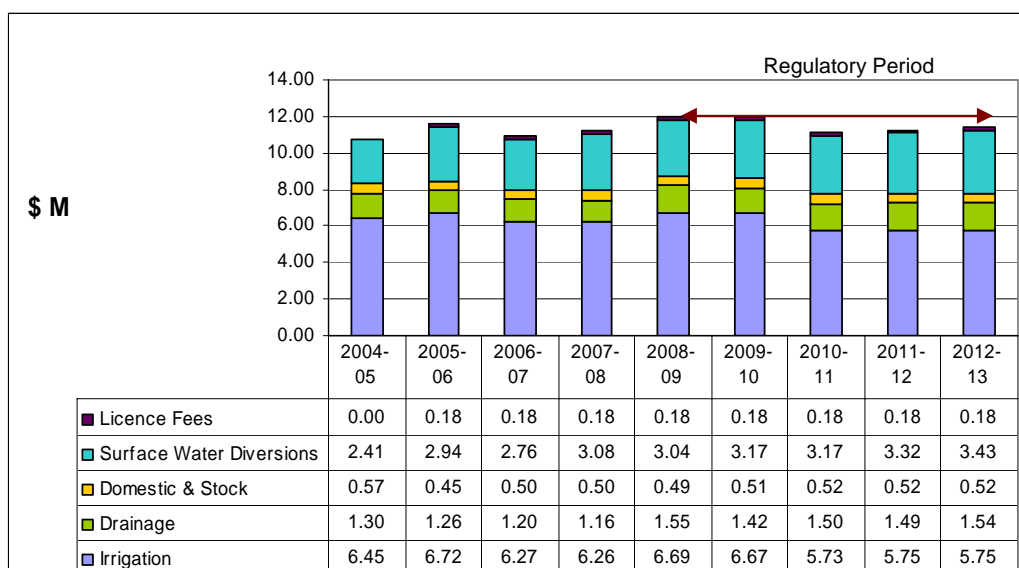
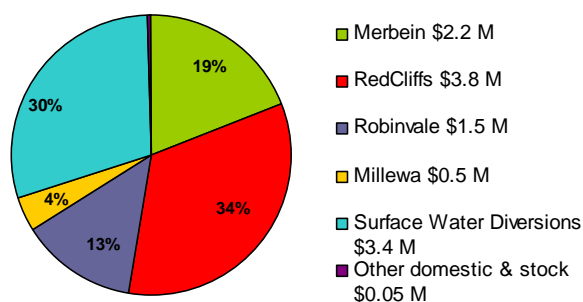


Figure 2 shows total operating expenditure remains fairly stable in aggregate over the regulatory period as a reduction in operations expenses associated with irrigation efficiencies has been offset by increased bulk water charges linked to an increase in water entitlements for surface water diverters. Total operating expenditure in the rural business has been reasonably consistent since 2004-05.

Figure 3 shows the breakdown of average annual expenditure by District over the regulatory period

**Figure 3 Average Annual Operating Expenditure by District**



Red Cliffs, Merbein and Robinvale account for 66% of operating expenditure for irrigation and drainage services. Surface water diversions account for 30% of costs with the remaining 5% representing domestic and stock services, predominantly the Millewa.

Figure 4 is the Operating Expenditure Summary from the ESC template. As previously indicated in Section C2, LMW has no new obligations for the rural business.

**Figure 4 ESC Operating Expenditure Summary**

<b>Operating Expenditure Summary</b>	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Business as Usual	10.73	11.38	10.72	10.99	11.77	11.77	10.92	11.09	11.24
Licence fees	-	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
<b>Total prescribed BAU opex</b>	<b>10.73</b>	<b>11.56</b>	<b>10.90</b>	<b>11.17</b>	<b>11.95</b>	<b>11.95</b>	<b>11.10</b>	<b>11.27</b>	<b>11.42</b>

The licence fees of \$180,000 per annum represents LMW’s state environmental contribution. The contribution goes towards funding initiatives that support the sustainable use of water. The costs are incorporated in prices to partially account for environmental impacts of providing water. The contribution will remain constant throughout the regulatory period.

**C3.2.2 Key drivers of operating expenditure**

Whilst there are no new obligations in LMW’s rural business, new investment at Robinvale, Red Cliffs and Merbein will result in changes in operational practices and reductions in people required to operate irrigation systems.

Operating expenditure declines over the regulatory period, following the replacement of low pressure irrigation channels with a high pressure system at Robinvale, a medium pressure system at Merbein and the upgrade of pumps and automatic controls at Red Cliffs. Growth relating to new developments is increasing operating costs for diversions. Operating expenditure for domestic and stock remains stable over the regulatory period.

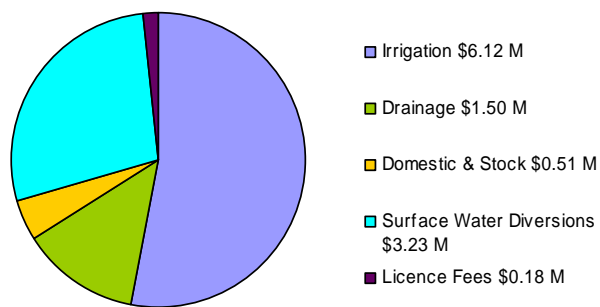
### C3.2.3 Justification of forecast expenditure levels

Drivers of operational expenditure and changes relating to capital expenditure are best related at a product and system level.

#### Historical and Future Expenditure by Product

Figure 5 shows average annual forecast operating expenditure over the regulatory period by product.

**Figure 5 Average Annual Operating Expenditure by Product**



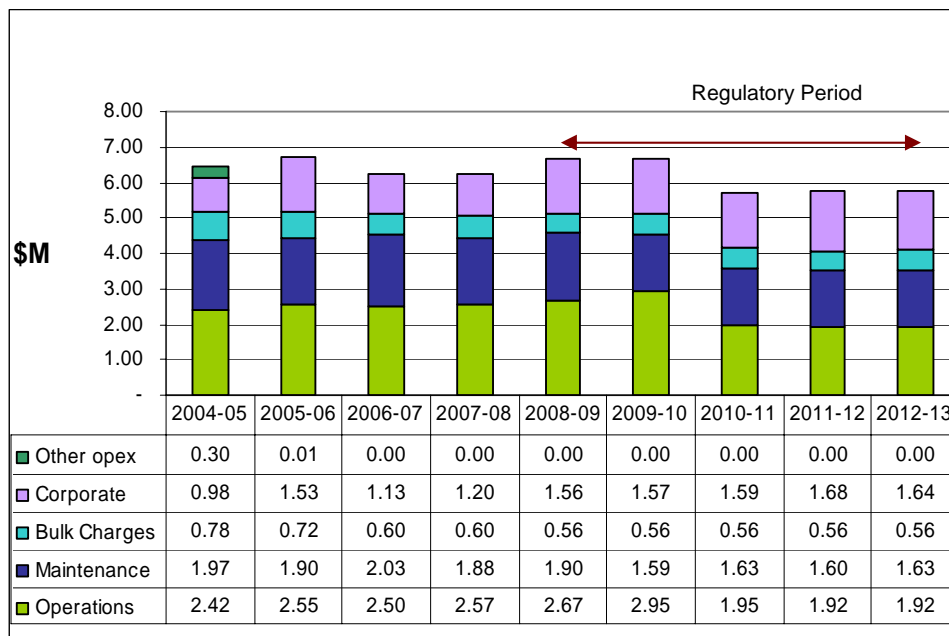
Irrigation and surface water diversions account for 81% of expenditure. Corporate related costs are allocated to each product based on the number of assessments.

A more detailed analysis of BAU costs and drivers for each product and system follows.

#### Irrigation

Irrigation operating expenditure accounts for \$30.6 million or 53% of BAU operating expenditure. Figure 6 shows the composition of irrigation expenditure for the period 2004/05 to 2012/13.

**Figure 6 Irrigation BAU Opex 2004-05 – 2012/13**

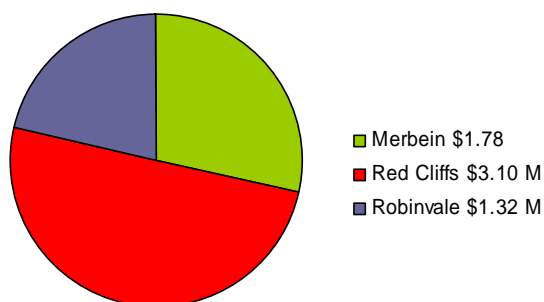


The declining maintenance costs from 2009-10 relate to savings associated with the completion of capital investment projects at Robinvale, Merbein and Red Cliffs.

LMW expects to reduce the number of Full time Equivalents (FTEs) for rural operations room from 9 to 3 FTEs. Savings are attributed to automated ordering and regulators, remote meter reading and reduced maintenance of leaks associated with pipe joint failure and channel patching in the old system.

Figure 7 shows the average annual irrigation operating expenditure for each system.

**Figure 7 Irrigation Average Annual Opex by System**





Approximately half of LMW's irrigation operating expenditure is at Red Cliffs, which is the biggest system by area irrigated and volume delivered. LMW is proposing to replace the mechanical and electrical equipment in the main pump station. The new pumps will be low maintenance pumps with high efficient motors. Switchboards will include variable speed drives to optimise energy use and reduce stresses on pumping equipment. Savings are due to automated operating controls associated with automated regulations.

The most significant investment and change is in the Robinvale system with 73km of earth channel and concrete pipe being replaced with a closed high pressure system and 5 pump stations being replaced with a single pump station. Water losses are expected to reduce from 13% to 2% with the new system, which represents a potential saving of up to 2000 ML per annum.

Savings for the Robinvale system are linked to automated control systems and reduced maintenance associated with leaking rubber ring joints and desilting and patching of channels. The high-pressure system will increase energy costs for LMW, however this will be partially offset by reductions in on-farm energy costs.

The delivery of reliable high-pressure water to irrigators in the Robinvale district will reduce on farm energy costs by an estimated \$30/ML as irrigators do not need to own or operate pumps. It will also potentially improve the value of Robinvale farms as the reliable water supply improves scope for crops such as winter crops, year round vegetable crops and a better selection of permanent plantings such as olives and citrus.

LMW may need to consider tariff incentives to maximise usage of off-peak power.

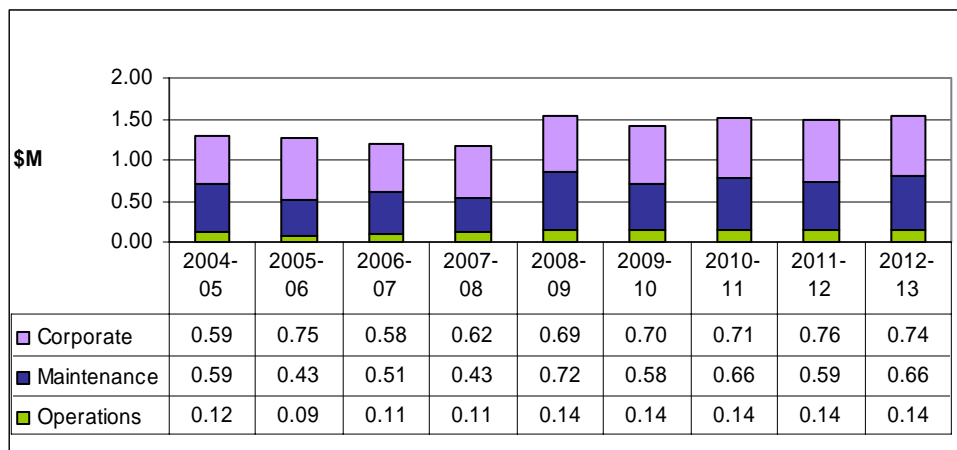
The long term goal is for Merbein to move towards a high pressure system, however the current NPV analysis does not justify this at this time. This Water Plan proposes to replace the main irrigation channel (earth and concrete) with a closed system and replace two pump stations with a single pump station incorporating automated controls.

Benefits include reduced water losses (estimate 1200 ML per annum), automation of controls and reduced maintenance. The current system availability is approximately 75% due to maintenance requirements on the existing channel. The new pipe and pumps will provide continuous availability, which may facilitate crop options such as winter crops. On farm benefits include improved water quality (weed and algal growth in the channel block outlets and or customer pumps).

### **C3.2.4 Drainage**

Drainage operating expenditure accounts for \$7.5 million or 13% of BAU operating expenditure. Figure 8 shows the composition of drainage expenditure for the period 2004-05 to 2012-13.

**Figure 8 Drainage BAU Opex 2004-05 – 2012/13**



LMW is proposing to develop a drainage strategy as the role of the drainage system is changing with improved irrigation practices. The sub surface drainage system was designed to collect excess water from flood irrigation. Drainage water is captured and transferred to evaporation basins, floodplains or waterways.

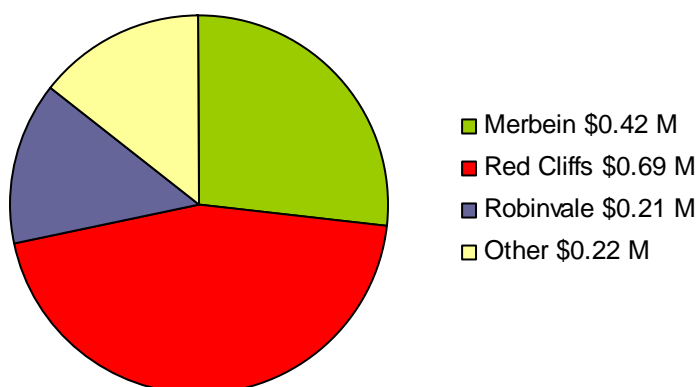
Drainage maintenance involves the removal of blockages caused by calcification and tree roots and repair of pipes. LMW is proposing to analyse the history of blockages and age of infrastructure. The increase in expenditure planned for 2008-09 funds CCTV assessment of prioritised assets.

Analysis of drainage asset condition and service level requirements will help to direct the future strategy as the majority of assets are nearing the end of their expected life.

Opportunities to recycle drainage water are also being investigated by some irrigators. Irrigation using drainage water already occurs at Boundary Bend and in the Red Cliffs irrigation district.

Figure 9 shows the average annual drainage operating expenditure by System.

**Figure 9 Drainage Average Annual Opex by System 2008-09 – 2012/13**

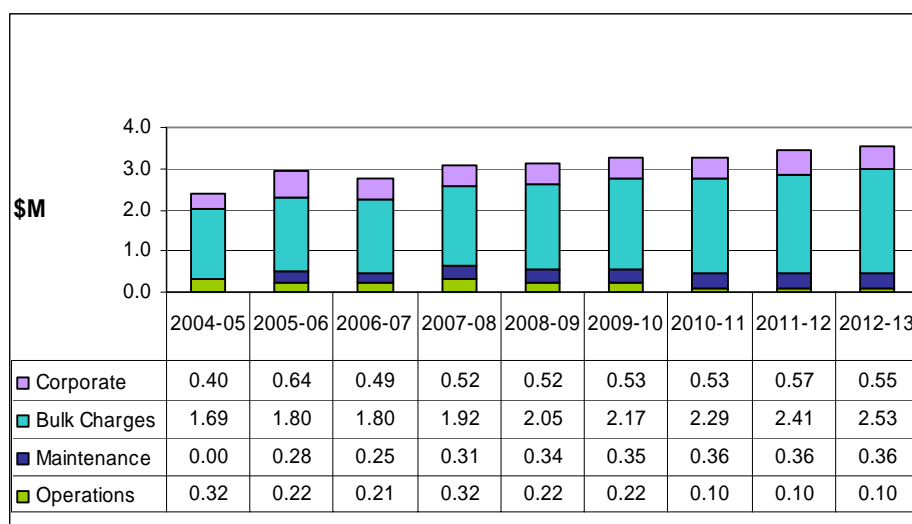


System drainage costs are proportional to the size of the irrigation system. Annual expenditure for drainage is consistent throughout the regulatory period for each system.

### C3.2.5 Surface Water Diversions

Surface water diversion operating expenditure accounts for \$16.64 million or 29% of total operating expenditure. Figure 10 shows composition of surface water diversion expenditure for the period 2004-05 to 2012-13.

**Figure 10 Surface Water Diversions BAU Opex 2004-05 – 2012/12**



Surface water diversions occur between Nyah and the South Australian border, where there is increasing development of relatively high value crops, such as olives and almonds. LMW's role is to set development requirements based on water capacity and crop type.

LMW approves water use licences for water extracted directly from the Murray River in accord with development requirements. LMW is installing electro-magnetic flow meters with remote meter reading capability. The slight increase in maintenance forecast is for maintenance of the meters. This is offset by a decrease in operations cost as meter reading staff will be reduced by 2 FTEs when remotely read meters are installed.

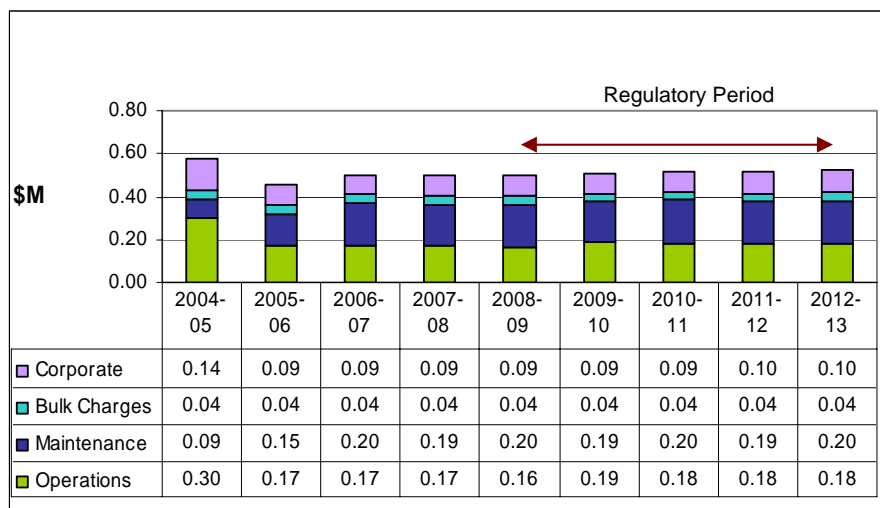
The increase in bulk charges relates to the increase in water entitlements associated with growth.

The increase in corporate costs is related to an increase in the number of assessments and a general increase in the corporate overhead.

### C3.2.6 Domestic & Stock

Domestic and stock operating expenditure accounts for \$2.53 million or 4% of total operating expenditure. Figure 11 shows composition of domestic and stock expenditure for the period 2004-05 to 2012-13.

**Figure 11 Domestic and Stock BAU Opex 2004-05 – 2012-13**



The Domestic and Stock service provides non-potable water supply via a 430km pipe, predominantly at Millewa. The water supplies dry land farms with stock (mostly sheep) and non-potable domestic uses such as gardens in three small towns.

Bulk Water charges are paid to Goulburn Murray Water. Operations and maintenance costs are linked to pumping and air scouring of pipes, as raw water is turbid and contains organics.

LMW is planning a water treatment facility (probably lagoons) to reduce turbidity and organics.

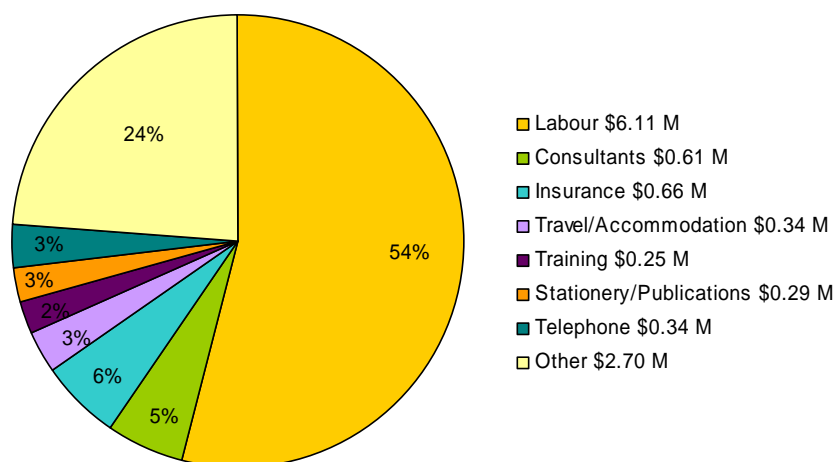
### C3.2.7 Corporate

Corporate related costs such as finance and human resources, are allocated 60:40 to the urban and rural businesses respectively, IT has a 90:10 ratio.

Corporate operating expenditure accounts for \$14.84 million or 26% of total rural operating expenditure during the regulatory period. Corporate costs are allocated to each product based on the number of assessments.

LMW is forecasting an increase in corporate costs associated with increases in labour costs at 4.5%.

**Figure 12 Corporate Operating Expenditure 2008-09 – 2012/13**



### C3.2.8 Productivity Improvements over the period

Productivity improvements associated with investments are discussed above in relation to each product and district. The key productivity improvements relate to the replacement of major irrigation infrastructure, installation of meters and an integrated automated control system.

The \$9.3 million metering program over 10 years, has been introduced in response to loss reduction targets in the Statement of Obligations. The Federal government is also introducing a national standard for irrigation meters.

Current irrigation meters include waterwheels and mechanical meters that do not meet the proposed national standard accuracy requirements and require manual meter reading and policing. Meter reading occurs in line with water ordering (which can be daily for some customers). The average life of mechanical meters is about 7 years. Problems with corrosion have affected the reliability of these meters. Waterwheels require ongoing maintenance and are vulnerable to water theft.

The new electro-magnetic meters will have an accuracy level of +/- 0.5% and allow remote meter reading. They have a minimum life of 15 years but can last up to 30 years.

Savings of up to \$300,000 per year are anticipated from remote meter reading and a further \$300,000 per year from reduced maintenance. These cost savings are net of operation increases associated with Robinvale.

The operations area is expected to reduce from 9 FTEs to 3 FTEs because of the automation of control systems in the irrigation districts. Manual operation of the pumps and regulators from the operations centre will no longer be required. The FTE reduction will occur in 2010 when the SCADA systems are bought on line.

Work methods in the rural business continue to be reviewed since the merger, resulting in more streamlined information systems, operations and improved asset management. Improved condition monitoring regimes, repair / replace decisions and pipe repair methods will reduce lifecycle costs.

Energy contracts are currently different for the urban and rural businesses but will come due for renewal during the regulatory period. LMW will be seeking to optimise energy costs through a single supplier. Increased costs are being forecast by the energy industry, which has been allowed for in this Water Plan.

### Efficiency Case Study – Risk based condition assessment

The merger has prompted a review of asset management practices in the rural business. Sunraysia Rural Water Authority used to inspect the 13 irrigation pump stations daily, checking running conditions of equipment. LMW has reduced the frequency of inspections by more than half with no adverse consequences in pump station failure. The labour costs have reduced by more than 50%, which has improved utilisation of LMW maintenance crews and reduced reliance on contractors.

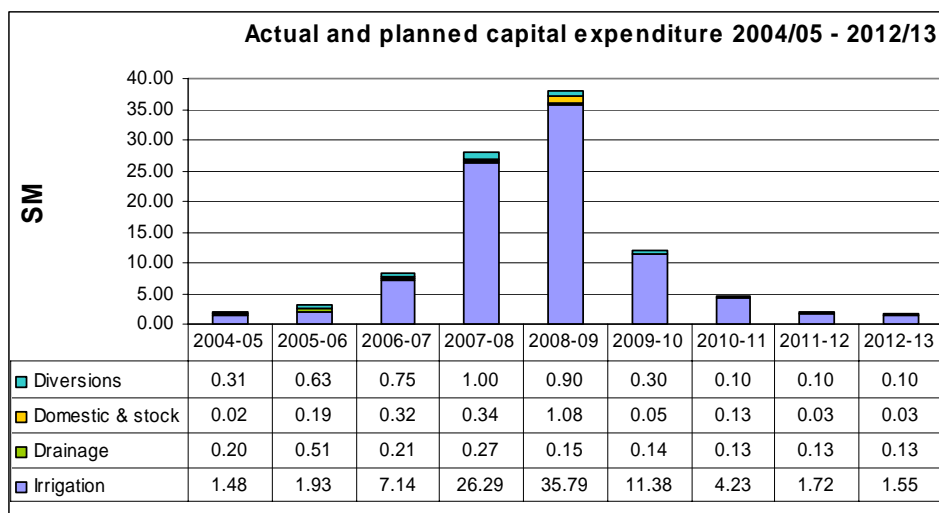
## C3.3 Capital Expenditure

### C3.3.1 Overview of Capital Expenditure

There are approximately 130 active projects during the regulatory period. Details are provided in the information templates in Appendices C.

Figure 13 shows the forecast capital expenditure for the regulatory period in the context of actual expenditure over the last four years and the long-term forecast.

**Figure 13 Actual and planned capital expenditure 2004-05 – 2012-13**



The investment profile is quite variable due to the renewal and upgrade of significant irrigation assets during the regulatory period. Significant projects include:

- ▶ Robinvale high pressure system - \$14.8 M (\$40.5 M total project value)
- ▶ Merbein pipeline and pump station - \$22 M
- ▶ Red Cliffs pump station replacement - \$6 M

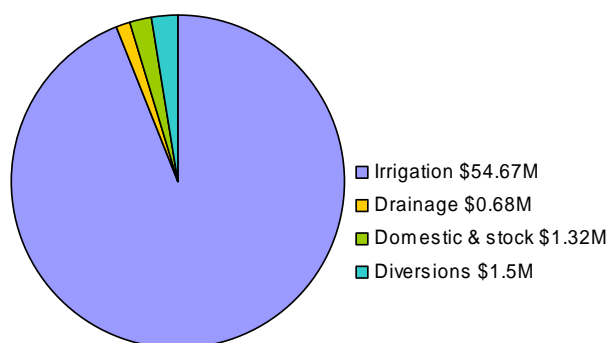
- ▶ Meter and waterwheel replacement - \$9.3 M

The remaining profile includes minor renewals based on known condition assessment eg meter replacement program. LMW's condition monitoring program is ongoing and may result in renewal requirements, which have not been specified in the Capital Plan. LMW is considering an allocation of \$400,000 per annum for unspecified reactive works.

The Robinvale business case has had Treasury Gateway approval. The Red Cliffs and Merbein schemes will need to be submitted through the Gateway approval process but have been supported by the respective Customer Service Advisory Committees. LMW has sought funding assistance of up to \$11 million from the Federal Government for the Merbein project as a water conservation initiative.

Figure 14 shows that the majority of investment is in irrigation.

**Figure 14 Capex by product 2008-09 – 2012-13**



The following section discusses the key drivers and major investments.

### C3.3.2 Key drivers of capital expenditure

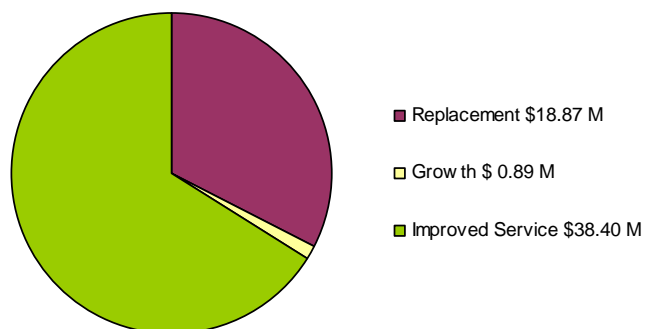
Figure 15 summarises capital expenditure by cost driver. Renewals and improved service levels account for the majority of investment. There is no capital expenditure relating to new obligations during the regulatory period.

**Figure 15 ESC Cost Driver Summary**

Capital Expenditure Summary	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Net capital expenditure - renewals					-	-	-	-	-
Net capital expenditure - growth					7.49	4.86	4.59	1.98	1.81
Net capital expenditure - improved service					12.83	7.01	-	-	-
Net capital expenditure - compliance					-	-	-	-	-
Government contributions					11.51	-	-	-	-
Customer contributions					6.10	-	-	-	-
<b>Total prescribed BAU capex</b>					<b>37.92</b>	<b>11.87</b>	<b>4.59</b>	<b>1.98</b>	<b>1.81</b>
Regulatory Depreciation					0.22	0.58	0.78	0.90	0.99
Return on assets					0.50	1.29	1.66	1.77	1.80
Gifted Assets					-	-	-	-	-
Proceeds from disposals					0.32	0.32	0.32	0.32	0.32

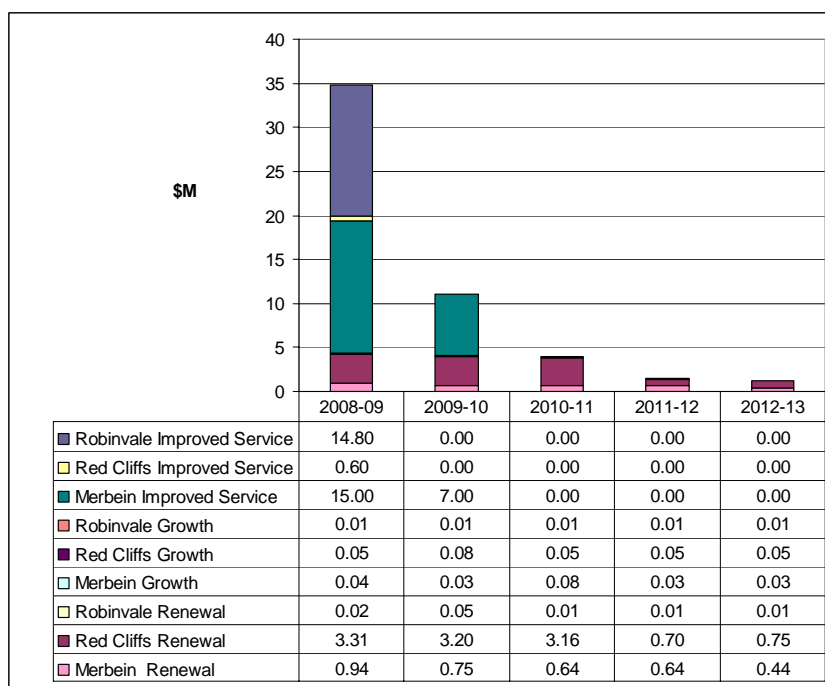
Figure 16 shows drivers for capital expenditure.

**Figure 16 BAU Capex by Driver 2008-09 – 2012-13**



The following graphs show the irrigation and drainage investments planned for each rural district.

**Figure 17 Irrigation Capex by District and Driver 2008-09 - 2012-13**



The major irrigation investments for Robinvale, Merbein and Red Cliffs are in the first two years of the regulatory period. These investments include

- ▶ Robinvale high pressure system - \$14.8 M (\$40.5 M total project value)
- ▶ Merbein pipeline and pump station - \$22 M
- ▶ Red Cliffs pump station replacement - \$6 M

The Robinvale high pressure system involves the replacement of channels and concrete pipes with 73km of high pressure pipe. A new pump station will replace five existing pump stations that have reached the



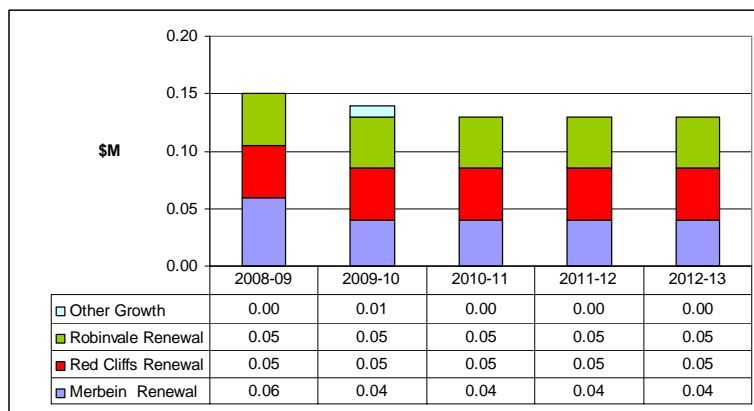
end of their useful life. Tenders have closed for the supply of pipe and pump sets. LMW is likely to award contracts in July 2007. Expressions of interest were sought for pipeline construction in June and selected tenders will be called in August. Construction is expected to commence by November 2007 and complete by 2008/09. This project is still on schedule and budget since the last Water Plan.

The Merbein Infrastructure Replacement Plan February 2006 identified the need to replace the main irrigation channel (currently earth and concrete) which is 73 years old and pump station, which is 62 years old requiring \$0.18M per year in maintenance. URS have prepared an options report proposing that 7.5 km of channel be replaced with Glass Reinforced Plastic (GRP) or reinforced concrete pipe. A new pump station is proposed to replace two pump stations that have reached the end of their useful life.

Red Cliffs project involves the replacement of all mechanical and electrical equipment in the main pump station. The existing pumps and switchboard are 51 and 29 years old respectively. Some replacement parts for the switchboard, such as isolation switches, are obsolete and no longer available. Pump failures have been occurring due to age related stress and motors are beyond their expected life, and failure rates are increasing. The new pumps will be low maintenance pumps with high efficient motors. Switchboards will include variable speed drives to optimise energy use and minimise stresses on pumping equipment.

### Drainage

**Figure 18 Drainage Capex by Town and Driver**



Drainage capital investment is very small and is primarily renewal of drainage pipes, lids and pumps.

### Domestic and Stock

A \$1.0M water treatment facility comprising settling lagoons, is proposed for the Millewa to reduce turbidity and colour. A public meeting with the Millewa customers supported this investment. LMW will be seeking a grant through Regional Development Victoria for \$0.5M.

### Diverters

In 2009-10 the meter replacement program will be completed for surface water diverters. All diversions meters will be able to be read remotely, enabling daily extractions to be reported to the Murray Darling Basin Commission. This will enable better calibration of the Murray River flow modelling system, enabling optimisation of streamflows.

### C3.3.3 Prudent and efficient capital expenditure levels

LMW ensures that proposed investments are prudent by using good asset information and planning tools to evaluate investment opportunities. The capital plan has been developed from:

- ▶ Master Plans – growth & improved service levels
- ▶ Asset Management Plans – renewals and improved service levels

LMW prepares Business Cases for major programs and projects incorporating options, life-cycle cost and triple bottom line analysis. Investments are recommended to the Board for approval. The Board also review prioritisation and timing of projects each year.

The Asset Management Plans summarise asset condition and consequence criteria used to evaluate risk and also review impacts of growth and changes in service levels on investment.

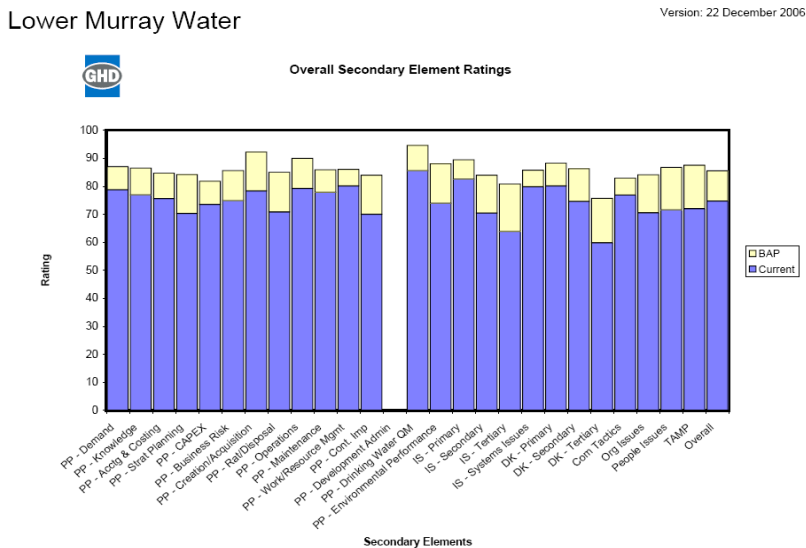
### C3.3.4 Asset Management Operational Review

An Operational Review was undertaken by GHD for LMW, covering all asset management activities across urban water supply and wastewater, irrigation, domestic and stock and drainage services, as well as drinking water quality management and environmental management as applied to wastewater and reuse (recycling) systems. The approach prioritised the outcomes against LMW’s business drivers.

Overall, LMW was assessed as performing at a higher level of asset management practice than its rural and regional counterparts, with some improvements to meet metropolitan water agency performance. Operational performance in drinking water quality and environmental performance is similar to other regional water agencies assessed by GHD.

The chart below is the result of the Gap Analysis, where LMW’s *current performance* (the top of the blue bar) is measured against the *long term Best Appropriate Practice (BAP)* (to 2010 – top of the yellow bar) for the organisation. The distance between the top of the blue bar and the top of the yellow bar is the ‘gap’ between current performance and BAP.

**Figure 19 Summary Gap Analysis Chart**



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### C3.3.5 Asset Management and Operational Improvement Plan

The priority areas of improvement identified in the review are largely process-oriented activities, which will provide the framework, policy and strategies to allow LMW to identify and derive significant benefits from the asset management investments to date and into the future. The improvements are designed to strengthen the links between asset management and LMW business objective.

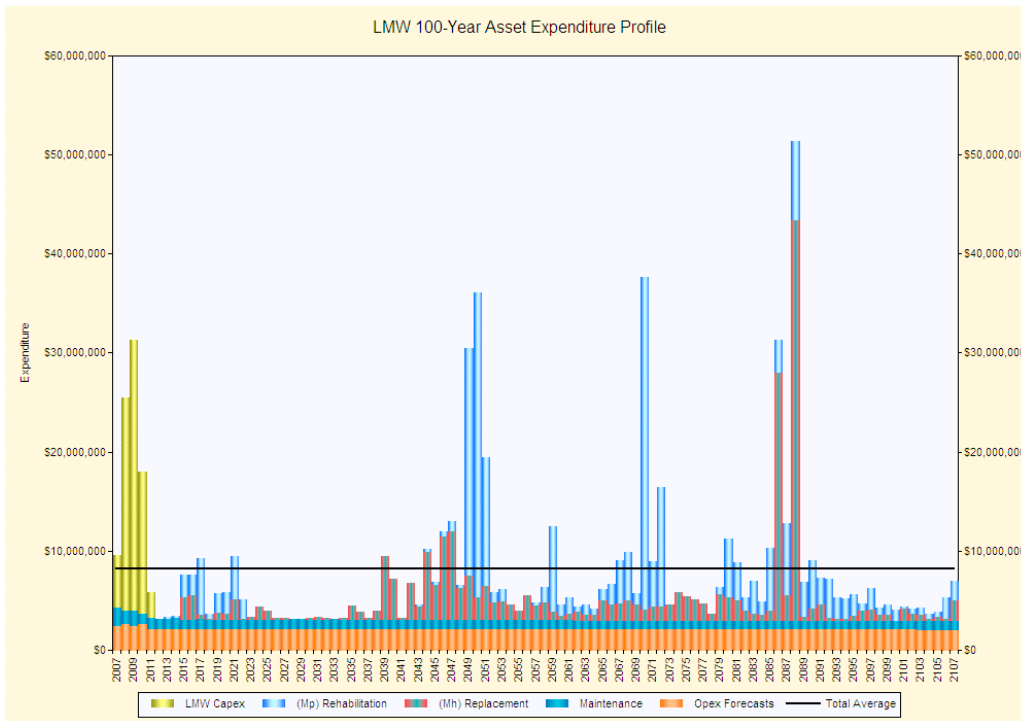
The improvement projects derived from the analysis are summarised below in **Table 8**.

**Table 8 Improvement Plan Project Summary**

<b>Project Number</b>	<b>Title</b>
1.	Training Programmes
2.	Resource and Skills Management
3.	Asset Condition, Performance and Risk Data Improvements
4.	Optimised Renewal Decision Making
5.	Change Management
6.	Asset Management Plans
7.	Risk Management
8.	Commercialisation
9.	Demand Analysis
10.	Contract Management
11.	Knowledge Management
12.	Maintenance Strategy
13.	Stakeholder / Customer Consultation
14.	Corporate Asset Management Structures
15.	Spatial Plans and Data
16.	Construction Standards, Asset Handover and Contract Administration
17.	Complaints / Enquiries System
18.	Life Cycle Costing
19.	Asset Rationalisation
20.	Emergency Plans

Figure 20 shows LMW's 100 year renewals and rehabilitation investment profile including planned capital expenditure in the regulatory period. This profile has been developed from a detailed model incorporating asset condition and age as well as planned maintenance and renewals strategies for each class of asset.

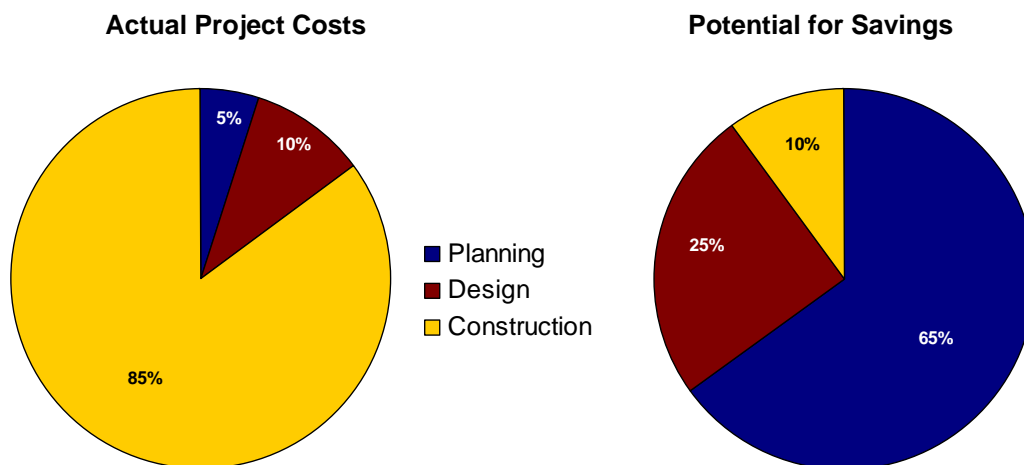
**Figure 20 100 year Asset Expenditure Profile**



The majority of renewals identified during the regulatory period in the TeamPlan model were already in the planned capital expenditure program. The TeamPlan model was adjusted to remove double counting. Condition and risk assessment will be focussed on assets identified in the model in the ten-year horizon to determine the priority and timing of future investment.

The majority of opportunities to capital efficiency gains are captured through the planning process by focussing on strategies to achieve cost-effective solutions for capital and operating expenditure.

**Figure 21 Capital Efficiency**



LMW seeks to achieve capital efficiencies during each stage of the capital process.

The *planning stage* identifies needs, potential solutions, scope, relative priority and timing of projects. Innovative solutions and prioritisation have the most significant impact on costs. Examples of innovation include:

- ▶ A Master Planning process for Robinvale and Merbein was conducted for LMW by URS in 2005. The Master Planning assessed demand, asset condition and service level requirements to determine the optimum least cost solution from a whole of community perspective.
- ▶ LMW developed a Master Strategy for Total Channel Control, which provides a consistent approach to automatic control systems in the three irrigation districts. The consistent approach will enable efficiencies in equipment selection, maintenance and operations control staff and skills.

The *design stage* includes the detailed definition and design for projects. Project design for major projects is contracted out to up to four Engineering Consultants. Examples of capital efficiencies captured at the design stage include:

- ▶ Optimisation of pipe sizes through modelling
- ▶ Selection of high efficiency pumps and optimisation of pump operation
- ▶ Reference specification to be used for all major projects following initial use at Mildura West WTP. Technical standards will be standardised across the business.

The delivery stage includes materials purchase and construction of assets. Effective project management, contract management and strategic purchasing arrangements improve capital efficiency at the delivery stage. Examples of capital efficiencies captured at the delivery stage:

- ▶ Tenders are issued for the supply of pipes attracting a range of alternate suppliers and pipe types. Pipe alternatives are analysed using an optimisation model to evaluate the least life cycle cost.
- ▶ Tenders for the supply of pumps will also invite pump suppliers to enter into maintenance contracts, which will include extended warranty and may allow LMW to review the requirement for its major workshop in Red Cliffs.

### **C3.3.6 Assumptions about Accuracy and Contingency**

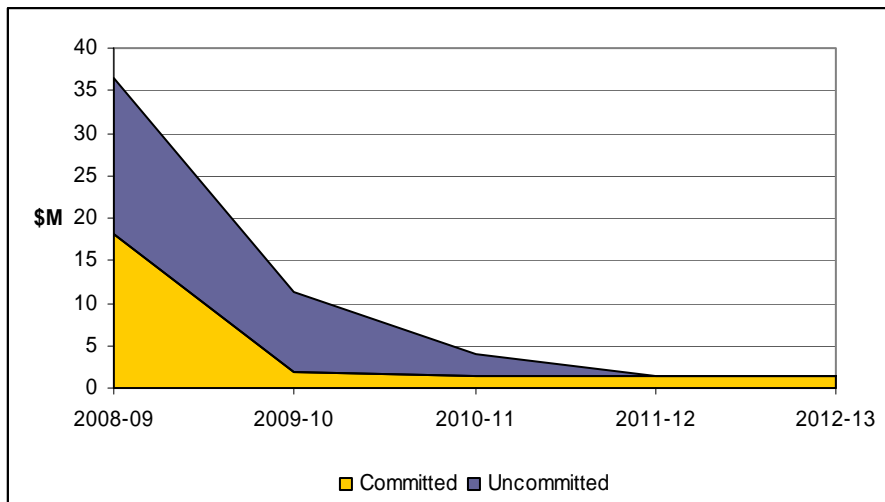
LMW's capital planning require the following accuracy levels for project estimates at different planning stages:

- ▶ Feasibility study: +/- 30%
- ▶ Functional design: +/- 20%
- ▶ Detailed design: +/- 10%
- ▶ Project approval or tender: +/- 5%

These accuracy requirements reflect the levels of certainty for planning estimates at different stages in a project lifecycle and are consistent with planning accuracy levels used by other water businesses.

The accuracy of investment in the Capital Plan varies for each project according to its maturity when the plan was formulated. Figure 22 shows the profile of committed projects (project approval) compared to uncommitted projects (preliminary project approval, contingent on detailed design). Committed projects are projects with carry-over from previous years or with detailed design and formal project approval.

**Figure 22 Committed versus Uncommitted projects**



This means that the level of certainty in the Capital Plan in the short term (Year 1) is low by comparison to later years. The main committed project in Year 1 is the Robinvale high pressure system. Projects at the early feasibility or design stage are subject to the most variation whilst the project scope is defined, conditions are assessed and design innovations are considered.

LMW is working towards developing probabilistic risk based estimates for significant projects earlier in the planning phases to better manage future uncertainty. Project values in this capital plan only include a small contingency (up to 15%) based on past experience.

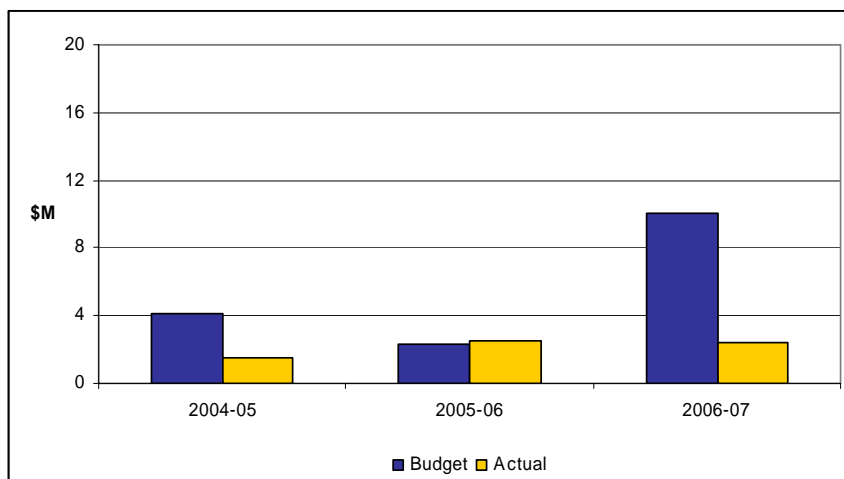
The level of construction activity in the water industry in Victoria and across Australia is very high. This has created a heated market for civil construction. LMW is partially shielded from this effect due the use of its internal construction team and local contractors. The larger treatment and rehabilitation projects will be completed by national based firms and will be subject to a higher degree of uncertainty for construction prices.

LMW is investigating opportunities to smooth the profile of this capital program by analysing priorities and approval conditions as well as delivery methods.

**C3.3.7 Capability to deliver capital program**

Figure 23 shows LMW's track record in delivering its capital expenditure over the last three years.

**Figure 23 Planned vs Actual expenditure**



The capital plan has increased by 140% in the last three years. The difference between the planned and the actual are due to the delays in the delivery of the Robinvale high pressure system. These delays were caused by increased consultancy work in the concept design phase to optimise pipe sizes.

As the LMW's capital plan will continue to be significant, LMW is recruiting additional planning engineers to help manage the planning phases and the stakeholder approvals for the future program.

The major delivery challenges during the regulatory period include:

- ▶ Project uncertainties due to number of projects in planning and design phase
- ▶ Stakeholder approvals including EPA and DTF
- ▶ Competitive market for design and construction contractors
- ▶ Developing appropriate procurement strategies, to manage risk and attract the market
- ▶ Attracting/retaining professional staff

All projects are managed against budgets approved by the Board, and project progress against budget and program is reported to the Board on a monthly basis.

### **C3.4 Financing capital investments**

In developing its charges for rural water services, LMW has traditionally used a renewals annuity approach whereby an annual amount of revenue is calculated to meet long-term replacement needs, based on estimated life of assets. The annuity was calculated for each district.

The annuity was calculated from a schedule of replacement expenditures, based on the remaining asset lives of all infrastructure assets. LMW uses a 4% real discount rate when calculating the annuity.

The Minister for Water set the value of LMW's initial regulatory asset base (RAB) (at 1 July 2004) for the rural business at zero. The ESC allowed for an annuity of \$3.1 million during the last regulatory period but suggested some concerns with the continued use of this approach.

For this review, LMW compared the annuity approach vs the RAB approach. As part of the comparison LMW engaged GHD to review its renewal annuity forecast. Using GHD's Team Plan asset lifecycle cost model, LMW was able to develop a more refined long term annuity forecast based on asset condition

and maintenance strategies over a period of 100 years. The model forecast an annual annuity of \$4.6 million for capital renewal. , The financial and price impact of the annuity approach was compared with the RAB approach, whereby revenue is derived from depreciation and return on assets for planned renewal and rehabilitation investments, based on asset condition.

The strengths and weaknesses of the two approaches were presented to the LMW Board and Customer Service Advisory Councils who have agreed with a recommendation to change to the RAB approach.

Uncertainty about future demand and improved service standards for irrigation delivery is changing the investment profile for rural assets, which are unlikely to be renewed like for like in the future. The RAB approach has a stringer nexus between prices and investments and is able to incorporate improved service levels.

There are transition issues involved in the change from a renewals approach to a RAB approach that are discussed in section 3.5.2.

#### **C3.4.1 Updating the regulatory asset base**

The value of the initial RAB (at 1 July 2004) was set by the Minister for Water at zero. The value of the RAB at the start of the second regulatory period is updated to reflect the value of capital expenditure, customer and government contributions and disposals.

Table 9 shows the calculation of the RAB across the first regulatory period and at 1 July 2008, based on actual outcomes, except the last year of the regulatory period, which is based on forecasts.

**Table 9 RAB across the First Regulatory Period**

<b>\$M, 1/1/07</b>	<b>First Regulatory Period</b>			
	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>
Rolled forward asset base				
Opening asset base	-	1.88	3.06	6.32
plus Gross capex	2.01	3.26	8.42	27.89
less Government contributions	-	0.61	4.63	14.78
less Customer contributions	-	-	-	-
less Proceeds from disposals	0.10	1.34	0.32	0.32
less Regulatory depreciation	0.03	0.12	0.21	0.30
Closing asset base	1.88	3.06	6.32	18.81

#### **C3.4.2 Rolling forward the RAB**

The calculation of the return on new assets follows the ESC's methodology for rolling forward new capital expenditure into the RAB, by accumulating new capital expenditure net of regulatory depreciation and customer contributions, and allowing a cost of capital on the average RAB in each period.



Table 10 shows the rolling forward of capital expenditure on new assets, based on the expenditure projections contained in the Water Plan.

**Table 10 RAB Rolling Forward**

<b>\$M, 1/1/07</b>	<b>SECOND REGULATORY PERIOD</b>				
	<b>2008-09</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>
Rolled forward asset base					
Opening asset base	18.81	44.14	54.59	57.57	57.81
plus Gross capex	37.92	11.87	4.59	1.98	1.81
less Government contributions	11.51	-	-	-	-
less Customer contributions	-	-	-	-	-
less Proceeds from disposals	0.32	0.32	0.32	0.32	0.32
less Regulatory depreciation	0.77	1.09	1.30	1.42	1.50
<b>Closing asset base</b>	<b>44.14</b>	<b>54.59</b>	<b>57.57</b>	<b>57.81</b>	<b>57.80</b>

### C3.5 Government contributions

**Table 11 Government contributions**

<b>\$M, 1/1/07</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>
Robinvale high pressure system	0.00	14.76	0.00	0.00	0.00	0.00	0.00
Merbein Pipeline Main Channel/Pump Station Upgrade	0.00	0.00	11.00	0.00	0.00	0.00	0.00
Millewa Treatment Facility	0.00	0.00	0.50	0.00	0.00	0.00	0.00

LMW has been successful in obtaining a \$20m grant towards the \$40.5m cost of installing a high-pressure network system for Robinvale. The Victorian Government committed \$20M to the Sunraysia area, which included input from LMW in the regional business case. The Robinvale area upgrade was able to demonstrate the cost-benefit for applying the total funds to this scheme. The replacement of the Robinvale irrigation is in accord with the outcomes of the LMW Master Plan for the asset renewal of the irrigation districts.

As part of the Merbein pipelining channel project, LMW has applied to the Federal Government for funding to assist with the \$22M project.

LMW has also proposed a \$1M water treatment facility for the Millewa and will apply for a \$0.5M grant from the Victorian State Government to help fund the project.

### C3.5.1 Weighted Average Cost of Capital

The Weighted Average Cost of Capital (WACC) is the return that LMW seeks to earn on its RAB. LMW has used the ESC indicative WACC of 5.1% included in the ESC templates.

### C3.5.2 Renewals Annuity Transition

As stated earlier, LMW is moving from a renewals annuity approach to a RAB based approach for pricing. This change will occur in the first year of this regulatory period, ie 2008-09.

The transition from the annuity approach to the RAB approach will require LMW to manage the balances that are left in the renewals reserve at the end of June 2008. Six of the districts have a positive balance in the renewals reserve. Three districts have a negative balance, the largest being Red Cliffs irrigation.

LMW's proposes to return any positive balance in the districts renewals reserve to the customers as customer contributions through the regulatory asset base. This will effectively reduce the return on and of assets, which will either result in price reductions or will reduce the impact of new investments on prices. Negative balances will be recovered through increased prices phased in over a 10 year period, discounted by the WACC (5.1%). Table 12 shows the renewals balance for each district for 30-6-2008.

**Table 12 Renewals Balance 30/6/2008**

<b>\$M 1/1/07</b>	<b>Renewals Balance as at 30/06/08</b>
Merbein Irrigation	1.51
Merbein Drainage	0.79
Red Cliffs Irrigation	-3.29
Red Cliffs Drainage	0.25
Robinvale Irrigation	2.77
Robinvale Drainage	0.51
Millewa	-0.15
Private Diverters	-0.13
Merbein Irrigation	1.51

**Error! Reference source not found.** sets out the annual amounts to be recovered over 10 years from districts with negative balances.

**Table 13 Recovery of Renewals**

<b>\$M 1/1/07</b>	<b>Amount to be recovered</b>
Red Cliffs Irrigation	0.428
Millewa	0.019
Private Diverters	0.030

This transition has been consulted with all customer groups, whom agreed to move to a RAB approach, and also agreed to the transition arrangements.

### **C3.6 Taxation**

The ESC requires information on actual tax payments forecast as payable for NTER purposes under the Corporate Plan. Carried forward losses mean that there will be no tax forecast as being payable in the regulatory review period.

Tax depreciation allowances have been calculated using the opening allowances and the amount of capital expenditure for each tax category.

## C4. Demand

### C4.1 Summary of Demand Forecasts

LMW demand forecasts deal with:

- ▶ Delivery Share
- ▶ Usage
- ▶ Water Share

Delivery share is projected to be stable throughout the regulatory period. The key factor in determining demand usage is the amount of allocation provided, and the weather. Water share in the irrigation districts is predicted to be constant, while the growth in surface water diversions water share is considerable.

The following sections build up forecasts for water delivered and other elements of the charging base for the rural business. These forecasts form the basis of future revenue and the water volume forecasts that underpin LMW's capital expenditure requirements.

### C4.2 Key Demand Drivers

LMW revenue, subject to regulation, is dependent on demand from several relatively discrete markets:

- ▶ Pumped districts irrigation
- ▶ Private Diversion
- ▶ Other services

Demand changes impact on capital and operating costs but not to the extent they do for urban businesses. The pumped irrigation districts have all been built decades ago and have not been expanded as new capacity for irrigation has been built on greenfield sites that are serviced by private diversion. Other services, which include drainage and water transferring, are not major revenue items so even in periods of change, the impact on revenue can be relatively minor.

Diversers each use much larger volumes of water than those customers in the pumped irrigation districts but the work, and costs, associated with this particular customer tends to be similar regardless of the volume of water being managed as all of the assets used to divert water are owned by the customers.

As part of unbundling, the irrigation and drainage district's charges have been separated out into Delivery Share, Water Share, and Usage. The initial delivery share as at 1 July 2006 was based on the Water Right a customer had multiplied by 12%. This 12% represents how much water can be delivered over a 14 day period.

**Table 14** sets out the basis on which charges are levied for these services and hence the charging base forecasts that are required.

#### **Table 14 Charging Bases**

<b>Irrigation</b>	<b>Drainage</b>	<b>Stock and domestic</b>	<b>Diversions</b>
No of properties - garden unmetered		Number of properties	Number of customers
Delivery Share DS	Delivery Share DS by division	Hectares	Licenced Volume ML
Garden volumes (ML WR)		Volumes delivered (ML)	Licenced Volume (Dartmouth) ML
Irrigation volume delivered ML			
Water Share ML			Water Share ML

### **C4.3 Forecast of Rural Water Demand**

#### **C4.3.1 Pumped Irrigation**

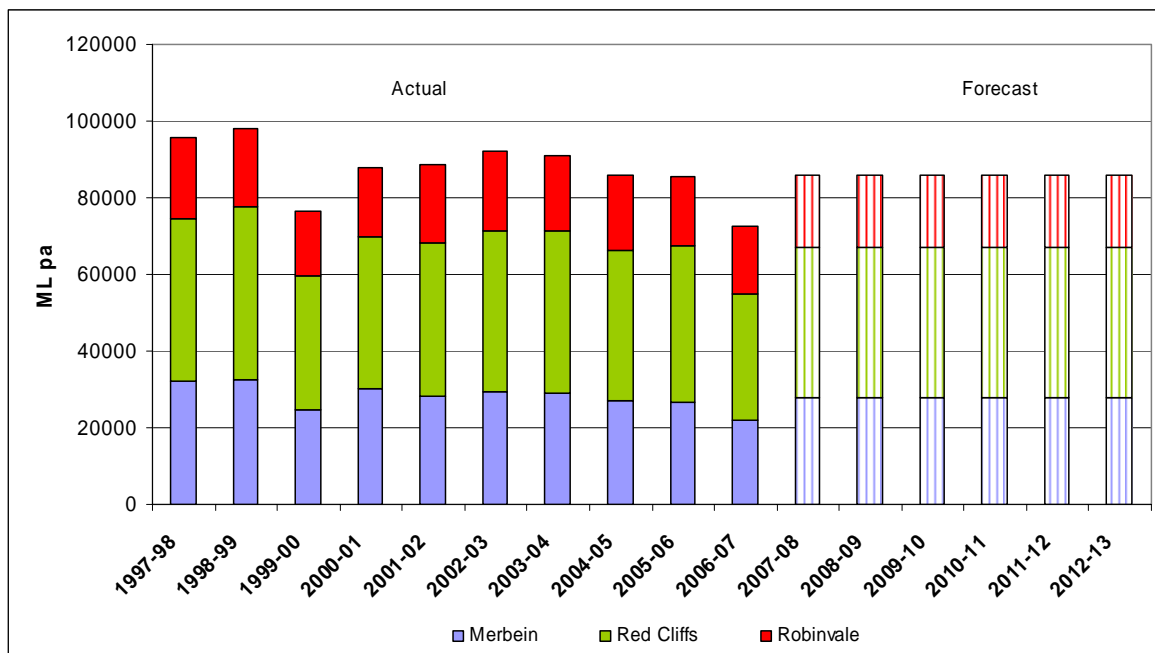
Table 15 sets out the total bulk entitlement to the Irrigation Districts.

**Table 15 Bulk Entitlement to the Irrigation Districts (ML pa)**

	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
<b>Total Bulk Entitlement (ML)</b>	110,974	111,421	111,277	111,207	110,725	109,056
<b>Change in ML</b>		447	-143	-70	-482	-1,669

Figure 24 shows the actual volumes delivered to the irrigation districts since 1997-98, and charged for via water usage tariffs. The chart also shows the forecast volumes based on the average of the previous 7 year 'Actual' usage volumes.

**Figure 24 Water Usage Irrigation Districts (ML pa)**



Variability in demand reflects weather conditions and changing crops and technology. In recent years the variability in demand has been low (the bulk entitlement showing movements of less than 0.5% pa) in part because the districts are close to being fully developed. The greater use of permanent plantings rather than annual crops also reduces the variability in demand. Out-of-district customers utilise any excess water from the pumped districts.

The demand forecast methodology is based on the average water deliveries to each region over the previous seven years. The forecast for 2007-8 therefore, is based on the average of the years 2000 to 2006. As this includes one wet-weather year, it represents a reasonable approximation to expected future weather outcomes. Volumes delivered for 2007-08 – 2012-13 are forecast to remain unchanged.

### C4.3.2 Stock and Domestic and Garden Supplies

No significant changes are anticipated in net stock and domestic supplies. Table 16 indicates the volumes charged as usage for the Millewa stock and domestic regions. The forecasts for 2007-08 and the review period are based on the most recent actual data available – ie 2004-05.

**Table 16 Stock and Domestic volumes (kL pa)**

	Historic				Current and Next Regulatory Period						
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Millewa Urban</b>	40,800	42,116	40,829	40,829	40,829	40,829	41,000	41,000	41,000	41,000	41,000
<b>Millewa Rural</b>	644,900	613,750	644,952	644,952	644,952	644,952	645,000	645,000	645,000	645,000	645,000

## C4.4 Forecast of Delivery Share (DS)

Delivery Share forms an important element of the charging base for water access and drainage services.

### C4.4.1 DS charged for access to water

No growth in delivery share is expected as the irrigation districts are almost fully developed. Delivery share for 2005-06 and the regulatory period are based on the Water Rights ML forecasts incorporated into the 2005-06 Corporate Plan.

The Delivery Share was calculated on the 1 July 2006 Water Right.

**Table 17 Delivery Share (for water access) – excluding garden services (DS pa)**

	Actual WRs before unbundling				Current and Next Regulatory Period DS							
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
<b>Merbein</b>	32,617	32,182	31,745	31,674	3,888	3,888	3,888	3,888	3,888	3,888	3,888	
<b>Red Cliffs</b>	44,724	44,604	44,642	44,477	5,492	5,492	5,492	5,492	5,492	5,492	5,492	
<b>Robinvale</b>	21,375	21,368	21,438	21,238	2,567	2,567	2,567	2,567	2,567	2,567	2,567	

## C4.5 Metered Garden Water Rights

LMW has embarked on a program of separately metering house and garden usage in the Irrigation Districts. Garden water consumption is forecast to grow as meters are installed. The meter program will be substantially completed by the end of the regulatory period.

Table 18 sets out the projected volumes of garden water for each irrigation district.

**Table 18 Metered Garden Volumes (ML pa)**

	Actual volumes				Current and forecast volumes							
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
<b>Merbein</b>	0	0	181	278	338	398	398	398	398	398	398	
<b>Red Cliffs</b>	0	0	249	370	443	516	516	516	516	516	516	
<b>Robinvale</b>	0	0	106	106	153	200	200	200	200	200	200	

### C4.5.1 Delivery Share Charged for Drainage

Drainage charges are based on delivery share also, but with four divisional charges. A district drainage charge is levied on the total of the water access WR plus the garden service WR.

Table 19 sets out the past, current and forecast DS used as the basis for the drainage charges. As drainage services are dependant on the irrigation demand in the pumped districts, forecast DS is closely related to the pattern of irrigation DS, and are assumed to remain constant through the review period.

**Table 19 Water Rights (for drainage) (ML pa)**

	Actual WRs before unbundling				Current and forecast Delivery shares						
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Merbein</b>											
Division 1	27,887	27,058	26,203	25,981	3,120	3,120	3,120	3,120	3,120	3,120	3,120
Division 2	0	0	0	0	0	0	0	0	0	0	0
Division 3	0	76	0	0	0	0	0	0	0	0	0
Division 4	0	799	763	729	84	84	84	84	84	84	84
<b>Red Cliffs</b>											
Division 1	37,982	37,144	36,962	36,540	4,426	4,426	4,426	4,426	4,426	4,426	4,426
Division 2	0	82	82	82	10	10	10	10	10	10	10
Division 3	0	0	0	0	0	0	0	0	0	0	0
Division 4	1,280	3,755	3,709	3,618	441	441	441	441	441	441	441
<b>Robinvale</b>											
Division 1	21,220	21,249	21,135	21,082	2,547	2,547	2,547	2,547	2,547	2,547	2,547
Division 2	0	0	0	0	0	0	0	0	0	0	0
Division 3	0	0	0	0	0	0	0	0	0	0	0
Division 4	0	0	0	0	0	0	0	0	0	0	0

Table 20 sets out the additional garden water rights that enter into the district drainage charge.

**Table 20 Water Rights (Garden Services) (ML pa)**

	Actual Water Rights				Current and forecast Water Rights						
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Merbein	0	0	675	465	465	465	465	465	465	465	465
Red Cliffs	0	0	1116	719	719	719	719	719	719	719	719
Robinvale	0	0	342	180	180	180	180	180	180	180	180

## C4.6 Diversions

The quantity of water taken by diverters has increased steadily over the past three years at about 20,000 to 23,000 ML per annum, as a result of water being traded into the area for large scale irrigation development in the Mallee region.

An assumption has been made that these diversions will continue to grow at a rate above the state average.



This rate of growth is sensitive to a number of factors:

- ▶ Continued favourable treatment of tax effective rural investment
- ▶ Exchange rate of Australian dollar
- ▶ Viability of top five investing businesses in the area that will drive most investment.

Demand for diversion water is assessed by LMW by tracking development approvals for new irrigation development and by maintaining contact with the relatively few major developers of greenfield sites and extensions of the existing irrigated areas by these major developers.

The growth in demand for diversions includes both new diversions and growth in demand from existing diverters.

**Table 21 Licenced Volume (Diverters) ML pa**

	Actual ML				Current and forecast ML						
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Licenced Volume</b>	195,349	220,005	242,158	257,644	281,456	303,644	323,644	343,644	363,644	383,644	403,644
<b>Licenced Volume (Dartmouth)</b>	7,920	7,920	6,920	6,920	6,920	6,920	6,920	6,920	6,920	6,920	6,920

Net water trade into the region is expected to be maintained at existing levels for the foreseeable future. Accordingly the charging base projections assume that licenced volume increases by 20,000 ML pa

#### C4.7 Other Elements of the Charging Base

Table 22 sets out past actuals and forecasts of the other elements of the charging base. The number of unmetered properties in the irrigation districts trend downwards, as the garden metering program progresses. The number of diverters and the number of off takes in Millewa are assumed to remain the same over the review period.

**Table 22 Properties and Hectares**

	Historic			Current and Forecast						
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Number of properties</b>										
<b>Merbein - unmetered</b>	289	278	221	202	202	202	202	202	202	202
<b>Merbein - metered</b>	0	107	128	118	118	118	118	118	118	118
<b>Red Cliffs - unmetered</b>	463	436	358	331	331	331	331	331	331	331
<b>Red Cliffs - metered</b>	0	147	182	174	174	174	174	174	174	174
<b>Robinvale - unmetered</b>	124	124	100	101	101	101	101	101	101	101
<b>Robinvale - metered</b>	0	45	45	46	46	46	46	46	46	46

	Historic			Current and Forecast						
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>D&amp;S customers (diverters)</b>	246	248	248	240	240	240	240	240	240	240
<b>Millewa - no of rural connections</b>	121	113	117	105	105	105	105	105	105	105
<b>Millewa - no of urban – offtake</b>	64	64	64	65	65	65	65	65	65	65
<b>Millewa - no of urban - no offtake</b>	22	16	16	16	16	16	16	16	16	16
<b>Hectares</b>										
<b>Millewa - hectares scrub</b>	7835	8637	8637	8637	8637	8637	8637	8637	8637	8637
<b>Millewa - hectares stock</b>	221101	221340	221340	221340	221340	221340	221340	221340	221340	221340
<b>WWD hectares - div 1</b>	5570	4817	4817	4817	4817	4817	4817	4817	4817	4817
<b>WWD hectares - div 2</b>	193	193	193	193	193	193	193	193	193	193
<b>WWD hectares - div 3</b>	166	166	166	166	166	166	166	166	166	166

## C4.8 Other Services

### C4.8.1 Trading

Water trading is expected to be maintained at existing levels. The unbundling of water entitlements which was implemented on 1 July 2007 will have an effect on the water market. Uncertainties behind the operation of the new 'unbundled' system, could decrease activity on the temporary and permanent markets.

### C4.8.2 Drainage

Drainage services are expected to be maintained at close to existing levels for the duration of the regulatory period.

## C5. Prices

### C5.1 Tariff Structures

The existing tariff structure as determined in the first regulatory period is proposed to continue. Prices are calculated for each district based on planned operating and capital expenditure. Direct costs are attributed to each service area, while overheads are allocated in proportion to the number of assessments. The existing structure is based on the unbundling principles.

### C5.2 Pricing Structure for Standard Tariffs

Table 23 sets out LMW's tariff structure for the irrigation districts and stock and domestic services and the charges to private diverters. There are three irrigation districts: Merbein, Red Cliffs and Robinvale, the waterworks districts: Carwarp/Yelta (WWD), and the Millewa Urban and Millewa Rural areas. The table shows tariffs in for 2003-04 to 2007-08, and proposed prices for the review period.

The existing tariff structure is based on the unbundling principles where applicable, namely the Millewa where it doesn't apply. The existing tariff structure has also been designed to provide customers with clear signals as to the cost of providing each service. Direct costs (such as operations, renewals, depreciation, bulk water) are attributed to each service area. Overheads are allocated in proportion to the number of assessments.

The cost base is converted to a set of tariffs by applying the appropriate cost driver to each cost category. Thus access to the water supply and drainage services are charged by delivery share, as it is the maximum capacity supplied that drives these costs. Operations costs, electricity and administration costs are charged on the basis of water delivered, as these costs vary with the amount of water supplied. Bulk entitlement is a charge to water share as it is the direct cost from Goulburn Murray Water and the only cost.

There are few fixed tariffs: all of the standard tariffs are charged according to the delivery share of water or the volume of water delivered. Thus customers are provided with strong signals as to the cost of the services. The tariffs also provide good incentives for sustainable use of resources.

**Table 23 Tariffs for Irrigation, Stock and Domestic and Diverter Services (\$M 1/1/07)**

Region	Units	2006	2007	2008	2009	2010	2011	2012	2013
<b>Merbein - Irrigation</b>									
Access	\$ per ML WR	33.36							
Delivery Share	\$ per DS		236.02	215.04	238.00	250.00	279.00	309.00	329.00
Usage fee	\$ per ML usage	45.09	37.23	33.92	40.00	40.00	35.05	35.05	35.05
Water Share	\$ per ML WR		6.06	5.59	5.73	5.73	5.73	5.73	5.73
Service Charge	\$ per Assessment		100.00	97.62	95.19	92.83	90.52	88.27	86.07
Garden - unmetered	\$ per property	365.59	365.50	365.99	365.50	365.50	365.50	365.50	365.50
Garden - metered	\$ per DS		236.02	215.04	238.00	250.00	279.00	309.00	329.00

Region	Units	2006	2007	2008	2009	2010	2011	2012	2013
<b>Merbein - Drainage</b>									
Region	\$ per ML WR total	0.33	0.27	0.25	0.23	0.22	0.20	0.19	0.18
District	\$ per ML WR total	1.32	1.60	1.18	1.79	1.61	1.73	1.69	1.77
Drainage div 1	\$ per WR/DS	16.17	143.62	130.86	125.55	115.20	123.46	120.82	126.90
Drainage div 2	\$ per WR/DS	12.13	107.72	98.14	94.16	86.40	92.60	90.62	95.18
Drainage div 3	\$ per WR/DS	8.08	71.81	65.43	62.78	57.60	61.73	60.41	63.45
Drainage div 4	\$ per WR/DS	4.05	35.91	32.71	31.39	28.80	30.87	30.21	31.73
<b>Red Cliffs - Irrigation</b>									
Access	\$ per ML WR	45.32							
Delivery Share	\$ per DS		338.29	308.28	278.15	319.17	359.69	380.15	390.60
Usage fee	\$ per ML usage	55.51	44.29	40.35	45.47	46.83	36.95	36.95	36.95
Water Share	\$ per ML WR		6.06	5.59	5.73	5.73	5.73	5.73	5.73
Service Charge	\$ per Assessment		100.00	97.62	95.19	92.83	90.52	88.27	86.07
Garden - unmetered	\$ per property	365.59	365.50	365.99	365.50	365.50	365.50	365.50	365.50
Garden - metered	\$ per DS		338.29	308.28	278.15	319.17	359.69	380.15	390.60
<b>Red Cliffs - Drainage</b>									
Region	\$ per ML WR total	0.33	0.27	0.25	0.23	0.22	0.20	0.19	0.18
District	\$ per ML WR total	2.07	2.45	1.89	2.67	2.51	2.64	2.64	2.70
Drainage div 1	\$ per WR/DS	20.36	167.20	152.33	121.18	110.93	116.31	115.85	118.82
Drainage div 2	\$ per WR/DS	15.27	125.40	114.25	90.89	83.20	87.23	86.88	89.11
Drainage div 3	\$ per WR/DS	10.19	83.60	76.16	60.59	55.46	58.16	57.92	59.41
Drainage div 4	\$ per WR/DS	5.09	41.80	38.08	30.30	27.73	29.08	28.96	29.70
<b>Robinvale - Irrigation</b>									
Access	\$ per ML WR	56.30							
Delivery Share	\$ per DS		407.25	464.98	449.98	539.85	548.13	540.87	535.46
Usage fee	\$ per ML usage	47.51	41.53	37.83	44.82	59.79	48.73	49.62	49.20
Water Share	\$ per ML WR		6.06	5.59	5.73	5.73	5.73	5.73	5.73
Service Charge	\$ per Assessment		100.00	97.62	95.19	92.83	90.52	88.27	86.07
Garden - unmetered	\$ per property	365.59	365.50	365.99	365.50	365.50	365.50	365.50	365.50
Garden - metered	\$ per ML WR		407.25	464.98	449.98	539.85	548.13	540.87	535.46
<b>Robinvale - Drainage</b>									
Region	\$ per ML WR total	0.33	0.27	0.25	0.23	0.22	0.20	0.19	0.18

Region	Units	2006	2007	2008	2009	2010	2011	2012	2013
District	\$ per ML WR total	1.51	1.64	1.25	1.92	1.54	1.68	1.61	1.72
Drainage div 1	\$ per WR/DS	12.57	99.76	83.90	76.83	61.93	67.06	64.12	68.15
Drainage div 2	\$ per WR/DS	9.43	74.82	62.93	57.62	46.44	50.30	48.09	51.11
Drainage div 3	\$ per WR/DS	6.29	49.88	41.95	38.41	30.96	33.53	32.06	34.07
Drainage div 4	\$ per WR/DS	3.14	24.94	20.98	19.21	15.48	16.77	16.03	17.04
<b>WWD</b>									
1st div	\$/Ha	8.24	8.67	7.91	6.67	7.82	7.21	7.54	7.47
2nd div	\$/Ha	4.12	4.33	3.94	3.33	3.91	3.61	3.77	3.73
3rd div	\$/Ha	2.06	2.17	1.98	1.67	1.95	1.80	1.88	1.87
Service Charge	\$ per Assessment		100.00	97.62	95.19	92.83	90.52	88.27	86.07
<b>Millewa</b>									
Rural access – house	\$ per connection	440.77	383.37	349.28	398.94	423.06	425.65	447.50	439.49
Rural access - scrub	\$/Ha	0.3941	0.3427	0.3124	0.3481	0.3777	0.3940	0.3844	0.951
Rural access - stocked	\$/Ha	1.5793	1.3709	1.2496	1.3924	1.5078	1.5760	1.5375	1.5804
Delivery - rural	\$ per kl	0.1391	0.1215	0.1074	0.1265	0.1342	0.1350	0.1419	0.1394
Urban access – offtake	\$ per connection	440.77	383.37	349.28	398.94	423.06	425.65	447.50	439.49
Urban access - no offtake	\$ per connection	221.10	191.68	174.65	199.47	211.53	212.83	227.75	219.74
Delivery - urban	\$ per kl	0.4174	0.3646	0.3319	0.3794	0.4024	0.4048	0.4256	0.4180
Service Charge	\$ per Assessment		100.00	97.62	95.19	92.83	90.52	88.27	86.07
<b>Diversers</b>									
Licensed Volume	\$ per ML	12.25	4.24	4.00	3.26	3.27	2.81	2.78	2.63
Water Share	\$ per ML		6.06	5.59	5.73	5.73	5.73	5.73	5.73
Regional Drainage	\$ per ML	0.33	0.27	0.25	0.23	0.22	0.20	0.19	0.18
Licensed Volume Dartmouth	\$ per ML	22.45	4.24	4.00	3.26	3.27	2.81	2.78	2.63
Water Share	\$ per ML		14.10	16.56	14.10	14.10	14.10	14.10	14.10
Annual Permit	\$ per customer	110.19	110.00	110.31	107.00	107.00	107.00	107.00	107.00
Service Charge	\$ per Assessment		100.00	97.62	95.19	92.83	90.52	88.27	86.07

### **C5.2.1 Customer impact issues**

LMW is concerned about the impact of price increases on customers, as proposed prices are increasing in real terms for most districts.

Charges to Robinvale will increase substantially due to the Robinvale high-pressure system. However, the new system will provide substantial benefits to customers in terms of reducing their on farm energy costs. Consultation with customers (discussed in Section C2) has shown that customers are willing to pay for the increased prices (amounting to an increase of some \$36/ML in charges). These increases will be phased in.

Charges to Merbein will also increase due to the pipelining of the main channel and upgrade of the main pump station. Again huge benefits will arise by providing a better system of delivery to customers. Consultation with the customer group shows that customers are willing to pay for the capital works projects.

Charges in Red Cliffs will also increase due to replacing the main pump station and total channel upgrade. Customers are again willing to pay for increases in costs as better delivery systems are being put in place, as our customer group consultation shows.

Finally the Millewa charges increase due to the new filter system proposed, and again customers are willing to pay for the better quality of supply.

With prices proposed generally increasing, LMW does have the concern of the impact on the individual customer in today's economic climate. Customers generally are not getting the same prices for their produce as in the past, coupled with the chance of a lack of water for the 2007-08 season, times are not flourishing.

LMW has phased in the price increases over the regulatory period and also smoothed out the impacts as much as possible.

### **C5.3 Tariff Proposals**

The Victorian Government originally planned unbundling reforms for 1 July 2006, however this was deferred until 1 July 2007 to ensure that its implementation is well managed and communicated. Tariff change is an essential part of the unbundling reforms.

LMW altered its tariff structure for 2006-07 as part of the unbundling process. Instead of having an Access Charge, and Usage Charge, the tariffs were restructured to have a Delivery Share Charge, Water Share Charge, Usage Charge and a Service Charge.

The previous Access Fee was based on the water entitlement attached to each property. In the past when water was permanently transferred out of an Irrigation District the Access Fee was no longer paid on the transferred volume. The tariffs for the remaining customers increased because there are fewer people to meet the costs of maintaining and replacing the irrigation district's delivery system.

Under the new tariff, a Delivery Share Fee will be linked to the property's access to the irrigation district's delivery system. In future, customers will be able to sell their water entitlement but, as their properties are still connected to the delivery network, they will continue to contribute to the upkeep of the irrigation district's delivery system.

The Delivery Share Fee is the fixed payment that recovers the costs of maintaining and replacing the irrigation district's delivery system, ensuring access is available for customers when they want water delivered.

The Water Share Fee is a charge based on the volume of water entitlement a person holds, including garden entitlements, and the stock and domestic entitlements.

Since unbundling occurred on 1 July 2007, water will no longer need to be attached to land. It is possible that a person may own more water entitlement than they can use on the land they own.

The Water Share Fee is to recover the Bulk Water levy billed by Goulburn Murray Water. LMW is charged for the raw water, dam storage and the operation of River Murray on behalf of its customers who own the water entitlement.

The Service Fee will be a flat fee per assessment and applied to all customers within LMW.

This charge will be contributing towards recouping corporate costs incurred with billing functions and regulatory compliance costs.

Other charges will remain the same.

Table 25 outlines current and proposed tariffs and the structure, and the manner in which they will be applied.

#### **C5.4 Miscellaneous Charges**

Many of the rural miscellaneous charges made by the rural business are charged on the same basis as the urban side of the business. Miscellaneous charges have been set to recover the costs involved, including an allowance for overheads.

Appendix D lists all of the miscellaneous charges levied by LMW and the charges levied for the last three years. The Appendix also sets out the increases in charges proposed for the five years of the regulatory period. Miscellaneous charges represents about 1.9% of total revenue.

Table 24 sets out the revenue forecast from miscellaneous charges.

**Table 24 Revenue from Miscellaneous Charges – \$M 1/1/07**

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Misc charge revenue	0.76	0.32	0.23	0.27	0.27	0.27	0.27	0.27

#### **C5.5 Customer Contributions**

The rural business of LMW does not levy any form of customer contribution.

#### **C5.6 Vulnerable Customers**

The rural business does not have a formal hardship policy, but LMW encourages customers who have difficulty in paying to contact LMW and in some circumstances LMW will arrange for payments to be made by instalments. It is important to recognise that the rural nature of the customer base is such that customers having difficulty in paying often have fundamental financial viability problems, which cannot be addressed by the water authority in isolation. Consequently, LMW will refer the customer to the Rural

Counselling Service for advice. LMW annually provides a financial contribution towards the operation of the Sunraysia Rural Counselling Service.

### **C5.7 Form of price control**

LMW proposes to implement a tariff basket control to set prices for all of the years of the review period. This would allow LMW to introduce the new tariffs in the irrigation districts.



## C6. Non-Prescribed Services

### C6.1 Classification of services as no-prescribed

Investment income is the only unregulated revenue for the rural business.

### C6.2 Non-Regulated Revenues and Expenditures

Investment income is the only unregulated revenue for the rural business. Investment income is projected to decline and go into a negative (ie borrowing) situation over the regulatory period as the starting cash balance is drawn down to finance capital expenditures.

**Table 25 Non Prescribed Revenues – \$M 1/1/07**

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Investment income	0.63	0.63	0.64	0.02	-1.05	-1.65	-1.76	-1.69

Appendix A

## Service Standards and other Outcomes

Progress in First Regulatory Period

## Statement of Obligations

<b>Outcome</b>	<b>Progress</b>	<b>Comment</b>
Environmental Requirements	Meeting obligation	The rural division has now been incorporated in the Environmental Management System. Continued role as coordinating agency for salinity capital works projects.
Water Conservation	Meeting obligation	LMW continues to implement the Victorian State Government's White Paper on Water reform 'Securing our Water Future Together', Regional River Health Strategy and also the Mallee Salinity and Water Quality Management Plan.
Catchment Management Authorities and Local Government	Meeting obligation	LMW continues to comply with planning and coordination requirements and joint programs with these Authorities

Appendix B  
**Service Standards**

Second Regulatory Period

## Service Standards

	<b>Approved</b>				
<b>Gravity Supply (by district/supply system)</b>	<b>2008-09</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>
Irrigation water orders delivered on day ordered (%)	95.00	95.00	95.00	95.00	95.00
Unaccounted Water (% of Bulk Entitlement)	5.00	5.00	5.00	5.00	5.00
<b>Irrigation Drainage (by district/supply system)</b>					
Avaliability of sub-surface drainage schemes (%)	95.00	95.00	95.00	95.00	95.00
<b>Customer Service</b>					
Complaints to EWOV	10.00	10.00	10.00	10.00	10.00
Telephone calls answered within 30 seconds	99.00	99.00	99.00	99.00	99.00

Appendix C  
Miscellaneous Charges

<b>SECOND REGULATORY PERIOD</b>
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<i>Tariff and Price Component 1/1/07</i>	<i>Unit</i>	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>
<b>Licensing</b>						
<b>Diversions (Irrigation)</b>						
Water Registration - D&S	Licence	113.00	113.00	113.00	113.00	113.00
Minimum Charge		170.00	170.00	170.00	170.00	170.00
Special from Lake Cullulleraine						
Surcharge - Fixed	ML	5.52	5.52	5.52	5.52	5.52
Surcharge - Variable	ML	5.38	5.38	5.38	5.38	5.38
Syndicates	ML	15.05	15.05	15.05	15.05	15.05
<b>Diversion Licence Fees</b>						
Application for a Water Use Licence	App	258.00	258.00	258.00	258.00	258.00
Application for a water use registration	App	65.00	65.00	65.00	65.00	65.00
<b>Temporary Transfer of Water Rights</b>						
Application for trade of allocation where the entitlement will be used in relation to a different property	App	60.00	60.00	60.00	60.00	60.00
<b>Permanent Transfer of Water Rights</b>						
Application for approval of permanent transfer of Water Share	App	126.00	126.00	126.00	126.00	126.00
Application for approval of permanent transfer of water rights to a holding within an irrigation district of a different Authority/State (unbundling - delete)						
<b>Water Right Certificate</b>						
Provision of record from Water Authority	App	21.00	21.00	21.00	21.00	21.00

<b>SECOND REGULATORY PERIOD</b>
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<i>Tariff and Price Component 1/1/07</i>	<i>Unit</i>	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>
<b>Groundwater Licence Fees</b>						
Application for groundwater licence	App	287.00	287.00	287.00	287.00	287.00
Application for renewal of groundwater licence	App	69.00	69.00	69.00	69.00	69.00
Application for transfer of groundwater licence	App	69.00	69.00	69.00	69.00	69.00
<b>Information Statements</b>						
Application for information statement under Sect. 158 of the Act (Includes one (1) meter read)	App	92.00	92.00	92.00	92.00	92.00
<b>Drainage Diversion Licence Fees</b>						
Application for drainage diversion licenses	App	72.00	72.00	72.00	72.00	72.00
<b>Application for amalgamation of Water Right</b>						
Consolidation of Water Share		126.00	126.00	126.00	126.00	126.00
<b>Subdivision Fee</b>						
Irrigation, 2 lot	App	738.00	738.00	738.00	738.00	738.00
Irrigation, 3 lot	App	924.00	924.00	924.00	924.00	924.00
Irrigation, 4 lot	App	1,105.00	1,105.00	1,105.00	1,105.00	1,105.00
Irrigation, 5 lot	App	1,290.00	1,290.00	1,290.00	1,290.00	1,290.00
Irrigation, 6 lot and over	App	1,536.00	1,536.00	1,536.00	1,536.00	1,536.00
Waterworks	App	304.00	304.00	304.00	304.00	304.00
Rural	App	304.00	304.00	304.00	304.00	304.00
Diversion	App	304.00	304.00	304.00	304.00	304.00
<b>Photocopying</b>						
A0 Plan	Copy	10.20	10.20	10.20	10.20	10.20
A1 Plan	Copy	6.70	6.70	6.70	6.70	6.70
A2 Plan	Copy	3.70	3.70	3.70	3.70	3.70
A3 Copy	Copy	2.00	2.00	2.00	2.00	2.00
A4 Copy	Copy	0.50	0.50	0.50	0.50	0.50



<b>SECOND REGULATORY PERIOD</b>
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<i>Tariff and Price Component 1/1/07</i>	<i>Unit</i>	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>
<b>Other Charges</b>						
Application Fee - Meter Investigation	App	280.00	280.00	280.00	280.00	280.00
Special Meter Reading Fee	Read	53.00	53.00	53.00	53.00	53.00
Application for Reconnection Fee	App	65.00	65.00	65.00	65.00	65.00
Reconnection Fee after lockdown	Connection	106.00	106.00	106.00	106.00	106.00
Meter Testing Fee	Test	58.00	58.00	58.00	58.00	58.00
Application for Disconnection fee	App	110.00	110.00	110.00	110.00	110.00
Application Fee - District (Outside District) Garden Supply	App	106.00	106.00	106.00	106.00	106.00
Application Fee - Millewa WWD Stock and Domestic	App	106.00	106.00	106.00	106.00	106.00
Replacement of Diversion Licence (unbundling - delete)	Licence	0.00	0.00	0.00	0.00	0.00
Title Search Fee	Search	53.00	53.00	53.00	53.00	53.00
Water Analysis	Test	53.00	53.00	53.00	53.00	53.00
Final Notice Fee	Cust	tba	tba	tba	tba	tba
Merchant Fee (for payments over \$1,000)*	Cust	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost
Direct Connection Fee (\$400 Security-Refundable, \$80 Supervision)	Connection	490.00	490.00	490.00	490.00	490.00
Tender Document Charge	Tender	104.00	104.00	104.00	104.00	104.00
Reserve Leases/Rentals - Licences to use works	Licence	27.85	27.85	27.85	27.85	27.85
Debt collection fees passed on to customers*	Cust	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost
Dishonoured Cheque Fees*	Cust	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost
Excess Water	ML	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00
Occupational & Grazing Licences*	Licence	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost
Outside District Winter Garden Supply Valve Opening Fee	Opening	30.00	30.00	30.00	30.00	30.00
Cardross Lakes	ML	67.50	67.50	67.50	67.50	67.50
<b>Meter and Connection Fee</b>						
Irrigation District						
Garden Supply 40mm meter installation	Meter	1,710.00	1,710.00	1,710.00	1,710.00	1,710.00
Garden Supply 40mm meter installation & tapping band	Meter	1,856.00	1,856.00	1,856.00	1,856.00	1,856.00

<b>SECOND REGULATORY PERIOD</b>
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<i>Tariff and Price Component 1/1/07</i>	<i>Unit</i>	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>	<b>2012/13</b>
Garden Supply 40mm meter installation & socket connection	Meter	2,207.00	2,207.00	2,207.00	2,207.00	2,207.00
Millewa WWD						
Tapping 20mm	Tapping	176.00	176.00	176.00	176.00	176.00
Tapping 25mm	Tapping	185.00	185.00	185.00	185.00	185.00
Meter Installation (20mm)	Meter	155.00	155.00	155.00	155.00	155.00
Meter Installation (25mm)	Meter	320.00	320.00	320.00	320.00	320.00
<b>Licences</b>						
Lake Cullulleraine - 12 Months	ML	16.46	16.46	16.46	16.46	16.46
<b>Water Register Fees</b>						
Application for Water Share Division	Appl	126.00	126.00	126.00	126.00	126.00
Application for Water Share Cancel/Surrender	Appl	126.00	126.00	126.00	126.00	126.00
Application for Water Share Associate/Vary	Appl	126.00	126.00	126.00	126.00	126.00
Application for Water Share Limited Term Transfer	Appl	126.00	126.00	126.00	126.00	126.00
Application for Works Licence	Appl	126.00	126.00	126.00	126.00	126.00

Appendix D  
Capital Expenditure

<b>IRRIGATION &amp; DRAINAGE CAPITAL EXPENDITURE</b>	'000	'000	'000	'000	'000
Price 1/1/07	2009	2010	2011	2012	2013
<b>Millewa</b>					
Minor Capital - Replacement	40	31	38	13	13
Minor Capital - New	12	10	15	10	10
Treatment Plant	1,000	-	-	-	-
Replace Air Valves	5	5	5	5	5
Main Replacement	25	-	-	-	-
Lake PS Pump/motor Replacement	-	-	75	-	-
<b>Merbein</b>					
Minor Capital - Replacement	50	15	15	15	15
Minor Capital - New	40	25	75	25	25
Water Wheel Replacement	300	300	300	300	300
Meter Replacement	250	250	250	250	50
Garden Metering Program	50	50	50	50	50
Install Air Valves	100	100	10	10	10
Install Isolation Valves	5	5	5	5	5
Minor Pipelines	5	5	5	5	5
Meter Irrigation Outlets	150	-	-	-	-
Install Scour Valves	5	5	5	5	5
Pipeline Main Channel	9,000	6,000	-	-	-
Main Pump Station	6,000	1,000	-	-	-
Drainage Pit Lids	25	25	25	25	25
Drain Pipeline Replacement	15	15	15	15	15
Drainage Pumps	20	-	-	-	-
Motor O/H, 1,3,4	10	10	-	-	-
<b>Red Cliffs</b>					
Minor Capital - Replacement	95	55	105	55	102
Minor Capital - New	50	80	50	50	50
Meter Replacement	300	300	300	300	300
Water Wheel Replacement	300	300	300	300	300
Garden Metering Program	10	10	10	10	10
Install Minor Pipelines	20	20	20	20	20
Install Isolation Valves	5	5	5	5	5
Install Air Valves	100	100	10	5	5
Meter Irrigation Outlets	150	-	-	-	-
Install Scour Valves	5	5	5	5	5
Drainage Pit Lids	25	25	25	25	25
Drain Pipeline Replacement	20	20	20	20	20
Total Channel Control	600	-	-	-	-
Upgrade Fill Bank Channel	400	-	-	-	-
Replace Main PS Pump Sets	1,200	1,200	1,200	-	-
Replace Main PS Switchboards	-	1,200	1,200	-	-
A Relift RM Replacement	250	-	-	-	-
B Relift 2009 Full VSD control	150	-	-	-	-
C Relift Full VSD	150	-	-	-	-
D Relift Full VSD control	150	-	-	-	-

<b>IRRIGATION &amp; DRAINAGE CAPITAL EXPENDITURE</b>	'000	'000	'000	'000	'000
Price 1/1/07	2009	2010	2011	2012	2013
Minor Capital - Replacement	10	45	10	10	10
Minor Capital - New	10	10	10	10	10
Drain Pipeline Replacement	20	20	20	20	20
High Pressure System	14,805	-	-	-	-
Drainage Pump Replacement	25	25	25	25	25
<b>Surface Water Diversions</b>					
Meter Replacement	800	100	100	100	100
Telemetry System	100	200	-	-	-
<b>Other Drainage</b>					
Bumbang Drainage	-	10	-	-	-
	<b>36,857</b>	<b>11,581</b>	<b>4,303</b>	<b>1,693</b>	<b>1,540</b>

<b>CORPORATE CAPITAL EXPENDITURE</b>	'000	'000	'000	'000	'000
Price 1/1/07	2009	2010	2011	2012	2013
Motor Vehicles	350	362	380	350	350
Computer Hardware	335	250	225	345	223
Computer Software	207	41	161	110	110
Water Ordering Software	250	-	-	-	-
General Equipment	85	85	98	105	90
Communications	34	25	25	25	25
Workshop Tools	98	124	90	100	100
Safety Equipment	10	10	10	10	10
Lab Equipment	5	5	5	5	5
14th St Depot - Replace Skylight Sheeting	400	-	-	-	-
14th St Office - Replace Carpet	200	-	-	-	-
Sewer cleaning trailer for Kerang	-	5	-	-	-
Lake Cullulleraine Levee	250	-	-	-	-
	<b>2,224</b>	<b>907</b>	<b>994</b>	<b>1,050</b>	<b>913</b>