

2023-2028 Price Submission



**LOWER MURRAY
WATER**



ACKNOWLEDGEMENT OF COUNTRY

This artwork has been provided by local artist Bella Sloane from the Ngayampaa tribe. Her painting represents family titled, 'The Connection to Family'.

Lower Murray Water acknowledges the Traditional Owners of the land on which we work and reside. We recognise their continuing connection to land, waterways, and community. We pay our respects to Elders past, present and future.

The Traditional Owner groups within Lower Murray Water's service region lie within the traditional lands of First Nations Peoples, from upstream at Koondrook moving downstream along the Murray River (Mil) through to the western edge of our region at the South Australian border. They are the Barapa Barapa Peoples, Wamba Wamba Peoples, Wadi Wadi Peoples, Tatti Tatti Peoples, Latji Latji Peoples, Nyeri Nyeri Peoples, Ngintait Peoples and the Wergaia Peoples.

The First Nation Peoples' connection to land and water is the living cultural knowledge that is passed down from generation to generation. The stories that connected the ancestors to their culture still live through the First Nations Peoples of today.

- Acknowledgement of Country written by Stephanie Sloane.

Stephanie works at Lower Murray Water as a People and Safety Trainee. She is a proud Ngayampaa woman and has a strong connection to her culture, history, and the land. Stephanie has brought not only her experience and passion for people to this role but also a commitment to inspire and mentor others wishing to pursue a career at LMW.

LMW Statement of Promise

LMW's commitment to its urban and rural customers is demonstrated through developing a Pricing Submission that is considered and authentic which adopts a prudent and efficient approach to provide enhanced customer value. This commitment continues across the five-year regulatory period with a promise to deliver this value in the following ways:

- Delivery of a prudent and efficient investment program that meets agreed customer outcomes and is measured against performance metrics that will be regularly monitored with customers to track progress.
- Ongoing implementation of LMW's genuine stakeholder engagement approach that proactively facilitates, distils, and utilises customer insights in the planning and delivery of its services via a process that tests and validates customer assumptions and most importantly, demonstrates that LMW is listening and acting in response.
- Balancing key risks across the five-year period to protect customers from carrying an unfair risk burden for both capex (\$148.97m) and opex (\$255.41m) programs.
- Securing LMW's long-term sustainability through transparent strategic prioritisation and performance excellence built through ongoing continuous improvement that optimises customer value.

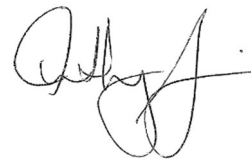
An uncertain future following COVID-19, the impacts of climate change, and growth across LMW's service region are notable challenges that will be faced in the coming five-year period. As LMW transforms itself into a more customer-engaged, and digitally-enabled business through its business transformation program (\$13.02m), it remains proactive and committed to addressing these challenges in a manner that is transparent, collaborative, and relevant to deliver customer outcomes across its two businesses.



Sharyon Peart

Chair, on behalf of the Board

27 September 2022



Anthony Couroupis

Managing Director

27 September 2022

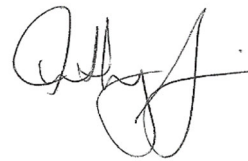
Board Attestation Statement

The directors of Lower Murray Urban and Rural Water Corporation, having made such reasonable inquiries of management as we considered necessary (or having satisfied ourselves that we have no query), attest that, to the best of our knowledge, for the purpose of proposing prices for the Essential Services Commission's 2023 water price review:

- information and documentation provided in the price submission and relied upon to support Lower Murray Urban and Rural Water Corporation's price submission is reasonably based, complete and accurate in all material respects
- financial and demand forecasts are the business's best estimates, and supporting information is available to justify the assumptions and methodologies used
- the price submission satisfies the requirements of the 2023 water price review guidance paper issued by the Essential Services Commission in all material respects



Sharyon Peart
Chair, on behalf of the Board
27 September 2022



Anthony Couroupis
Managing Director
27 September 2022

Executive Summary

Introducing the Price Submission

Lower Murray Water (LMW) is a unique water corporation consisting of two businesses – Urban and Rural. LMW's Price Submission 2023-28 (PS5) is submitted as one document to reflect the integrated business that services North-West Victoria. This submission is made up of three parts: Part A – common elements to both the urban and rural businesses, Part B – specific detail regarding the urban business and Part C – specific detail regarding the rural business.

PS5 is submitted after comprehensive customer engagement to determine customer needs and priorities, and an extensive review of past and current performance to inform development of LMW's strategies, activities, programs, and projects and ultimately deliver a proposal for efficient services at acceptable and affordable prices for customers.

Management of the Price Submission

In building PS5, LMW developed a comprehensive Project Plan and program for preparation, review, and verification, which was progressively updated throughout the preparation process. Key parts of the delivery process included:

- A diagnostic review to assess the maturity of business processes and documentation to support PS5 preparation.
- Accelerated and adaptive customer engagement program delivered through the entire PS5 preparation.
- Established governance arrangements involving the Board, Finance and Audit Committee, Risk Committee, Executive Team, and key LMW staff.
- A wide variety of processes were updated and implemented for development, review, and adoption of all material PS5 inputs, along with supporting Executive Verification and Board Attestation processes.
- Extensive and sustained reviews and justification of every operating cost element and capital project or program, including assumptions and risk treatment and allocation, were implemented.
- Various proposals were tested as they arose with the ESC to check the approach or methodology was appropriate and reasonable.
- Progressive papers on each key PS5 input and a total of six successive Price Path models were submitted to the Finance and Audit Committee and/or Board as various inputs were analysed and considered, documented, updated, or reviewed, to enable Director feedback and continuous focus on efficient delivery and consequently minimum prices, and
- Automated financial model processes to ensure financial table and figure outputs were directly input into the PS5 documents and ESC templates.

Engaging with Customers

A new enterprise customer engagement approach to embed authentic customer engagement across the business saw the development of a new Communication and Stakeholder Engagement Framework and Strategy. As an outcome of this Strategy, a deliberative, iterative customer engagement program utilising a range of methods based on IAP2 methodology, sought authentic customer feedback and views on LMW's performance and their needs and priorities to inform strategic planning and capital and operating program development for PS5.

The engagement program was structured specifically around the different services provided by the urban and rural business units of LMW and recognised the diversity of customer groups across LMW's large geographic area. The four-stage program was implemented and culminated in agreed customer outcomes and service performance

targets, endorsement of major capital investments and operational programs, and the acceptance of the resultant customer prices as fair and reasonable.

Implementation of engagement activity across such a disparate geographical area combined with the impact of doing so during a pandemic certainly presented challenges to the PS5 engagement program. The iterative nature of the four-stage approach utilised however, enabled LMW to build upon the feedback and insights gained from baseline survey information obtained in mid-2021, and test the thoughts, ideas, and outcomes with customers through engagement activity undertaken throughout the year until September 2022, utilising both qualitative and quantitative methods. This approach allowed for a rolling review of feedback to identify and assess implications during the development of key planning documents such as the strategies and plans, as well as the creation of both urban and rural customer outcomes and correlating targets.

Regulatory Obligations

New and more rigorous government obligations will apply throughout the PS5 period, particularly arising from the Minister’s Letter of Expectations (LoE) which detailed nine priority areas for attention, as well as a focus on economic recovery post-COVID, customer hardship, and working with other agencies on government water sector reforms. In addition, increased regulatory expectations have arisen for water quality, and meeting the General Environmental Duty (GED) requirements.

LMW’s Strategic Response

LMW’s directions were reset with the *LMW 2021-2025 Strategic Plan*, which is based on six strategic pillars, made up of three Strategic Priority areas and three Strategic Foundation areas to meet both customer and government/regulatory requirements. LMW’s strategy targets the building of a healthy and sustainable future through *strategic priorities*:



Figure ES1: LMW Strategic Priorities

To do this, LMW is building a dynamic culture of performance excellence through its *strategic foundations*:

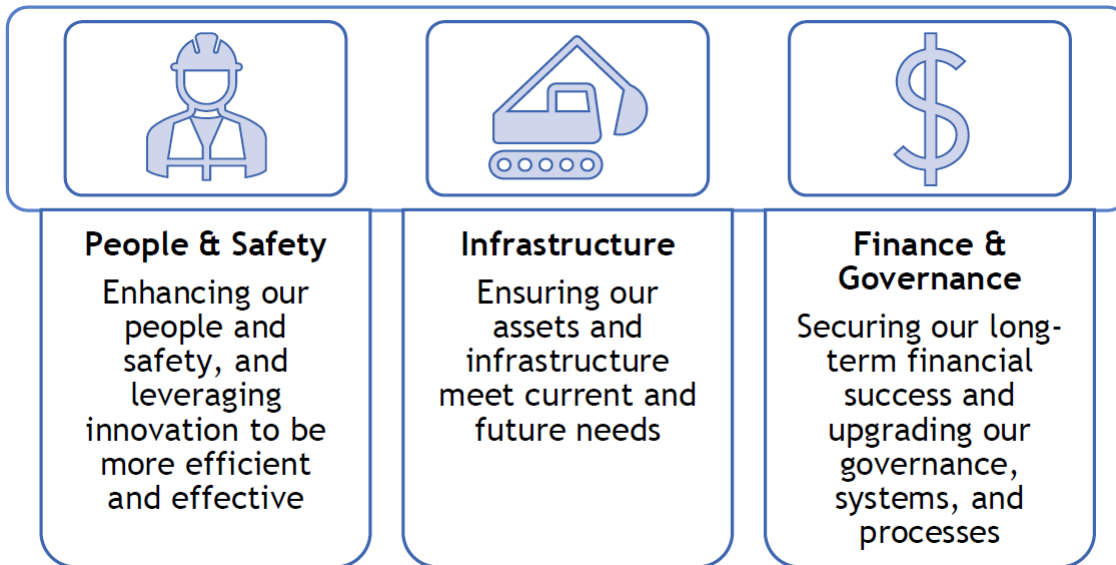


Figure ES2: LMW Strategic Foundations

Managing and Allocating Risk

All material assumptions were challenged, reviewed, and updated as necessary utilising the Risk, and Finance and Audit Committees to test and validate final assumptions. This work included the corporate cost allocation framework as well as the risk management and allocation framework. Significant risks and their management strategies were identified, documented, and allocated between LMW and its customers according to who is best placed to manage them. LMW has taken on considerable risk on behalf of its customers by its rigorous processes of review of each activity and project, and the resulting costs, including risks associated with construction market cost increases beyond CPI. As LMW transforms itself into a more customer-engaged and digitally-enabled business (with increasing governance and compliance requirements), costs are shifting more towards the urban business which continues to see growth, whereas the rural business remains static. As a result, the corporate cost allocation framework has been amended to reflect this.

Proposed PREMO Rating

The proposed business wide PREMO rating has been self-assessed by LMW as Standard. The self-assessment excludes a formal assessment of the P-element for the rural business, as this is the first period in which the rural business is included under the ESC's PREMO framework. LMW initiated an external assessment by KPMG as an input into its self-assessment process.


<p>Leading</p>	<p>Advanced</p>	<p>Standard</p> 	<p>Basic</p>
<p>19 to 20</p>	<p>14.5 to 18.75</p>	<p>9.5 to 13.25</p>	<p>5 to 9.25</p>

Figure ES3: Overall PREMO Self-Assessment Rating

Current Period Performance

Urban

Over the current price period 2018 to 2023 (PS4), LMW’s urban business has so far met its commitments to customers across the four dimensions of customer outcomes, prices, operating expenditure, and capital expenditure:

- Customer outcomes commitments were largely met, especially for the critical customer aspects of containment of tariff increases, safety and reliability of services, and customer engagement. Some excursions from planned outcomes were due to external factors such as the pandemic and climate-related raw water quality events, but nevertheless within an overall improving trend.

Outcome	18-19	19-20	20-21	21-22	22-23
1. Keep my costs to a minimum	Yellow	Red	Yellow	Green	Grey
2. Be easy to contact and quick to respond	Green	Green	Green	Yellow	Grey
3. Provide me with consistent, safe, clean drinking water	Green	Yellow	Green	Yellow	Grey
4. Provide me with reliable sewerage services	Green	Green	Green	Green	Grey
5. Be present and active in the community	Green	Green	Green	Green	Grey
6. Be mindful of our environment	Red	Yellow	Yellow	Yellow	Grey
7. Comply with other government obligations	Green	Green	Green	Green	Grey
Overall	Green	Yellow	Green	Green	Grey

Table ES1: Urban PS4 Performance Outcomes

- Customer tariffs followed the approved price path for the PS4 period, resulting in an overall annual reduction of 0.35% in real terms. Based on the ESC’s own household price comparator, LMW remains one of the lowest-priced urban water service providers in Victoria. Moreover, this has been achieved against the backdrop of the COVID-19 pandemic and other events and the resultant significant pressure on prices, markets, customer and staff welfare, and economic activity.
- Total prescribed operating expenditure (opex) at \$112.3m was higher than the approved budget of \$104.3m by \$8.0m or 8% for the PS4 period to date. This was primarily due to increased costs for labour (necessary to deliver services and meet compliance and pandemic requirements), as well as treatment chemicals (caused by declining raw water quality), contractors/consultants and ICT. Despite the higher labour costs, LMW continues to deliver services as one of the lowest FTE Victorian water utilities, with superior operational efficiency compared to its peers on a range of independent measures.
- The PS4 urban capital expenditure (capex) program delivered period-to-date is 5.0% or \$3.4m below budget. This reflects year-on-year improvements to program delivery, despite pandemic related delays. The Top 10 projects and renewals programs were largely delivered on time and budget, along with some new priority projects to maintain or meet regulatory obligations and customer outcomes commitments. LMW is confident of delivering the agreed customer outcomes within 1-1.5% of the overall approved PS4 budgeted expenditure.

Rural

Over the current price period 2018 to 2023 (PS4), LMW’s rural business has so far comprehensively met its commitments to customers across the four dimensions of customer outcomes, prices, operating expenditure, and capital expenditure:

- LMW consistently met or bettered its four identified rural customer outcome targets for all but two outcomes for one year each – both rated ‘largely met’. Where performance improvements on individual sub-measures have been identified, management action has been taken to address these opportunities.

Outcome	18-19	19-20	20-21	21-22	22-23
1. Supply me with water when I need it	Green	Green	Green	Green	Grey
2. Keep my costs to a minimum	Green	Green	Green	Green	Grey
3. Be easy to contact and quick to respond	Yellow	Green	Green	Green	Grey
4. Comply with other government obligations	Green	Green	Yellow	Green	Grey
Overall	Green	Green	Green	Green	Grey

Table ES2: Rural PS4 Performance Outcomes

- Total revenue was very close to the prescribed revenues approved in PS4. This included additional revenues government and proceeds from insurance, offset by reduced irrigation volumetric charges. Charges were kept at approved price path levels for all irrigation districts in the first 2 years of the price period, with reductions in charges occurring for most districts in years 2020-21 and 2021-22 due to SMP2 rebates and adjustments.
- Total prescribed operating expenditure at \$94.1m was \$5.2m or 5.9% above budget for the PS4 period to date. Increased opex was primarily driven by labour costs required to maintain service delivery and meet compliance requirements, increased software costs from increased digitisation and the move to Software-as-a-Service (SaaS), and pandemic-related impacts and measures. Against this, electricity costs reduced due to reduced energy prices and a decrease in volumetric usage demand for irrigation.
- Delivery of the rural capex program has been achieved to within 2% of budget to date and is on track to achieve delivery within 1% of budget by the end of the period. New requirements to install fish screens and NSW government regulatory requirements delayed the replacement of the Murray River Millewa Pump Station to the end of the PS4 period. The project has external funding attached and is forecast to be completed by the end of this period.
- The two major projects have progressed on or close to budget:
 - Irrigation mains replacement and channel lining projects within the rural pumped districts are on track to be achieved slightly below budget.
 - Mildura Central Pump Station was delayed to better align with irrigators' water demand and was delivered slightly above budget due to minor scope changes aimed at delivering more reliable and lower life-cycle cost solution.

Management Response During PS4

Management actions were implemented during the PS4 period seeking to address labour cost increases, and subsequently the business was restructured to ensure its long-term capability to efficiently deliver customer services and meet governance and compliance requirements. There was a focus on the following:

- LMW's people, customer and stakeholder functions were reviewed and realigned to strengthen the link between internal and external customers.
- Safety remains a focus and, during the pandemic, new challenges to mental health and wellbeing were addressed to support staff.
- The Business Transformation Program was reconfigured to address identified organisational systemic challenges and to bring to life the desire to have LMW's customers 'at the centre of everything we do'. This included a new customer relationship management and billing engine, which will enable online billing and payment services through an interactive portal by the end of the current period.

Collectively, all efforts have been made to ensure that LMW operates as an efficient business. This is confirmed by operational benchmarking work comparing LMW to its peers, demonstrating LMW is one of, if not the, lowest cost urban water service provider in Victoria.

Service delivery improvements such as summer readiness programs have been implemented to improve resilience and reliability of both urban and rural networks and manage risks associated with raw water quality and asset capability during peak demand periods. For irrigation customers, attention to delivery share capability resulted in increased ‘water orders’ availability for Red Cliffs customers in response to this district’s on-farm renewal. Similarly, the SMP2 project brought benefits to customers in shared rebates and lower tariffs, and a focus on the Minister’s Zero Tolerance of Water Theft has resulted in approximately 90% reduction in unauthorised use.

Customer Outcomes and Commitments

The current period customer outcomes and their service performance to date were reported to customers and, with their expressed needs and priorities identified, revised customer outcomes were proposed for customer review. Proposed service performance targets as identified in Tables ES3 and ES4 overleaf were developed to meet these customer outcomes, along with the major operational programs and capital projects required to deliver them, and were reviewed, updated, and endorsed by customer representatives.

Urban

Performance Assessment Criteria	Average / Target for PS4	Annual target for fifth regulatory period				
		2023-24	2024-25	2025-26	2026-27	2027-28
Outcome 1: Keep my costs to a minimum						
Customer satisfaction for overall services value for money - Target = \geq prior year performance of annual survey respondents	NA	\geq 22/23	\geq 23/24	\geq 24/25	\geq 25/26	\geq 26/27
Delivery of the approved PS5 price determination	Pass	Yes / No				
Delivery of top 10 capital projects on time and budget (budget set by annual corporate plan, timing set by pricing submission)	NA	\geq progress against capital delivery plan				100% delivery
Outcome 2: Provide customers reliable and safe drinking water						
% Compliance with Safe Drinking Water Regulations Target (schedule 2)	100%	100%				
Customer satisfaction of water services - Target = \geq prior year performance of survey respondents	NA	\geq 22/23	\geq 23/24	\geq 24/25	\geq 25/26	\geq 26/27
Customer satisfaction of water quality - Target = \geq prior year performance for survey respondents	90/94%	\geq 22/23	\geq 23/24	\geq 24/25	\geq 25/26	\geq 26/27
Number of taste and odour complaints per year.	13	< 25				
Number of boil water notices per year.	0	0				
Outcome 3: Provide customers reliable sewerage services						
Unplanned interruptions to sewerage service per customer	NA	\leq 5				
Customer satisfaction of sewerage service – Target = \geq prior year performance of annual survey respondents	90%/91%	\geq 22/23	\geq 23/24	\geq 24/25	\geq 25/26	\geq 26/27
Odour complaints per year	<10	\leq 10				
Number of spills in houses caused by LMW assets	\leq 2	\leq 3				
Number of customers receiving more than 3 sewer blockages in the year.	0	0				
Outcome 4: Provide customer service avenues that are responsive to resolve requests and enquiries						
Resolve customer charter requests / enquiries within the defined response time (Mean Time to Resolve) – Target - % \geq per year from 2024/25	NA	NA	\geq 60%	\geq 65%	\geq 70%	\geq 75%
Resolve customer charter requests / enquiries “First Time Right” – Target - % \geq per year from 2024/25	NA	NA	\geq 60%	\geq 65%	\geq 70%	\geq 75%
Customers registered for self-service portal – Target - 20% in first year and 10% increase per year for subsequent years	NA	20%	30%	40%	50%	60%
Customer satisfaction for responsiveness to enquiry or request – Target = \geq prior year performance of survey respondents	NA	2022/23 actual	\geq 23/24	\geq 24/25	\geq 25/26	\geq 26/27
Outcome 5: Service our communities in a socially responsible and environmentally sustainable manner						
Number of EPA reportable sewage spills per annum	\leq 2	\leq 2				
% compliance of WWTPs with EPA license conditions	100%	100%				
Percentage of electrical energy from renewable sources – Target = 100%	NA	NA		100%		
Recycled Water - Percentage of wastewater received by LMW that is recycled	60%	60%				

Table ES3: Urban Customer Outcome Performance Targets

Rural

Performance Assessment Criteria	Average/ Target for PS4	Annual target for fifth regulatory period				
		2023-24	2024-25	2025-26	2026-27	2027-28
Outcome 1: Services provide customer value for money						
Customer satisfaction for overall services value for money - Target = >/= prior year performance of annual survey respondents	N/A	=/>22/23	=/>23/24	=/>24/25	=/>25/26	=/>26/27
Delivery of the approved PS5 price determination	Pass	Yes / No				
Delivery of top 10 capital projects on time and budget (budget set by annual corporate plan, timing set by pricing submission)	NA	=> progress against capital delivery plan				100% delivery
Outcome 2: Provide customers with water when they need it						
Deliver water orders on time – Target = 98% or more	99.8%	=>98%				
Provide report to customer committees annually re: service request vs. service provision (Water Now) – Target = 1	NA	NA	1			
Maintain or improve system reliability – Target = year on year unplanned outages time =< prior year performance	2022/23 actual	=/>22/23	=/>23/24	=/>24/25	=/>25/26	=/>26/27
Outcome 3: Provide customer service channels that are responsive to resolve requests and enquiries						
Resolve customer requests / enquiries within the defined response time (Mean Time to Resolve) - % => per year from 2024/25	NA	NA	=>60%	=>65%	=>70%	=>75%
Resolve customer requests / enquiries “First Time Right” – Target - % => per year from 2024/25	NA	NA	=>75%			
Customers registered for self-service portal – Target - 10% in first year and 5% increase per year for subsequent years	NA	10%	15%	20%	25%	25%
Customer satisfaction for responsiveness to enquiry or request – Target = => prior year performance of survey respondents	NA	=/>22/23	=/>23/24	=/>24/25	=/>25/26	=/>26/27
Outcome 4: Service our communities in a socially responsible and environmentally sustainable manner						
Percentage compliance with EPA General Environmental Duty (GED) – Target - 100% (no reportable incidents)	100%	100%				
Customer overall satisfaction of LMW – Target = >/= prior year performance of survey respondents	2022/23 result	=/>22/23	=/>23/24	=/>24/25	=/>25/26	=/>26/27
Percentage of electrical energy from renewable sources by 2025 – Target = 100%	NA	NA		100%		

Table ES4: Rural Customer Outcome Performance Targets

Major Projects and Programs

The Top 10 Major Projects for the business are set out below:

No.	Business Case	Total Project Cost (\$m)	Major Service Category	ESC Cost Driver
1	Purchase of Water	8.09	Urban Water	Growth
2	Water Mains Upgrade in Mildura	3.83	Urban Water	Growth
3	New 10ML Treated Water Storage and Pump Station upgrade at 14th St Mildura (Stage 1)	1.11	Urban Water	Renewals
4	Improving level of service (Pressure) in Red Cliffs Water Distribution	9.41	Urban Water	Improvements/ Compliance
5	New Swan Hill water treatment plan (Stage 1)	1.00	Urban Water	Growth
6	Wet Weather Storage for the Koorlong WWTP	6.07	Urban Sewerage	Growth
7	Koorlong Sewer Rising Main Duplication	1.50	Urban Sewerage	Growth
8	Customer CRM, portal Phase 2	2.28	Corporate	Improvements/ compliance
9	Robinvale Decommissioning	2.15	Rural Irrigation	Improvements/ compliance
10	Asset Management Platform uplift	3.48	Corporate	Improvements/ compliance
Total Major Projects - Combined		38.92		

Table ES5: Top 10 Major Projects

Major Programs for the business are set out below:

Major Program	Total Program Cost (\$m)	Major Service Category	ESC Cost Driver
Urban Water Mains Replacement	6.09	Urban Water	Renewals
Sewer Mains and Maintenance Structures Replacement/Rehab.	6.09	Sewerage	Renewals
Irrigation Meter Replacement	5.81	Irrigation	Renewals
Light Motor Vehicle Fleet - annual replacements	5.73	Corporate	Renewals
Irrigation Mains Replacement	4.03	Irrigation	Renewals
Minor capex - Water	3.27	Urban Water	Renewals & Improvement
Minor capex - Sewer	3.80	Sewerage	Renewals & Improvement
Minor capex - Irrigation	5.28	Rural Irrigation	Renewals & Improvement
Total ICT equipment	2.33	Corporate	Renewals
Heavy Motor Vehicle Fleet - annual replacements	2.55	Corporate	Renewals
Corporate Facilities and Buildings	3.25	Corporate	Improvements / Compliance
TOTAL Major Programs - Combined	48.23		

Table ES6: Major Programs

Proposed Prices

Urban

Proposed urban prices designed to deliver prudent and efficient investment meeting agreed customer outcomes, results in a 0.30% tariff increase in real terms, summarised in Table ES7:

Urban Service – Owner Occupier	PS4 2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Water Service Charge	\$215.46	\$216.12	\$216.77	\$217.43	\$218.09	\$218.76
Water Usage (480kL)	\$293.61	\$294.50	\$295.40	\$296.30	\$297.20	\$298.10
Sewerage Service Charge	\$508.64	\$510.19	\$511.74	\$513.29	\$514.86	\$516.42
Total Reference Owner Occupier* Customer Bill	\$1,017.71	\$1,020.81	\$1,023.91	\$1,027.02	\$1,030.15	\$1,033.28
Annual Bill Impact \$		\$3.10	\$3.10	\$3.11	\$3.12	\$3.13
Annual Bill Impact %		0.30%	0.30%	0.30%	0.30%	0.30%

Table ES7: Proposed Urban Prices

Rural

Proposed rural prices designed to deliver prudent and efficient investment meeting agreed customer outcomes, results in a net reduction in total revenue requirement of \$4.64m for the rural business, with prices for irrigation reference customers ranging from CPI - 6.42% to CPI + 1.27% per annum depending on the district, summarised in Tables ES8 and ES9:

Rural District	PS4 2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	Average annual % Change P5 from PS4
Mildura (100ML)	\$15,456	\$15,249	\$15,054	\$14,872	\$14,701	\$14,501	-1.27%
Mildura HP (100ML)	\$23,742	\$22,172	\$20,730	\$19,408	\$18,193	\$17,036	-6.42%
Merbein (100ML)	\$11,729	\$11,848	\$11,986	\$12,145	\$12,327	\$12,491	1.27%
Red Cliffs (100ML)	\$12,438	\$12,326	\$12,237	\$12,170	\$12,126	\$12,063	-0.61%
Robinvale (100ML)	\$23,100	\$21,804	\$20,592	\$19,461	\$18,402	\$17,373	-5.54%
Private Diverters (1,000ML)	\$12,953	\$13,153	\$13,333	\$13,511	\$13,678	\$13,438	0.75%
Total Costs per ML	\$878	\$853	\$825	\$799	\$776	\$753	
ML % Movement		-2.76%	-3.31%	-3.11%	-2.92%	-2.97%	-3.02%
Millewa Rural (4,300kL)	\$8,238	\$8,179	\$8,124	\$8,074	\$8,030	\$7,991	-0.61%
Millewa – Urban (400kL)	\$935	\$924	\$914	\$905	\$896	\$888	-1.01%
Yelta/Wargan WWD (3ML)	\$1,764	\$1,712	\$1,685	\$1,658	\$1,631	\$1,605	-1.86%

Table ES8: Proposed Rural Prices

Rural Revenue requirement (\$m)	PS4 2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	Average annual change PS5 %
Operating Expenditure	\$22.15	\$20.72	\$20.82	\$21.46	\$21.81	\$21.39	
Return on Assets	\$4.06	\$2.94	\$2.85	\$2.82	\$2.80	\$2.82	
Regulatory Depreciation	\$3.06	\$3.33	\$3.59	\$3.78	\$3.96	\$4.08	
Total Revenue Requirement	\$29.27	\$26.99	\$27.26	\$28.06	\$28.57	\$28.29	
		-5.86%	1.01%	2.93%	1.81%	-0.96%	-0.21%

Table ES9: Rural Revenue Forecast

Future Uncertainties

LMW is a proactive regional service provider and stands ready to integrate major regional water and environmental initiatives into its business. The Victorian Murray Floodplain Restoration Project (VMFRP) seeks to put water back into nine high-value floodplains along the Murray River. LMW is the working-lead agency to coordinate the delivery of the project, alongside partners Goulburn Murray Water, Mallee Catchment Management Authority, North Central Catchment Management Authority, Parks Victoria and the Department of Environment, Land, Water and Planning (DELWP).

Similarly, the Water Efficiency Project (WEP) is being funded by the Federal government as part of initiatives to deliver upon the Murray Darling Basin Plan. Investment in irrigation infrastructure will extend asset life and improve metering, resulting in reduced water losses and a return of 1.8GL of water for the environment.

These projects are regarded in this submission as uncertain projects, as the scope, timing and funding arrangements are yet to be finalised. LMW's expectation is that it will become responsible for delivery and ongoing management of the projects, which are expected to benefit all LMW customers in improvements to the regional environment and water management, and in potential efficiencies through service integration. It is intended that further consultation with customers on how any benefits can be applied will be undertaken when additional detail is known.

A number of individual projects have been nominated as uncertain, due to incomplete scope, timing, costs, and benefits. In these cases, provision has been made in the capital program for relevant business case or design development.

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1. Introduction

1.1 Purpose

This Price Submission for the 2023-24 to 2027-28 period (PS5) for both Lower Murray Water’s (LMW) urban and rural business units is submitted in accordance with the Essential Services Commission’s (ESC) 2023 Water Price Review guidance paper, 26 October 2021.

1.2 Structure of this Submission

LMW is the only entity in Victoria that manages both urban and rural business units. As such, the complexities in addressing all elements in the ESC’s guidance paper led to engagement with the ESC and their acceptance of LMW’s approach to present the submission document in three parts, namely a common ‘Part A’ section that provides context regarding the organisation and its approach to the submission development, followed by Part B and Part C which address the specifics relating to urban and rural business units respectively. The following table provides an overview of the structure as it relates to specific requirements.

Part	Approach	Urban	Rural
Part A Business context & approach	<ul style="list-style-type: none"> • LMW’s general business summary including strategic priorities • R: Risk approach • E: Engagement approach including customer views • M: Governance and management approach • Overall financial position 	✓	✓
Part B Urban Business	<ul style="list-style-type: none"> • P: Specific urban assessment regarding PS4 performance • O: Specific urban proposal for customer outcomes, service standards • Revenue & financial parameters including demand, operating and capital expenditure • Prices including revenue requirement, tariff structures and prices. 	✓	
Part C Rural Business	<ul style="list-style-type: none"> • P: Rural assessment noting no requirement for a formal P assessment • O: Specific rural proposal for customer outcomes, service standards • Revenue & financial parameters including demand, operating and capital expenditure • Prices including revenue requirement, tariff structures and prices per district 		✓

Table A1: LMW Pricing Submission Structure

To support the readability of the submission across the urban and rural business units, and to enable the reader to navigate the three parts, the following index has been provided to highlight the relevant sections of the submission that addresses each of ESC’s guidance topics:

Ref	ESC Required Submission Content	LMW PS5 Reference
3.1	Managing risk	Part A: Section 6 Part B: 2.2.1, 2.4.4, 2.5.1, 4.3.3, 4.4.1.2, 4.4.1.6, 4.5.3, 4.5.4, 5.1, 6.1.1 Part C: 1.1, 2.1.1, 2.1.2, 2.5.1, 4.2.3, 4.2.5, 4.3.1.1, 4.4.2, 4.4.4
3.2	Regulatory period	Part A: 4.3
3.3	Customer engagement	Part A: Section 2 Part B: Section 3 Part C: Section 3
3.4	Outcomes	Part B: 3.1, 3.3, 3.4 Part C: 3.1, 3.3, 3.4
3.5	Service standards relating to reliability and faults	Part B: 3.2 Part C: 3.2
3.6	Guaranteed service levels	Part B: 3.5 Part C: 3.5
3.7	Revenue requirement	Part B: 4.1 Part C: 4.1, 4.5
3.8	Forecast operating expenditure	Part A: 4.4 Part B: 4.3 Part C: 4.3
3.9	Forecast capital expenditure	Part A: 4.6 Part B: 4.4 Part C: 4.4
3.10	Return on regulatory asset base	Part B: 4.5 Part C: 4.6
3.11	Forecast regulatory asset base	Part B: 4.5 Part C: 4.6
3.12	Regulatory depreciation	Part B: 4.5.1 Part C: 4.6.2
3.13	Cost of Debt	Part B: 5.3.2 Part C: 5.3.2
3.14	PREMO rating	Part A: Section 5
3.15	Return on equity	Part B: 4.5.2 Part C: 4.6.3
3.16	Tax allowance	Part A: 4.7
3.17	Demand	Part B: 4.2 Part C: 4.2
3.18	Form of price control	Part B: 5.1 Part C: 5.1
3.19	Prices and tariff structures	Part B: 5.2 Part C: 5.2
3.20	Adjusting prices	Part A: 4.9 Part B: 5.3 Part C: 5.3
3.21	New customer contributions	Part B: 5.2.4
3.22	Financial position	Part A: Section 7
3.23	Additional requirements <ul style="list-style-type: none"> - Exec Summary Attestation - Board Assurance 	Part A Part A

Table A2: ESC Required Submission Content Index

The following definitions and abbreviations have been collated below for reference.

Acronym or Abbreviation	Description
ACCC	Australian Competition and Consumer Commission
BOM	Bureau of Meteorology
DCT	PS5 Development Coordination Team
ESC	Victorian Essential Services Commission
IT	Information Technology
LMW	Lower Murray Water OR Lower Murray Urban and Rural Water Corporation
NTER	National Tax Equivalent Regime
PS	Price Submission 5
PS4	Price Submission 4 (2018-2023 period)
PS5	Price Submission 5 (2023-2028 period)
PS6	Price Submission 5 (2028-2033 period)
RAB	Regulatory Asset Base
REFCL	Rapid Earth Fault Current Limiter
WIRO	Water Industry Regulatory Order

Table A3: PS5 Acronyms and Abbreviations

2. Customer Views, Perspectives & Aspirations

2.1 LMW’s Customer Engagement Approach

Customer engagement is integral to LMW’s business, and although there is a requirement to engage with customers as defined by the regulatory framework, LMW’s strategic aspiration to uplift customer engagement to a best-practice standard to better and more effectively understand the needs of urban and rural customers, has been a key principle in the development of PS5.

In 2021, to realise its strategic aspiration to engage with stakeholders more effectively, LMW has:

- Realigned its organisational structure to bring its people, customer, and stakeholder functions together to strengthen the link between LMW’s internal and external customers.
- Embedded authentic customer engagement across the business through a new Communication and Stakeholder Engagement Framework¹, Strategy² and Toolkit³. This strategy encompasses the values, ethics and processes for public participation established by the International Association of Public Participation (IAP2) and provides a singular overarching best-practice framework to support LMW to effectively engage all stakeholders.
- Developed the customer engagement and facilitation plan to inform PS5, aligning with the ESC’s PREMO framework and requirement that price submissions are heavily informed by customer engagement.

This new approach to communication and engagement represents further evolution from the PS4 approach and requires the consideration of various elements to shape the best outcomes for the business and the community as shown in Figure A1:



Figure A1: Effective Communication and Engagement Considerations

¹ LMW Communication and Stakeholder Engagement Framework

² LMW Communication and Stakeholder Engagement Strategy

³ LMW Communication and Stakeholder Engagement Toolkit

LMW has proactively utilised the development and implementation of its customer engagement program for PS5 as a vehicle to further build maturity and internal capacity, and to embed the Communication and Stakeholder Engagement Framework across its business, minimising the need for a significant step-change relating to engagement in the preparation for Price Submission 6 (2028-33).

2.2 Customer Engagement Alignment with PS5 Preparation

Preparation and planning for PS5 engagement activity was undertaken in mid-2021, taking into consideration the funding, resources, and key deadlines required to deliver a robust engagement experience for customers. A four-stage, deliberative and iterative program was developed to build PS5 customer outcomes and price paths and utilised a range of both quantitative methods such as surveys and qualitative methods including community engagement, deliberative panels, on-farm and in-field activities, as well as one-on-one approaches to derive authentic customer feedback from both urban and rural customers, resulting in over 75 touchpoints of engagement activity in the development of PS5.

The engagement program sought to ensure that engagement was both relevant and accessible to customers and designed to achieve the following:

- Wide-reaching engagement to reflect a representative segment of customers, providing customers with a deeper understanding of the business, and utilising insights that enabled innovative outcomes to be developed with customers
- Agile and flexible approach that evolved in an iterative manner building upon new information and accommodating an ever-changing COVID-19 environment
- Engagement that leveraged the work and learnings from the 2018 Price Submission (PS4) process
- Activity and methods that allowed for frequent sense-checking and testing of findings through feedback loops, checkpoints, and challenges throughout to ensure learnings were captured, shared, and used to inform future activities and the development of key strategies, plans, KPIs and targets
- Evidence-based and data-driven information that was shared and discussed to support the collection of both qualitative and quantitative data
- Transparent communication that ensured engagement loops were closed and facilitation tactics that demonstrated that customers views had been heard, especially:
 - What customers are telling LMW they value and seek to prioritise
 - What LMW are hearing
 - How LMW are responding

LMW acknowledges that identifying and engaging with a representative sample from a population of 75,000 people across a service region spanning three municipalities and encompassing both urban and rural customers is a significant challenge, especially during a global pandemic. To address this challenge, LMW engaged the expertise of communication and engagement specialists, Aurecon, to support and facilitate a four-stage engagement approach that was tailored specifically to ensure LMW did not make assumptions based on limited and/or nuanced views.

The engagement program was designed to maximise all available opportunities across both urban and rural cohorts (within the parameters of COVID-19 impacts and restrictions) and create an authentic engagement experience that elicited rich insights as opposed to token engagement tools that may provide a greater quantity of touchpoints but wouldn't deliver the insights to best shape the future of PS5. This iterative approach enabled the analysis of data such as previous insights from PS4 and quantitative data collected in mid-2021 which was then fed back to customers in various forums to be tested, challenged, and crafted into core insights. These insights were then internally fed back into strategy and plan development and in the evolution of KPIs and targets.

Figure A2 illustrates LMW's PS5 customer engagement approach, recognising the differences between the urban and rural business units and the diversity of customer groups across LMW's geographic regions.

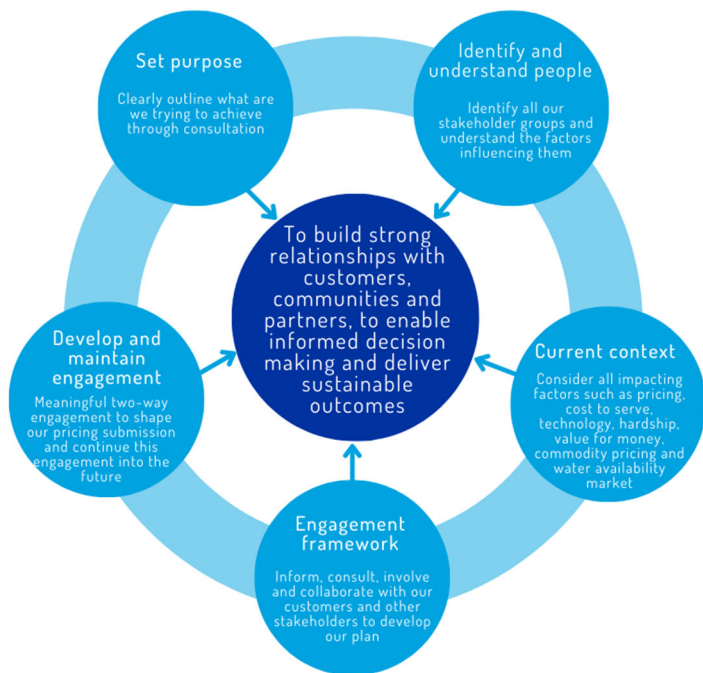


Figure A2: PS5 Stakeholder Engagement Approach

Running concurrently with the customer engagement process outlined above, LMW progressively developed information for presentation to customers, engaging with many LMW subject matter experts (SMEs) across the business as well as the Executive team and LMW’s Board. Figure A3 illustrates the concurrent processes and timeline for both customer engagement and PS5 development.

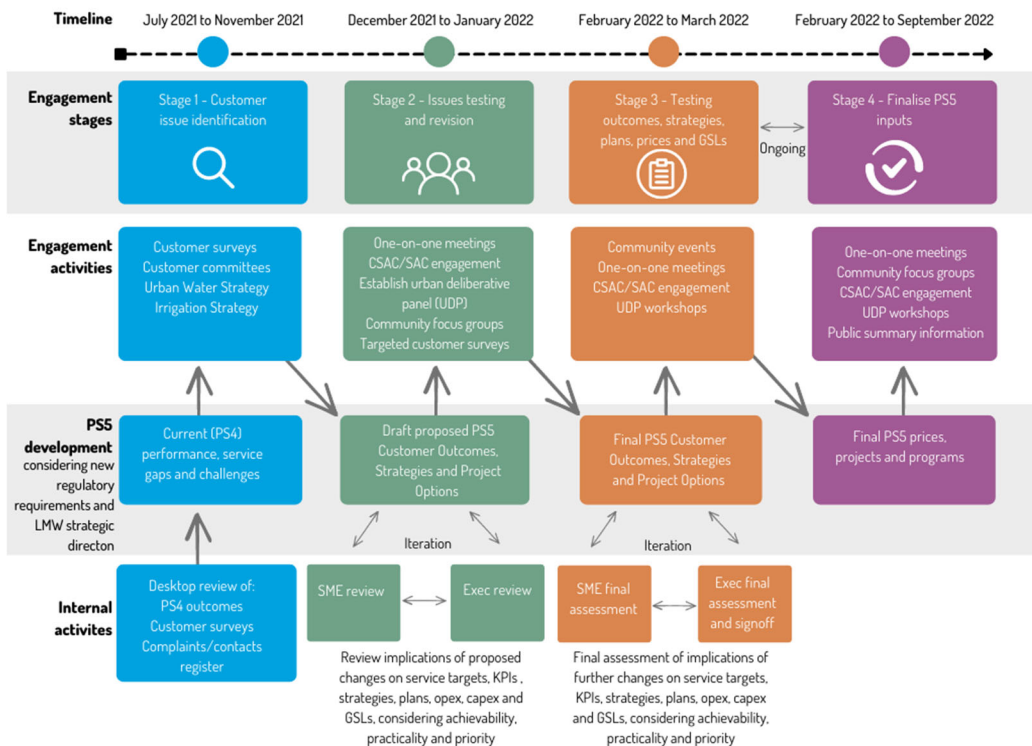


Figure A3: Customer Outcomes Development

2.3 Targeted PS5 Engagement

LMW's engagement framework acknowledges that different approaches are suitable for different stakeholder groups given their varied values, priorities, knowledge, and risk appetites. With key stakeholder groups that intersect with each other, the engagement for PS5 was broken into two key target cohorts (urban and rural) with representation from the groups shown in Figure A4:



Figure A4: Key LMW Stakeholder Groups

Given the limited targeted engagement with specific cohorts such as First Nations communities and vulnerable customers in PS4, LMW paid particular attention to identifying and planning targeted activities utilising the new stakeholder engagement approach.

An extensive plan was developed to deliver an authentic engagement experience for customers and included relevant and accessible activities to best suit identified target cohorts. These activities included:

- focus group sessions.
- online and annual surveys.
- individual phone calls.
- deliberative panels.
- one-on-one engagement activity such as community events, on-site farm visits, pumping station open days and town hall-style events.

PS5 engagement saw over 75 touchpoints across the identified customer cohorts and began with a reach of approximately 19,000 customers (16,500 urban and 2,500 rural) for the initial quantitative engagement via customer surveys. Consideration was given to identifying the best channels and networks across both urban and rural customer cohorts to initiate engagement activity with vulnerable customers across the region noting that COVID-19 restrictions significantly hampered these initial efforts to reach this target group at an individual level.

For urban customers, specific attention was given to attracting participation in an Urban Deliberative Panel (UDP) from a diverse range of people reflecting LMW's service region, including male, female, people identifying as LGBTQIA+, Aboriginal, retirees and unemployed. Customer group coverage included residential customers from both large and small urban systems, commercial customers including large commercial and trade waste

customers, land developers, regional agencies, and service providers, as well as Members of Parliament. UDP members remained available outside the panel sessions for one-on-one contact to assist LMW refine key outputs and outcomes for this pricing submission. Both incentivised (discount on LMW water bill) and non-incentivised methods were utilised to attract and engage a representative sample of urban customers.

For rural customers, the established Customer Advisory Committees (CSAC) and the Strategic Advisory Committees (SAC) were engaged throughout the customer engagement process, supported by individual district PS5 consultation with pump station tours and BBQ events held in each rural district and open to all rural customers. In addition to known and established networks, supplementary engagement activities included community markets, field days, ad hoc in-field engagement activity utilising technical field staff to engage customers, and individual interviews with major stakeholders across LMW's rural business including Citrus Australia, Almond Board of Australia, Australian Table Grapes Association (Murray Valley Winegrowers Inc), Dried Fruits Australia, Mildura Regional Development and Mildura Rural City Council was undertaken. The rural committees were utilised further to test and refine the key outputs and outcomes for this pricing submission utilising feedback gathered from all engagement activity.

Vulnerable customers

As mentioned earlier, LMW was challenged by the impacts of COVID-19 restrictions in implementing the full suite of engagement activities identified to engage with vulnerable customers, however engagement with service providers across the region that work closely with this target group yielded valuable insights that were fed into the development of customer outcomes and guaranteed service levels. These insights were provided in support of vulnerable customers and identified issues regarding the perceptions that exist of LMW's current hardship and debt collection services and the potential need for dedicated resources to better support customers requiring hardship management plans. Insights were also provided to better enable LMW to understand the profile of its vulnerable customers noting that many of them are high water users and that proposed changes to the tiered pricing structure may potentially further disadvantage these customers. Many of the service providers engaged indicated that they would be willing to work closely with LMW in review of the tiered urban pricing structure over the regulatory period and cautioned any change to the model without a detailed review to identify the variety of reasons a customer may have high water use.

First Nations people

LMW acknowledges the limited targeted engagement with First Nations peoples in PS4 and drawing upon its own learnings and evolution in better understanding indigenous communities, utilised these experiences to inform a targeted engagement plan that would better engage with indigenous cohorts for PS5. Again, implementation of the plan was challenged by significant impacts, largely due to COVID-19 restrictions which limited the opportunities to engage directly with indigenous communities however, much like with vulnerable customers, LMW took the opportunity to engage with gateway service providers across the region such as Mallee District Aboriginal Services, Murray Valley Aboriginal Co-Op and the Department of Health and Human Services.

In addition, targeted engagement with local Registered Aboriginal Party, First People of the Millewa-Mallee Aboriginal Corporation (FPMMAC), was undertaken, leveraging upon earlier discussions that had occurred through the development of LMW's Urban Water Strategy Review. This targeted PS5 consultation resulted in the identification of potential projects for PS5 including joint initiatives and the provision of services to LMW by FPMMAC, as well as funding and employment opportunities. This, combined with the targeted engagement activity with key service providers within the service region, enabled LMW to explore the needs, considerations and impacts to customers that crossed between vulnerable and First Nations groups.

Internal engagement

In addition to external consultation, an internal engagement program to engage with LMW staff was implemented in recognition of the fact that employees are both internal customers of LMW (who see services through a customer-service lens) and an external customer living in LMW's serviced communities. LMW engaged with staff to better understand the effectiveness of LMW's communication with customers regarding services and interruptions or scheduled works, billing processes and explanation of fees and charges, hardship support including opportunities to improve, and service/cost trade-offs. Outcomes from these sessions were

then compiled and subsequently tested with customers during engagement activity to validate and cross-reference the learnings.

Whilst LMW's Board was heavily engaged in the development of PS5 from an attestation perspective, an engagement plan to involve and inform the Board of key engagement activity and participation opportunities was also developed which resulted in Board members attending face-to-face and online engagement activity with customers.

Relevant and accessible engagement

These targeted engagement approaches enabled LMW to gather feedback and analyse customer sentiments on relevant elements of PS5. Despite careful coordination however, barriers to engagement and external challenges were faced across both urban and rural cohorts including conflicting engagement windows which limited engagement opportunities, as well as the impacts of COVID-19 which challenged LMW's planned engagement approach and demonstrated the need for flexibility and adaptability in pivoting from the developed approach. The use of video conferencing platforms such as Teams and Zoom helped support the connection and engagement of certain cohorts, however, not all customers were responsive to engagement that was not face-to-face noting LMW's rural customers were particularly reluctant to engage using online tools and were often unavailable during the peak engagement period as it coincided with a late harvest for many.

Feedback loops and closing out engagement

Given the barriers mentioned above, LMW took considerable steps to ensure that any assumptions made as a result of the insights gathered, were tested and validated with customers through feedback loops during subsequent engagement. Closing the loop with customers following an engagement stage was key to building authentic engagement across the program of PS5 engagement and upon conclusion of each round of engagement, a one-page flyer of the key outcomes and findings of the discussions was developed and distributed to customers prior to the next round of engagement to remind customers of the discussions held, the feedback provided and how this linked to the next round of engagement.

Closing the feedback loop between each engagement stage was also an essential tool to effectively manage the expectations that were raised throughout the engagement. Where new or aspirational expectations were raised, this process enabled these to be considered, and where appropriate, further information or detail was provided to clarify and progress. Where possible, scenarios were provided to customers which enabled them to settle on an agreed level of expectation for the submission period, such as providing urban customers with a scale of investment (historic versus gold standard) scenario to improve raw water quality. In other cases, expectations were raised and through the iterative process, an agreed position was taken to make incremental progress or investment during the PS5 period, with the view to progress to the level desired in subsequent price periods (for example the tariff structure for urban and outlet fees for rural which will be investigated and developed in PS5 with the view to implement in PS6).

Stages of engagement

A summary of each stage of customer engagement and customer outcome development is provided below. Extensive documentation can be made available to the ESC regarding the plans, processes and information provided to customers, as well as the details of the outcomes of engagement as supporting information.

Stage one – Customer Issue Identification

- Desktop research and review of historical data including PS4 submission, PS4 performance review, internal customer engagement, service requests and complaints, and annual customer survey data to identify performance gaps and specific issues or concerns which required investigation with customers.
- Recruitment of customer representatives for the UDP.
- Pre-engagement with the existing SAC (representing all rural customers) and CSACs (for each irrigation district) about aspirations and expectations for LMW services.
- Preparation of appropriate information relevant to the various customer engagement activities, ranging from poster-style for market/field days to detailed PowerPoint presentations for the UDP and CSAC/SAC forums.

Stage two – Issues Testing and Revision

- Distribution and analysis of online tailored surveys for both urban (residential, commercial/trade waste) and rural customers (across irrigators, diverters and stock and domestic customers) seeking feedback on LMW's performance over the past 12 months.
- Conduct of initial engagement activities with UDP, SAC, CSAC, in the community and with major stakeholders including an overview of LMW performance against delivering the PS4 price path and commitments.
- Direct engagement with service providers of vulnerable customers, CALD, and First Peoples engagement via FPMMAC.
- Internal collation of insights distributed via organisational networks including SMEs to feed into strategies, plans, KPIs and targets. These insights were assessed and considered during development of key planning documents or were prepared to feed back to customers and test variations, new approaches and appetites for alternative options.

Stage three – Testing Outcomes, Strategies, Plans, Prices and GSLs

- Test draft customer outcomes including performance measures and targets through repeating engagement initiated in Stage 2.
- Provide detailed 'customer choice options' information on potential future projects and their associated investments as a basis for participants to offer feedback and opinions, and vote on their preferred project option.
- Final collation of insights through an internal review process to assess implications and tweak changes to service targets, strategies, plans and KPIs.

Stage four – Finalise PS5 Inputs

- Gain agreement with customers on revised customer outcomes including performance measures and targets.
- Confirm Customer Service Standards and any amendments from Services Standards in PS4.
- Describe and gain feedback on the indicative price path which will support delivery of customer outcomes and agreed investments.
- Describe major proposed capital and operational investments within the indicative price path.
- Provide a comparison of PS4 capital and operational investments to those proposed for PS5.
- Discuss proposed changes to corporate cost allocations between LMW's urban and rural businesses.

Specific to urban customers only:

- Seek feedback on proposed changes to New Customer Contributions (NCC) from developers and land holders.
- Seek feedback on the current Urban Volumetric Tier Pricing Structure and options for change.

Specific to rural customers only:

- Describe LMW revenue requirements to deliver the indicate price paths presented for each district.

Post engagement - Informing Price Path Outcome and Water Plan Commitments.

- Summaries of the process, key highlights and the future deliverables were fed back to customer stakeholder cohorts to close the loop.

2.4 What LMW Customers Said

Through a new communication and engagement approach, clear planning, and consistent implementation of a variety of engagement methods, LMW was able to evolve PS5 customer outcomes and relevant price paths in a coordinated and iterative way. This authentic engagement experience generated new insights into the shift of customer perceptions, aspirations, and expectations from PS4 to PS5.

Customers demonstrated an ability to draw upon their experiences and knowledge of issues that arose during PS4, including COVID-19 pandemic, an increased awareness of cyberattacks resulting in the need for more

robust cybersecurity, as well as an appreciation of the interdependence between LMW services and a decrease in water quality. These insights drove the key priorities highlighted for LMW customers as a result.

2.4.1 Urban Customers

Urban customers now seek a more digitally integrated service from LMW with less reliance on face-to-face personal contact and more willingness to engage through online chats, online application processes and digital communication platforms for updates and information. Engagement feedback demonstrated strong support from urban customers for smart metering capability to enable both environmental sustainability and socially responsible behaviour by LMW customers with 87% of participants in the UDP placing value upon being able to access water usage information, and 85% of customers supporting an investment in the development of a business case for smart metering networks.

Testing of the proposed projects that impact urban customers was a key element of the engagement plan and these projects were presented to the UDP members for discussion and feedback. The following outcomes were identified:

- Water asset renewal and water quality projects are of the highest importance to customers. They are essential to LMW's service levels as a water provider.
- The customer service business transformation and smart metering projects remain important to customers.
- 100% of UDP members would prefer local investment opportunities when addressing carbon offset requirements. Sentiment is so strong that UDP members want to see this local investment eventuate regardless of cost.
- UDP members would like to see urban water renewals investment remaining at historic levels (approximately \$900,000 per year, or 4.5% of capital budget). 88% of UDP members want service levels maintained - having the comfort in knowing there would be less interruptions to customers' water supply from continued investment.
- UDP members would prefer LMW take a cost/risk-based approach when reviewing the water quality project. All votes (100%) were for the \$5-10m investment (or 5-10% of capital budget) which comfortably balances the cost with quality and reliability of service.

During the final round of engagement with urban customers, key sentiments were summarised as follows:

Customer outcomes including performance measures and targets

- Agreement was obtained from the UDP that the revised customer outcomes, performance measures and targets captured urban customer priorities and expectations.

Indicative price path

- The UDP unanimously agreed that the proposed price path was fair and reasonable. There was a general sentiment that customers were expecting a larger price increase than that proposed (CPI = 1.55% or an average annual increase of \$16.22 (based on an average customer usage of 480KL of water)), which was further reduced by rigorous review of cost inputs.

CAPEX and OPEX investment projects

- UDP members confirmed agreement regarding the scope and value of all projects presented and confirmed the investments accurately reflected their needs and priorities.

Customer Service Standards:

- Generally, all UDP participants felt that the current customer service standards and LMW's current performance, and proposed targets were reasonable and fair.

Corporate cost allocation:

- UDP members were generally in agreement and comfortable with the proposed change to the Corporate Cost Allocation Split.
- They recognised rural customers should not pay for services they don't utilise or need and that it was fair to recalibrate the cost

split as the population base changes.

Urban Volumetric Tiered Pricing Structure:

- There was a variety of views across the UDP regarding the proposed review of the tier price structure including a reiteration of previous feedback that there are several government programs to help customers in hardship with their household bills and customers don't support LMW increasing support for hardship at the expense of other customers.
- A review of the tier structure was supported over a longer period of time to ensure detailed investigations could be undertaken, avoiding inaccurate assumptions which could disadvantage customers unintentionally. LMW will seek to engage further the urban customers throughout PS5 for consideration in PS6.

2.4.2 Rural Customers

Rural customers are still very reliant on personalised service and would prefer a local 24-hour customer service centre to report leaks and interruptions. Engagement feedback demonstrated an acknowledgement by rural customers that there are cost efficiencies associated with the current centralised after-hours services across the water sector and clearly expressed an unwillingness to pay more for their preferred option of a localised 24-hour service. Although they still seek a personal level of human interaction and service, LMW's rural customers noted a preference for any additional investment to go towards improved digital services that will support more efficient on-farm business practices including:

- Increased functionality for water ordering
- Improved text messaging facilities and scope of messaging through SMS
- A customer portal that provides a central point of personalised information

The overarching customer sentiment across LMW's rural customer base continues to be focused on minimising cost impacts, and that cost efficiency and reduction should be a priority. Any non-essential investments should be sacrificed in preference to lowering rural customer bills. There was, however, an understanding that under-investment has the potential to cause greater costs into the future and from this perspective, further discussions lead to a final position of rural customers supporting targeted and informed investment decisions which sustained assets ahead of time.

During the final round of engagement with rural customers, key sentiments were summarised as follows:

Customer outcomes including performance measures and targets

- General agreement was obtained from the rural customers regarding the revised customer outcomes, performance measures and targets.
- Customers were pleased to see LMW's increased emphasis and performance measures regarding the resolution of customer enquiries and requests and recognised that the revised performance measures across the customer outcomes were improved from those in PS4.
- One district did comment on the subjective nature of 'value for money' and believe that this needs to be measured with more of a long-term view which is difficult to capture in an annual service where feedback provided is a point in time.

Indicative price path

- Rural customers across the six districts generally accepted the price paths presented while reiterated the need for LMW to continue to review costs, productivity, and efficiencies to minimise cost increases to customers.
- In districts where a decreased price path was presented, customers indicated this as a positive outcome however raised

some concern about the sustainability of this and customer reliance on lower costs into the future. Further customers provided feedback about the seesaw pricing impact with increases seen in 2022/23 and now proposing decreases in PS5. Customers asked LMW to consider how these highs and lows can be more evenly spread to give customers more consistent costs.

- Where price increases are predicted, this was met with some discomfort however through the engagement LMW explained the rural building blocks required to determine price paths in each rural district within the Victorian regulatory model. This explanation allowed the customers to reach a level of understanding as to the reasoning. Customers highlighted that long-term sustainability and maintenance was the priority.

CAPEX and OPEX investment projects

- General agreement was reached with the level of capital investment in each district with customers reiterating their desire to work with LMW to influence priority capital investment including which irrigation mains and other assets are selected for replacement or upgrade.
- Customers in the Millewa were supportive of revegetation projects to contribute towards achieving carbon offset requirements. Customers felt this could be an opportunity to replant areas around lakes and in Koorlong which would benefit from new vegetation.
- Customers reiterated their preference for local contractors to be used for capital project indicating local contractors are more likely to ensure the work is completed to the highest standard because they live in the region.
- Customers reiterated their expectation that LMW partner with the Victorian Government to explore funding opportunities for upgrading assets. Customers believe they should only be responsible for the maintenance costs of assets, particularly given the Victorian Government owns the assets and should be responsible in funding their upgrade.

Customer Service Standards:

- Generally, rural customers felt that the current customer service standards were appropriate and were happy to maintain these into PS5.

Corporate cost allocation:

- SAC and CSAC members were pleased that LMW had listened to their concerns raised about the allocation of corporate costs between urban and rural services and were pleased to see the results of a review. Some customers said they would like to understand more about the cost allocation and how the new cost split was achieved.

During the final stage of consultation, SAC members provided feedback that LMW needs to continue to work on building trust with its rural customers. Members were supportive of the investments and outputs proposed for delivery in PS5 and indicated delivery of these across the five-year period would greatly improve their trust levels with the organisation.

Further, the SAC acknowledged the price decrease proposed for Mildura High Pressure region and were pleased with LMW's decision to remove the electricity collar arrangement, noting the change in LMW's approach to electricity procurement to align with State Government mandate.

2.4.3 Commonality Across Both Urban and Rural Customers

Whilst there are some distinct differences between the perspectives of urban and rural customers, there were some topics of common interest across these two key cohorts.

Water reliability remains paramount for both rural and urban customers, and customers have expectations that LMW will build secure systems and infrastructure that will ensure the reliability and availability of water supply when required. This includes:

- System resilience in the event of cyber security attacks
- Innovative solutions to enhance customer value including:
 - expand peak usage over a 24-hour period (rural).
 - increase use and availability of recycled water as an alternative source of water for on-farm use and for watering community parks and garden areas (urban and rural).
 - purchase additional entitlement to maintain a buffer for dry years and improve water security (urban).

A common priority for both rural and urban customers was to address the challenges of poorer raw water quality that has become increasingly frequent in recent years. Rural customers continued to demonstrate their support for the water quality treatment options utilised by LMW throughout PS4, as well as expressing a desire for LMW to be innovative in managing changes in water quality. Urban customers also rated investment in innovation in water treatment processes to improve water quality as a very high priority. This represents a significant shift in the sentiment expressed in PS4 where they were not willing to pay for further investment in this area.

Both urban and rural customers reiterated the importance of LMW maintaining a skilled and engaged workforce, providing professional development for all employees to ensure they can respond to customer enquiries within a reasonable timeframe and are equipped to make decisions to resolve customer requests and complaints quickly. Both customer cohorts expect LMW to be transparent in business processes and work in partnership with customers to achieve the collective aspirations identified, including:

- Clear and regular communication via CSAC and SAC forums to provide information regarding how LMW spends customer fees and charges.
- Clear commitment and communication regarding procurement opportunities and tender processes with a focus on local jobs first as well as obtaining cost efficiencies.
- Enabling rural customers an opportunity to have input into winter maintenance programs to avoid disruption and prioritisation.

Urban and rural customers have clearly expressed the desire for LMW to have a future focus in infrastructure planning and are supportive of investment that enables LMW to achieve this. Specifically, planning relating to the following was identified:

- Infrastructure upgrades to support population growth was rated a very high by urban customers.
- Both urban and rural customers supported investigation into funding opportunities to expand urban water networks into rural areas.
- Redesigning infrastructure systems for demand based on current and future crop types.

2.5 Development of Customer Outcomes

The comprehensive feedback collected from customers during the targeted PS5 engagement activity was collated and cross-referenced against PS4 outcomes before being tested with LMW customers. This approach led to an iteration of customer outcomes and measures required in PS5 in response to the changed priorities of customer and community needs. The review has achieved greater alignment between LMW's urban and rural businesses recognising the consistencies in expectations from both customer groups. A detailed analysis of customer consultation from PS4 through to PS5 including the rationale for proposed changes to customer outcomes and measures is provided in supporting information available to the ESC.

Customer outcomes along with performance measures and targets are detailed in Part B, Section 3 for urban, and Part C, Section 3 for rural.

3. LMW and its Strategic Response

3.1 LMW's Strategic Framework

LMW has a well-established strategic planning framework comprising an overarching purpose statement, forward-looking vision, and a supporting series of strategic themes or pillars. This framework is aimed at providing guidance to, and ensuring alignment of, all LMW's supporting strategies, plans and projects, while recognising and accommodating the business context in which it operates as summarised in Appendix A1.

LMW's declared purpose is to *'support our region to prosper by successfully delivering vital water services'*. This purpose is embodied in our strategic framework borne from a vision to *'create a healthy, sustainable water future underpinned by a culture of performance excellence, and built-in partnership with our staff, customers, and communities'*.

LMW agrees with, and actively supports Water for Victoria's statement that *'Water is fundamental to our communities. We will manage water to support a healthy environment, a prosperous economy and thriving communities, now and into the future.'*

The LMW 2021-2025 Strategic Plan identifies six strategic pillars, made up of three Strategic Priority areas and three Strategic Foundation areas. Sustainable progress has already been made against the aspirations identified for both the Strategic Priorities and Foundations, and activity proposed for both the forthcoming PS5 period, and the coming year's Corporate Plan, aligns with this framework. The Corporate Plan also demonstrates how planned initiatives and strategies are aligned to the Ministerial Letters of Expectations (LoE), Statement of Obligations and the Water Act (1989).

In the development of the current organisational strategic plan, the segmentation of strategic priorities and strategic foundations was done so explicitly to best manage both internal and external risks as identified from a range of inputs, including LMW's Strategic and Corporate Risk Registers.

LMW's strategic priorities are summarised below:



Figure A5: LMW's Strategic Priorities

To achieve the strategic priorities identified above, LMW acknowledges that it must continue to build its capability in terms of its people, physical infrastructure and financial systems, processes, and governance. These imperatives form the three strategic foundations of the Strategic Plan as summarised below:

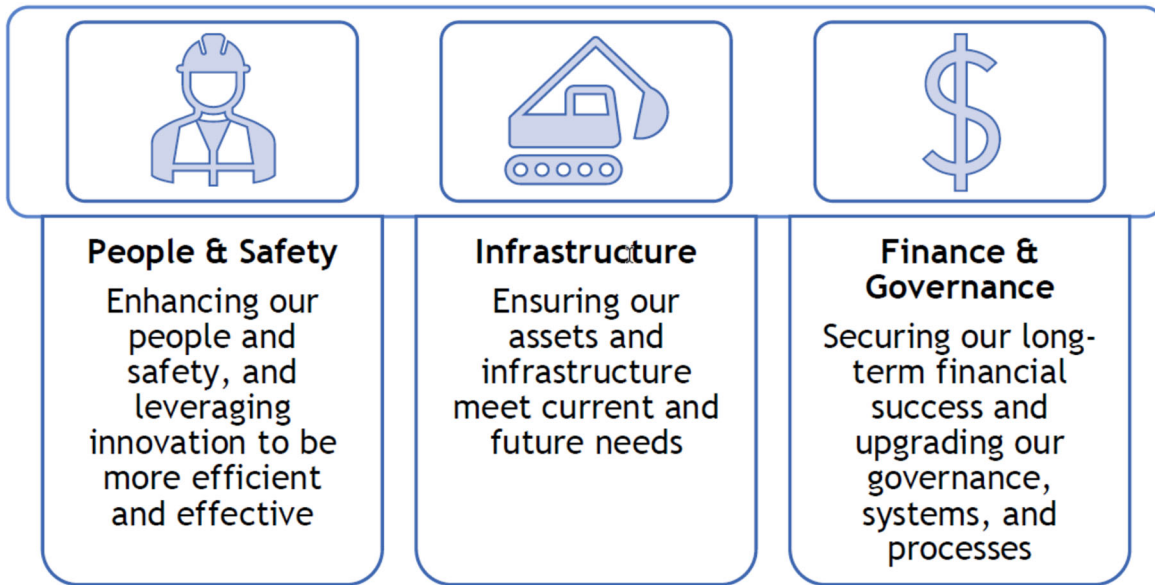


Figure A6: LMW's Strategic Foundations

3.2 Alignment of PS5 with the Strategic Themes

Under the PREMO Framework, service outcomes agreed directly with LMW customers are the key drivers of the Water Plan and all its supporting activities. It is critical, however, that these outcomes also align with the organisation's Strategic and Corporate Plans. LMW has carefully developed its customer outcomes in the context of, and in alignment with, its strategic pillars and framework. The LMW approach to ensuring alignment between customer outcomes and its strategy can be articulated as follows:

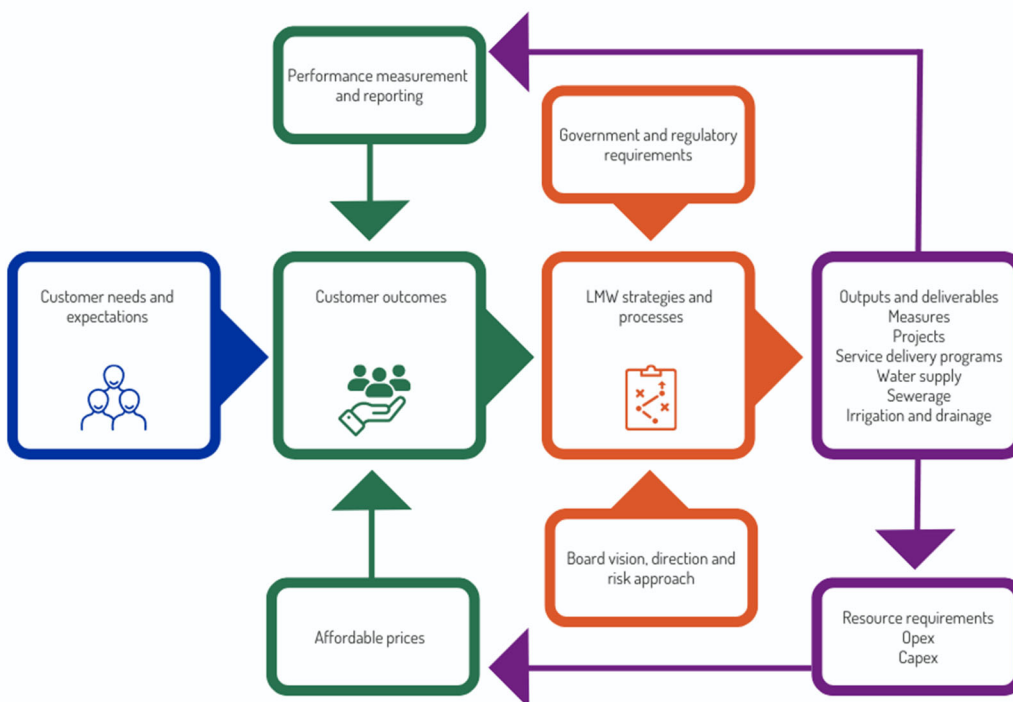


Figure A7: LMW's Approach to Strategic Alignment with Customer Outcomes

The alignment of the specific urban and rural outcomes with the strategic pillars demonstrates how customer feedback is used to drive strategic outcomes as shown below:























Strategic Pillars Customer Outcomes	Service Delivery Achieve high quality outcomes for customers	Engagement Effective engagement with our stakeholders	Environment Better the environment for our region	People and Safety Enhance our people and safety and leverage innovation to be more efficient and effective	Infrastructure Ensure our assets and infrastructure meet current and future needs	Finance and Governance Secure our long-term financial success and upgrade our governance, systems, and processes
URBAN						
Services provide customers value for money						
Service our communities in a socially responsible and environmentally sustainable manner						
Provide customer service channels that are responsive to resolve requests and enquires						
Provide customers reliable and safe drinking water						
Provide customers reliable sewerage services						
RURAL						
Services provide customers value for money						
Service our communities in a socially responsible and environmentally sustainable manner						
Provide customer service channels that are responsive to resolve requests and enquires						
Provide customers with water when they need it						

Figure A8: Alignment of LMW's Customer Outcomes and Strategic Pillars

4. Governance and Management

4.1 Price Submission Development

In May 2021, LMW developed a Project Plan⁴ and program for the preparation, review, and verification of PS5, which was progressively updated throughout the preparation process. Key parts of the delivery process included:

- A diagnostic review in July 2021 to assess the maturity of business processes and documentation to support PS5 preparation.
- Establishment of governance arrangements involving the Board, Finance and Audit Committee, Risk Committee, a PS5 Development Coordination Team (DCT) comprising the Executive Team and other managers as required, along with other processes to support oversight and review, direction, and decisions.
- Development of an Executive Verification and Board Attestation process⁵ supported by appropriate verification checklists to address all the requirements of the ESC's Guidance Paper including consistency and lack of errors or omissions.
- Regular tracking of PS5 preparation, progress, and risks, and reporting to the DCT, Finance and Audit Committee, Risk Committee, and the Board.
- Accelerated and adaptive customer engagement program delivered through the entire PS5 preparation.
- Planning and progressive delivery of papers on each key PS5 input for critical review at specifically scheduled 'Focused' Finance and Audit Committee prior to Board approval.
- Extensive and sustained reviews of every operating cost element to seek justification for cost increases and their linkage to either customer outcomes or government obligations, and ensuring all costs are as efficient as possible to deliver the required services.
- A mature process for planning, estimating, collating, prioritising, reviewing, and finalising the capital program to ensure all investments are prudent, efficient, and aligned to delivery of agreed customer outcomes and government obligations.
- Risk assessment to treat and mitigate risks associated with or arising during preparation of PS5.
- Testing various proposals as they arose with the ESC to check the approach or methodology was appropriate and reasonable, particularly given the unique nature of the combined urban and rural businesses.
- A total of six Price Path models progressively submitted to the Finance and Audit Committee as various inputs were analysed and considered, documented, updated, or reviewed, to enable Committee feedback and continuous focus on efficient delivery and consequently minimum prices.
- Automated financial model processes to ensure financial table and figure outputs are directly input into the PS5 documents.

4.2 Attestation Assurance

With new staff and Board Directors involved in the PS5 process, it was considered critical to ensure that the attestation aspect of the process was done well to ensure that key stakeholders were well engaged and taken upon the PS journey. The establishment of monthly 'focused' Finance and Audit Committee meetings in addition to regular scheduled meetings enabled the progressive delivery of papers regarding each key PS5 input for critical review prior to Board approval, which ensured a 'no surprises' approach to PS5 development,

⁴ PS5 Project Plan

⁵ PS5 Executive Verification and Board Attestation Process

culminating in the Board's attestation. This was strongly underpinned by the Executive Verification and Board Attestation process, which detailed the:

- ESC's attestation requirements.
- PREMO rating process to propose an appropriate level of ambition for PS5.
- Executive verification requirements and checklist.
- Board attestation and executive verification process flowchart.
- Independent PREMO validation and review of draft PS5.
- PREMO self-assessment tool.

This process was monitored throughout PS5 preparation, with supporting evidence provided to the Board in September 2022 to support its attestation.

4.3 Regulatory Period

LMW proposes a five-year regulatory period from 2023-24 to 2027-28, consistent with previous practice. LMW has reviewed the risks and benefits to customers and to the corporation of a change in the regulatory period, and considers the risks outweigh the benefits. Consideration was given to alternate options for the PS5 regulatory period weighing up the risk of uncertain climatic and environmental factors which might result in adverse impacts to customer pricing for a longer period, or increased preparation time and unmanageable resource burdens for a shorter period. As a result, LMW has settled on a five-year regulatory period which provides the following benefits:

- A planning horizon over which forecasts and planning assumptions should be able to be achieved with reasonable certainty and risk.
- A reasonable period of certainty of service and pricing to customers.
- A reasonable period between the intensive application of resources required to prepare submissions, and with some likelihood of continuity of staffing (and hence experience) across submissions.
- Sufficient time to plan and deliver programs with some continuity, and for incentive mechanisms to be realised.

4.4 Developing the Operating Expenditure Forecast

A systematic process was applied to build the operating expenditure (opex) forecast, comprising:

- Establishment of 2022-23 Corporate Plan opex budgets based on LMW's Budget Policy and Budget Process and Guidelines.
- The 2022-23 forecast includes deviations from the PS4 budgets to include changes in the following key budget assumptions; customer demand & growth, tariffs updated with CPI & Cost of Debt (CoD) adjustments, capital contributions, organisational structure labour plan and new projects opex to increase controls and reduce corporate risks.
- Bottom up rebuild of all elements of the PS5 forecast, with the focus on the major cost elements of labour, electricity, and ICT (and chemicals for urban). Labour costs considered the needs of the business to meet customer and compliance obligations, as well as labour cost increases under the Enterprise Bargaining Agreement (EBA).
- Extensive and sustained reviews of every operating cost element to seek justification for costs and their linkage to either customer outcomes or government obligations, and ensuring all costs are as efficient as possible to deliver the required services.
- Review and confirmation of non-controllable costs with relevant agencies for bulk water charges and purchases, licence fees and environmental contributions, including pass-through costs for the rural business for Goulburn-Murray Water storage entitlement fees and other charges.

- Establishment of 2012-22 baseline opex with identification and reconciliation of variations between approved forecast, actual and proposed baseline, and projecting the baseline forward with business as usual (BAU) components, efficiencies, new obligations and commitments and growth. This was accompanied by progressive review and confirmation of the proposal.
- Six rounds of price path modelling provided to the Finance and Audit Committee for detailed review and feedback, with Board updates, culminating in agreement to the final price path models and opex and capex forecasts prior to their incorporation in these PS5 documents.

4.5 Allocation of Shared Costs

LMW has a Corporate Allocation Framework⁶ that defines the allocation methodology used to reallocate 'indirect' revenue or expenditure to a business (urban or rural) function, district, or activity. Allocations are generated to reflect inclusive revenue or expenditure and to enable monitoring of the financial performance of individual business functions or districts inclusive of indirect corporate transactions. This framework is configured within LMW's financial system to remove the need for manual allocation of indirect revenue or expenditure to functions and districts for financial reporting purposes.

The methodology allocates indirect revenue or expenditure on a causal basis to the majority of shared costs between the urban and rural businesses of LMW, between water and sewerage within the urban business, and between services/districts within the rural business. The forecast percentage splits are:

- *Corporate*: Comprising corporate and administration, and depreciation of corporate assets: allocated on operational asset expense ledger labour and contractor expenditure.
- *Billing and IT*: comprising billing and customer services, IT, and depreciation of IT assets: allocated on an average of employee FTE and number of customer services.

Allocations have been adjusted to reflect the changing nature of the customer base, assets, or costs, as appropriate. For the PS5 period, the allocations of shared costs for the business are split as follows:

	<i>Corporate</i>	<i>Billing and IT</i>
Urban	62.4%	78.0%
Rural	37.6%	22.0%

4.6 Developing the Capital Program

4.6.1 Program Development

LMW has developed, documented⁷ and followed a consistent approach to capital forecasting and cost estimating for PS5, covering alignment of capital planning with customer outcomes and business requirements, capital planning processes, business case preparation, cost estimating and contingencies, capital efficiency, and allocation of risk between LMW and its service providers.

The capital expenditure program for PS5 has been prepared with specific attention to:

- Major strategies developed for water and sewerage services to meet growth in the northern and southern regions of LMW.
- Master Plans for the major growth areas of Mildura/Red Cliffs/Irymple and Swan Hill.
- Specific studies or investigations for improvements applicable to either or both the urban and rural

⁶ Corporate Cost Allocation Methodology

⁷ Price Submission 2023-28 Capital Planning and Forecasting Framework, LMW, 2022

businesses, such as further developing resilient and reliable water treatment and water quality management systems, or meeting requirements under the General Environmental Duty (GED) preventive management approach.

- Strategy for Business Transformation to meet requirements for improved cyber security, governance, financial and billing, metering, and customer service.
- Renewals forecast for water mains, sewers and irrigation pipelines based on network performance to meet customer outcomes, taking into account ageing networks, failure history and prioritising attention to critical assets.
- Aligning with the requirements of the State government's Asset Management Accountability Framework, systematic condition and utilisation assessment of assets including specialist facility condition inspections, such as the storage tank inspection program, to identify replacement or renewals projects.
- An additional site-based inspection regime for all key facilities, to identify any projects arising for reasons of non-compliance with safety or other standards.

Business cases for the Top 10 projects have been developed on a business-wide basis, along with Project Briefing Sheets to summarise justification for all other projects or programs. Each project has been justified as prudent and efficient to meet the agreed customer outcomes and associated performance targets, current and new government obligations, and commitments, and/or to manage risk to the business. Options have been considered and evaluated wherever relevant.

Uncertain projects were identified using a prudent approach in accordance with the ESC Guidelines, and in a number of cases an allowance has been made for design/development or partial implementation, especially for larger growth-dependent projects that may occur towards the end of the PS5 period or early in the next period. Other projects have been delayed and scheduled for completion in subsequent price periods resulting in LMW accepting the associated risk on behalf of customers. Monitoring programs have been set which minimises the investment required during PS5.

4.6.2 Cost estimates

Reasonable and efficient cost estimates are based on the level of project development and scope that is appropriate at the current time, using recent market cost rates, asset valuation data, or external consultant estimates. All major projects have included risk estimates on relevant project components to provide indicative P50 (50% probability of not being exceeded) cost estimates. This recognises that many projects need to undergo further planning, investigation, design, and market testing prior to their implementation, and that there are a range of risks to be considered and managed, including risks associated with planning, site conditions, integration with existing facilities, and the application of new technologies. Projects, where warranted and depending on the timing of the original cost estimates, have had the cost estimates escalated to \$1/1/23 using appropriate Australian Bureau of Statistics Producer Price indices. LMW, based on the current construction price escalation that has been seen in the market, has taken significant risk on behalf of the customer by proposing only CPI to be applied to future cost estimates.

4.6.3 Program Collation, Prioritisation, and Approval

Projects were reviewed by management and the capital program was created across urban infrastructure, rural infrastructure, and corporate capital, and prioritised within these categories using LMW's capital prioritisation tool⁸, in workshops engaging SMEs from relevant parts of the business and facilitated externally. The tool scored and ranked projects against three criteria:

⁸ LMW Capital Prioritisation Tool

- Mandatory projects – eg. Committed contracts or State government commitment (Statement of Obligations, State policy or regulatory requirements).
- Projects contributing to LMW agreed customer outcomes and strategic objectives, and/or
- Projects addressing extreme or high risks to the business.

Priority projects in each category were then collated and further prioritised to form a business-wide capital program which was then integrated with the price path modelling to refine the program, assess capex/opex implications and trade-offs, and review accounting treatment to optimise the program.

This process was finalised by review and approval by the Executive team, the Finance and Audit Committee, and the Board. Supporting documentation is available to the ESC for inspection on all projects.

4.6.4 Delivery of the Capital Program

LMW has demonstrated a track record of delivering varied and significantly larger capital programs than proposed for the fifth regulatory period. The forward total capital program for both the rural and urban businesses is significantly below historic peaks that include the Sunraysia Modernisation Project, and LMW is very confident in its capability to deliver the forward program.

LMW has adopted the suite of Water Industry Standard contracts which have been approved by DTF to suitably allocate risk to the contract party which is best placed to manage that risk. This suite of standard contracts provides LMW, and the broader water industry, with a consistent approach to contract management including the management of costs and project delays, driving efficiency through consistency for all parties. LMW has also adopted the DTF mandated State Purchasing Board procurement policies and procedures.

LMW has an established suite of planning and project/contract management procedures and documents, and a dedicated team of staff (supported by consultants where required), to ensure successful management and efficiency of the capital program delivery. The capital program has been reviewed with a deliverability focus and cross-functional input, which includes decisions about procurement options. LMW has embedded a continual improvement approach whereby learnings from key projects are utilised to further refine or improve its project and contract management procedures. For example, following the review of a sewer renewal program, insights from contractors saw the change from a schedule-of-rates term contract with annual works packages, to a competitively tendered lump-sum contract that was scheduled twice during the price period. This approach provided more attractive, commercial scale options, as well as a reduction of establishment and travel costs reflected by the geographic remoteness of LMW's service area.

Construction is typically undertaken by contractors under competitive tendering conditions with contractual performance requirements. Some low-risk capital projects are undertaken by LMW staff where resources and capability can demonstrate efficient and quality delivery, for example, for water main or irrigation pipeline construction or replacement.

4.7 Tax Allowance

For the tax allowance, ESC requires information on actual tax payments forecast as payable for National Tax Equivalent Regime (NTER) purposes. Tax depreciation allowances have been calculated using the opening allowances and the amount of capital expenditure for each tax category. Carried forward losses mean that there will be no tax forecast as being payable in the regulatory review period.

4.8 Significant Assumptions

The assumptions underpinning each aspect of this submission are generally detailed in each of the respective sections of the document. Key financial assumptions used in developing prices are also provided in the ESC's financial model template.

A summary of the more significant assumptions on which PS5 is based is provided in Table A4 below. These assumptions are based on reasonable investigations and analysis and provide the best estimate of costs and revenues currently available for the price period.

Element	Key Assumption
Labour	Labour cost assumptions are detailed in Section 4.3.1.2 in Parts B and C of the submission. Labour numbers include the 2021-22 Board-approved organisational structure roles, with only minor FTE changes forecast for the PS5 period as labour efficiencies and benefits from BTP Horizon 2 are realised. The labour cost forecast includes an EBA increase of 2.5% until the end of the current agreement in June 2025, and 3.0% for the years beyond that.
Electricity	Electricity cost assumptions for the PS5 period are detailed in Section 4.3.1.1 in Parts B and C and reflect a significant decrease in the electricity cost forecast from the current period due to the recent and forecast stabilisation of electricity prices.
ICT	ICT costs have and are assumed to continue to increase steadily as a proportion of total costs, driven by increases in software licence fees and the shift to the Software as a Service (SaaS) model, growth in numbers of software applications in use, and increased focus on cyber security.
Operating Costs - General	In general, other operating costs are prudent and efficient and assumed to remain relatively constant in real terms relative to the 2023 Corporate Plan budgets for both the rural and urban businesses, with minor positive and negative year-on-year fluctuations across the period. Operating costs are based on normal operations and assume a low but realistic risk of possible abnormal operating costs arising from poor raw water quality, flood, or storm events.
Capital Expenditure	LMW's prudent and efficient capital program is primarily driven by renewal of ageing assets but also provides for significant growth and compliance-driven investment. Overall capital programs are broadly in line with the current period and relatively consistent over the PS5 period. Costs for major projects have generally been estimated using 'most likely outcome' or P50 costs, with LMW bearing the risk of any overall program delivery cost overruns. Out-year costs of uncertain projects have generally been deferred to PS6 to again insulate customers from risk.
Demand	LMW's demand forecasting approach, supported by independent external studies and detailed in Sections 4.2 of Parts B and C have been used to develop robust urban and rural forecasts, respectively. Based on these analyses LMW is assuming an average annual growth in connections for urban water and wastewater of 1.1%. For rural, growth in demand is estimated at an individual district level, based on occupancy/vacancy, crop types and maturity, irrigation methods, and system capacity and constraints, with a key assumption of 100% availability.
Revenue – water allocation trade	LMW's surplus water allocation is traded on the water market to maximise the benefit of unused water entitlement in any year and can represent a significant revenue contribution. LMW has taken a conservative approach to sales to ensure future supply while also accepting risk by assuming unrestricted or 100% water allocation over the PS5 period and similar market pricing to the current period to estimate the forecast water allocation sales revenue. The resulting forecast of \$1.1m per year has been assumed, up from \$0.85m per year for the PS4 period.

Table A4: Key PS5 Assumptions

4.9 Uncertain Projects

Two major regional projects are considered as uncertain at this stage and are explored below.

4.9.1 Victorian Murray Floodplain Restoration Project (VMFRP)

The VMFRP is being funded by the Federal government as part of the Victorian Government's commitment to achieve the environmental outcome of the Murray-Darling Basin Plan's (Basin Plan's) Sustainable Diversion Limit Adjustment Mechanism. Federal funding will be provided to construct infrastructure within nine project sites along the Murray River between Gunbower (near Echuca) and Lindsay Island (near the South Australian border) and undertake the operational planning to be ready to commence operations once construction is complete. The VMFRP is being implemented in a partnership between Lower Murray Water, Goulburn-Murray Water, Mallee Catchment Management Authority (MCMA), North Central Catchment Management Authority, Parks Victoria and the Department of Environment, Land, Water and Planning.

Stage 1 is in progress comprising project planning including environmental, cultural and heritage, and planning assessments. LMW's current role is lead proponent on planning and approvals and will be the constructing authority during Stage 2 construction. These activities do not involve any financial contribution from LMW, and its customers and any services provided by LMW are on a cost-recovery basis, resulting in VMFRP having no effect on LMW operating expenditure.

This project is currently considered an uncertain project because:

- There is currently no funding commitment for stage 2 construction between the Federal and State governments. Similarly, there is yet to be a back-to-back agreement between the State government department (DELWP) and LMW. The Federal Minister for Environment and Water will consider a Stage 2 delivery funding proposal during late 2022, and the expectation is that subsidiary agreements will follow shortly thereafter.
- Uncertainty regarding the feasible project delivery schedule and the legislated due date (June 2024) and the impact this may have on the project including a funding commitment from the Federal government. The expectation is that this is resolved by March 2023.
- The State government has not defined the operations and maintenance funding pathway for the water corporations that will be the asset owners and operators of the constructed infrastructure. The expectation is that this is resolved by end of 2022.
- VMFRP will not have an impact on existing LMW customer services and LMW customer charges will not contribute to VMFRP. LMW may seek a variation to the ESC's determination as these assets are expected to become operational from June 2024.

4.9.2 Water Efficiency Project

The Water Efficiency Project (WEP) is being funded by the Federal government as part of initiatives to deliver upon the Murray Darling Basin Plan. Federal funding will be provided to invest in irrigation infrastructure to extend asset life and improve metering, resulting in reduced water losses. The Federal Minister for Environment and Water announced in July 2022 funding of \$38m and a return of 1.8GL of water for the environment. If additional water savings are produced, any further savings are to be shared equally between delivering water for Traditional Owners and improving urban water security in the region.

This project is considered an uncertain project because:

- The terms of the back-to-back funding agreement between the Federal and State governments and State government department (DELWP) and LMW has not been finalised.
- Uncertainty regarding the feasible project delivery schedule and the legislated due date (June 2024) for

delivery of water savings under the Murray Darling Basin Plan and the impact this may have on the project.

- While the business case to support investment identified theoretical works packages, the detailed scope and optimal works packages balancing channel lining or replacing channels with pipes versus metering upgrades and any associated impact on opex or capex costs is yet to be determined.

While the impact on existing customers of the Water Efficiency Project will be positive in terms of infrastructure upgrades being externally funded, LMW does not propose to seek a variation to the ESC's determination but will undertake to pass the majority of benefits to customers either through price reductions or investment in infrastructure renewals. It is intended that further consultation with customers on how any benefits can be applied will be undertaken when additional detail is known.

5. PREMO Self-Assessment

LMW’s self-assessed aggregate PREMO rating against the PREMO Assessment Tool in Attachment 5 of the ESC Guidelines is “Standard”, with an assessed score of 11.75 as shown in Figure A9.

Leading	Advanced	Standard	Basic
19 to 20	14.5 to 18.75	9.5 to 13.25	5 to 9.25

Figure A9: Aggregate PREMO Self-Assessment Rating

Despite the unique situation of LMW’s business consisting of both urban and rural assessments, the rating is common, with the exception that the P-element is formally rated for only the urban business given that the rural business is only now included under the PREMO framework. The rating is underpinned by a stable track record in delivering agreed performance outcomes and managing ‘for the customer’ through a demonstrated willingness to accept risk and return additional revenues to customers.

Against each of the PREMO elements, LMW has self-assessed the range of rating scores below, typically between 2.25 and 2.5, as shown in Figure A10.

PREMO Element	Self-Assessment Element Rating			
PERFORMANCE				
RISK				
ENGAGEMENT	LEADING	ADVANCED	2.25 STANDARD	BASIC
MANAGEMENT				
OUTCOMES				

Figure A10: PREMO Element Self-Assessment Rating

A summary of LMW’s self–assessment is provided in Table A5 overleaf and details the basis and reasons for the self-assessment ratings utilising a range of tools and inputs to finalise the self-assessment including an independent assessment by KPMG and a workshop with LMW’s PS5 Development Coordination Team facilitated by GHD⁹.

⁹ GHD Self-Assessment Workshop

Guiding Question	Summary Response	Rating
Performance		
To what extent has the business demonstrated delivery of its customer outcomes commitment over the current regulatory period? Did its customers get what they paid for?	Outcome commitments largely delivered by meeting performance targets for most output measures, with only minor excursions. Ownership for shortfalls and management action was taken to address them. Customer prices within approved price path.	2.5 Very confident 'Standard'
How does actual operating expenditure across the current period compare with the established benchmark allowance, and to what extent has the business rationalised any discrepancies?	Actual controllable operating expenditure higher than benchmark allowances due to higher labour and other requirements to maintain services and deliver improved governance and compliance, as well as external factors such as the pandemic and cost increases. Variations to controllable expenditure are clearly identified and explained in terms of impact on customer value.	2.0 Satisfied 'Standard'
How does actual capital expenditure across the current period compare with the established benchmark allowance, and to what extent has the business rationalised any discrepancies?	Actual capital expenditure delivered to date and to be completed in current period, is or will be very close to the approved benchmark allowance. The Top 10 projects and renewals programs have largely been delivered on time and budget, with some clearly explained material variations. There was an improving trend in the volume of capital works delivered each year of the PS4 period. The program delivery maintained or met regulatory obligations and customer outcomes commitments, including reporting to customers. There were no significant uncertain capital projects nominated or delivered for the urban business.	2.5 Very confident 'Standard'
To what extent does customer sentiment demonstrate satisfaction in the business's performance over the current regulatory period? Are customers happy with the value they receive from their water business?	LMW consistently scores on par with the state-wide average in the ESC's quarterly customer perception survey, with a noticeable lift in positive customer sentiment across the period. LMW's own customer survey work demonstrates it meets expectations or shows a positive trend across the period.	2.5 Very confident 'Standard'
Risk		
To what extent has the business demonstrated a robust process for identifying risk, and how it has decided who should bear these risks?	LMW meets the requirements of the ESC's Guidance Paper in relation to risk. The Risk Management Framework is aligned with ISO 31000. Risk allocation is in accordance with and extends the ESC's suggested regulatory risks and has been reviewed and accepted by the Board. Significant risk implications for customers have been tested with them throughout the engagement process. LMW has reduced budgets from actual expenditure in PS4 in a number of core operational areas, with very little contingency incorporated and no growth in headcount. The capital program is underpinned by detailed planning strategies, and projects and programs are based on appropriate scope definition and delivery timing. Cost estimates are robust for the level of scope definition, based on appropriate internally collated or external rates, have included market cost escalation to date, and consider risks appropriate to each major project. Uncertain projects in terms of scope or timing have been nominated as uncertain projects. LMW's financial viability is supported by appropriate financial indices and cash flow projections.	2.0 Satisfied 'Standard'
To what extent does the proposed guaranteed service level (GSL) scheme provide incentives for the business to be accountable for the quality of services delivered, and provide incentives to deliver valued services efficiently?	The GSL scheme has been tested with customers and their valued feedback confirmed continuing with the current GSL scheme was appropriate.	2.5 Very confident 'Standard'

Guiding Question	Summary Response	Rating
Engagement		
To what extent has the business justified how the form of engagement suits the content of consultation, the circumstances facing the water business and its customers?	Drawing from previous experience and existing customer advisory bodies, with external assistance a business-wide strategy and specific PS5 engagement plan was implemented to ensure broader, deeper, and multiple and interactions with customers, as well as specific and targeted customer surveys and direct engagement with each customer cohort and major stakeholder group. In particular, very different approaches were taken with Urban and Rural customers, demonstrating a fit-for-purpose approach.	2.5 Very confident 'Standard'
To what extent has the business demonstrated that it provided appropriate instruction and information to customers about the purpose, form, and content of the customer engagement?	Desktop research including customer surveys, complaints and internal stakeholder input enabled preparation of detailed information for customer engagement forums, progressively built upon for each stage. Use of independent facilitation at focus groups ensured bias-free and open discussion on any customer issue.	2.25 Confident 'Standard'
To what extent has the business demonstrated that the matters it has engaged on are those that have the most influence on the services provided to customers and prices charged?	Customer surveys highlighted broad issues, and these were then progressively developed and refined with customer focus groups to reach agreed outcomes and outputs. Potential projects/programs with scope, investment and price impacts were discussed and feedback integrated into decision making.	2.25 Confident 'Standard'
To what extent has the business explained how it decided when to carry out its engagement?	LMW engaged with rural SAC and CSAC committees in July and September 2021 to discuss timing and approach for engagement. Special consideration was given to the timing of harvest and COVID-19 considerations and feedback provided regarding preferred engagement methods. LMW's regular and ongoing engagement with CSAC/SAC provided a solid base to prepare scenarios and topics for consultation ensuring engagement was based on customer sentiments. Using Expressions of Interest from urban customers, an urban deliberative panel (UDP) was formed in December 2021 at which times and approaches were proposed to finalise the consultation arrangements.	2.25 Confident 'Standard'
To what extent has the business demonstrated how its engagement with customers has influenced its submission?	Customers were engaged throughout development of the proposed customer outcomes and outputs, major program/project options and implications, and informed of cost and price outcomes. Customer outcomes clearly articulate how customer views influenced the final submission.	2.5 Very confident 'Standard'
To what extent has the business demonstrated that its engagement was inclusive of consumers experiencing vulnerability?	LMW considered feedback from customers currently and recently in the hardship program and reached out to local service providers who are considered experts in supporting vulnerable customers to better understand their service needs and challenges experienced in accessing and utilising LMW services.	2.0 Satisfied 'Standard'
To what extent has the business demonstrated that its engagement was inclusive of First Nations people?	LMW had Aboriginal representation on the urban deliberative panel and engaged with FPMMAC to support the development of the submission.	1.75 Reasonably confident 'Standard'

Guiding Question	Summary Response	Rating
Management		
To what extent has the business demonstrated how its proposed prices reflect only prudent and efficient expenditure?	A robust demand forecast, and expenditure forecasts driven by customer requirements. Detailed review of base assumptions and expenditure forecasts for all service delivery and corporate elements, with pressure to make savings and manage proposed budgets. Robust capital plan based on strategic and project planning processes, program review and prioritisation, and proven capital delivery process.	2.0 Satisfied 'Standard'
To what extent has the business justified its commitment to cost efficiency or productivity improvements?	Proposal for delivering greater than 1.08% controllable cost efficiency savings for urban customers.	2.25 Confident 'Standard'
To what extent has the business justified or provided assurance about the quality of the submission, including the quality of supporting information on forecast costs or projects?	Planned and systematic process for internal review of all inputs to PS5. Engaged external expertise comprising GHD (project plan and management, review/challenge and submission compilation), ACIL Allen (financial modelling and templates), Aurecon (customer engagement) and KPMG (PREMO assessment, corporate cost allocation and review of some elements of opex).	2.25 Confident 'Standard'
To what extent has the business provided evidence that there is senior level, including Board level, ownership and commitment to its submission and its outcomes?	Essentially PS5 is the business plan for the next 5 years and is 'mission critical'. Executive-level PS5 Development Coordination Team planned and guided entire submission development. Executive Verification process implemented to oversee every input. Finance and Audit Committee on behalf of the Board, engaged in every major decision and reviewed progressive development of customer outcomes, projects and programs, price path models and ultimately the PS5 documents to support attestation by Board.	2.5 Very confident 'Standard'
To what extent has the business demonstrated that its submission is an 'open book'?	Key document references provided to the ESC with PS5, along with making available extensive supporting documentation to justify each element of the submission.	2.5 Very confident 'Standard'
Outcomes		
Has the business provided evidence that the outcomes proposed have taken into account the views, concerns, and priorities of customers?	Customer focus groups were involved in all stages of customer outcome development and finalisation, from review of current period outcomes and performance, identifying customer issues and potential improvements, through to projects, programs, and final pricing.	2.5 Very confident 'Standard'
Has the business provided sufficient explanation of how the outcomes it has proposed align to the forecast expenditure requested?	Proposed outcomes along with major projects/programs and cost implications, and indicative price paths, shared as part of customer engagement throughout PS5 development.	2.5 Very confident 'Standard'
Has the business proposed outputs to support each of its outcomes, which are measurable, robust, and deliverable?	Each outcome has corresponding outputs, performance measures and targets that have been developed with customers and the business, with particular attention to ensuring measures are relevant to investments being made and priority service level standard as confirmed with customers.	2.5 Very confident 'Standard'
Has the business provided evidence that the outputs it has proposed are reasonable measures of performance against stated outcomes?	LMW has proposed a mix of new and existing output measures which have been developed with customers and agreed across the business.	2.5 Very confident 'Standard'
Has the business demonstrated a process to measure performance against each outcome and to inform customers?	LMW has committed to tracking and informing its customers on progress, including reporting to rural CSACs/SAC, and re-establishing the Urban Consultative Committee. LMW will continue to engage to determine if outcomes or outputs need to change throughout PS5.	2.5 Very confident 'Standard'

Table A5: PREMO Self-Assessment Summary

6. Risk Management

Consistent with the PREMO framework, the application of risk-based practices and decision-making is a fundamental underpinning of LMW's price submission. References to risk and its management are found extensively throughout the submission and its supporting documents, however the purpose of this section is to provide a more focussed summary that addresses the following three specific ESC requirements:

- The extent to which LMW has a robust process for identifying risk.
- How it has decided who should bear these risks by appropriate risk allocation.
- Where LMW is best placed to do so, the mechanisms it will use to manage risk.

A more detailed Risk Management paper¹⁰ was prepared for and endorsed by the Finance & Audit and Risk Committees during PS5 preparation, which elaborates on these matters and provides supporting examples.

6.1 Robust Risk Management Processes and Approach

LMW has a continuous improvement program which prioritises risk management practices to better integrate and align its approach across business activities and decision-making processes and utilises its Risk Committee to monitor and prioritise strategic risk focus. LMW's Risk Management Framework (RMF) is based on compliance with the following:

- The Victorian Government Risk Management Framework (VGRMF).
- LMW's Statement of Obligations.
- Alignment to ISO/AS/NZS 31000:2009 Risk Management – Principles and guidelines.

The LMW RMF includes:

- Risk Management Policy.
- Risk Appetite Statement (RAS).
- Governance charter, including the role of the Risk Committee.
- Risk Improvement Plan.

Examples of the application of these approaches and processes to the development of the PS5 submission are described briefly below.

6.2 Risk Allocation Strategy

In determining risk strategies and mitigations, LMW applies the principles of allocating risk to the party best able to manage it, and generally protecting customers from carrying an unfair risk burden. Some examples of this approach in action are outlined below.

6.2.1 Management of Strategic Risks

LMW undertakes an annual review of its strategic risks as a part of its reporting obligations to DELWP. With a direct correlation to the development of the Strategic Plan, the identification of these strategic risks also supports the planning and development of the PS5 capex and opex programs to address and mitigate the issues and impacts that these risks pose. Risk 'owners' are assigned based on who can most effectively manage the particular risk.

6.2.2 Managing Customer Service Risk

LMW has embarked on a reform program to increasingly align management effort, resources, and culture to customer service. Business transformation programs including major upgrades to LMW's billing and finance systems, and implementation of an end-to-end Customer Relationship Management system, are key strategic responses to customer feedback regarding LMW's customer relationship management, response times and

¹⁰ LMW Price Submission 2023-28, Risk Management and Allocation – Urban and Rural

their aspirations for a more digitally based customer experience. Although not specifically risk-related, these initiatives complement LMW's customer-centric approach to equitably allocating risk to its customers.

6.2.3 Managing Uncertainty in Planning Capital Infrastructure

Uncertainty in capital projects and programs represents a major potential source of risk to LMW customers, with implications for both costs and service delivery. LMW has adopted a two-part approach to managing uncertain projects. Where possible, projects with uncertain timing towards the end of the PS5 forecast period have been delayed until the next period (PS6). Should the projects be required during the PS5 period to maintain customer service levels (eg. if growth accelerates above forecast or new development fronts are approved), LMW will prioritise the existing capital works plan to identify projects that can be delayed or fund the required investment and recover their prudent and efficient costs in the next price period.

Where projects cannot be delayed until PS6, but uncertainty is related to timing, scope or cost, a reasonable assessment of the project cost has been included within PS5 with any additional costs to be recovered in the next price period. To avoid "carrying forward" a bow wave of additional capital investment into PS6 these projects are clearly identified. With respect to managing risks associated with capital projects more broadly, LMW applies a range of techniques to reduce and manage uncertainty, as illustrated in the examples in following section.

6.3 Mechanisms Used to Manage Risk

LMW has developed position papers on each element of the price submission, and a total of six progressive price path papers for both urban and rural businesses, for review and decision by the Finance and Audit Committee on behalf of the Board. Risks and risk allocation have been considered in each case, and in some cases the Board has provided prior direction on its risk appetite. For example:

- The regulatory period was confirmed as five years, balancing the significant costs and resource needs of preparing price submissions with the risk of increased planning and forecasting uncertainties over longer regulatory periods.
- The capital planning and forecasting framework has been updated to extend considerations of risk in scoping, cost estimating and risk allowances, dealing with uncertain projects, and program prioritisation.
- The draft form of price control has been determined as a price cap tariff basket for urban water prices and a revenue cap for rural prices, pending customer feedback.
- Removal of the electricity adjustment mechanism that applied during PS4, due to reduced volatility of prices in the energy market. This is a result of LMW entering into Victorian Government Purchasing Board energy contracts for large and small sites, which is a different approach to PS4's purchasing strategy.
- As part of each business case, all major projects have also been considered in terms of their options, cost estimate (using the Office of Projects Victoria risk-based estimating guide), timing and risk allocation, to deliver the most appropriate balance between customer service outcome, risk, and cost.

Table A6 provides examples of the risk mitigation strategies and the proposed apportionment of risk between LMW and customers, for a selection of risk types outlined by the ESC in its Guidance Paper.

LMW Price Submission Risk Management and Allocation Examples

LMW Business Risk	LMW Risk Management Strategies	LMW Risk Component	Customer Risk Component
<p>Water availability risk: Inability to meet customer demand due to lower than required water availability.</p>	<p>Urban:</p> <ul style="list-style-type: none"> Urban Water Strategy Bulk Water Purchases Water Restrictions Demand management measures. Water Strategy and Master Plans. <p>Rural:</p> <ul style="list-style-type: none"> Millewa Pump Station Upgrade 	<p>LMW risk exposure includes:</p> <ul style="list-style-type: none"> loss of revenue reputational damage from inability to supply increased time and cost to more closely plan/manage demand/supply cost of implementing demand management programs additional investments to augment supply. 	<p>Urban:</p> <ul style="list-style-type: none"> Costs and inconvenience of exposure to water restrictions and/or less-than-required water availability Additional cost of bulk water purchases, offset by allocation sales.
<p>Demand forecasting risk: Where actual demand during a regulatory period may differ materially from the forecasts.</p>	<p>Board practice of returning revenues to customers where demand and revenues significantly exceed forecast.</p> <p>Urban:</p> <ul style="list-style-type: none"> Urban Water Strategy Customer growth forecast Prudent demand forecast, considering customer growth, per capita demands, weather and climate, restrictions, demand management and price elasticity, including testing scenario options for length of weather period and climate (Medium and High). Two-part tariff structure (fixed and volumetric charges) with three tiered volumetric tariffs for residential customers. Future tariff structure reform <p>Rural:</p> <ul style="list-style-type: none"> Demand forecast, considering customer growth, crop types, irrigation methods, weather, and climate. 	<ul style="list-style-type: none"> For urban, LMW bears financial risk of lower than forecast demand. For rural, LMW's bears the risk of being unable to fully recover its costs in the case of higher-than forecast demand. 	<ul style="list-style-type: none"> Managing individual water demand to minimise water bill. For urban, higher costs over the period in the event of higher than forecast demand but mitigated by LMW's practice of returning revenues to customers where demand significantly exceeds forecast.
<p>Planning risks: Proposed capital program does not meet agreed commitments due to inadequate planning or delivery processes.</p>	<ul style="list-style-type: none"> Capital Planning and Forecasting Framework to establish and deliver processes for program planning, collation, prioritisation, and approval of the capital program. Nomination of uncertain projects where likelihood of project occurring is unclear, or where scope and/or program is highly uncertain. 	<ul style="list-style-type: none"> Risks relating to scoping, cost estimating, timing and approval of capital projects and programs. Risk of incurring capital costs that may not be rolled into the RAB. Risk that uncertain projects which have been excluded from the capital plan, are required during PS5 requiring capital investment at levels above what is being recovered in prices. 	<ul style="list-style-type: none"> Risk of not receiving agreed customer outcomes and service performance levels. Risk of bearing inefficient costs.

LMW Business Risk	LMW Risk Management Strategies	LMW Risk Component	Customer Risk Component
<p>Construction risks: Eg. underestimating costs or project delays.</p>	<ul style="list-style-type: none"> • Long term Service Strategies and Master Plan preparation. • Capital program development and approval process. • Relevant investigations as part of capital planning, eg. Geotech, environmental, etc. • Robust cost estimation and refinement as projects progress through planning, development, and design. ‘Most likely outcome’ cost estimates developed for major projects including risk allowances for unknown conditions (premature to develop P50 cost estimates due to incomplete scoping of projects at this early stage), and where appropriate, market cost escalation to 2023. • Major project delivery risk assessments. • Project Business Cases and justifications. • Capital program delivery management within resource constraints. • Contract Management Manual, and appropriate risk allocation in contract documents. 	<ul style="list-style-type: none"> • Risks relating to planning and delivery of the capital program. • Risks of capital project and program cost overruns, including market cost increases above CPI after 2023. 	<ul style="list-style-type: none"> • Cost implications from major project cost overrun that would be passed onto customers. • Adverse service impacts due to inability of LMW to complete capital projects on time to meet demand or compliance requirement.

Table A6: LMW Price Submission Risk Management and Allocation Examples

7. LMW Overall Financial Position

LMW has completed a review of the financial sustainability of the urban and rural combined business. LMW's proposed pricing, and prudent and efficient operating and capital expenditure required to deliver on customer outcomes, results in a sustainable financial position in the short and medium term.

Table A7 overleaf details the financial indicators included in the ESC financial templates on a combined basis for the integrated LMW business – both urban and rural. The indicators show a sustainable financial position for LMW from 2023-24 to 2027-28 within the minimum ESC benchmarks of the four key financial indicators. The integrated business results are different to the results for each of the urban and rural businesses, as discussed below. The ESC has provided guidance and support to LMW to measure financial performance on a consolidated basis due to the rural businesses merging with LMW, with no regulatory asset base, and the inherent nature of the operations.

The proposed tariff structures for urban and rural ensure LMW remains financially viable by generating sufficient cash flow to deliver on service commitments, including financing costs arising from investments over PS5 and PS6. LMW's overall cash position remains strong with cash generated from operating activities expected to range from \$21m to \$25m over the PS5 period. The primary indicator – Funds From Operations (FFO) interest cover, demonstrates LMW's continued ability to meet its debt obligations.

The urban and rural ESC templates each discretely allocate any available cash to repayment of loans, however, this assumption does not take into account the nature of LMW's integrated business and inter-business loans. In the ESC templates, LMW's urban business currently has a cash surplus, however this money is used within the LMW consolidated business to fund a portion of the rural business capital expenditure on a cost recovery basis, removing the need for the rural business to borrow as much money from Treasury Corporation of Victoria (TCV) loans. From 2023-24 to 2027-28 LMW's TCV loans are forecast to increase from \$52m to \$91m. LMW borrowed \$40m across both businesses in 2010 and the loan does not mature until 2040 which restricts the ability of LMW to repay loans with surplus urban cash.

Sustainable Business Review

In planning for PS5 and long-term financial sustainability, LMW has signalled to stakeholders the potential for price rises to deliver new customer outcomes. The rural businesses inability to recover sufficient tariffs from its customers under the regulatory model raises concern over the long-term sustainability of their operations. Rural loans have progressively increased over the past three pricing periods to fund investment with this trend continuing in PS6 with financial indicators deteriorating.

LMW has tested with both urban and rural customers the balance between price, service and being sustainable into the future and confirmed any non-essential investments will be sacrificed for the sake of lowering customer bills. Following further discussions, customers were cognisant of the need, and ultimately supportive of targeted and informed investment which sustain assets ahead of time.

Shareholder expectation is that Victorian water businesses will operate in an environment of steady or declining prices. In the context of these expectations, LMW has carried out a review of the medium and long-term financial sustainability of the business. The process confirmed a number of business challenges facing LMW:

- Historical under-investment in people, processes, and technology.
- Significant catch-up and investment to move to build efficiencies in ways of working and data-intelligent solutions.
- Small and dispersed water/wastewater systems over a large regional customer base.
- Different regulatory tariff structures due to merger of irrigation districts with different cost and operational structures.
- Rural RAB does not include assets transferred to LMW on merger resulting in no ability to recover sufficient funding for replacements of transferred assets.
- A shrinking rural customer base in number and increase in large corporate customers shifting demand.

This PS5 reflects the minor price changes required for LMW to maintain services in a sustainable manner under its current business model. Some cost optimisation opportunities have been identified; however, these will require investment to implement, which would impact prices in the short term. This investment is reflected in LMW’s Business Transformation Strategy. Opportunities for further efficiencies exist via collaboration with other water businesses. Long term review of the price trajectory to ensure financial sustainability will be necessary during the PS5 period.

Financial Indicator	ESC Target	Current	Fifth Regulatory Period				
		2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Funds from operations \$m	-	21.17	25.37	21.62	21.47	21.28	23.39
FFO interest cover (times)	> 1.5 times	8.65	9.20	6.68	6.00	5.57	5.83
Net Debt / RAV (Gearing) (%)	< 70 %	16.7%	14.9%	17.5%	19.5%	19.8%	20.7%
FFO / Net debt (%)	> 10 %	41.1%	51.7%	34.6%	28.9%	26.5%	26.5%
Internal financing ratio (%)	> 35 %	121.6%	70.5%	66.9%	82.5%	76.7%	91.9%

Table A7: Financial Indicators - Urban

PART B



URBAN

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1. Introduction

This Part B of the 2023-28 Price Submission (PS5) is specific to the urban business of Lower Murray Water (LMW) that provides urban drinking water supply and sewerage services. This Part B covers current regulatory period (2018-23) performance, and proposed PS5 customer outcomes and service standards, demand, operating and capital expenditure, revenue requirement, tariff structures and prices. Part B should be read in conjunction with:

- **Part A** – covers LMW’s general business summary, governance and management, risk approach, customer views, strategic priorities and PREMO assessment that apply to both urban and rural business units.
- **Part C** - specific rural proposal covering current period (2018-23) performance, and proposed customer outcomes and service standards, demand, operating and capital expenditure, revenue requirement, tariff structures and prices.

2. Performance

The review and assessment of LMW’s current regulatory period (PS4) performance largely sets the scene for this PS5 submission and serves the following specific purposes:

- Identifies the magnitude and nature of any variances between actual and planned PS4 performance and the reasons for them.
- Enables LMW to make any changes in performance (outcomes/service performance, capex and opex) to seek to better align with PS4 commitments over the balance of the regulatory period.
- Informs the PREMO rating for PS5.
- Supports establishment of an efficient baseline opex for the 2021/22 year, as the base year for PS5 forecasts.

This section provides a summary of a more detailed assessment contained in a separate LMW PS4 Outcomes Review¹ and describes the performance of LMW’s urban business across the PS4 regulatory period with respect to four key areas of commitment:

- Service Outcomes.
- Prices and Revenues.
- Operating Expenditure.
- Capital Expenditure.

2.1 PS4 Service Outcomes

Consistent with the requirements of the newly introduced PREMO framework, LMW undertook extensive engagement with urban customers to develop, refine and agree upon a set of seven customer service outcomes. LMW has reported its self-assessed performance against these outcomes and their underlying measures on an annual basis since 2018, using the ESC’s “traffic light” rating (green = met, red = not met, yellow = close or largely met).

The annual performance on each outcome, and overall, is shown in Table B1 below, and indicates that to date, LMW has consistently met 64 percent of its outcome targets, closely or largely met another 29 percent, and did not meet 7 percent (or two) of its outcomes – one in each of the first two years². The slight deterioration on some measures from 2020-21 is largely explainable by constraints on engagement and personnel movement caused by the pandemic. In particular, the most critical customer outcome performance measures relating to

¹ Lower Murray Water PS4 Outcomes Review, 23 September 2022

² It should be noted that some of ‘traffic light’ ratings presented here differ slightly to those previously formally reported to the ESC due to realignment and re-assessment in the context of the availability of four years’ data, to improve the consistency and relativity of scores.

containing customer tariffs to within the approved price path, for delivering safe water quality, and water and sewerage service reliability were at or better than target in 91% of annually reported instances.

Outcome/Performance Measure			18-19	19-20	20-21	21-22
# 1: Keep my costs to a minimum						
a	Annual tariffs follow the proposed structures within the ESC's published price determination	Pass/Fail	Pass	Pass	Pass	Pass
b	Deliver 1% per year efficiency improvement on controllable costs from 2016-17, measured net of growth, new obligations, and abnormal events	Pass/Fail	On Track	Fail	Fail	Fail
c	Deliver major Capital Works projects >\$1m value within budget and the regulatory period	% budget spent	32.2%	53.7%	60.5%	98.2%
# 2: Be easy to contact and quick to respond						
a	Post interaction satisfaction (phone, face-to-face, online): Number of completed surveys	Number	447	222	67	98
b	Post interaction satisfaction survey: Customers satisfied (rating of satisfied, very satisfied and extremely satisfied)	% customers surveyed	81%	97%	98%	97%
c	Net promoter score (measure of customer experience)	Percentage	81%	97%	98%	97%
d	Urban customer complaints to Energy and Water Ombudsman Victoria (EWOV)	Number	12	8	6	13
# 3: Provide me with consistent, safe, clean drinking water						
a	Number of Safe Drinking Water Act non-compliances (water sampling and audit)	Number	0	0	0	0
b	Annual survey: Customers satisfied with water quality (rating of satisfied, very satisfied, and extremely satisfied)	% customers surveyed	90%	97%	94%	96%
c	Water quality complaints	Number	56	35	28	27
d	Boil Water Notices issued	Number	0	1	0	0
e	Customers experiencing > 5 unplanned water supply interruptions	Number	46	0	0	12
f	Unplanned water supply interruptions	Number per 100 km	20.39	15.17	15.00	14.90
# 4: Provide me with reliable sewerage services						
a	Sewerage blockages	Number per 100 km	17.38	14.79	17.3	17.0
b	Customers receiving more than 3 sewer blockages	Number	0	0	0	0
c	Spills in houses caused by LMW assets	Number	0	0	1	1
d	Annual survey: Customers satisfied with sewerage service (rating of satisfied, very satisfied and extremely satisfied)	% customers surveyed	90%	98%	88%	94%
e	Odour complaints (includes sewerage systems and treatment plants)	Number	4	10	12	4
# 5: Be present and active in the community						
a	Annual survey: Customers satisfied with LMW's role in the community (rating of satisfied, very and extremely satisfied)	% customers surveyed	95%	95%	94%	93%
b	LMW and local engagement groups to meet formally annually	# meetings	1	1	1	1
c	'Pop up kiosks' in major shopping centres and at community events	Number of events	3	3	0	7
d	Publish monthly LMW newsletter 'Inflow' on website & email informing community on activities	Number	12	12	4	1
e	Open days at LMW's key local infrastructure sites	Number	9	2	2	1
f	Develop and deliver an Aboriginal Reconciliation Action Plan and Diversity and Inclusion Strategy	Pass/Fail	On track	On track	On track	On Track
# 6: Be mindful of our environment						
a	Number of EPA reportable sewerage spills per annum	Number	0	2	0	0
b	Number of EPA corporate licence conditions non-compliant	Number	0	1	0	0
c	Total CO ₂ e emissions from urban operations (inclusive of urban customer growth)	Tonnes CO ₂ e	20,207	18,838	17,876	18,401
d	All key sites (7) have generator availability or capability to maintain services in event of sustained power outage	Pass/Fail	Fail	Pass	Pass	Pass
# 7: Comply with other government obligations						
a	Compliance with government reporting policy requirements – timely completion and lodgement of 8 major reports	Percentage on time	100%	100%	100%	100%

Table B1: Overall Urban Outcome Summary

A brief summary of performance results for each outcome is provided below.

2.1.1 Outcome 1: Keep my costs to a minimum

Tariffs for urban services have consistently followed the agreed price path as determined for the PS4 period, resulting in a reduction of 0.35% in real terms. The LMW electricity collar price adjustment mechanism has not been triggered as electricity costs and prices have been contained within agreed limits.

LMW entered PS4 with a government-mandated target to achieve 1% annual efficiency savings, and it is primarily performance against this measure which has brought down LMW's rating on this outcome. The key drivers were increases in operating costs associated with the labour force required to deliver outcomes and compliance requirements, and uplift in ICT expenditure. It should be noted that despite these expenditure increases, LMW is a highly efficient business when compared to its peers, as demonstrated in the opex benchmarking study undertaken by GHD³.

Additional ICT expenditure was mainly due to software licences moving from on-premise servers to Software as a Service (SaaS) as a part of business transformation initiatives. This reduced capital investment but increased operational cost with Accounting Standard directions changing the recognition of SaaS implementation costs from capital to an operational cost.

Water treatment and filtration costs increased due to frequent poor raw river water quality and additional chemical costs required to maintain delivered water quality at the required standards. Major challenges included repeated blue-green algae (BGA) events requiring high chemical dosing rates to provide the community with access to safe drinking water.

The PS4 period provided some of the most challenging economic and social environments experienced in Australia in recent decades, with the pandemic, climate change and more recently international conflict inflating many costs and constraining supply, increasing economic hardship, and causing social change. Against this backdrop, the maintenance of costs at even a flat trajectory would be difficult to maintain without major compromises to service outcomes and increased risk. That LMW has been able to contain its costs to the moderate increases observed, indicates that it has, in fact, kept its costs to a minimum, despite not achieving the approved efficiency target in several years.

Despite some delays early in the period, LMW's major capital projects saw an improving delivery trend over the PS4 period and met target in the most recent year. The most significant delays were on Mildura Power Upgrade and UV Disinfection, and in the middle and later years, some delays were incurred due to COVID lockdowns and delays to materials/equipment supply during 2020-21 and 2021-22. Completion of all PS4 major projects in the 2022-23 year is expected.

2.1.2 Outcome 2: Be easy to contact and quick to respond

LMW has performed favourably on this outcome over PS4 with the two substantive measures – customer satisfaction and net promoter score – consistently scoring well above target.

Post-interaction survey counts have again proven challenging during the reporting period, with a modest increase on the 2022-21 results masking a general reluctance by customers to undertake these survey processes, and survey participation and administration significantly hampered by COVID-19 restrictions.

Customer complaints made to the Energy and Water Ombudsman Victoria (EWOV) in the first and fourth years of the PS4 period exceeded target, due to account billing complaints after an abnormal meter read in 2018-19. Of the thirteen cases in 2021-22, 10 were resolved internally between LMW and the customers and three (3) cases were escalated to arbitration by EWOV regarding high consumption, billing, and water quality complaints during one billing cycle. LMW strengthened its Hardship Program in PS4 recognising that from time-to-time customers may experience payment difficulties or financial hardship and may need additional assistance and flexibility to manage their water costs and usage.

2.1.3 Outcome 3: Provide me with consistent, safe, clean drinking water

LMW generally was close to meeting, met or bettered the substantive performance measures against this customer outcome. Water quality complaints, while on an improving trend, remained slightly above target, in large part due to a significant decline in raw water quality in the Murray River over the PS4 period which has

³ Opex Efficiency Benchmarking, GHD, 10 June 2022

made treatment of water more difficult and more expensive with increased chemical and process costs. Raw water turbidity limits were also responsible for the single precautionary Boil Water Notice issued at Red Cliffs in 2019-20 as a result of a large blue-green algae presence in the raw water, however management actions prevented non-compliant water entering the Red Cliffs system.

Customers experiencing unplanned supply interruptions target was not met in the first and fourth years of the period. These were due to rare events, in one instance where a water main identified for replacement suffered further deterioration and subsequent failures in rapid succession until it was replaced, and in the other due to a faulty water main installation where a water main scheduled for replacement failed as intervening repairs did not rectify the issue. The main is scheduled for the replacement program in 2022-23. The Guaranteed Service Level Scheme was triggered as a result of the above interruptions.

2.1.4 Outcome 4: Provide me with reliable sewerage services

LMW largely met or bettered customer satisfaction with sewerage services in all but the third year of the period where satisfaction results of the annual survey were 88%, but subsequently recovered to 94%.

LMW encountered an increase in sewer odour complaints which exceeded the 2020-21 target. Of these complaints four were attributed to one site where LMW was undertaking recirculation works to aerate a lagoon. Other complaints related to various sewer pump stations which were investigated by staff and minor works undertaken to eliminate the odours. Odour complaints dropped significantly in 2021-22 due to the measures taken.

2.1.5 Outcome 5: Be present and active in the community

LMW has largely met or bettered its targets for this outcome throughout PS4 despite the pandemic and its associated impacts.

During this period LMW was involved in many projects and events throughout the community including open days, school excursions, careers days, which provided opportunities to speak with customers and seek feedback on various topics and issues including water conservation and treatment processes, career opportunities, wastewater and flush facts information and environmental issues. Victorian Government policy and directives constrained LMW's ability to undertake public face-to-face engagement activities during 2019-20 and 2020-21, but as restrictions have eased these activities were re-engaged where permitted, to recover in the current and expected final year of the period.

Reviews of the Pipeline Newsletter found limited customer reach and resulted in reduction in frequency of production and eventual discontinuation, in favour of more digital forms of communication such as social media with a focus on communicating news as it happens rather than the traditional newsletter method.

LMW has continued to progress its relationships with Traditional Owners in the region and LMW's first ('Reflect') Reconciliation Action Plan was implemented in 2019-20. The final report for the 2019-20 RAP was completed in September 2021 and the development of a new RAP was achieved in the first quarter of 2022. Over the period, LMW completed its first Gender Equality Action Plan (GEAP) which was approved by the Gender Equality Commissioner without amendment.

LMW reviewed the combined requirements of the GEAP and the RAP and established an Equality, Diversity, and Inclusion (ED&I) Committee to replace the RAP working group and ensure momentum and reporting on progress is maintained.

2.1.6 Outcome 6: Be mindful of our environment

LMW performed favourably overall with two of the four targets usually being met or bettered during the PS4 period, and one consistently met, being notably sewerage spills. Although LMW met the minimum target of ≤ 2 there were two EPA reportable breaches relating to sewerage attributable to asset failure.

The target around CO₂ emissions was not met, noting that much of what relates to energy procurement decisions is outside of LMW's control, however actions are underway to address these issues both individually by LMW, and in conjunction with the State government through centralised energy procurement. The State Government's review of the Statement of Obligations Emissions Reduction resulted in a new commitment to

source all electricity from renewables “green energy” by 2025, easily bettering the current period 39% emissions reduction pledge.

2.1.7 Outcome 7: Comply with other government obligations

LMW has fully met its compliance obligations and hence fully achieved this outcome throughout the PS4 period, to comply with government mandated timelines to meet Ministerial and financial directions. All regulatory reports are subject to audit requirements and are independently verified. LMW’s 2020-21 completion and lodgement results are reported in the 2021-22 reporting year where appropriate and as such LMW is reporting 100% completion and lodgement rates by due dates.

2.1.8 Guaranteed Service Levels

Guaranteed Service Level (GSL) payments were triggered in two instances for the GSL ‘More than 5 unplanned water supply interruptions in a year’. Both related to unplanned water main breaks as noted in Outcome #2 above, for 46 and 12 customers each. Payment has been made for the first instance as a credit on customers’ bills, while the second occurred late in 2021-22 and the credits are yet to be processed. No payments were triggered for the other GSLs.

2.2 Price and Revenue Performance for PS4

Tariffs for urban services continued to follow the approved price path as determined for the PS4 period, resulting in a reduction of 0.35% in real terms. LMW’s electricity collar price adjustment mechanism has not been triggered as electricity costs and price have been contained within agreed limits.

2.2.1 Urban Demand

Urban customer water demand was within 1.1% of the forecast for the period to date, recognising annual fluctuations due to weather, supporting the validity of the PS4 demand and growth forecasts. Annual urban water demand and total for the PS4 period to date in shown in Table B2.

Service Category	2018-19		2019-20		2020-21		2021-22		Period to Date Table		Variance		
	ML pa	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	ML	%
Residential demand		14,680	15,637	14,811	14,879	14,944	14,713	15,066	14,384	59,501	59,613	112	0.2%
Non-residential demand		4,299	4,861	4,346	4,571	4,394	4,398	4,438	4,351	17,477	18,181	704	4.0%
Total water demand		18,979	20,498	19,157	19,450	19,338	19,111	19,504	18,735	76,978	77,795	816	1.1%
Variance			1,519		293		-227		-769		816		

Table B2: Urban Demand (ML)

2.2.2 Urban Revenue

Table B3 shows urban prescribed revenue for each year and for the PS4 period to date, showing revenues closely align to fluctuations in demand, with total revenue for the PS4 period to date \$1.1m or 0.7% above the approved forecast.

\$m 1/1/23	2018-19		2019-20		2020-21		2021-22		Period Totals		Variance	
	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	%
Prescribed Revenue	42.5	43.5	41.9	42.4	41.5	41.8	42.1	41.7	168.0	169.4	1.4	0.8%
Variance		2.3		0.6		-0.3		-1.4		1.1		

Table B3: Urban Revenue (\$m 1/1/23)

2.2.3 Summary Urban Prices

There were no changes to the urban approved price paths in any year for the PS4 period to date, as shown in Table B4. LMW absorbed the increased operating expenditure incurred without impact on customer prices.

Service Category	2018-19	2019-20	2020-21	2021-22
Urban Water	No change	No change	No change	No change
Sewerage	No change	No change	No change	No change

Table B4: Urban Changes to Urban Approved Price Path

2.3 Actual Operating Expenditure for the Delivery of Outcomes

2.3.1 Summary

Table B5 shows total prescribed operating costs over the PS4 period to date to be \$112.3m compared to the ESC budget of \$104.3m, representing an overall increase of \$8.0m or 8%.

This resulted primarily from unplanned increases in total controllable costs of 12% for water services, contributing \$6.7m of the \$8.0m variance.

Non-controllable costs have a net reduction overall, with small reductions in each of external bulk water charges and environmental contributions.

\$m, 1/1/23	2018-19		2019-20		2020-21		2021-22		Period to Date		Variances	
	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	\$m	%
Controllable opex												
Water	15.1	15.3	14.0	15.4	13.7	15.8	13.9	16.8	56.6	63.3	6.7	12%
Sewerage	9.4	9.2	9.2	9.5	8.8	9.2	8.9	10.2	36.3	38.1	1.8	5%
Total controllable opex	24.4	24.6	23.2	24.9	22.5	25.0	22.8	27.0	92.9	101.4	8.5	9%
Non controllable opex												
External bulk water charges and water allocation purchases	0.8	0.7	0.8	0.7	0.8	0.7	0.8	0.7	3.1	2.9	-0.2	-7%
Licence fees	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.3	0.3	0.0	-3%
Environmental Contribution	2.0	1.9	2.0	1.9	2.0	1.9	2.0	1.9	7.9	7.6	-0.3	-4%
Total non-controllable opex	2.8	2.8	2.8	2.7	2.8	2.7	2.9	2.7	11.4	10.9	-0.5	-4%
Total Prescribed opex	27.2	27.3	26.0	27.6	25.4	27.7	25.7	29.7	104.3	112.3	8.0	8%
Variance		0.1		1.6		2.3		4.0		8.0		

Table B5: Approved Budget and Actual Operating Expenditure (\$m 1/1/23) ⁴

Figure B1 overleaf shows the profile of budget vs actual operating expenditure over the period to date and forecast for 2022-23.

⁴ Note that some numbers are subject to minor rounding variations

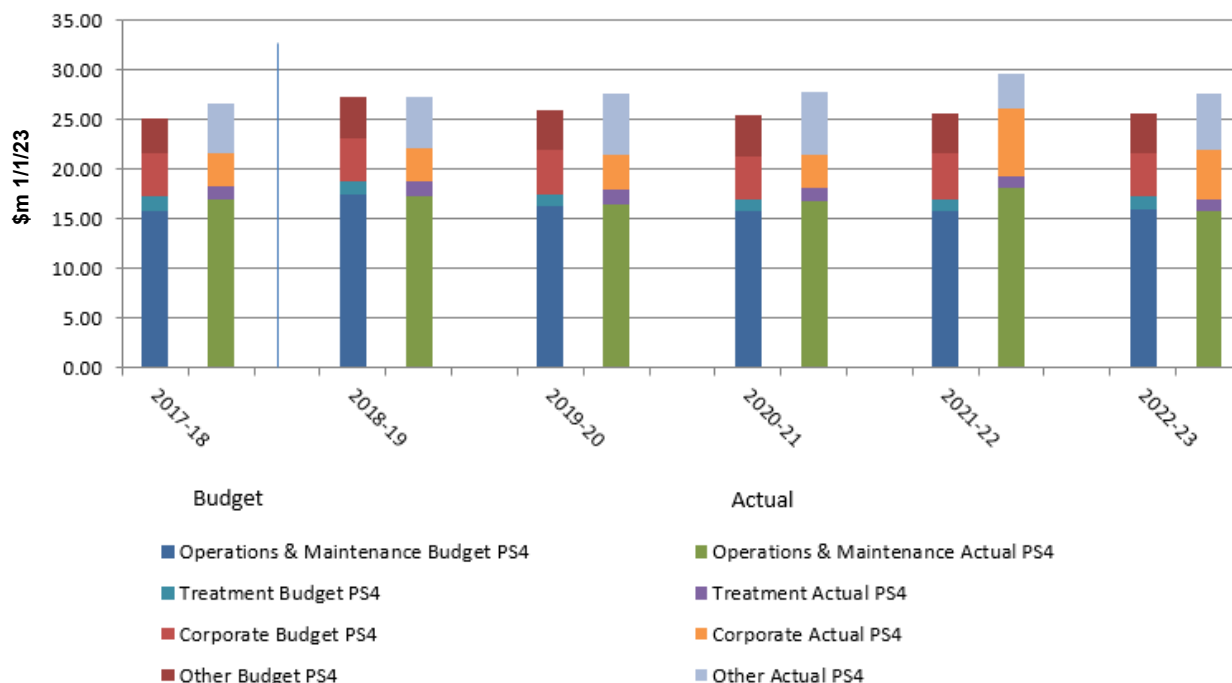


Figure B1: Approved Budget and Actual Operating Expenditure (\$m 1/1/23)

The breakdown of controllable costs is shown in Table B6 below. The leading contributor to the \$8.5m variance was Labour (\$3.0m), followed by Contractors/Consultants (\$1.4m), Chemicals (\$1.3m) and ICT (\$1.2m). A brief explanation of the variance in each of these categories is provided below.

Controllable Opex \$m, 1/1/23	2018-19		2019-20		2020-21		2021-22		Period to Date		Variances	
	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	\$m	%
Labour	11.5	11.2	11.4	12.2	11.1	12.3	11.0	12.4	45.0	48.0	3.0	6.6
ICT Costs (Ex Labour)	1.7	1.6	1.7	1.7	1.7	2.1	1.7	2.6	6.8	8.0	1.2	18.0
Chemicals	1.1	1.2	1.1	1.4	1.1	1.5	1.1	1.5	4.3	5.6	1.3	31.0
Contractors/Consultants	0.7	0.9	0.7	0.6	0.8	0.9	1.6	2.8	2.8	4.2	1.4	49.6
Balance	9.5	9.6	8.3	8.8	8.1	8.3	8.1	8.9	34.0	35.6	1.6	4.7
Total Controllable Opex	24.4	24.6	23.2	24.9	22.5	25.0	22.8	27.0	92.9	101.4	8.5	9.2
Variance		0.1		1.7		2.5		4.2		8.5		

Table B6: Controllable Costs (\$m 1/1/23)

2.3.2 Labour Costs

Labour costs were higher than approved throughout PS4. The PS4 submission identified that the key strategy to implement the 1% per annum efficiency improvement was investment in a Business Transformation Program (BTP). Investment in the form of two additional business analyst roles for the first two years was provided to support the capture of these efficiencies. Other labour efficiencies were to be derived from natural attrition of the workforce.

In implementation, these efficiencies were found to be impractical and somewhat immature, and therefore LMW was not able to deliver reductions in staff while maintaining essential services due to a combination of circumstances.

Notwithstanding these labour cost increases, workforce benchmarking reports conducted annually by the Victorian Public Sector Commission consistently demonstrate that LMW delivers services and meets customer outcomes with less FTE than the comparator average. Figure B2 demonstrates LMW's annual FTE count against the comparator average noting that the VPSC benchmarking report⁵ includes all 19 Victorian Water Corporations.

⁵ 2021 VPSC Benchmarking Report

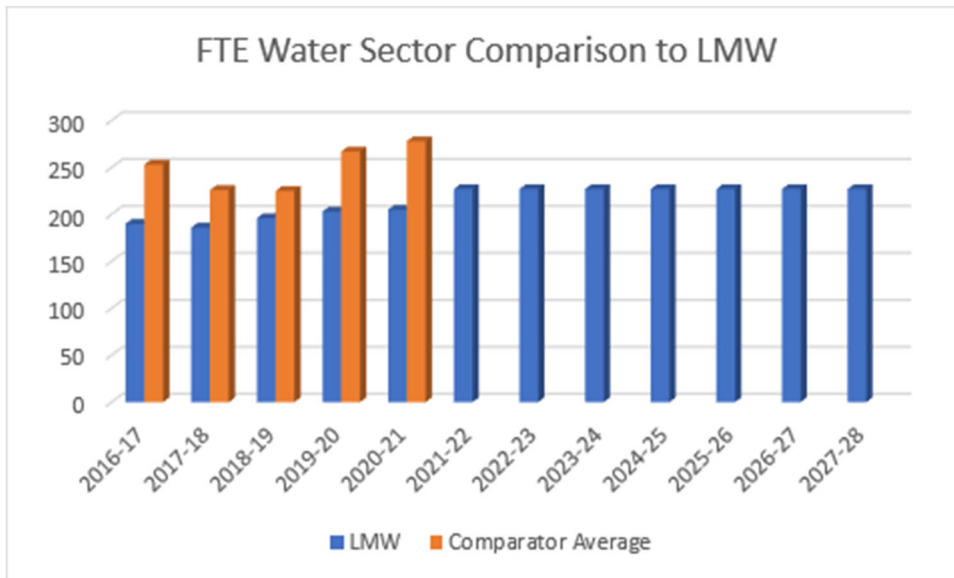


Figure B2: FTE Water Sector Comparison to LMW

Further, opex benchmarking⁶ undertaken by GHD clearly shows that when compared to an appropriate peer group of Victorian water corporations, LMW's high level of operational efficiency is evident from the following results:

- LMW consistently had the lowest or second-lowest operating costs for both water supply and wastewater, through the 2008-2020 period.
- LMW consistently delivered one of the lowest operating costs per water connection, and *the* lowest wastewater operating costs per connection (residential and non-residential) with the exception of FY11 and FY12 where blackwater events and flooding were issues for water supply.
- Over the PS4 period LMW has been, by far, the most efficient supplier as measured by operating cost per megalitre of water supplied.
- LMW consistently provided the lowest annual water supply bill per 200kL through 2008-2021 according to both Bureau of Meteorology (BOM) National Performance Report data and the ESC's water bill estimator.
- The ESC identified that customers score LMW 'average' for value for money. This indicates a disconnect between customers' perceived value/service, and LMW's actual performance, and an opportunity for LMW to better communicate its superior performance to customers.
- LMW exhibits market-leading labour productivity when measured against three key measures, being ranked by far the lowest in terms of FTEs per volume of water supplied, and roughly equal second lowest in terms of both FTEs per water connection and FTEs per wastewater connection.

2.3.3 ICT Costs

ICT costs were higher than anticipated during the PS4 period due to a combination of higher software licence renewal fees charged by vendors, and significant cost increases associated with the movement of many vendor products from on-premises licences to a Software as a Service (SaaS) cloud-based model. As an example, in the case of two major Enterprise Resource Planning (ERP) products used by LMW this has seen a doubling of overall licence and support costs. Additional cloud hosting fees are only partially offset by a reduction in on-premise maintenance and support costs and a reduction in capital hardware and server investment.

The increasing overall trend to automation and digitisation of business processes will continue to place upward pressure on technology costs, albeit with the benefits of improved flexibility and business insights to enhance performance management to control operational costs. Labour efficiencies from increased automation and improved data integrity are forecast to be realised in the PS6 period after core platforms are implemented and new ways of working are embedded in the organisation.

⁶ Opex Efficiency Benchmarking Final Report, GHD, 09 September 2022

2.3.4 Contractor and Consultant Costs

Contractor and consultancy costs were higher than budget throughout the regulatory period, primarily due to consulting fees increasing at higher rates than anticipated, but also due to a deliberate strategy of putting an increased focus on planning, options analysis, and preliminary design with the aim of producing superior project outcomes and reducing risk. Through the building of partnerships with contractors and consultants, this approach also served to build capability internally which can be utilised and leveraged on future projects.

More significant increases in actual expenditures have been manifest in 2021-22, and will continue in 2022-23, due to costs associated with the preparation of PS5. This includes both economic and advisory support for preparation of the submission itself, and technical services to develop system master plans, urban water supply strategy and wastewater strategy, business cases, and costs associated with asset condition assessments and investigation works required for major capital work project scope statements. The need to utilise external resources to accommodate peak workloads (including Price Submission preparation) is largely due to LMW's very lean permanent workforce, described above, and turnover of key staff.

2.3.5 Chemical Costs

Chemical costs were forecast at normal levels for the PS4 period. While efforts were made to reduce the impact of increasing chemical costs by entering into a purchasing contract, poor water quality resulted in an increase in costs over the PS4 period. Continual poor raw water quality combined with a significant blue-green algae (BGA) event in December 2019 has resulted in high chemical dosing rates to provide the community with access to safe drinking water and comply with strict water quality standards. The BGA outbreak event triggered the assembly of the LMW Emergency Management Team (EMT) as the density of the BGA in the incoming raw river water to be treated clogged the Red Cliffs and Mildura Water Treatment Plants' (WTP) water clarifiers.

2.3.6 Compliance Costs

Compliance with legislative, regulatory, and other obligations is an essential part of ensuring water businesses meet the diverse range of standards and performance outcomes expected by stakeholders and society. It also, however, creates administrative burdens and costs for those that are subject to this compliance, and these costs extend across the business (both urban and rural) and are often not easily identifiable or measurable. LMW has efficiently managed additional compliance obligations and expectations during the PS4 period while maintaining agreed customer services, with compliance costs accepted as business-as-usual requirements.

The Victorian Water Industry Association (VicWater) recently commissioned a review by Inxure and Frontier Economics of the nature and costs of regulatory and other compliance obligations. The review found that over the five years to 2021/22 administrative compliance costs had almost doubled from \$32m to \$62m, and that this burden was most pronounced among the smaller water businesses. LMW has not attempted to estimate the quantum of these additional costs in the context of its PS4 performance but notes that they provide an unfavourable backdrop against which the containment of LMW's overall cost increases to the levels achieved appears even more commendable.

2.4 Actual Capital Expenditure for the Delivery of Outcomes

2.4.1 Summary

The PS4 urban capex program delivered period-to-date is \$3.4m or 5.0% below budget as shown in Table B7 and also in Figure B3 overleaf.

The capital cost for the service category of Water (including Purchase of Water Entitlements of \$5.4m), has been the major contributor to overall variances in service category expenditure. The expenditure profile reflects the improvement of capital delivery processes as PS4 progressed.

Service Category	2018-19		2019-20		2020-21		2021-22		Period to Date		Variances	
	\$m, 1/1/23	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	\$m
Water	10.55	7.52	4.41	5.90	10.41	6.95	7.21	18.66	32.57	39.04	6.47	20%
Water corporate	2.04	0.80	1.72	1.04	1.50	0.65	1.41	1.44	6.66	3.93	-2.73	-41%
Sewerage	9.43	6.76	6.25	4.64	3.50	3.50	3.39	2.88	22.58	17.79	-4.79	-21%
Sewerage corporate	1.74	0.68	1.46	0.89	1.28	0.55	1.20	1.23	5.67	3.35	-2.32	-41%
Recycled water	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%
Total capital expenditure	23.75	15.76	13.84	12.47	16.68	11.65	13.21	24.22	67.47	64.10	-3.37	-5%

Table B7: Urban Capital Expenditure by Service Category (\$m 1/1/23)

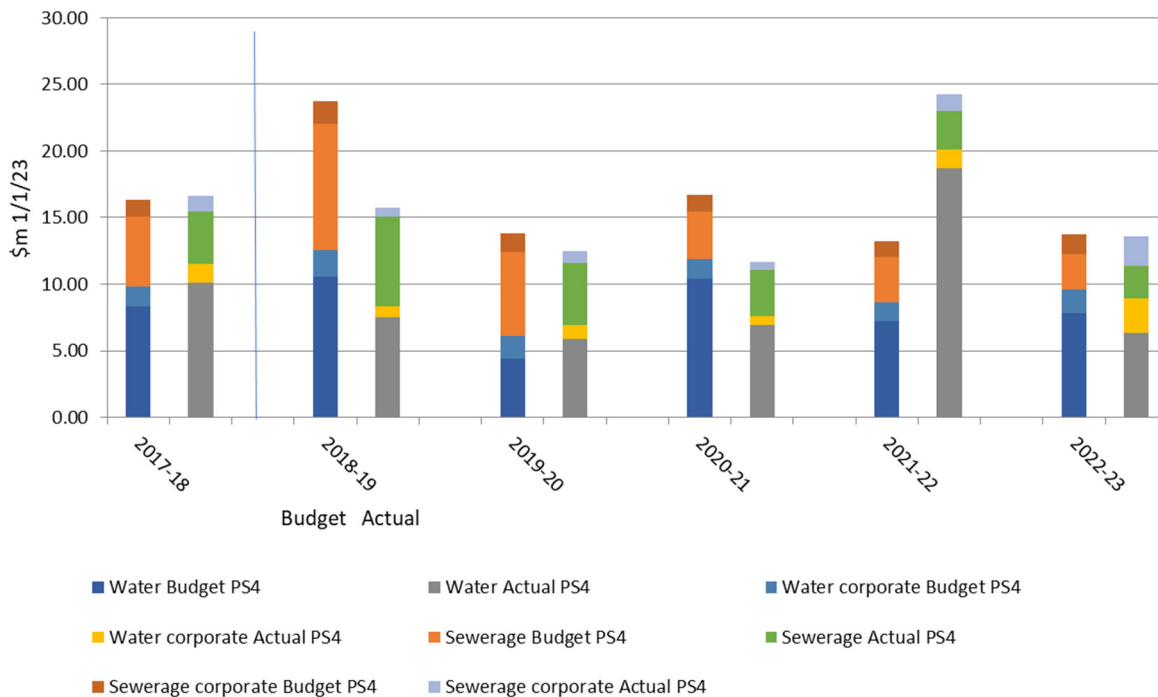


Figure B3: Urban Capital Expenditure by Service Category (\$m 1/1/23)

The negative variance in capex spend is due, in part, to the organisation being unable to sufficiently mobilise the necessary planning and delivery capability to implement the ambitious first year of the program and resultant slower than anticipated ramp-up. Over-reliance on external contractors for planning and delivery, high turnover of key personnel and consequent loss of knowledge and information were contributing factors. Delivery capabilities and volumes have demonstrably recovered since then, particularly in 2021-22. While it is acknowledged that some of the increase in this recent year is a result of pandemic impacts and resultant market cost escalations, the growth in throughput has been primarily driven by improved capital program delivery performance.

Market cost escalations have resulted in some higher project costs than planned, and supply constraints have also caused some delays. LMW was able to manage these risks by prudent changes to the program and adaptive project delivery scheduling. Other variations involved essential cost/scope variations and some deferrals due to slowed growth in one area.

The Top 10 projects and renewals programs have largely been delivered on time and budget, with a significant and improving trend in the volume of capital works delivered each year of the PS4 period. Moreover, some new justified projects were delivered. The effect of this program delivery was to maintain or meet regulatory obligations and customer outcomes commitments, as discussed above.

With all major projects now having either been completed or having contracts in place, and the expected continuation of recent delivery performance for the 2022-23 year, LMW is confident of delivering the identified customer outcomes within 1-1.5% of the overall PS4 budgeted expenditure.

2.4.2 Major Urban Projects

A summary of the nine urban projects featuring in LMW's Top 10 capex projects is summarised in Table B8 overleaf. All major projects were commenced during the PS4 with the majority completed within reasonable limits of cost estimates. Renewals programs for water main pipelines and sewer rehabilitation were maintained at consistent levels throughout the period to replace/rehabilitate ageing assets that were not meeting service performance reliability requirements.

Major Project	Purpose	Major Service Category	Budget Project Cost (\$m)	Total Cost to Date	Estimate to Complete	Actual/Estimated Final Cost	Status/Outcome/Comment
1. Pipeline Renewals	ALL SITES Main Replacement PIA – replace Main from WTP to Town (Mallee Hwy) LB – Lake Boga Trunk Main Replacement Stage 1	Urban Water	5.51	4.89	0.70	5.59	Annual program of works on track to complete by end of PS4. Piangil main replacement from WTP to town completed. Lake Boga trunk main replacement had been deferred as further investigation is required to assess the hydraulic capacity to cater for current future demands.
2. UV Treatment	ALL SITES – UV Treatment Plants MDA WTP 7 th St Upgrade Power Supply	Urban Water	12.54 (11 UV, 1.54 Power Supply Upgrade)	11.94	8.08	20.02	UV treatment – Four sites operational. Stage 2 sites well advanced with commissioning of Kerang WTP imminent. Early works commenced at Swan Hill and 7 th Street WTPs. Construction contract for Stage 3 sites awarded with construction commenced at SH WTP. Program on schedule to be completed within PS4. The increase in UV cost was mainly due to market cost escalation and design changes to maintain hydraulic performance. Mildura WTP Power Supply Upgrade – Works 95% complete, on schedule to be completed within PS4.
3. Purchase of Water	Purchase of Water	Urban Water	5.95	5.66	0.00	5.66	Completed. Procurement of Zone 7 Vic High Reliability water entitlement equivalent to the indexed PS4 budget is complete.
4. Mildura Pipelines	MDE ME DN225 Merbein River Ave – Reilly St to Charles Rd MDA ME DN300 Trunk Main 15 th St Benetook – Sandilong	Urban Water	1.50	0.61	0.00	0.61	DN 300 16 th Street Water Main completed. DN225 Merbein trunk main deferred to PS5 due to slower than anticipated growth.
5. Swan Hill North WTP	SH North WTP 6 ML Ground Level Storage SH North WTP Treated Water Pump Station (Stage 1)	Urban Water	5.17	3.20	0.00	3.20	Tank is online and being utilised. Project completed June 2022. Options assessment concluded that additional storage can be constructed within reticulation reducing the need for a new re lift pump station and interconnecting main.
6. Kerang Treated Water Pump Station	KER – Kerang Replace Treated Water Pump Station	Urban Water	0.83 (50% incurring in PS3)	1.02	0.00	1.02	Project completed on time.
7. Rehabilitation of Sewers	Northern – Sewer Rehab Program Southern – Sewer Rehab Program	Urban Sewerage	5.79	3.50	1.17	4.67	Ongoing program. Contract in place for delivery of annual works packages. On track to complete final year of current contract by end of PS4.
8. Koorlong Wet Weather Storage	KLG – WWTP Construct 400 ML Wet Weather Storage No 1	Urban Sewerage	4.95	4.34	0.00	4.34	Project completed.
9. Replace Swan Hill WWTP Rising Main	S/H – Replace WWTP Rising Main Stage 2	Urban Sewerage	1.98	1.21	0.00	1.21	Project completed on time.

Table B8: Urban Projects in the LMW Top 10 (\$m 1/1/23)

The PS4 UV Treatment project budget consisted of \$1.54m (\$1/1/23) for a power upgrade at the Mildura 7th Street WTP and \$11.0m (\$1/1/23) for the installation of secondary disinfection barriers (UV) at nine water treatment plants. The UV Treatment project is estimated to cost some \$20.02m compared to the budget of \$12.54m due to significant scope changes and staging of the program, increases in material prices and market cost escalation, limited pool of contractors and contractor availability, impacts of the pandemic, and redirection of materials and contractors to flood-damaged regions. \$3.77m has been included in the first year of PS5 to capture this expenditure in the Regulatory Asset Base (RAB) for 2023/24.

One growth project (Mildura Pipelines) was deferred due to slower growth in one area of Merbein to ensure that expenditure was not incurred earlier than necessary. Purchases of Bulk Water Entitlements were judiciously timed for advantageous market conditions to achieve the required additional entitlement within budget.

3. Customer Outcomes

3.1 Outcomes Agreed with Customers

Following extensive engagement, debate, and revision with its customers, LMW adopted the following five customer outcomes along with the associated performance measures and targets:

Customer Outcomes

- Outcome 1: Services provide customers value for money.
- Outcome 2: Provide customers reliable and safe drinking water.
- Outcome 3: Provide customers reliable sewerage services.
- Outcome 4: Provide customer service avenues that are responsive to resolve requests and enquiries.
- Outcome 5: Service our communities in a socially responsible and environmentally sustainable manner.

Throughout the engagement process, LMW gained agreement from customers to the major change projects, key operational activities, and inputs in terms of cost movements and resources required to achieve these customer outcomes. Each customer outcome and the associated measures and activities are detailed in Tables B9 to B13 which are easily understood and were agreed with customers through the detailed engagement process outlined in Part A.

Outcome 1: Services provide customers value for money

What customers will receive	Outcome 1: Services provide customers value for money
Performance measures and targets	<ul style="list-style-type: none"> • Customer satisfaction for overall services value for money - Target = \geq prior year performance of annual survey respondents • Delivery of the approved PS5 price determination • Delivery of top 10 capital projects on time and budget (budget set by annual corporate plan, timing set by pricing submission)
ESC Measures	<ul style="list-style-type: none"> • How customers rated their business for value for money (ESC Figure 2.2 2021 ESC report)
Major change projects	<ul style="list-style-type: none"> • Deliver projects in Horizon 2 of Business Transformation Program to drive efficiency and improve service delivery • Embed LMW’s Leadership and Talent Management Framework to ensure LMW staff have the right skills and capabilities • Deliver efficient renewals program to maintain / improve service delivery and ensure water reliability
Key operational activities	<ul style="list-style-type: none"> • Improve capability of LMW’s workforce to ensure services are delivered first time right • Collaborate with other agencies to reduce costs through bulk purchasing and shared services • Maintain long term financial viability and sustainability and explore opportunities for business efficiency • Manage assets to optimise whole of life cycle costs
Inputs <ul style="list-style-type: none"> • Cost movements • Resources req’d 	<ul style="list-style-type: none"> • Business Transformation Horizon 2 total investment of \$10.16m • Infrastructure renewal program investment of \$33.12m over the price period (excluding corporate capex)

Table B9: Outcome 1 - Services Provide Customers Value for Money

Outcome 2: Provide Customers reliable and safe drinking water

What customers will receive	Outcome 2: Provide customers with reliable and safe drinking water
Performance measures and targets	<ul style="list-style-type: none"> Compliance with Schedule 2 of the Safe Drinking Water Regulations (schedule 2) - Target = 100% (No reportable incidents) Customer satisfaction of water services - Target = >/= prior year performance of survey respondents Customer satisfaction of Water quality - Target = >/= prior year performance for survey respondents Taste and odour complaints – Target = 25 or less
Guaranteed Service Levels (GSL)	<ul style="list-style-type: none"> Greater than 5 unplanned water supply service interruptions (\$75)
ESC Measures	<ul style="list-style-type: none"> Zero boil water notices per annum
Major change projects	<ul style="list-style-type: none"> Improve water quality process under stressed river conditions at WTPs to meet health-based targets Invest \$5.4m in renewals and replacement of pumping and treatment equipment, switchboards and structures over the period to maintain water quality and system capability Deliver major capital projects on time and budget, including: <ul style="list-style-type: none"> Red Cliffs water and pressure upgrade (\$9.4m) Water mains replacements and renewals (\$6.1m) Mildura mains augmentation to service growth (\$3.8m) Invest \$3.4m to improve performance monitoring and control systems and data collection Purchase mobile generators for service resilience
Key operational activities	<ul style="list-style-type: none"> Provide river-to-tap water quality management Manage water taste and odour issues and follow up on water quality complaints Periodically clean water mains and tanks Support reliability with solar and backup generators. Meet government compliance requirements for water quality planning, reporting, auditing, and training, e.g., publish Annual Drinking Water Quality Report and prepare Water Quality Management Plan Maintain blue-green algae regional coordination, contingency planning, monitoring, and reporting
Inputs <ul style="list-style-type: none"> Cost movements Resources required 	<ul style="list-style-type: none"> Additional operating costs of \$0.98m associated with UV operation. Proposed capex of \$42.65m total for drinking water supply (excluding water purchase and corporate capex) Establish combined Operation Technology / Information Technology team to maximise performance and system reliance

Table B10: Outcome 2 - Provide Customers Reliable and Safe Drinking Water

Outcome 3: Provide customers with reliable sewerage services

What customers will receive	Outcome 3: Provide customers with reliable sewerage services
Performance measures and targets	<ul style="list-style-type: none"> • Sewerage supply customer interruptions per 1000 customers (LMW main) – Target = 5 or less • Customer satisfaction of Sewerage service – Target = >/= prior year performance of annual survey respondents • Odour complaints – Target = 10 or less
Guaranteed Service Levels (GSL)	<ul style="list-style-type: none"> • Number of customers receiving more than 3 sewer blockages in the year (\$75) • Sewer spill within house caused by LMW (\$1,500)
Major change projects	<ul style="list-style-type: none"> • Invest \$3.6m in wastewater facilities renewals and generators to maintain quality and system capability • Deliver major capital projects on time and budget, including: <ul style="list-style-type: none"> ○ Koorlong wet weather storage (\$6.1m) ○ Replacement and renewal of sewer mains (\$6.1m) ○ Augmentation of sewerage pumps stations (\$3.0m) • Manage sewer network performance and minimise critical sewer failures through sewer rehabilitation program
Key operational activities	<ul style="list-style-type: none"> • Well maintained assets that are correctly sized to deal with growth and storm events • WWTP's that operate effectively • Support reliability with backup generators • Upgrade asset performance and condition monitoring systems • Manage pump stations and manhole inspection program to manage performance • Investigate odour complaints
Inputs <ul style="list-style-type: none"> • Cost movements • Resources required 	<ul style="list-style-type: none"> • Proposed capex of \$25.89m total for sewerage (excluding corporate capex) • Proposed controllable opex of \$52.54 million

Table B11: Outcome 3 - Provide Customers with Reliable Sewerage Services

Outcome 4: Provide Customer Service avenues that are responsive to resolve requests/enquiries within the agreed KPIs

What customers will receive	Outcome 4: Provide customer service avenues that are responsive to resolve requests/enquiries within the agreed KPIs
Performance measures and targets	<ul style="list-style-type: none"> Resolve customer requests / enquiries within the defined response time (Mean Time to Resolve) – Target = % => per year from 2024/25 Resolve customer requests / enquiries “First Time Right” – Target = % => per year from 2024/25 Customers registered for self-service portal – Target = 20% in first year and 10% increase per year for subsequent years Customer satisfaction for responsiveness to enquiry or request – Target = => prior year performance of survey respondents
ESC Measures	<ul style="list-style-type: none"> How customers rated their water business for level of trust (ESC Figure 2.4 2021 ESC report)
Major change projects	<ul style="list-style-type: none"> Deliver Horizon 2 of the Business Transformation Program to improve the digital customer experience Expand Customer Portal functionality Invest in mobility to allow in-field resolution of issues Expand and enhance customer feedback mechanisms
Key operational activities	<ul style="list-style-type: none"> Responsive service avenues and channels Customer Portal (Self-Service, Self-Enablement / Service Request) Contact Centre (Phone, Walk-In, Online Chat) Afterhours Services (Fault & Emergency) Capture all customer interactions in a Customer Relationship Management System (CRM) Respond promptly and effectively to service requests and complaints within agreed Mean Time to Resolve (MTTR) Deliver open and transparent customer and community engagement programs Manage customer services to comply with Water Customer Service Code
Inputs <ul style="list-style-type: none"> Cost movements Resources required 	<ul style="list-style-type: none"> Horizon 2 Business Transformation \$10.16m over 5 years Redesign of positions to reflect changed ways of working Leadership and Talent Management investment in LMW people of \$1.80m over 5 years

Table B12: Outcome 4 - Provide Customer Service Avenues that are Responsive to Resolve Requests/Enquiries Within the Agreed KPIs

Outcome 5: Service our communities in a socially responsible and environmentally sustainable manner

What customers will receive	Outcome 5: Service our communities in a socially responsible and environmentally sustainable manner
Performance measures and targets	<ul style="list-style-type: none"> Percentage Compliance with EPA license conditions – Target = 100% Percentage of electrical energy from renewable sources by 2025 – Target = 100% from 2024/25 Recycled Water - Percentage of wastewater received by LMW that is recycled - Target = 60%
Guaranteed Service Levels	<ul style="list-style-type: none"> Hardship - Restricting the water supply of, or taking legal action against a customer prior to taking reasonable endeavors to identify hardship status (\$300)
ESC Measures	<ul style="list-style-type: none"> How customers rated their water business on reputation in the community (ESC Figure 2.3 2021 ESC report) Number of sewer spills
Major change projects	<ul style="list-style-type: none"> Invest in blueprint and business case for urban digital metering to promote water efficiency Embed Compliance Framework to ensure all customers are treated fairly and appropriately Extend community engagement to recreational water to consider shared benefits and deliver project for recreational water Develop/deliver strategy for gender equity and Aboriginal and Torres Strait Islander inclusion Prepare for drought by implementing the Urban Water Strategy Manage trade waste to protect sewerage systems, treatment works, the health and safety of the public and workers, minimise environmental impacts, and not present barriers to recycling
Key operational activities	<ul style="list-style-type: none"> Support sustainable and liveable communities (SoO 1.6.1) Promote water efficiency through education programs Embed Leadership and Talent Management to establish a leadership and learning culture across a diverse workforce Maintain and enhance hardship programs for vulnerable customers Deliver LMW’s Reconciliation Action Plan (RAP) Increase diversity, inclusion and equality through the effective delivery of LMW’s Gender Equality Action Plan (GEAP) Improve mechanisms to collect feedback to ensure continuous improvement of service delivery Identify and deliver Cultural Heritage programs Provide sponsorship to key community events
Inputs <ul style="list-style-type: none"> Cost movements Resources required 	<ul style="list-style-type: none"> Urban digital metering business case and blueprint development - \$0.23m Maintain a minimum of one identified Aboriginal position Maintain a Diversity and Inclusion Officer to support the delivery of LMW’s RAP and GEAP Diversity investment of \$0.04m per annum to support delivery of RAP and GEAP Victorian Protective Data Security Standards (VPDSS) - \$0.09m per annum

Table B13: Outcome 5 - Service our Communities in a Socially Responsible and Environmentally Sustainable Manner

3.2 Service Standards

During the review and development of customer outcomes for PS5, relevant service standards were also discussed and reviewed, explaining that they related to reliability and attending to faults under the provisions in the ESC urban water Customer Service Code. Further, it was explained that any proposed changes in service levels or targets must relate to equivalent service levels or targets in the current regulatory period. LMW does not propose any changes to current service standards as outlined in the urban customer charter, which was supported by customers who confirmed they are satisfied with LMW's current services standards. Proposed and agreed Service Standards are outlined in Table B14:

Service Standards - Urban	Target
Water Supply	
Average time taken to attend bursts and leaks Priority 1 Priority 2 Priority 3	20 minutes
Average duration of unplanned water supply interruptions	60 minutes
Average duration of planned water supply interruptions	85 minutes
Minimum pressure / flow (within urban district)	
20mm	20 litres/minute
25mm	35 litres/minute
32mm	60 litres/minute
40mm	90 litres/minute
50mm	160 litres/minute
Sewerage Supply	
Customers receiving more than 3 sewer blockages in the year (number)	0
Average time to attend sewer spills and blockages	20 minutes
Average time to rectify a sewer blockage	70 minutes
Spills contained within five hours (%)	97%
Customer Service	
Average time for calls to be answered	30 seconds
Maximum time to process a property Information Statement (upon receipt of fully completed application and payment)	10 business days
Complaints	
Maximum time to respond to a complaint	10 business days

Table B14: Service Standards - Urban

3.3 Performance Measurement and Reporting

3.3.1 Proposed Outcomes, Outputs, Deliverables and Targets

Proposed performance standards and targets for reporting to customers are derived from the customer outcomes detailed in Section 3.1. Where possible and appropriate, LMW has utilised measures from the current ESC performance reporting suite to track performance and demonstrate improvement over time. These are supplemented by a range of new measures agreed with customers such as ‘Resolve customer requests / enquiries within the defined response time (Mean Time to Resolve) – Target % \geq per year’ from 2024/25. The proposed Performance Assessment Criteria along with their annual targets are summarised in Table B15 below:

Performance Assessment Criteria	Average / Target for PS4	Annual target for fifth regulatory period				
		2023-24	2024-25	2025-26	2026-27	2027-28
Outcome 1: Keep my costs to a minimum						
Customer satisfaction for overall services value for money - Target = \geq prior year performance of annual survey respondents	NA	\geq 22/23	\geq 23/24	\geq 24/25	\geq 25/26	\geq 26/27
Delivery of the approved PS5 price determination	Pass	Yes / No				
Delivery of top 10 capital projects on time and budget (budget set by annual corporate plan, timing set by pricing submission)	NA	\geq progress against capital delivery plan				100% delivery
Outcome 2: Provide customers reliable and safe drinking water						
% Compliance with Schedule 2 of the Safe Drinking Water Regulations	100%	100%				
Customer overall satisfaction of water services - Target = \geq prior year performance of survey respondents	NA	\geq 22/23	\geq 23/24	\geq 24/25	\geq 25/26	\geq 26/27
Customer satisfaction of Water quality - Target = \geq prior year performance for survey respondents	90/94%	\geq 22/23	\geq 23/24	\geq 24/25	\geq 25/26	\geq 26/27
Number of Taste and Odour complaints per year.	13	\leq 25				
Number of boil water notices per year.	0	0				
Outcome 3: Provide customers reliable sewerage services						
Unplanned interruptions to sewerage services (per 1000 customers, LMW main)	NA	\leq 5				
Customer satisfaction of sewerage service – Target = \geq prior year performance of annual survey respondents	90%/91%	\geq 22/23	\geq 23/24	\geq 24/25	\geq 25/26	\geq 26/27
Odour complaints per year	\leq 10	\leq 10				
Number of spills in houses caused by LMW assets	\leq 2	\leq 3				
Number of customers receiving more than 3 sewer blockages in the year.	0	0				
Outcome 4: Provide customer service avenues that are responsive to resolve requests and enquiries						
Resolve customer charter requests / enquiries within the defined response time (Mean Time to Resolve) – Target - % \geq per year from 2024/25	NA	NA	\geq 60%	\geq 65%	\geq 70%	\geq 75%
Resolve customer charter requests / enquiries “First Time Right” – Target - % \geq per year from 2024/25	NA	NA	\geq 60%	\geq 65%	\geq 70%	\geq 75%
Customers registered for self-service portal – Target - 20% in first year and 10% increase per year for subsequent years	NA	20%	30%	40%	50%	60%
Customer satisfaction for responsiveness to enquiry or request – Target = \geq prior year performance of survey respondents	NA	2022/23 actual	\geq 23/24	\geq 24/25	\geq 25/26	\geq 26/27
Outcome 5: Service our communities in a socially responsible and environmentally sustainable manner						
Number of EPA reportable sewage spills per annum	\leq 2	\leq 2				
% compliance of WWTPs with EPA license conditions	100%	100%				
Percentage of electrical energy from renewable sources – Target = 100%	NA	NA		100%		
Recycled Water - Percentage of wastewater received by LMW that is recycled	60%	60%				

Table B15: Proposed Performance Assessment Criteria

3.4 Delivery on Outcome Commitments

LMW’s Board adopted the Customer Engagement Strategy in 2021 which included the principles articulated by the IAP2. The key aim of this is to ensure a better level of trust, service and appreciation between customers, stakeholders and LMW.

LMW’s review of its People, Customer and Stakeholder functions in 2021 to strengthen the link between internal and external customers has enabled LMW to engage more authentically with the urban customer base, creating better understanding of the diverse needs of this cohort. Early engagement undertaken for PS5 has formed the foundation to maintain momentum with customers and strengthen trust and deeper engagement as the

transition into the next regulatory period begins. It will also enable better customer reporting arrangements on the customer outcomes.

Internal reporting to the Board and management for tracking of progress was established during PS4 and will continue to be refined to support stringent monitoring of progress, performance, and management of challenges throughout the PS5 period. This includes a strong link between LMW's strategic plan, PS5 determination, and corporate plan.

The strategic scorecard will cascade key performance indicators throughout the business to allow all staff to have 'line of sight' of where their actions and performance indicators influence the outputs of the business and the overall achievement of customer outcomes. The strategic scorecard will become a key business process with at least quarterly review at Board and Executive level. This means that there will be a greater level of customer engagement embedded throughout the entire organisation.

LMW will re-establish its Customer Committee structure across the urban customer base and will develop a new digital communication method to ensure continual updates on achievements can be provided to the community. This is to ensure accountability in meeting the outcomes agreed with the community and that the actions LMW has articulated over the 5-year period are being completed.

Commitments have been made to customers to further engage and adapt to changing circumstances and changing customer preferences by:

- Re-establishing the Urban Customer Advisory Committee and conduct, as a minimum, annual briefing sessions to advise on progress against the customer outcomes and PS5 delivery.
- Through business transformation and the implementation of the customer portal, establish electronic means to collect continuous feedback throughout the year which can be discussed with the customer committee at least annually.
- Providing opportunities for indigenous engagement as LMW's Reconciliation Action Plan develops, and relationships with these communities strengthen.
- Develop enhanced understanding regarding the profile of vulnerable customers utilising service organisations as a conduit when reviewing the tiered pricing structure during PS5.

In this way, the relevance of the outcomes and measures can be tested and refined as PS5 progresses. It is anticipated that this process will feed directly into PS6 and influence the annual business planning process.

LMW is confident that it will deliver on the outcomes included in this submission. Should LMW underperform on outcome delivery, it will engage with its customers and determine a suitable response. Responses could range from customers determining that the identified area is a priority issue and resources should be redirected to focus on achieving this outcome or deciding that the current level of performance is adequate.

3.5 Guaranteed Service Levels

Customer engagement regarding Guaranteed Service Levels (GSLs) revealed that customers value the reliability of the key services of water and sewerage. Consistent with overall feedback, customers were very happy with the service levels that they currently receive. When combined with explanations regarding continued investment in renewals and operating expenditure and given LMW's strong historical performance, customers did not think that lower thresholds or higher payments were required. However, customers did support the current GSLs remaining in place for the PS5 period. Customer feedback reiterated the desire for LMW to focus on continuous improvement initiatives that would enable the resolution of customer issues as quickly as possible when they occur.

While customers confirmed overall performance targets, they placed little focus on the need for GSL payments but reaffirmed that the high level of inconvenience associated with a sewage spill into a customer home warranted compensation. To this effect LMW maintains the GSL rebate for sewer spills demonstrating LMW's commitment to drive improved performance in areas which have high customer impact and reputational consequences for LMW.

Customers felt very strongly that the current arrangement where rebates are paid as an account credit should continue and these should not be made as cash payments. This was supported by feedback from service organisations that engage with vulnerable customers across the LMW service area throughout PS5 consultation. Consequently, with support from customers and endorsement by the Board, the agreed GSL outcomes detailed in Table B16 are proposed and remain consistent with the GSLs in the current regulatory period.

Service	Rebate Applies Under Service Circumstances	Proposed Rebate	Change from Previous Period
Water Supply	More than 5 unplanned water supply interruptions in a year.	\$75	No change
Sewerage	More than 3 sewer blockages in a year	\$75	No change
Sewerage	Sewage spill within house caused by LMW assets where customers internal plumbing is functioning correctly.	\$1500	No change
Payment difficulty - Hardship	Restricting the water supply of, or taking legal action against, a customer prior to taking reasonable endeavours (as defined by the Essential Services Commission) to contact the customer to test for hardship.	\$300	No change

Table B16: Proposed Guaranteed Service Level Scheme

4. Revenue and Financial Parameters

4.1 Overview of Revenue Requirement

Table B17 summarises the revenue requirement from the last year of the PS4 period through the forthcoming PS5 period showing a total revenue of \$219.27m. This reflects a step-change of \$1.83m from 2022-23 to 2023-24, due to an increase in operational expenditure (\$4.24m) and a decrease in return on assets (\$2.41m).

The increase operating expenditure in 2023-24 is attributable to significant increases in software licences expenditure for new (SaaS) agreements and change in the corporate cost allocation methodology.

The return on assets is lower in 2023-24 due to a reduction in the real rate of return driven by lower cost of debt and an increase in forecast CPI.

	Current	Fifth Regulatory Period					TOTAL
	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	
Operating expenditure	25.31	29.55	29.71	29.84	30.33	29.77	149.21
Return on assets	7.92	5.22	5.10	5.07	4.99	4.95	25.32
Regulatory depreciation	10.12	10.41	11.02	9.65	9.66	9.50	50.24
Adjustments from last period	-	-	-	-	-	-	-
Non-prescribed rev offset of rev requirement	(1.10)	(1.10)	(1.10)	(1.10)	(1.10)	(1.10)	(5.50)
Benchmark tax liability	-	-	-	-	-	-	-
Total revenue requirement	42.25	44.08	44.73	43.46	43.88	43.12	219.27

Table B17: Revenue Requirement (\$m 1/1/23)

Figure B4 depicts both the current period and 10-year forecast revenue requirement through to the PS6 period, showing relatively minor increases in PS6 due to customer growth.

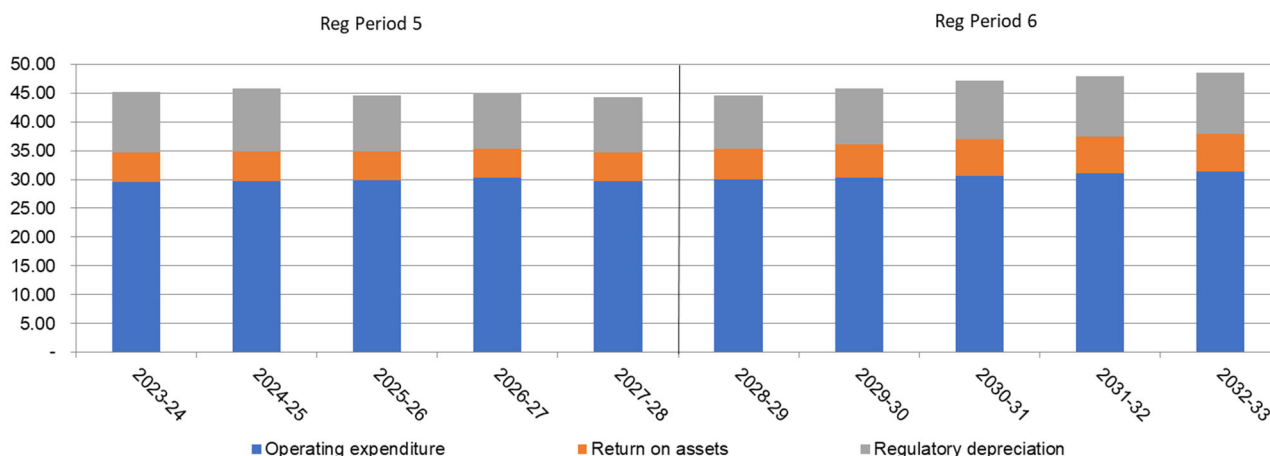


Figure B4: Revenue Requirement (\$m 1/1/23)

4.2 Demand

4.2.1 Demand Context and Key Drivers

The LMW region is one of the driest regions in Victoria, receiving an average annual rainfall of about 300 mm in comparison to the 400–600 mm of rainfall received per year in most other non-alpine regions of Victoria. In addition, the region experiences about 1,800 mm of evaporation per year on average, compared to 1,400 mm or lower experienced in other regions. The drier climate significantly influences water consumption and the community's dependence on reliable water sources, reflected in higher water consumption per household for LMW customers, compared to its Victorian counterparts.

Over the last 60 years, average temperature has increased, and average rainfall has declined, similar to most parts of Victoria. This trend is projected to continue over the rest of this century.

The key factors influencing and impacted by demand for water and sewerage services are include the following which are also detailed below.

- Growth in customer numbers and connections.
- Weather and water restrictions.
- Climate change.
- Demand management measures.
- Urban Water Strategy.
- Prices.

4.2.2 Summary of Approach to Demand Forecasting

Econometric techniques were used to identify the key statistical factors that influence residential water demand. Predictions of the future course of these factors are then applied using regression analysis to derive a forecast level of residential demand per connection.

Twenty years of quarterly urban water consumption and water and sewerage connection data were used for analysis, with Permanent Water Saving Rules (PWSR) applying throughout the current and immediate past regulatory periods, with these periods also being free of staged drought restrictions.

For the first time, Mallee Climate Projections⁷ data were available via CSIRO and DELWP and updated in 2021. This information was compared to historic data for daily maximum temperature and average monthly rainfall, enabling modelling of a range of scenarios to determine average forecast consumption.

Forecast demand per connection was then combined with forecasts of the number of residential connections to derive a forecast of total billed residential water consumption. This included review of forecast demand for new connections compared to existing connections. Similarly, total non-residential water consumption is forecast by combining likely non-residential customer numbers with likely non-residential demand per connection.

Supporting documentation by ACIL Allen⁸ provides LMW's demand forecasting methodology, assumptions and analysis that underpin the forecasts of water demand per connection. This is supplemented by Board papers that provide further detail on the growth projections in the forecasts⁹.

4.2.3 Forecast Demand Basis and Assumptions

4.2.3.1 Growth Rates and Connections

LMW considered future growth in numbers of households from Victoria in Future 2021 (VIF2021) data obtained through DELWP, in conjunction with historic connections data, 2021 ABS census data, and through engagement with councils (growth forecasts and planning permits), landowners/developers and consultants. Information from diverse sources can be contradictory with the granularity required to understand growth in smaller towns particularly difficult to access from data for larger geographic areas.

The net urban residential connections growth forecast assumption for the PS5 period is 1.1%. This growth forecast primarily is driven by LMW's historical connections data and understanding of new residential

⁷ Mallee Climate Projections 2019, CSIRO and State of Victoria.

⁸ Urban Residential Demand Forecasting Report, ACIL Allen, February 2022

⁹ Finance and Audit Committee 07 June 2022 Item 4.1.1 LMW Urban Demand

developments under construction or which have full planning and design approvals and are highly likely to proceed within PS5. The VIF2021 estimate of 0.48% is lower than the PS5 estimate of 1.1%, however after extensive consultation with planning officers from all three municipalities within LMW's service area and developers, LMW is confident the forecast is based on the best and most current information and, in any case, bears the risk of revenue shortfalls if growth does not match the forecast.

LMW uses a graduated service charge, which varies according to the diameter of the connecting water supply pipe. To allow for this graduated charge, LMW assesses the number of connections in terms of 20 mm equivalent connections, which count larger connections as a multiple of the standard 20 mm connection with the multiple reflecting the pricing structure. Information on numbers of equivalent connections for residential and non-residential customers is sourced from LMW's billing system. Growth in equivalent connections is assumed to reflect the growth forecast for occupied private dwellings.

Growth in the number of non-residential customers is assumed to mirror the growth of residential customers and to maintain the existing relationship between actual and equivalent connections.

4.2.3.2 Weather and Water Restrictions Influences

A regression analysis was used to relate demand per equivalent connection to weather conditions and the level of water restrictions, based on quarterly consumption data for the period from 2000-01 to 2020-21 inclusive.

The analysis involved regressing average consumption per equivalent connection against average daily maximum temperature and average monthly rainfall per quarter. The analysis accounted for the varying water restrictions that were in place previously, and ongoing PWSR, by including the stages of restrictions. As expected, higher temperatures result in increased demand for water, and higher rainfall results in a reduction in demand. Similarly, there is a steady decrease in demand as restrictions become tighter.

The impact of permanent water savings is significant, and the analysis suggests that quarterly water demand is on average 25.4 kilolitres less than the period prior to the introduction of water restrictions during the Millennium drought. This result suggests that demand has "bounced back" to around 79% of its pre-restriction level; however, the actual level of bounce back depends on the weather assumptions that are made when calculating the forecasts. Less than full bounce back is to be expected given that LMW continues to support water conservation measures, and some households have made long-term changes to their water use.

4.2.3.3 Climate change

Drawing on the results of the Mallee Climate Projections and considering historical weather patterns in Mildura, a range of scenarios were tested in the regression analysis including both Medium and High emissions projections, and varying lengths of historical data. The Medium emissions scenario was consistent with recent (5-year) average maximum temperature and longer-term (20 and 30 year) and more variable rainfall and was consequently adopted.

4.2.3.4 Demand Management Activities

LMW has historically offered a range of water savings programs. These have been a mix of Victorian Government sponsored programs and LMW's own programs that work alongside the PWSR to reduce water demand. The programs have included several rebate schemes for efficient water using appliances such rainwater tanks and WELS-rated products for private residential housing, small businesses and housing provided by not-for-profit organisations as well as exchanges and giveaways of water saving devices such as garden hose trigger nozzles.

LMW will continue to maintain a focus on water conservation and awareness through a range of measures across its service region. These measures include enhancing its water conservation education and awareness campaign with a focus on school students and the broader community and increasing access to resources online and continuing to deliver the Victorian Government rebate programs.

While it is not possible to estimate the direct water savings from these measures over the years, it is reasonable to assume that they are playing a part in achieving water savings.

4.2.3.5 Price Elasticity

LMW proposes to continue applying an adjustment of demand for price responsiveness based on the results of published empirical studies of the demand for water for residential use. This approach assumes that the forecast consumption derived from the regression analysis provides an estimate of 'base demand' prior to taking account of any price changes.

Taking into account LMW's tiered volumetric charges, extent of outdoor use, lack of volumetric charges for sewerage and lower price elasticities for households which have implemented water savings measures; a range of price elasticity assumptions were made, as set out in Table B18:

Volumetric tier	Assumed price elasticity
First tier volumes	Nil
Second tier volumes	Nil
Third tier volumes	-0.20

Table B18: Price Elasticity Assumptions

LMW has not assumed any impact on non-residential demand due to price elasticity. Published studies on the price sensitivity of non-residential demand are difficult to implement, since they are specific to the nature of the industrial and commercial activity being undertaken, the price of water in alternative locations and the ability of the relevant industries to reduce their water usage.

4.2.3.6 Tariff Changes

No changes are proposed to the water tariff structures or the three-tier volumetric charge ratios.

4.2.4 Water & Sewerage Demand Forecasts

4.2.4.1 Connection Forecast

Table B19 shows forecast water and sewerage connections for the PS5 period, based on actual 2021-22 connections converted to 'equivalent connections', for both residential and non-residential connections, with growth as detailed in Section 4.2.3.1.

Whilst historically the aggregate number of residential sewerage connections has been lower than water, the forecasts assume that the growth in water and sewerage connections will be the same in terms of absolute numbers of equivalent connections. For non-residential sewerage connections, growth has been based on an average increase in connections over the past five years.

Service	Current	Fifth regulatory period				
	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Water						
Residential equivalent connections	31,970	32,322	32,677	33,037	33,400	33,767
Non-residential equiv connections	7,197	7,276	7,356	7,437	7,519	7,601
Total water	39,167	39,598	40,033	40,474	40,919	41,369
Sewerage						
Residential equiv connections	28,070	28,421	28,777	29,136	29,500	29,867
Non-residential equiv connections	4,728	4,763	4,798	4,833	4,868	4,903
Total sewerage	32,798	33,184	33,575	33,969	34,368	34,770

Table B19: Connection Forecasts

4.2.4.2 Water Volumetric Demand

The forecast average water demand per equivalent connection was developed utilising regression analysis and scenario testing the historic data and applying the assumptions discussed above. Table B20 shows the forecast

annual water demand per equivalent connection using a range of time periods for historically averaged weather as well as the Mallee Climate Projections for Medium and High emissions scenarios.

The Medium emissions scenario of 480.6kL per equivalent connection was consistent with the average demand per connection estimated using a 50:50 weighting of 5- and 30-year weather patterns (479.74). 480kL per equivalent connection was adopted as the basis for the forecast.

Basis of weather prediction (period of averaging)	Average annual demand per equivalent connection (kL)	Average annual demand for weather period averaged with 5 years weather (kL)
Victorian Climate Projections - Medium	480.6	
Victorian Climate Projections - High	486.7	
5 years historic weather	496.3	
10 years historic weather	493.4	
20 years historic weather	478.6	487.43
30 years historic weather	463.2	479.74
40 years historic weather	459.3	
50 years historic weather	453.3	
60 years historic weather	450.9	
70 years historic weather	447.9	472.12

Table B20: Forecast Annual Demand per Equivalent Connection

New properties have measured lower consumption due to typically smaller lots and use of water efficient appliances and based on recent data a lower demand per equivalent connection of 85% of that for existing properties is assumed.

Non-residential consumption per equivalent connection is assumed to stay at 2021-22 levels, so that total non-residential water consumption grows in line with the number of new non-residential connections.

Table B21 shows the water volumetric demand forecast for the fifth regulatory period, based on the above connection forecasts and equivalent connections demand.

	Current	Fifth Regulatory Period				
	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Residential demand	15,329	15,469	15,610	15,753	15,898	16,044
Non-residential demand	4,512	4,562	4,612	4,663	4,714	4,766
Total water demand	19,841	20,031	20,222	20,416	20,612	20,810

Table B21: Water Volumetric Demand Forecast – ML pa

Figure B5 shows the historic actual and forecast residential and non-residential demand from 2008-09 through to 2028-33 and indicates the steady growth in customers and consequently demand over the period.

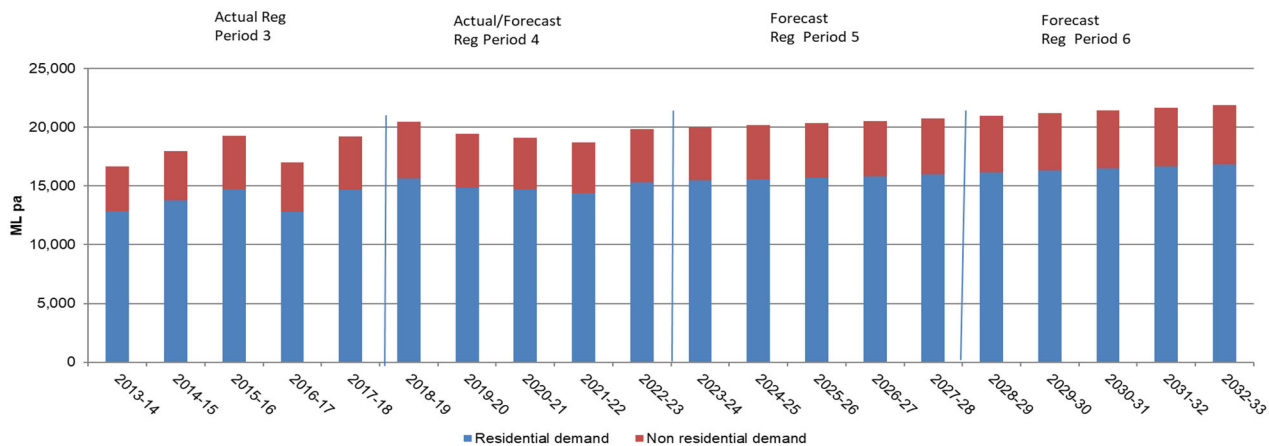


Figure B5: Actual and Forecast Volumetric Demand

The supporting documentation available to the ESC provides details of the analysis for the three tiers of the volumetric tariff structure.

4.2.4.3 Wastewater Flows

Wastewater flows are not relevant for pricing, as there is no volumetric tariff for wastewater, but they influence operating costs, which have been prepared taking into account:

- Historic and expected growth in number of wastewater connections.
- Historic wastewater flow patterns and influences noting water demand management measures in the LMW region mainly impact on garden watering and consequently have less effect on wastewater flows.

Table B22 shows a summary of estimated wastewater flows based on the above factors.

	Current	Fifth Regulatory Period				
	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Residential equiv connections	28,070	28,421	28,777	29,136	29,500	29,867
Non residential equiv connections	4,728	4,763	4,798	4,833	4,868	4,903
Total equivalent connections	32,798	33,184	33,575	33,969	34,368	34,770
Total Wastewater Flows (ML/yr)	5,976	6,047	6,118	6,190	6,263	6,336

Table B22: Wastewater Connections and Flows

4.2.4.4 Recycled Water

Koorlong is the main WWTP where recycled water is supplied externally under commercial contracts. At a minimum, 2,400 ML is available from this source, with use subject to contractual needs and quality of supplied water for its purpose. The demand estimate for recycled water averages 2,200 ML per annum.

For the WWTPs at Mildura, Robinvale, and Koondrook, onsite reuse on tree lots and/or pasture is practiced. Evaporation is the major method of disposal of wastewater at Merbein, Swan Hill, Nyah/Nyah West, Lake Boga, and Kerang.

4.2.4.5 Developed Lots

The historic developer lots and forecast for the next regulatory period are shown in Table B23.

Lot Type	Current Forecast	Projected for Fifth Regulatory Period				
	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Water – residential	317	352	356	359	363	367
Sewerage – residential	317	352	356	359	363	367
Water – non-residential	41	45	46	46	47	47
Sewerage – non-residential	20	20	20	20	20	20

Table B23: Forecast Number of Development Lots

4.3 Forecast Operating Expenditure

4.3.1 Actual and Planned Operating Expenditure

Table B24 sets out LMW's proposed prudent and efficient operating expenditure for the base year (2021-22), current year (2022-23) and each year of the fifth regulatory period, across each major service category. The total forecast operating expenditure for the PS5 period is \$149.21m in real dollars (\$m 1/1/23).

\$m, 1/1/23	Current Period		Forecast for Fifth Regulatory Period					TOTAL
	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	
Controllable Opex								
Water	16.76	15.54	16.68	16.49	16.76	16.94	16.70	83.57
Sewerage	10.21	9.50	10.29	10.62	10.47	10.75	10.42	52.54
Total controllable opex	26.97	25.05	26.96	27.11	27.22	27.69	27.12	136.11
Non controllable opex								
External bulk water charges and water allocation purchases	0.71	0.70	0.72	0.73	0.75	0.76	0.76	3.73
Licence fees	0.12	0.09	0.08	0.08	0.08	0.10	0.10	0.45
Environment Contribution	1.88	1.78	1.78	1.78	1.78	1.78	1.78	8.92
Total non-controllable opex	2.70	2.58	2.59	2.60	2.62	2.65	2.65	13.10
Total Prescribed opex	29.67	27.63	29.55	29.71	29.84	30.33	29.77	149.21

Table B24: Actual and Planned Operating Expenditure (\$m 1/1/23)

The above table separates out the costs that are not controllable by LMW. Controllable operating expenditure is forecast to be consistent over the 5-year period with an increase in 2026-27 to allow for preparation and planning costs attributed to PS6. Over the 5-year period there are annual increases in ICT expenditure attributed to cloud hosted SaaS licence agreements.

4.3.1.1 Electricity

A significant decrease in the electricity forecast from the current period is due to the stabilisation of electricity prices compared to the significant increases anticipated in 2017 during the development of PS4. For PS5, forecasts for electricity costs are based on:

- A Victorian water industry (agency-wide) forecast for energy prices and overall demand prepared by Schneider Electric to provide an informed and consistent basis across the State's water businesses.
- Modelling of forecast energy costs by Schneider Electric based on these forecast prices, applied to LMW's site-specific and seasonal energy requirements for:
 - Energy and other electricity bill tariff components.
 - Large Generator Certificate (LGC) pricing for the emission reduction requirements.

The State Government mandated that from 1 July 2023 LMW must participate in the large and small electricity State purchase contracts via the Victorian Government Purchasing Board (VGPB). These contracts have been largely locked in for the next three years, reducing volatility in prices in the short term and high energy price risk subsequently.

For the PS4 period, LMW has had an 'electricity collar' mechanism in its rural and urban price paths to enable significant electricity price variations outside specified upper and lower bounds to be reflected in either higher or lower prices to customers. This mechanism has been carefully considered in the light of the current forecast and assessment of market volatility and the VGPB procurement arrangements, and the experience in the collar mechanism application during the PS4 period. LMW does not plan to extend the collar mechanism into PS5. LMW is taking on significant risk on behalf of the customer if current electricity market instability continues and causes the market forecast to be substantially incorrect.

4.3.1.2 Labour

Labour costs include the 2021-22 Board-approved organisational structure roles, which were built bottom-up as an efficient structure required to deliver LMW’s commitment to customer services. There are only minor FTE changes forecast for the PS5 period as the labour efficiencies and benefits from the BTP Horizon 2 have been forecast in PS6. The labour forecast includes an EBA increase of 2.5% until the end of the current agreement in June 2025, an increase of 3% has been incorporated in the labour forecast for years 2025-26 to 2027-28.

The benefits from Business Transformation Project (BTP) Horizon 2 will result in job redesign into new roles throughout the business as LMW evolves into a digitally connected utility to support regional growth, increased regulatory obligations and customer expectations.

Labour efficiencies identified in BTP Horizon 2 business case will pave the way for the business to improve service delivery and customer outcomes through enhanced communication and responsive actions.

4.3.1.3 Chemicals

The 2022-23 chemicals budget of \$1.3m has been carried forward consistently in the annual PS5 chemical costs resulting in a minor change from historical trends, based on the assumptions that raw water quality will continue as per the average quality data over the past 5 years as illustrated in Table B25 overleaf:

Mildura WTP Raw Water – Average Quality Data								
	Temp	pH	Colour	Turbidity	Alkalinity	UV	EC	Fluoride
FY17/18	19.7	7.51	31.0	19.6	32.2	0.181	152.9	0.08
FY18/19	18.6	7.60	28.0	21.9	29.0	0.133	112.8	0.05
FY19/20	18.4	7.61	37.0	29.1	27.6	0.157	100.3	0.06
FY20/21	18.3	7.71	46.3	27.8	32.2	0.204	126.4	0.09
FY21/22	18.9	7.68	52.2	31.6	42.1	0.275	147.3	0.11
Avg	18.8	7.62	38.9	26.0	32.6	0.190	127.9	0.08

Table B25: Mildura WTP’s Raw Water Average Data Per Financial Year for the Previous 5 years

Above average results in pH, colour, and UV over the previous two years have resulted in extra treatment and an increase in chemical usage and correlating costs has occurred. The figures presented alone for Mildura can be used as a general guide to the raw water quality across LMW’s network of water treatment plant sites along the Murray River.

LMW has sought to minimise chemical use through daily monitoring of laboratory test results. Operators work daily in adjusting chemical setpoints after reviewing daily test results that have been undertaken onsite. Jar tests to determine optimum dosing needs are utilised and various other tools have been adopted to guide and provide direction to operators in determining optimal chemical dose rates. Daily monitoring is a constant balancing act to ensure chemical usage aligns with water needs and although these tests and tools aren’t precise, they provide insights and direction to modify treatment strategies to achieve the best water quality outcomes.

In addition to daily monitoring, treatment teams across LMW have trailed and accepted ACH coagulant for its low dose rates and less pH correction chemicals needed. LMW has also invested in software that provides predicted dose rates and features a cost ‘tracker’ that monitors consumption and costs, reducing the need for expensive pH correction chemicals in most cases.

LMW is also trialing new filter media in filter #1 at Robinvale WTP using Granular Activated Carbon (GAC). While this treatment won’t reduce costs at this site relating to the use of Powdered Activated Carbon (PAC), it will provide information to determine if other larger PAC usage sites may benefit from installing GAC in filters. Yearly PAC costs at the Mildura WTP and Mildura West WTPs are material, especially in managing Blue Green Algae outbreaks.

LMW has been working with Procurement Australia to secure a purchasing partnership to support and secure required chemical supplies, however the prices proved to be greater than the current rates LMW has in place

with current purchasing agreements. Based on this evaluation LMW has extended its contracts to lock in the current commercial prices.

4.3.1.4 Water Quality & UV Disinfection

The addition of Ultraviolet light (UV) disinfection at all nine of LMW’s WTPs during PS4 will enable LMW to meet the Health-Based Targets requirements of the Department of Health through the provision of secondary disinfection barriers. While LMW has selected units which utilise low pressure UV lamps which use the least amount of energy and have the longest lamp lives, additional operational costs of approximately \$200k per year (\$50k electricity and \$150K maintenance) have been included within the PS5 opex expenses.

4.3.1.5 ICT Expenditure

Total urban software licence costs in PS5 have been forecast to increase 53% from 2022-23 and an 8% to 3% increase from 2024-25 to 2027-28, as shown in Table B26.

\$m, 1/1/23	Current Period		Forecast for Fifth Regulatory Period				
	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Software Licences							
Total LMW Agreement cost	1.46	1.46	2.24	2.41	2.48	2.56	2.64
Urban	1.14	1.14	1.75	1.89	1.94	2.00	2.06
Annual Movement %			53%	8%	3%	3%	3%

Table B26: Urban Software Licences (\$m 1/1/23)

A significant increase in software costs (53%) in 2023-24 is attributable to an increase in user licences and an increase in annual subscription costs due to the following:

- Move from capital expenditure software agreements to operational SaaS agreements (Infor & Technology One) resulting in less capital investment and increases in operational expenditure.
- Transition to new applications and cloud-hosted agreements with major solutions (Infor & Technology One).
- Additional user licences with increased adoption of governance systems (Rapid Global, Smartsheets and Riskware).
- New software solutions to support mobility and paperless solutions (Temetra, Microsoft Office 365 and Adobe).
- Additional/enhanced Cyber Security applications (Microsoft, Sophos, OT Firewall).

There is an increasing market pressure to change to software application platforms to maintain currency as software companies are moving their maintenance and support contracts to SaaS-only agreements. The decision to move to SaaS applications coupled with LMW’s business transformation strategy, which is driving automation and digitisation of business processes, will continue to place upward pressure on technology costs.

The water sector has been proactive transforming to a digital customer service experience to improve customer experience to achieve service excellence. Insights from Vic Water and other industry forums clearly highlight LMW’s transformation roadmap is consistent with industry peers who are all focused on efficient and adaptive programs to sustainably meet its stakeholder expectations. In response to a challenging market environment, LMW is driven to address operational inefficiencies, challenges of ageing technology solutions and poor data architectures to improve organisational efficiencies and deliver upon its service commitments.

4.3.1.6 10-year Operating Expenditure Trend

Figure B6 overleaf shows the increase in proposed urban operating expenditure and shows a relatively flat trend for expenditure over the PS5 period, with assumed growth in operating expenditure in the PS6 period in line with growth in connections.

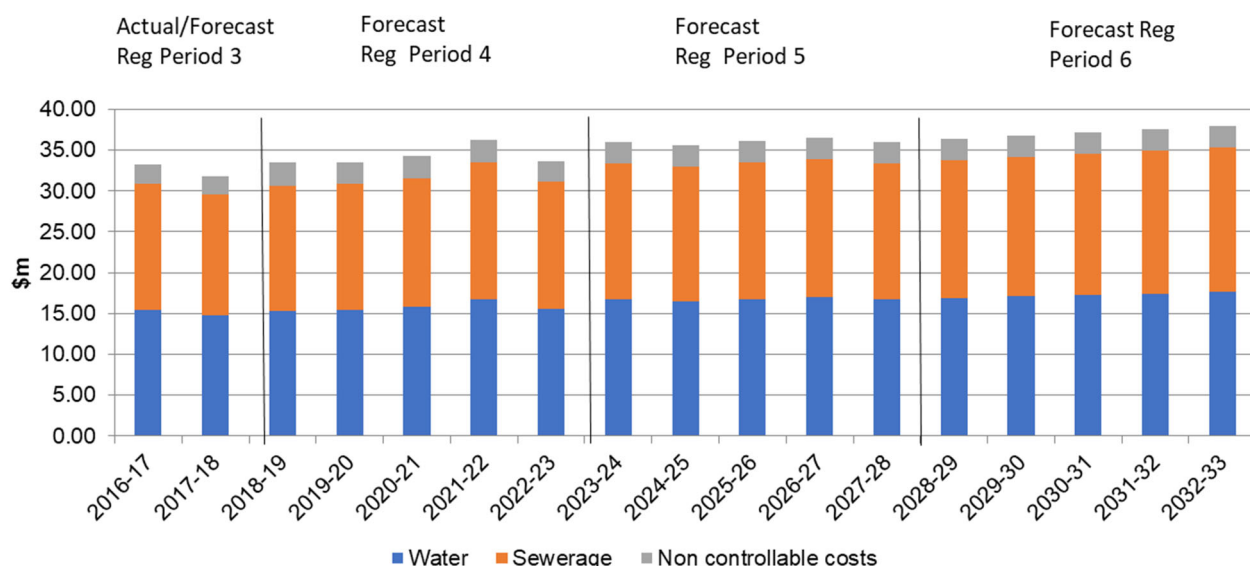


Figure B6: Forecast Operating Expenditure - \$m 1/1/23

4.3.1.7 Allocation of Shared Costs

The corporate cost allocation between the urban and rural business is discussed in Part A, Section 4.5. Within the urban business, there is further cost allocation between urban water and sewerage services in accordance with the Corporate Allocation Framework, with the allocation being:

- Water 54%
- Sewerage 46%

This allocation is included in the above forecast.

4.3.2 Baseline Controllable Operating Expenditure

Table B27 shows the calculation of the 2021-22 baseline controllable operating expenditure developed in accordance with the ESC's guidance, and the projection through the PS5 period, allowing for growth and proposed productivity/efficiency improvement along with proposed variations to the baseline.

Component	Current Period		Fifth Regulatory Period					Total PS5
	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	
Prescribed opex in 2021/22	29.67							
Less non controllable opex	-2.70							
<i>One-off adjustments:</i>								
Corporate Cost Allocation changes	0.90							
Training & Travel	0.09							
PS5 Planning Costs	-0.43							
Covid-19 Costs	-0.20							
Water Rebate Programs	-0.06							
Chemicals	-0.06							
Baseline controllable operating expenditure	27.21	27.21	27.21	27.22	27.23	27.23	27.24	136.12
Variations to Baseline								
Electricity			-0.27	-0.27	-0.26	-0.24	-0.28	-1.31
ICT Software			0.38	0.52	0.57	0.63	0.69	2.80
TS Consultants			-0.31	-0.30	-0.10	-0.10	-0.33	-1.14
LGC Purchases			0.00	0.03	0.18	0.13	0.09	0.43
Balancing variations			-0.06	-0.09	-0.40	0.04	-0.29	-0.81
Total Controllable Operating Costs			26.96	27.11	27.22	27.69	27.12	136.11

Table B27: Baseline Controllable Operating Expenditure 2021-22 (\$m 1/1/23)

4.3.2.1 *Establishing the 2021-22 Baseline*

The 2021-22 baseline year requires some one-off adjustments to realign prescribed controllable operational expenditure with expected business as usual (BAU) costs. A summary of the one-off baseline adjustments to 2021-22 is provided below:

- Corporate costs were the largest adjustment, with an additional \$0.90m required to allow for the revised Corporate Cost Allocation Framework rates proposed for PS5 (see Part A Section 4.5).
- Training and travel costs have been increased by \$0.09m due to 2021-22 being affected by Covid-19. With the impact of Covid-19 restrictions including travel and work from home directives, many training programs were delayed and rescheduled as a result. These costs are forecast to increase to ensure that LMW staff remain compliant and upskilled with current requirements in the water industry.
- PS5 preparation and planning costs were removed, including customer consultation and engagement, financial modelling, project management and PREMO framework review.
- Covid-19 costs have been removed with the majority associated with labour costs including Working from Home allowances and Covid-19 leave payments to assist with home schooling, illness, testing and vaccinations.
- Water rebate program costs have been removed due to costs associated with the program being funded by grants and are outside of business as usual.
- Chemical costs have been reduced by \$0.06m due to additional chemical costs required in 2021-22 for filtration due to raw water quality being poor compared to previous standards.

The net impact of the above adjustments to 'normalise' the 2021-22 operating cost to a baseline for efficient and prudent operation, is an increase of \$0.24m of controllable operating expenditure.

4.3.2.2 *Projecting the Baseline Forward*

The baseline 2021-22 year has been adjusted to allow for increases due to 1.10% projected growth in connections and reductions via efficiency savings of 1.08%, through productivity improvements as discussed in Section 4.4.3 below.

4.3.2.3 *Variation to Baseline Costs for PS5*

Throughout the PS5 period, there are several variations to baseline expenditure forecast to occur with key movements related to electricity, ICT software, technical service consultants and LGC purchases as discussed below:

- Electricity costs are forecast to decrease due to stabilisation of prices compared to the PS4 period as previously discussed in above in Section 4.4.1.2.
- ICT Software increase is due to additional software licences and new SaaS agreements which include cloud hosting charges, as previously discussed above in Section 4.4.1.6.
- Efficiencies forecast to be gained in Technical Service activities with reduction in consultant and contractor expenses. By continuing to retain and develop staff through internal mentoring and additional training and education, LMW aims to have less reliance on external resources required to assist with various activities including project planning and management, hydraulic assessment and urban strategy works.
- As part of the Victorian Government policy for all sectors of government to source all electricity (Scope 2 Emissions) from renewable sources or purchase offsets by 2025, LMW has budgeted to purchase offsets in the form of Large Generator Certificates (LGCs) from the market to meet this obligation.

4.3.3 Productivity Improvements for the Forthcoming Period

In general terms, LMW's proposed service performance represents an incremental improvement on current service levels. Customers have advised they are highly satisfied with LMW service levels and that they wish to keep costs to a minimum. Customers have confirmed that they want consistent, safe, clean drink water and reliable sewerage services.

In seeking productivity improvements, LMW has not proposed any cost savings that would reduce LMW's level of service to its customers. LMW has, however, sought productivity improvements through an organisation restructure resulting in improved service delivery teams across the business. Delivery of BTP Horizon 1 and 2

projects will not result in forecast FTE savings in PS5 however the business will deliver outcomes to enhance two of the key customer strategy objectives: improving customer experience and service excellence.

LMW recognises that it can streamline business processes with the use of technology and enable information and procedural tasks to flow more efficiently throughout its workforce. Moving into PS6 post-BTP Horizon 2, new systems and ways of working will continue to be embedded across the business. LMW has forecast a reduction in roles impacted by digitisation and automation of functions, offset by the forecast new operational roles to manage a growing service delivery customer base.

Under the State Government mandate, LMW is participating in the VGPB electricity purchase contract, which is expected to deliver efficient electricity prices for the PS5 period.

4.3.4 Potential Uncertain Events

A significant potential uncertain event which could influence opex is the Victorian Mallee Floodplains Restoration Project (VMFRP) as discussed in Part A, Section 4.9.1. In addition, the following uncertain events that could influence operating expenditure include:

- Unforeseen legislative compliance standards and regulations driving increases compliance costs.
- Increased Blue-Green Algae and Blackwater events impacting water quality.
- Material breakdowns of major plant operations.
- Fines and court prosecutions.
- Escalation of labour costs during the 2025 Enterprise Agreement.

4.4 Forecast Capital Expenditure

4.4.1 Forecast Capital Expenditure

Table B28 below sets out LMW’s proposed prudent and efficient capital expenditure for each year of the fifth regulatory period, across each major service category. The total proposed capital expenditure for the period is \$98.61m in real dollars (\$1/1/23). The detailed capital program is provided in Appendix B1.

(\$m 1/1/23)	Current Period		Fifth Regulatory Period					
Service Category	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	TOTAL
Water	18.66	6.31	13.66	14.46	8.55	5.44	8.63	50.74
Water corporate	1.44	2.62	3.70	2.79	2.67	1.32	1.39	11.87
Sewerage	2.88	2.42	3.97	4.21	4.14	9.35	4.21	25.89
Sewerage corporate	1.23	2.23	3.15	2.38	2.27	1.13	1.19	10.11
Recycled water	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total capital expenditure	24.22	13.58	24.49	23.83	17.64	17.23	15.42	98.61

Table B28: Forecast Capital Expenditure by Service Category (\$m 1/1/23)

Figure B7 overleaf shows the profile of proposed capital expenditure over the Price Submission period along with the trend forecast through the sixth regulatory period. This trend reveals a large increase in capital expenditure for the sixth regulatory period for major projects, comprising the Swan Hill North Water Treatment Plant, new 10ML Treated Water Storage in Mildura, and Koorlong Sewer Rising Main Duplication, for which preparatory design/development work is planned for the fifth period.

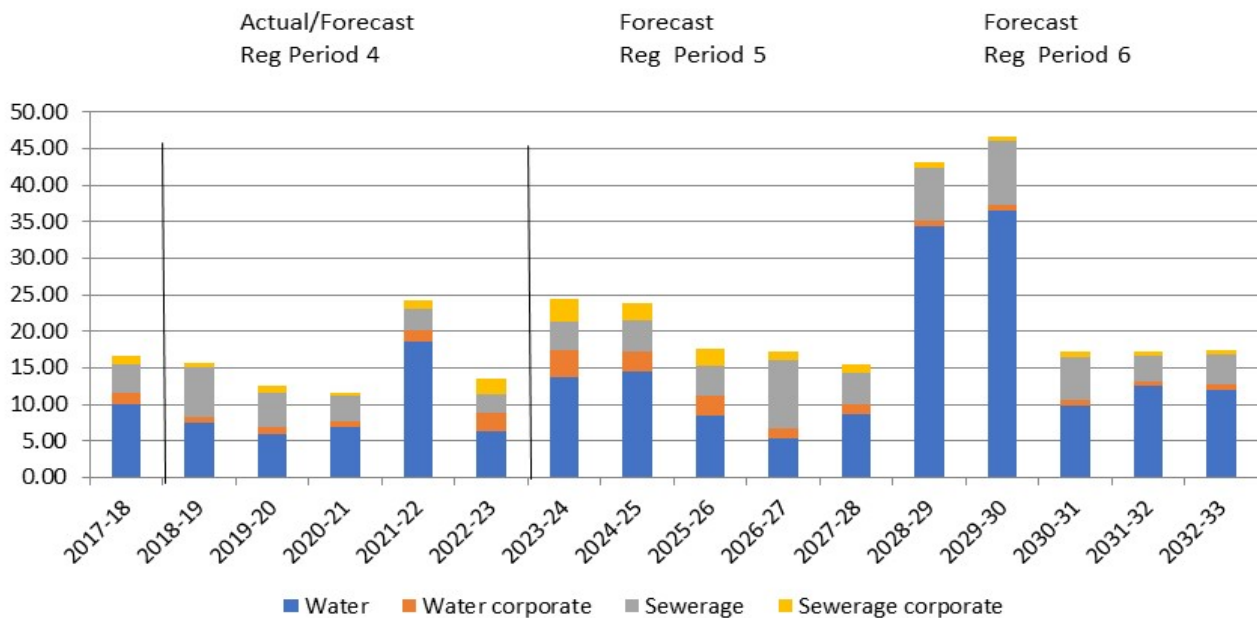


Figure B7: Forecast Capital Expenditure (\$m 1/1/23)

Table B29 presents the forecast capital expenditure by cost driver, revealing \$41.97m or 43% of the total program is for Renewals, reflecting a modest increase in renewals and replacement investment, and recognising the continued ageing of LMW assets. Specific Major Programs for renewals are the Urban Water Mains Replacement and Sewer Mains and Maintenance Structures Replacement/Rehabilitation.

\$23.39m or 24% is proposed for investment in Growth, predominantly to ensure secure supply through Bulk Water Entitlement purchases and maintain treatment and network capacity to service population and connection growth in the major centres of Mildura and Red Cliffs. Significant investment of \$33.26m or 34% of the program in compliance/improvements relates to infrastructure projects such as the Koorlong Wet Weather Storage, significant new investment in corporate business systems, and planning for the proposed Swan Hill Water Treatment Plant.

\$m 1/1/23	Fifth Regulatory Period					TOTAL
	2023-24	2024-25	2025-26	2026-27	2027-28	
Renewals	11.05	10.41	7.69	6.95	5.86	41.97
Growth	2.52	1.95	3.25	8.10	7.57	23.39
Improvements/ Compliance	10.91	11.46	6.71	2.18	1.99	33.26
Total capital expenditure	24.49	23.83	17.64	17.23	15.42	98.61
Government Contributions	-	-	-	-	-	0.00
Customer Contributions	1.71	1.71	1.71	1.71	1.71	8.55

Table B29: Forecast Capital Expenditure by Cost Driver - \$m 1/1/23

4.4.2 Major Projects and Programs

Table B30 overleaf shows the Major capital projects, to be started or completed during the PS5 regulatory period, comprising those business-wide Top 10 that apply to the urban business, by aggregate cost allocated to the urban business (#9 is rural only), totalling \$35.50m or 36% of the proposed total urban capital expenditure. Two projects are Corporate capital, with allocations to the urban and rural businesses based on the Corporate Cost Allocation Framework.

Some of the Top 10 include a number of component projects across multiple sites. For example, the Water Mains Upgrade in Mildura includes a number of new mains required to service growth, which are each shown as separate line items in the capital program, but are interdependent projects covered under a single strategy and business case. Consequently, the Top 10 list herein aligns with repeated list numbers in the financial template, covering the component projects.

Other projects, such as the new Fourteenth Street treated water storage will commence within PS5, with the electrical upgrade of the existing re lift pump station, while the additional storage tank estimated cost \$12m is planned for construction within WP6.

Business cases have been developed for all the Major Projects listed in the table below, along with supporting documentation, and are available to the ESC. Appendix B2 provides the alignment between individual projects and the supporting business cases, as well as a summary for each project that provides the project timing and other information required by the ESC Guidance Paper.

No.	Business Case	Comments	Total Project Cost (\$m)	Major Service Category	ESC Cost Driver
1	Purchase of Water	Bulk Water Entitlement purchases to maintain water security	8.09	Urban Water	Growth
2	Water Mains Upgrade in Mildura	Various water mains to maintain capacity/pressure	3.83	Urban Water	Growth
3	New 10ML Treated Water Storage and Pump Station upgrade at 14th St Mildura (Stage 1)	Forecast storage shortfall at end of PS5 period, reducing security of supply. Additional storage delayed until WP6. Upgrade of electrical assets at existing re lift pump station required in PS5 due to condition.	1.11	Urban Water	Renewals
4	Improving level of service (Pressure) in Red Cliffs Water Distribution	Direct response to customer engagement	9.41	Urban Water	Improvements/compliance
5	New Swan Hill water treatment plant (Stage 1)	Uncertain project. Allowance for planning and design activities.	1.00	Urban Water	Growth
6	Wet Weather Storage for the Koorlong WWTP	Meet growth in inflows and 90th percentile containment	6.07	Urban Sewerage	Growth
7	Koorlong Sewer Rising Main Duplication	Uncertain project. Allowance for planning and design activities.	1.50	Urban Sewerage	Growth
8	Customer CRM, portal Phase 2	Process service design & NextGen service catalogue Portal	1.78	Corporate	Improvements/compliance
10	Asset Management Platform uplift	15 solution initiatives to automate manage asset lifecycle and work orders.	2.71	Corporate	Improvements/compliance
TOTAL Top 10 Urban			35.50		

Table B30: Top Ten Proposed Capital Projects

Table B31 shows the Major Programs by aggregate cost allocated to the urban business, including corporate programs for heavy/light vehicle, ICT equipment and corporate facilities and buildings. Each of these programs has a Project Briefing Sheet and other details required by the ESC Guidance, available as supporting information. Appendix B2 also contains details of each major program, their component programs, project timing and other information required by the ESC Guidance paper.

Major Program	Component Programs	Total Program Cost (\$m)	Major Service Category	ESC Cost Driver
Urban Water Mains Replacement	Water Mains & PSP Replacement	6.09	Urban Water	Renewals
Sewer Mains and Maintenance Structures Replacement/Rehab.	All Sites: Rehabilitation of Sewers, HSL & manholes replacement	6.09	Sewerage	Renewals
Light Motor Vehicle Fleet - annual vehicle replacements	MV Fleet - annual vehicle replacements	3.58	Corporate	Renewals
Minor capex - Water	All Sites Minor Capital Works New & Replacement	3.27	Urban Water	Renewals & Improvement
Minor capex - Sewer	All Sites Minor Capital Works New & Replacement	3.80	Sewerage	Renewals & Improvement
Total ICT equipment		1.82	Corporate	Renewals
Heavy Motor Vehicle Fleet - annual vehicle replacements	MV Fleet - annual vehicle replacements	1.59	Corporate	Renewals
Corporate Facilities and Buildings		2.03	Corporate	Improvements / Compliance
	TOTAL Major Programs Urban	28.27		

Table B31: Major Programs

4.4.3 Uncertain Projects

Uncertain projects for the urban business have been identified through LMW’s capital planning process, largely due to potential volatility in growth projections on which strategies, Master Plans and risk assessments have been based.

These projects and the reason for their nomination as uncertain projects are:

- New Swan Hill Water Treatment Plant (Stage 1): Only allowance for design and approvals included as uncertainty about when customer demand will exceed existing plant capacity
- Koorlong Sewer Rising Main Duplication: Only allowance for design and approvals included as uncertainty about when customer demand will exceed existing rising main capacity
- Red Cliffs Interconnector: Only allowance for design included as uncertainty about when industrial demand from several wineries exceeds existing Red Cliffs WTP capacity

In addition, other projects have been excluded from this capital program on the basis that they have been assessed by LMW as unlikely to be required during the period, with LMW taking the risk on behalf of customers that should circumstances alter and these projects are required, LMW will be required to fund these works.

These include:

- Mildura WWTP carousel: Structure leaks with hydrological monitoring required to determine environmental impact to guide ongoing asset management strategy
- New 10ML Treated Water Storage and Pump Station upgrade at Fourteenth Street, Mildura (Stage 1): Forecast storage shortfall at end of PS5 period, reducing security of supply. Additional storage and the pump station capacity upgrade have been delayed until PS6 based on uncertainty associated with growth forecast and development areas. However, upgrade of electrical assets within the pump Station is included in PS5 due to the condition.
- Swan Hill South West Development Major Sewerage pump station: Included within PS6 as an interim solution is possible if development occurs within PS5
- Mildura Raw Water Pump Station Reconfiguration: Existing operational flow rate step change and access issues can be managed until PS6.

4.4.4 Capex/Opex Trade-offs

Projects which may have potential capex/opex trade-offs include:

- Renewals projects, where replacing a failing asset may reduce future maintenance requirements. LMW continues to deliver ongoing asset replacement (water mains, plant, and equipment), refurbishment (storage tanks) and relining (sewers) programs. The programs are all designed to maintain service levels within targets, manage risk of major failure, and maintain a balance between reactive and preventive maintenance. Consequently, there are no specific and quantifiable operating expenditure reductions from renewals investment, although continuing improvement in asset management capability including systematic condition assessments and improved life cycle costing will bring efficiencies to service delivery.
- Automation projects where increased automation, and remote monitoring and meter reading, provide opportunities for reductions in labour costs and site attendance. The operating expenditure efficiencies from these projects are described elsewhere in this document relating to productivity improvements and the business transformation project.

4.5 Return on the RAB

The revenue requirement includes a return on the RAB and depreciation of the RAB. The RAB is rolled forward over time by adding new capital expenditure and deducting government and customer contributions, asset disposals expected for each price review period, and RAB depreciation.

At the start of a new review period, the RAB is updated for actual outcomes with respect to capital expenditure, contributions, and disposals for the current regulatory period. As the final year of the fourth regulatory period is not complete, 2022-23 capital expenditure, contributions and disposals remain as per the 2018 Price Determination and will not be updated until the sixth regulatory review. Forecast capital expenditure for 2022-23 is anticipated to be slightly higher than that originally budgeted for at the time, which means that LMW will not receive a return on, or of, this additional planned expenditure during the fifth regulatory period.

Table B32 shows the updated roll forward calculation for the RAB, with actuals included for the years 2017-18 to 2021-22. The proceeds from disposals are largely due to renewal of plant and equipment.

Updated asset base	3 rd Period	Fourth Regulatory Period				
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
\$m, 1/1/23						
Opening asset base	173.76	179.21	183.40	184.90	184.58	197.03
<i>plus Gross capital expenditures</i>	16.63	15.76	12.47	11.65	24.22	13.75
<i>less Customer contributions</i>	2.37	2.23	1.29	2.26	1.77	1.71
<i>less Government contributions</i>	-	-	-	-	-	-
<i>less Regulatory depreciation</i>	8.36	9.13	9.48	9.60	9.81	10.07
<i>less Proceeds from disposals</i>	0.45	0.21	0.20	0.11	0.19	0.26
Closing Asset Base	179.21	183.40	184.90	184.58	197.03	198.73

Table B32: Updating the Regulatory Asset Base

Table B33 overleaf sets out the roll forward of the RAB to 2028 based on the forecasts of capital, depreciation, and contributions. The largest influences on the RAB are capital expenditure and regulatory depreciation. Capital expenditure of \$98.61m added to the RAB is consistent with the capital program forecast for the PS5 period. Capital additions occur only after the individual projects are considered prudent and efficient and meet the agreed customer outcomes and LMW's obligations.

Rolled forward asset base	4 th Period	Fifth Regulatory Period				
\$m, 1/1/23	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Opening asset base	197.03	198.73	210.55	221.23	227.15	232.81
<i>plus Gross capital expenditures</i>	13.75	24.49	23.83	17.64	17.23	15.42
<i>less Customer contributions</i>	1.71	1.71	1.71	1.71	1.71	1.71
<i>less Government contributions</i>	-	-	-	-	-	-
<i>less Regulatory depreciation</i>	10.07	10.41	11.02	9.65	9.66	9.50
<i>less Proceeds from disposals</i>	0.26	0.54	0.41	0.37	0.20	0.26
Closing Asset Base	198.73	210.55	221.23	227.15	232.81	236.77

Table B33: Rolling Forward the Regulatory Asset Base

Figure B8 shows the rolling forward of the RAB to the end of the sixth regulatory period in 2033, indicating the progressive depreciation of existing assets and the value for new assets built from 2023-24. The proposed large investment in new assets in the early part of the sixth period is evident.

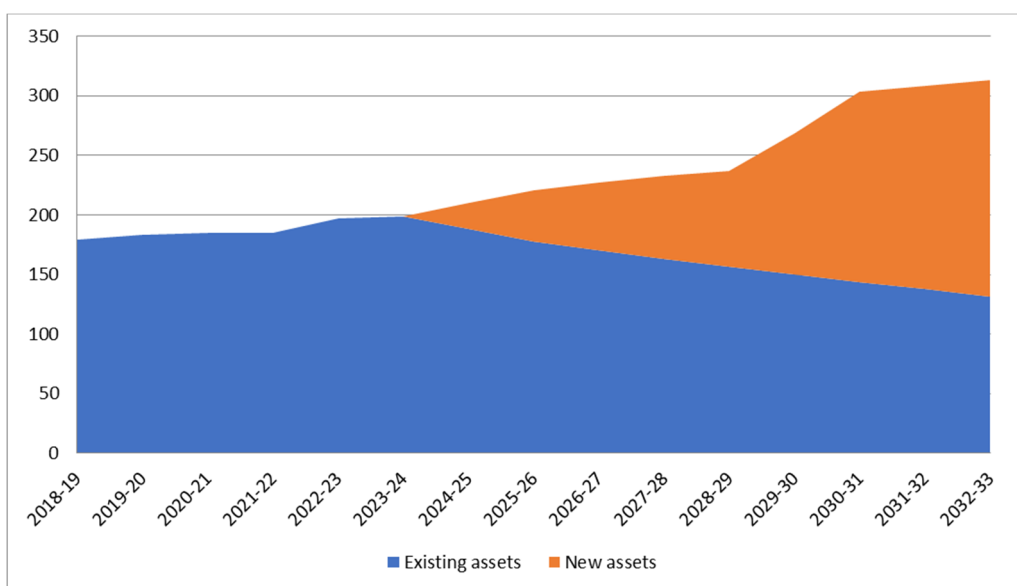


Figure B8: Rolling Forward the Regulatory Asset Base to 2028-33

4.5.1 Regulatory Depreciation

Regulatory depreciation is calculated on a straight-line basis, using the ESC’s methodology for new asset additions. Regulatory depreciation is calculated with the RAB rolled forward from its starting value in 2004/5 using actual/forecast expenditure. As outturn capital expenditure and government/customer contributions will differ from forecast, then the regulatory depreciation allowed for in the revenue requirement for the fourth regulatory period may differ from the regulatory depreciation calculated with outturn actuals. Therefore, an adjustment is made to ensure that regulatory depreciation is not over or under recovered in total. Regulatory depreciation is forecast to be \$50.24m over the PS5 period, included in the table above.

4.5.2 Return on Equity

Based on LMW’s proposed PREMO rating of Standard, the proposed maximum Return on Equity is 4.1% as a real rate per year, as per the ESC’s Guidance.

5. Prices

5.1 Form of Price Control

Consistent with LMW's practice over the past four regulatory periods, LMW proposes a tariff basket form of control to set urban prices. The proposed approach is aligned with information from the urban customer survey which indicates 75% of customers consider that LMW provides value for money. Customers are not requesting wholesale change to pricing and services and maintaining the current tariff basket will maintain stability and consistency of prices. The approach provides an appropriate balance between the ability of LMW to respond to changing circumstances while providing certainty to customers regarding the level of their bills.

Under the proposed tariff basket price control, LMW takes the risk that the demand for water will be less than forecast, providing an incentive for LMW to manage its business efficiently, and ensure that, to the extent possible, costs are contained in line with the volume of water delivered to customers.

The price control is typically applied equally across all components of the tariff basket, including water and sewerage, residential and non-residential, and between fixed and volumetric charges. Given previous uncertainties which surrounded the extent of customers' demand responses to the ending of the drought in 2010-11, along with the continuing impact of changing climate patterns, LMW seeks to retain the flexibility of being able to re-balance tariffs within the review period, if necessary.

In practice, LMW has a strong track record of operating on this basis, having in previous price periods funded losses caused by both drought-driven water restrictions and flood-influenced lower demand, and in the case of 'windfall' gains during periods of higher than forecast water demand, has either returned income in price relief, provided debt repayment, or funded essential capital works which in the longer-term results in price relief.

As a side constraint, LMW proposes to continue an upper constraint of $CPI \pm 10\%$ on the maximum increase in any individual tariff. This provides a further measure of protection to individual customers.

5.2 Prices and Tariff Structure

5.2.1 Introduction

LMW does not propose any changes to its current tariff structures, or principle of postage stamp pricing, where the tariffs do not reflect any differences in costs of water and sewerage systems by time or location.

In setting prices and tariff structures, LMW has applied the principles of the Water Industry Regulatory Order (WIRO), which specifies that prices must:

- Enable customers to readily understand the prices charged.
- Provide signals about the efficient costs of providing prescribed services to customers while avoiding price shocks where possible.
- Take into account the interest of customers, including low income and vulnerable customers.

The balance between fixed and volumetric charges in the average water bill is influenced by affordability concerns. LMW aims for a ratio of 40% fixed charges to 60% volumetric charges, intended to provide households with a high degree of control over their water bills. A high percentage of fixed charges would provide low-income households with little ability to influence the size of the bill by economising on water use. On the other hand, some element of fixed charge is appropriate given that over the medium to long term, many of the costs of water supply (and particularly sewerage) are invariant to the amount of water supplied.

LMW proposes to smooth the price path for its customers to ensure consistent price changes in real terms over the 5-year period.

5.2.2 Tariff Structures

5.2.2.1 Water Service Charges (Residential and Non-Residential)

Water services are proposed to be levied a service charge based on the size of the connection. The vast majority of property connections are 20mm, and the service charges listed in Table B34 below (Section 5.3.3) are for a 20mm connection.

The size of the water service charge increases for domestic and non-residential properties in proportion to the size of the connection as listed in Table B35 (Part B, Section 5.3.3). The structure of the service charges reflects the maximum flow rates (and hence potential peak volumes supplied) associated with each diameter of pipe connection.

The water service charge is billed quarterly in advance.

5.2.2.2 Sewerage Service Charges (Residential and Non-Residential)

A fixed sewerage charge is proposed, with no volumetric component, reflecting the high fixed costs of providing sewerage services. Although the cost of pumping and treatment will vary with volume, sewage volumes are more related to infiltration rather than customer usage.

Likewise, the sewerage service charges listed in Table B34 below (Section 5.3.3) refers to the 'base charge'. This base charge is subject to specific formulae to derive the service charge applicable to particular property classifications (related to the potential discharge load of each property type). The quantities in the financial model templates have been converted into an 'equivalent' basis so that equivalent demand multiplied by the base charge equals actual revenue. The sewerage service charge is billed quarterly in advance.

5.2.2.3 Water Volumetric Charges (Residential)

LMW proposes a three-tier volumetric tariff structure for residential customers, as follows:

- Tier 1 0 to 300kL consumption.
- Tier 2 above 300kL to 600kL consumption.
- Tier 3 above 600kL consumption.

The tiered structure and prices were tested with customers, and there was a wide range of views, from no change at all, to concerns that there should be no price difference in tiers versus a desire to see a greater variance between the charges. LMW has proposed to maintain the current tiered structure and the price ratio between them, while undertaking to engage with customers and stakeholders further throughout the PS5 period to complete a detailed review of the tiered pricing structure. This review will inform the need for pricing reform in the next period.

Customers are billed on a quarterly basis, with a seasonal split applied to the 300kL and 600kL thresholds. In the warmer quarters (October to December and January to March) the quarterly thresholds are 100kL and 200kL respectively. In the cooler quarters (April to June and July to September) the quarterly thresholds are 50kL and 100kL. The quarterly threshold, which is non-cumulative, accommodates a modest level of garden water, while ensuring that large discretionary water users pay for additional volumes at the higher tier rates.

5.2.2.4 Water Volumetric Charges (Non-Residential)

LMW proposes to continue its uniform volumetric rate for non-residential customers, with the rate consistent with Tier 2 of the residential tariff structure.

5.2.3 Proposed Tariffs

Table B34 details the proposed urban tariffs.

	Current	Fifth Regulatory Period				
	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Water Service Charges (20 mm connection)*						
Residential	\$215.46	\$216.12	\$216.77	\$217.43	\$218.09	\$218.76
Non-residential	\$215.46	\$216.12	\$216.77	\$217.43	\$218.09	\$218.76
Sewerage Service Charges (base charge)*						
Residential	\$508.64	\$510.19	\$511.74	\$513.29	\$514.86	\$516.42
Non-residential	\$508.64	\$510.19	\$511.74	\$513.29	\$514.86	\$516.42
Water Volumetric Charges- per kL						
1 st tier residential	0.4678	0.4692	0.4706	0.4721	0.4735	0.4750
2 nd tier residential	0.8515	0.8541	0.8567	0.8593	0.8619	0.8645
3 rd tier residential	1.0946	1.0979	1.1013	1.1046	1.1080	1.1113
Non-residential	0.8515	0.8541	0.8567	0.8593	0.8619	0.8645
Minor Trade Waste*						
Charge	70.76	70.98	71.19	71.41	71.62	71.84

*Note – When final inflation rate is determined for each year of PS5, the service charges will be rounded so that they are divisible by 4, as they are charged quarterly.

Table B34: Proposed Urban Tariffs (\$m 1/1/23)

Table B35 details the water service charge by meter size.

Meter Size (mm)	Per Quarter (\$)	Per Annum (\$)*	Equivalence Factor
20	53.86	215.44	1.00
25	84.16	336.64	1.56
32	137.89	551.56	2.56
40	215.56	862.24	4.00
50	336.67	1,346.68	6.25
65	569.24	2,276.96	10.56
80	861.91	3,447.64	16.00
100	1,347.33	5,389.32	25.00
150	3,030.17	12,120.68	56.25

*Note: Annual charges rounded so that they are divisible by 4, as they are charged quarterly.

Table B35: Water Service Charge by Meter Size – 2022-23 charges

Average residential bill increases are set out in Figure B9 overleaf, along with more detailed price impacts for both residential and non-residential customers in Table B36.

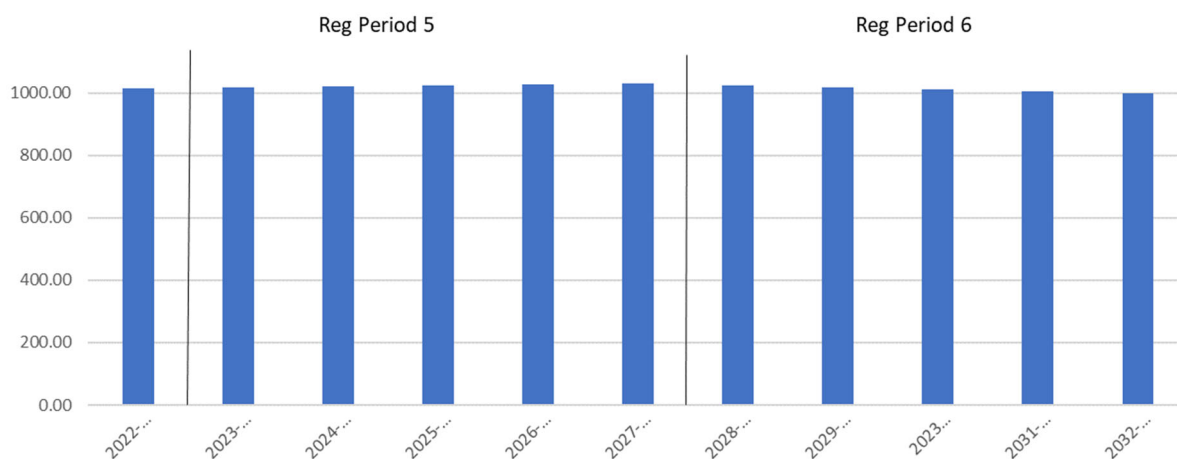


Figure B9: Proposed Urban Price Changes – Average Residential Bill \$1/1/23

\$1/1/23	Current	Fifth Regulatory Period				
		2022-23	2023-24	2024-25	2025-26	2026-27
RESIDENTIAL	Total Bill	Increase from previous year				
400 kL	949.59	2.89	2.90	2.91	2.91	2.92
480 kL (average)	1017.71	3.10	3.10	3.11	3.12	3.13
1,200 kL	1776.65	5.40	5.42	5.44	5.45	5.47
NON-RESIDENTIAL	Total Bill	Increase from previous year				
400 kl	556.06	3.24	3.25	3.26	3.27	3.28
3,000 kL	2,769.96	9.97	10.00	10.03	10.06	10.09
30,000 kL	25,760.46	79.89	80.14	80.38	80.62	80.87
220,000 kL	187,545.46	571.93	573.67	575.41	577.16	578.92

Table B36: Water and Sewerage Bill Changes \$1/1/23

5.2.4 New Customer Contributions

LMW applies the ESC's New Customer Contribution (NCC) framework and NCC Estimator to calculate NCCs. LMW's Negotiating Framework¹⁰ was approved by the ESC as part of LMW's 2013-18 Water Plan and has not been amended and is available to the ESC as supporting documentation.

LMW provides information to all development applicants in accordance with the Negotiating Framework to provide the basis for connection contributions and conditions of service, along with the pricing principles, timeframes for response, and dispute resolution information.

The outcome of the standard NCC using the Estimator (and based on the proposed forecasts of incremental growth-related capital expenditure including the growth portion attributed to the purchase of additional bulk water entitlements, incremental tariff revenue, new connections, estimated consumption, current tariffs, incremental bulk water charges from Goulburn-Murray Water, and incremental operating costs over a 35-year period) is detailed in Table B37 overleaf for the fifth regulatory period. The table shows contributions for water services increase by 19.5% in real terms, with sewerage increasing by only 0.6%. Customer engagement with landholders and developers explained the basis and outcome of the proposed changes and gained broad support for the methodology and application of NCCs by LMW.

LMW proposes to continue to adopt two lot size ranges: below 750 m² and above 750 m². There has been an increase in the number of small lot sizes being developed, and two lot size contribution bands that reflect the increase in small lots is considered a fair and equitable approach.

Lot Size	Current	Fifth Regulatory Period				
		2022-23	2023-24	2024-25	2025-26	2026-27
Water						
0-750m ²	2,075.70	2,481.50	2,481.50	2,481.50	2,481.50	2,481.50
>750m ²	4,151.50	4,963.00	4,963.00	4,963.00	4,963.00	4,963.00
Sewerage						
0-750m ²	1,419.50	1,428.50	1,428.50	1,428.50	1,428.50	1,428.50
>750m ²	2,839.10	2,857.00	2,857.00	2,857.00	2,857.00	2,857.00

Table B37: New Customer Contributions (\$ 1/1/23)

5.2.5 Negotiated Trade Waste

LMW has applied the ESC's pricing and tariff principles for miscellaneous services including trade waste using its Trade Waste Pricing Model. The revenue from trade waste is included in miscellaneous revenues, detailed below. Customer engagement with commercial customers confirmed customers are comfortable with LMW charges relating to trade waste.

¹⁰ LMW's Negotiating Framework

5.2.6 Miscellaneous Revenues for Prescribed Services

LMW has a number of miscellaneous charges to cover a range of services. These are calculated in accordance with the ESC’s pricing principles, ie to recover the direct costs involved plus an allowance for overheads excepting bank dishonour, debt collection and legal fees. There are also a range of other revenues which serve to offset the amount of revenue required to be recovered from customers.

Appendix B3 lists all of the miscellaneous charges levied by LMW, the charges levied for the current year and the proposed charges for the PS5 period. Table B38 below summarises the miscellaneous revenue forecast for PS5, including forecast contract revenues for recycled water from the Koorlong wastewater treatment plant.

\$m 1/1/23	Current	Fifth Regulatory Period				
	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Trade waste	0.39	0.39	0.39	0.39	0.39	0.39
Recycled water contract revenues	0.30	0.30	0.30	0.30	0.30	0.30
Miscellaneous revenue	1.81	1.50	1.50	1.50	1.50	1.50

Table B38: Miscellaneous Revenue

5.3 Adjustment to Prices

5.3.1 Uncertain or Unforeseen Events

LMW proposes that the adjustment mechanism for unforeseen or uncertain events continues to apply for this regulatory period, unchanged. Under the provisions of a Determination, LMW may apply for an adjustment of the scheduled prices and/or the revenue requirements as a result of events that could not reasonably have been foreseen or were uncertain at the time the Determination is made.

Examples of unforeseen or uncertain events include licence fees or contributions which differ from the forecast, changes in the timing or scope of expenditure on major capital projects, or material differences in outturn demand. Exclusions would continue to apply, including matters which should have been known about or under LMW’s control, could have been planned for or managed by LMW or reflect inefficient expenditure.

A number of capital projects have been nominated as uncertain projects, as discussed in Section 4.4.3.

5.3.2 Trailing Cost of Debt

The estimated cost of debt is based on the ESC’s approach, using a 10-year trailing average cost of debt based on the Reserve Bank of Australia’s 10-year BBB-rated corporate bond rate. The historical cost of debt provided by the ESC is reproduced below in Table B39.

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Cost of debt*	7.1%	5.4%	5.3%	4.9%	4.5%	4.6%	3.3%	3.0%	3.8%	3.8%

* To be updated by ESC prior to the ESC’s Final Decision

Table B39: Historical Cost of Debt (Annual Nominal Values for Calculating Trailing Average)

These values have been used to estimate revenue requirement and prices in this submission. Prices established during the PS5 period will be adjusted to reflect the trailing average cost of debt, updated annually by the ESC, for the previous 10-year period, and adjusted for inflation to reflect the real cost of debt.

6. Non-Prescribed Services

6.1 Classification of Services as Non-Prescribed

Consistent with the approach taken previously, non-prescribed activities comprise:

- Water lease - sale of surplus bulk water allocations.
- Investment income – interest.
- Farm activities - sheep and plantation.

The water allocation sales are undertaken at a profit, with the revenues used to offset customer prices needed for LMW to cover its revenue requirement. The farm activities are at a small loss.

To ensure consistency with previous treatment of revenues and costs, contract revenue from recycled water will be treated as prescribed.

6.1.1 Expenditure and Revenue Associated with Non-Prescribed Services

Table B40 shows LMW’s non-prescribed revenues over the PS5 period in comparison to the final year of PS4. The most significant component is water lease/allocation sales. LMW has taken a conservative approach to sales to ensure future supply while also accepting risk by assuming unrestricted or 100% water allocation over the PS5 period and similar market pricing to the current period to estimate the forecast water allocation sales revenue.

(\$m 1/1/23)	Current	Fifth Regulatory Period				
	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Water lease / allocation	0.89	1.10	1.10	1.10	1.10	1.10
Investment income	0.01	0.01	0.02	0.02	0.03	0.04
Farm activities	0.09	0.09	0.09	0.09	0.09	0.09

Table B40: Non-Prescribed Revenues

Table B41 sets out the operating expenditures associated with non-prescribed activities. There are negligible costs associated with water leasing and generating investment income.

\$m1/1/23	Current	Fifth Regulatory Period				
	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Water lease / allocation	0.00	0.00	0.00	0.00	0.00	0.00
Investment income	0.00	0.00	0.00	0.00	0.00	0.00
Farm activities - op costs	0.08	0.09	0.09	0.09	0.14	0.09
Admin – operating costs	0.02	0.02	0.02	0.02	0.02	0.02

Table B41: Non-Prescribed Expenditure

PART C



RURAL

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1. Introduction

1.1 Content

This Part C of the 2023-28 Price Submission (PS5) is specific to the rural business of Lower Murray Water (LMW) that provides rural irrigation, drainage and stock and domestic water supply services. It includes current period performance review, and proposed customer outcomes, service standards, demand, operating and capital expenditure, revenue requirement, tariff structures and prices. Part C should be read in conjunction with:

- **Part A** – covering LMW’s general business summary, governance and management, risk approach, customer views, strategic priorities and PREMO assessment that apply to both urban and rural business units.
- **Part B** - specific urban proposal for customer outcomes, service standards, demand, operating and capital expenditure, revenue requirement, tariff structures and prices.

1.2 Regulatory Context

For rural water services, LMW is subject to the Water Charge Rules (WCR) via the Commonwealth Water Act 2007 Section 7. The Australian Competition and Consumer Commission (ACCC) has determined that LMW has ceased to be a Part 6 operator. Hence, LMW is exempt from the Part 6 operator requirements of the WCR which relate to the determination of charges. The principles in Clause 11 of the Victorian Water Industry Regulatory Order (WIRO) apply to rural tariffs and charges pertaining to rural infrastructure services and are regulated by the Victorian Essential Services Commission (ESC) as from 1 July 2023.

Other Commonwealth Water Act rules regulating water planning and management charges, the preparation, provision, and publication of schedules of charges, and termination fee rules still apply.

2. Performance

The review and assessment of LMW’s current regulatory period (PS4) performance largely sets the scene for this PS5 submission and serves the following specific purposes:

- Identifies the magnitude and nature of any variances between actual and planned PS4 performance and the reasons for them.
- Enables LMW to make any changes in performance (outcomes/service performance, capex and opex) to seek to better align with PS4 commitments over the balance of the regulatory period.
- Informs the PREMO rating for PS5.
- Supports establishment of an efficient baseline opex for the 2021/22 year, as the base year for PS5 forecasts.

This section provides a summary of a more detailed assessment contained in a separate LMW PS4 Outcomes Review¹ and describes LMW’s performance across the PS4 regulatory period to date with respect to four key areas of commitment:

- PS4 Customer Outcomes.
- Prices and Revenues.
- Operating Expenditure.
- Capital Expenditure.

¹ Lower Murray Water PS4 Outcomes Review, 23 September 2022

Overall, LMW’s rural business comprehensively met its performance commitments set in PS4 across the four dimensions of customer service outcomes, prices, operating expenditure, and capital expenditure. These are briefly discussed, in turn, below.

2.1 PS4 Customer Outcomes

As shown in Table C1, LMW has met or bettered its targets consistently for all four years of the PS4 period to date for two of the four outcomes, falling slightly short only in 2018-19 for Outcome 3, and in 2020-21 for Outcome 4.

Outcome/Performance Measure			18-19	19-20	20-21	21-22
# 1: Supply me with water when I need it						
a	Water orders delivered on time (whole of rural business)	Percentage	99.85%	99.71%	99.76%	99.90%
b	Channel / pipe bursts and leaks (whole of rural business)	Per 100 km	61.6	46.8	42.8	35.4
c	Deliver major Capital Works projects >\$1m value within budget and within the regulatory period	Percentage of budget spent	87.2%	101.1%	97.1%	101.8%
# 2: Keep my costs to a minimum						
a	Billing complaints	Number	0	1	5	2
b	Annual tariffs follow the proposed structures within the ESC’s published pricing determination	Pass/Fail	Pass	Pass	Pass	Pass
# 3: Be easy to contact and quick to respond						
a	Post interaction satisfaction survey (phone, face-to-face, online): Number of completed surveys	Number	100	279	47	69
b	Post interaction satisfaction survey: Customers satisfied (rating of satisfied, very satisfied and extremely satisfied)	Percentage of customers surveyed	84%	96%	94%	96%
c	Annual survey: Customers satisfied with LMW’s role in the community (rating of satisfied, very satisfied and extremely satisfied)	Percentage of customers surveyed	90%	84%	87%	82%
d	Rural customer complaints to energy and Water Ombudsman Victoria (EWOV)	Number	15	2	6	7
e	Calls answered within 60 seconds (operations room)	Percentage	99%	96%	97%	97%
# 4: Comply with other government obligations						
a	Compliance with government reporting policy requirements – timely completion/lodgment of 8 major reports	Percentage on time	100%	100%	88%	100%

Table C1: Overall Summary of Rural Customer Outcome Performance Ratings

A brief assessment of each individual outcome is provided below, with more detailed discussion contained in the separate PS4 Outcomes Review report referenced previously.

2.1.1 Outcome 1: Supply me with water when I need it

LMW has consistently met, and surpassed, its targets for this outcome throughout PS4. Commencing in the first year with the introduction of an enhanced website and customer user interface for the planning and managing of water ordering, and followed by ongoing programs of targeted, risk-based mains replacement, channel relining and optimised maintenance, LMW has increased reliability of water delivery, reduced water losses and minimised supply interruptions. Capital program delivery has also improved on a sustained basis since the beginning of PS4 and remains strong.

2.1.2 Outcome 2: Keep my costs to a minimum

LMW has met, or closely met, its targets for this key outcome consistently across the period with only one minor departure with respect to billing complaints in 2020-21, reflecting the challenging times and cost pressures rural customers have experienced during the second half of PS4. The LMW Customer Service Team and Irrigation Operations Team have worked closely with customers to minimise the risk of complaints occurring wherever possible and this has been reflected in the reduction in complaints in the most recent year of the period. Tariffs for rural services have followed or remained under the price path of the PS4 price determination consistently since commencement of the period.

2.1.3 Outcome 3: Be easy to contact and quick to respond

LMW has performed well overall throughout PS4 on the substantive measures of this outcome. LMW's responsiveness to operations room calls, post-interaction and annual survey results indicate that customers clearly perceive LMW to be meeting or exceeding their expectations for quality of service and role in the community.

LMW has not met the post-interaction volume target of surveys undertaken in any but the second year of the period. The pandemic made it difficult to undertake post-interaction surveys and impacted the mobility of both customers and staff, and this coincided with an observed reduction in willingness from customers to undertake these surveys. The Energy and Water Ombudsman Victoria (EWOV) lodged complaints target was not achieved in the first nor last years of the period, with complaints mainly relating to raw water quality issues of Blue Green Algae in the Murray River and Plumatella growth in some LMW pipelines. LMW has since taken concrete steps with customers to investigate and seek solutions to these naturally occurring issues.

2.1.4 Outcome 4: Comply with other government obligations

LMW has met, or largely met, its compliance obligations throughout the PS4 period. The one 'largely met' rating in 2020-21 was due to a delay in publishing one of eight compliance reports, to the ACCC, due to one-off factors.

2.2 Rural Guaranteed Service Levels

There were no rural GSLs applicable for the PS4 period.

2.3 Prices and Revenue Performance

The overall revenue requirement for the pricing period to date is as per PS4 target and has been slightly lower than approved with the main variance due to a decrease in revenue raised from volumetric usage charges, as a result of reduced demand. The shortfall in volumetric charges has been reduced by some non-budgeted revenue including funding received for rural projects including WEP business case and irrigation funding grant and insurance proceeds.

LMW has the ability to increase prices under the revenue cap however prices have not been raised outside of the price path mechanism. Additional revenue generated from the Sunraysia Modernisation Project Stage 2 (SMP2), further described in Section 2.5.2 has been passed on to customers in various forms; 2020-21 resulted in \$1.05m in rebates paid to customers, whereas 2021-22 saw reductions in prices compared to the previously approved price path. Looking forward, the forecast for 2022-23 sees a reduction in PS4 price path movement for various districts as LMW did not increase any prices above the CPI increase of 5.09%.

2.3.1 Rural Demand

Table C2 overleaf shows that overall, the rural demand for the PS4 period to date is very close to the forecast with a variance of +3.9%, demonstrating a high degree of confidence in the forecast. Rural demand declined relative to budget in the irrigation districts by 5.5% over the period to date, due to 2019-20 water allocations being restricted to 66%, as well as increased rainfall compared to averages for 2020-21 and 2021-22 reducing customer water requirements.

Demand from diverters increased over the budget by some 5.6%, representing strong growth of 5.7% in total diverter demand between the first and fourth year of the PS4 period.

Service Category	2018-19		2019-20		2020-21		2021-22		Period to Date Total		Variances	
	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	ML	%
Pumped Irrigation - ML pa												
Mildura	32,899	35,697	33,064	32,298	33,229	31,010	33,395	28,857	132,587	127,862	-4,725	-3.6%
Mildura HPS	3,504	4,257	3,521	3,158	3,539	3,796	3,557	3,509	14,121	14,720	599	4.2%
Merbein	19,937	20,292	20,335	17,347	20,742	16,712	21,157	17,484	82,171	71,835	-10,336	-12.6%
Red Cliffs	28,955	30,994	29,390	27,065	29,831	28,623	30,278	30,254	118,454	116,936	-1,518	-1.3%
Robinvale	22,082	22,283	22,082	19,996	22,082	19,334	22,082	18,712	88,328	80,325	-8,003	-9.1%
Total Irrigation	107,377	113,523	108,392	99,864	109,423	99,475	110,469	98,816	435,661	411,678	-23,983	-5.5%
Stock and Domestic - ML pa												
Millewa Urban	49	46	49	40	49	42	49	46	196	174	-22	-11.2%
Millewa Rural	850	882	850	767	850	750	850	816	3400	3215	-185	-5.4%
Yelta WWD	5	3	5	3	5	18	5	3	20	27	30	150.0%
Total S&D	904	931	904	810	904	810	904	865	3616	3416	-177	-4.9%
Total water demand	108,281	114,454	109,296	100,674	110,327	100,285	111,373	99,681	439,277	415,094	-24,160	-5.5%
Variance		6,173		-8,622		-10,042		-11,692		-24,183		
Diverters – Annual Use Limit												
Diverters (AUL)	593,295	633,248	615,548	655,216	633,751	668,852	646,031	669,508	2,488,625	2,626,824	138,199	5.6%
Variance		39,953		39,668		35,101		23,477		138,199		
Total Water & AUL	701,576	747,702	724,844	755,890	744,078	769,137	757,404	769,189	2,927,902	3,041,918	114,039	3.9%

Table C2: Rural Water

2.3.2 Rural Revenue

Table C3 shows the revenue decrease of \$0.08m or -0.1%.

\$m	2018-19		2019-20		2020-21		2021-22		Period Totals		Variance	
	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	\$m	%
Prescribed Revenue	29.01	29.96	28.74	28.29	28.72	29.12	28.68	27.71	115.15	115.07	-0.08	-0.1%

Table C3: Rural Revenue (\$m 1/1/23)

2.3.3 Summary Rural Prices

Table C4 overleaf shows where variations were made in each district, outlining which were rebates (2020-21) and reductions (2021-22) in prices below the approved price path which resulted from receiving revenues above the approved Revenue Cap, and LMW's practice of returning higher revenues where possible.

With the approval of the ESC, and in consultation with customers through the CSAC and SAC, these rebates were applied noting that LMW also did not seek to recover any revenue shortfalls occurring in individual districts or years of the period to date.

Service Category	2018-19	2019-20	2020-21	2021-22
Mildura irrigation and drainage	No change	No change	No change	Reduction – SMP2 adjustment
Merbein irrigation and drainage	No change	No change	SMP2 Rebate	Reduction – SMP2 adjustment
Red Cliffs irrigation and drainage	No change	No change	SMP2 Rebate	Reduction – SMP2 adjustment
Robinvale irrigation and drainage	No change	No change	No change	No change
Mildura HPS	No change	No change	SMP2 Rebate	No change
Milliewa Urban	No change	No change	No change	Reduction – SMP2 adjustment
Milliewa Rural	No change	No change	SMP2 Rebate	Reduction – SMP2 adjustment
Other stock and domestic	No change	No change	SMP2 Rebate	Reduction – SMP2 adjustment
Diversions	No change	No change	No change	No change

Table C4: Rural Price Changes Relative to PS4 Approved Price Path

2.4 Operating Expenditure for the Delivery of Outcomes

Overall, total rural prescribed opex was \$5.2m or 5.9% above approved budget for the four years to date, as shown in Table C5.

\$m, 1/1/23	2018-19		2019-20		2020-21		2021-22		Period to Date		Variances	
	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	\$m	%
Irrigation	13.2	14.4	12.9	13.9	12.9	13.6	12.7	13.0	51.7	54.9	3.2	6.2%
Drainage	3.0	3.5	3.0	3.4	2.9	3.1	2.9	3.5	11.9	13.5	1.6	13.6%
Domestic and stock	1.1	1.1	0.7	0.6	0.7	1.2	0.7	0.9	3.1	3.9	0.7	23.2%
Surface water diversions	1.5	1.6	1.5	1.6	1.3	1.5	1.3	1.6	5.6	6.3	0.7	12.4%
Non controllable costs	4.1	4.1	4.1	3.9	4.1	3.7	4.1	3.8	16.6	15.6	-1.0	-6.2%
Total prescribed opex	23.0	24.7	22.2	23.5	22.0	23.1	21.8	22.8	88.9	94.1	5.2	5.9%
Variance		1.7		1.3		1.1		1.1		5.2		

Table C5: Approved Rural Budget and Actual Operating Expenditure (\$m 1/1/23)

Opex variances are more readily explained by examining them by expenditure category, as shown in Table C6.

Expense Category	2018-19		2019-20		2020-21		2021-22		Period to Date Total		Variances	
	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	\$m	%
Labour	8.4	8.0	8.4	8.3	8.0	8.7	7.8	8.8	32.5	33.8	1.2	3.8%
Electricity	5.7	5.8	5.3	4.9	5.4	4.9	5.4	4.1	21.7	19.6	-2.1	-9.8%
Contractors/Consultants	0.3	0.7	0.3	0.9	0.3	0.8	0.5	1.0	1.5	3.3	1.8	125.0%
Irrigation Reticulation Exp	1.8	2.0	1.5	1.7	1.5	1.7	1.5	1.7	6.3	7.1	0.8	12.6%
Milliewa PS Temp Pump Hire	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0	0.7	0.7	100.0%

Table C6: Rural Opex Expenditure Variances by Expense Category (\$m 1/1/23)

Labour costs were higher than anticipated due to the corporate restructure undertaken in 2019-20 which resulted in the addition of new roles, whereas PS4 had anticipated a reduction in FTEs due to natural attrition achieved through business transformation efficiency gains, which did not eventuate.

Additional unplanned costs associated with the pandemic have also contributed to higher operational expenditure with price period costs as at 2021-22 currently totalling \$330k due to additional labour costs such as Working from Home allowance and pandemic leave, as well as increase in other costs such as purchase of masks, hand sanitiser and other consumables.

Electricity costs decreased due to a lower volumetric usage demand from irrigation customers noting the decrease in demand was due to 2019-20 water allocations being restricted to 66% as well as increase in rainfall compared to averages for 2020-21 and 2021-22.

An increase in contractor and consultancy costs, particularly in FY22 (and anticipated for FY23), is due to costs associated with the preparation of PS5, including review of renewals forecasts and rural service strategy, as well

as costs associated with asset condition assessments and investigation works required for development of major capital work project scope statements prior to delivery.

Irrigation reticulation expenditure increased with key activities being pipeline and channel maintenance as well as additional costs associated with contract meter reading.

Temporary pump hire costs at the Millewa pump station were unbudgeted for in PS4 and were required to assist with high demand, as well as provide additional backup and support when the pump station was offline due to breakdowns and routine maintenance. These costs will decrease once the new pump station has been commissioned.

2.5 Capital Expenditure

As for urban, but to a lesser extent, the negative variance in rural capex resulted from a slower-than-expected ramp-up of capital delivery in 2018-19. A significant upturn in capital delivery in the years since then, and particularly in 2021-22, has resulted in period-to-date actual expenditure within \$0.62m or 1.9% of budget, and forecast to largely achieve budget by the end of the PS4 period.

Contributing factors to the underspend include fish screens and NSW government regulatory requirements delaying replacement of the Millewa River Pump Station which has resulting in a reprioritising of investment to maintain delivery of customer value. The project has external funding attached and is forecast to be completed by the end of the PS4 period. \$7m has been included in the first year of PS5 to capture this expenditure in the Regulatory Asset Base (RAB) for 2023/24.

The inclusion of the Merbein electricity substation in the Government's bushfire prevention measure of installing Rapid Earth Fault Current Limiter (REFCL), required additional works in asset upgrades at the Merbein and Mildura Seventeenth Street pump stations. These unforeseen works have largely been delivered within existing budgets.

Service Category	2018-19		2019-20		2020-21		2021-22		Period to Date Total		Variances	
	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	\$m	%
Irrigation	15.10	9.34	6.17	7.47	5.33	5.13	4.39	7.97	30.99	29.91	-1.08	-3.5%
Drainage	0.25	0.24	0.25	0.34	0.25	0.17	0.31	0.08	1.05	0.82	-0.23	-21.8%
Domestic and Stock	0.07	0.13	0.07	0.16	0.07	0.08	0.07	0.07	0.27	0.44	0.17	65%
Surface water diversions	0.19	0.35	0.19	0.32	0.13	0.28	0.13	0.21	0.65	1.16	0.51	78.7%
Total capex	15.60	10.05	6.67	8.29	5.78	5.66	4.91	8.34	32.96	32.34	-0.62	-1.9%
Variance		-5.55		1.62		-0.12		3.43		-0.62		

Note: Excludes SMP2 as was not included in the PS4 submission being an uncertain project at the time

Table C7: Actual to Budget Rural Capex

2.5.1 Major Rural Projects

Irrigation mains replacement and channel lining projects within the rural pumped districts are on track to be achieved slightly below budget. These works will reduce water losses and concrete lined channel patching maintenance costs to improve supply reliability as well as remove risk of channel failure in areas where the channel condition was assessed as poor, particularly where the channel is elevated in relation to surrounding topography with the associated flooding risk. This is supported by the reduction in bursts and leaks against targets.

Mildura Central Pump Station rising main replacement was delayed to better align with irrigators' water demand and minimise disruption by undertaking construction works during the low demand winter period. The project was delivered slightly above budget due to the additional replacement of the pipe manifold at the pump station as it was found to be cost effective to deliver together with the works and improve the reliability of the system.

The Millewa River Pump Station was initially budgeted at \$1.25m, however the actual and forecast expenditure for this project is \$8.09m. This is mainly due to an increase in scope and market cost escalation. Extensive consultation was conducted with the private diverter customers who are most affected by the reliability and capacity limits of the existing pump station, on the design capacity and cost of the new pump station. Support was unanimous for the new pump station and proposed pricing structure. The operating level of the river will change as part of NSW Basin Plan water saving measures. Consequently, the existing inlet structure could not be used, which required the construction of a new pump station. Additionally, fish screens were added to the scope due to NSW government regulatory requirements. Note that the additional expenditure is not included in Table C8 as it will be included in the first year of PS5 to capture this expenditure in the RAB for 2023/24.

Major Projects	Purpose	Major Service Category	Budget Project Cost (\$m)	Total Cost to Date	Estimate to Complete	Actual / Estimated Final Cost	Status/Outcome/ Comment
1. Pipeline Renewals	Irrigation Mains Replacement (Mildura, Merbein, Red Cliffs)	Rural Irrigation	10.25	8.69	1.37	10.06	Annual program of works on track
2. Central Rising Main Replacement	Mildura Central Pump Station Replacement of Manifold/Rising Main	Rural Irrigation	4.40	5.07	0	5.07	Project Completed

Table C8: Major Rural Capex projects – planned to actual (\$m 1/1/23)

2.5.2 Uncertain Projects

In addition to the approved capital program in PS4, LMW nominated SMP2 as an uncertain project. At the time of the PS4 submission, the SMP2 proposal had been developed by LMW to business case stage, expressions of interest and financial commitments had been made by potential participants, and a submission had been made to government. The SMP2 business case evolved from a public registration of Intent process that has led to two scheme Out-of-district area extensions of Red Cliffs (Sunraysia South) and Merbein (Sunraysia West) being proposed and funded 50% by government.

Subsequently, government approval was received, and the project was implemented successfully, resulting in both rebates and reductions in tariffs to rural customers, as discussed in Section 2.3. Now that SMP2 has been completed, LMW has greater certainty regarding the cost to provide the service outcomes and the revenue that will be generated in providing the service. During PS4 LMW is in the fortunate position of having generated more revenue (net of direct expenditure) than the Revenue Requirement approved. After considerable customer consultation in 2021 the LMW Board evaluated options to share revenue to customers to achieve a fair and equitable revenue distribution for districts whilst being mindful providing a good financial outcome for LMW corporation.

Table C9 below shows the expenditure and funding contributions to deliver the SMP2 project:

\$m 1/1/23	2018-19	2019-20	2020-21	2021-22	2022-23	TOTAL
Capital Expenditure						
Irrigation	3.73	4.66				8.39
Drainage						0.00
Domestic and stock						0.00
Surface water diversions						0.00
Total capex	3.73	4.66	0.00	0.00	0.00	8.39
SMP2 Contributions						
Investor contribution	2.31	2.56				4.87
Government contribution	0.88	2.42				3.30
Lower Murray contribution		0.36				0.36
Total contributions	3.19	5.33	0.00	0.00	0.00	8.52

Note: The difference between expenditure and contributions is for project operational expenditure.

Table C9: Uncertain Project – SMP2 Expenditure and Contributions (\$m 1/1/23)

3. Customer Outcomes

3.1 Outcomes Agreed with Customers

LMW completed extensive engagement via LMW's SAC, CSACs for each district and a range of in field engagements directly with irrigation customers to review and refine agreed customer outcomes for the PS5 period.

Through this collaboration, LMW adopted the following four customer outcomes along with the associated performance measures and targets:

Customer Outcomes

Outcome 1: Services provide customers value for money.

Outcome 2: Provide customers with water when they need it.

Outcome 3: Provide customer service avenues that are responsive to resolve requests and enquiries.

Outcome 4: Service our communities in a socially responsible and environmentally sustainable manner.

Throughout the four-stage engagement program, LMW gained agreement from customers regarding major change projects, key operational activities, and inputs in terms of cost movements and resources required to achieve these customer outcomes.

In alignment with the #1LMW approach to treat urban and rural businesses across the service region as one cohesive business, a proactive decision to create stronger alignment and cohesion between both rural and urban customer outcomes was made.

It should be noted that LMW have worked with its rural customers to achieve this alignment between the urban and rural businesses with three out of four customer outcomes (including many of the performance measures and targets) crafted, tested, and validated across both urban and rural cohorts.

The only exception to this is a unique and specific outcome for rural customers - 'Provide customers with water when they need it' - which impresses the importance of reliable and sustainable irrigation water to the region. Each customer outcome and the associated measures and activities are detailed in the Tables C10 to C13 below which are easily understood and were agreed with customers.

Outcome 1: Services provide customers value for money

What customers will receive	Outcome 1: Services provide customers value for money
Performance measures and targets	<ul style="list-style-type: none"> • Customer satisfaction of overall services value for money Target = >/= prior year performance of survey respondents • Delivery of the approved PS5 price determination • Delivery of price path as described in Water Plan 5 • Delivery of the approved PS5 price determination • Delivery of top 10 capital projects on time and budget (budget set by annual corporate plan, timing set by price determination)
Major Change Projects	<ul style="list-style-type: none"> • Investigate out-of-district extensions to enable reductions of tariffs in real terms • Deliver Horizon 2 of the Business Transformation Program to drive efficiency and improve service delivery • Embed LMW’s Leadership and Talent Management Framework to ensure LMW staff have the right skills and capabilities • Manage delivery share use to promote regional growth through water security, attracting industry or supporting existing industry, regional development initiatives maximising the utilisation of existing irrigation networks, fostering crop diversity to enhance annual capacity management and customer economics • Develop innovative partnerships and shared services for support functions, and procurement collaboration to drive efficiencies in purchasing and delivering services • Undertake annual tariff reviews
Key Operational Activities	<ul style="list-style-type: none"> • Provide guidance materials to assist in the understanding of all fees and charges associated with rural water services • Maintain long term financial viability and sustainability through full cost recovery • Improve asset management system to optimise whole of life cycle costs • Promote growth by maximising utilisation of irrigation networks • Improve capability of LMW’s workforce to ensure services are delivered first time right
Inputs <ul style="list-style-type: none"> • Cost movements • Resources required 	<ul style="list-style-type: none"> • Business Transformation Horizon 2 total investment of \$2.86m • Infrastructure renewal program investment of \$22.91m over PS5

Table C10: Outcome 1 - Services Provide Customers Value for Money

Outcome 2: Provide customers with water when they need it

What customers will receive	Outcome 2: Provide customers with water when they need it
Performance measures and targets	<ul style="list-style-type: none"> • Deliver water orders on time – Target = 98% or more • Provide report to customer committees annually re: service request vs. service provision – Target = 1 • Maintain or improve system reliability – Target = year on year unplanned outages time =/< prior year performance
Major Change Projects	<ul style="list-style-type: none"> • Invest \$5.81m to replace meters for irrigation, diverters, and domestic and stock services in Millewa to maintain meter and billing accuracy • Enhance water ordering services via a mobile application • Invest \$4.03m in irrigation pipeline renewals • Decommission redundant infrastructure in Robinvale District (\$2.15m) • Minimise critical asset failures through replacement programs
Key Operational Activities	<ul style="list-style-type: none"> • Invest \$2.41m in drainage system maintenance of over 5 years • Plan and secure LMW's irrigation water needs through government and industry advocacy • Regular direct engagement with customers to understand needs and ensure transparency in reporting on performance • Maintain safety and security of irrigation assets for growers and the community • Support reliability with backup generators • Promote river water supply management to a higher level • Manage and maintain irrigation, drainage and domestic and stock water networks to meet agreed customer standards of service while adapting to changing customer needs • Undertake condition assessment of critical irrigation pipelines with high potential for failure • Investigate assessment of methods for the rehabilitating drainage lines • Ensure open communication channels between operational staff and customers • Provide customers with the opportunity to influence the winter maintenance programs through customer committee engagement
Inputs <ul style="list-style-type: none"> • Cost movements • Resources required 	<ul style="list-style-type: none"> • Total capital investment of \$41.44m in irrigation and drainage systems (excluding corporate capex) • Total controllable opex of \$85.76m in irrigation and drainage systems

Table C11: Outcome 2 - Provide Customers With Water When They Need It

Outcome 3: Customer service avenues that are responsive to resolve requests/enquiries within the agreed KPIs

What customers will receive	Outcome 3: Customer Service avenues that are responsive to resolve requests/enquiries within the agreed KPIs
Performance measures and targets	<ul style="list-style-type: none"> Resolve customer requests / enquiries within the defined response time (Mean Time to Resolve) – Target = % =/> per year from 2024/25 Resolve customer requests / enquiries “First Time Right” – Target = % =/> per year from 2024/25 Customers registered for self-service portal – Target = 10% in first year and 5% increase per Year for subsequent years Customer satisfaction for responsiveness to enquiry or request – Target = =/> prior year performance of survey respondents
Major Change Projects	<ul style="list-style-type: none"> Deliver projects in Horizon 2 of the Business Transformation Program to improve the digital customer experience Expand the Customer Portal functionality Invest in mobility to allow in-field resolution of issues Expand and enhance customer feedback mechanisms
Key Operational Activities	<ul style="list-style-type: none"> Manage an efficient, customer-responsive water ordering and control system Responsive service channels Customer Portal (Self-Service, Self-Enablement, Service Request) Contact Centre (Phone, Walk-In, Online Chat) Afterhours Services (Fault & Emergency) Capture all customer requests / enquiries in a Customer Relationship Management System. Respond promptly and effectively to service requests and complaints within agreed Mean Time to Resolve (MTTR) Defined Services Catalogue with Service KPI’s Deliver open and transparent customer and community engagement program On farm business to business engagement Minimum of 1 in-field CSAC meeting per district per year Manage customer services to comply with Water Customer Service Code Attract and retain suitably trained staff and resources to respond to service issues Maintain functionality of Irrigations Operations Room – use technology where possible to ensure systems are efficient.
Inputs <ul style="list-style-type: none"> Cost movements Resources required 	<ul style="list-style-type: none"> Horizon 2 Business Transformation \$2.86m over 5 years Redesign of positions to reflect changed ways of working Leadership and Talent Management investment in our people of \$1.09m over 5 years

Table C12: Outcome 3 - Customer Service Avenues that are Responsive to Resolve Requests/Enquiries Within the Agreed KPIs

Outcome 4: Service our communities in a socially responsible and environmentally sustainable manner

What customers will receive	Outcome 4: Service our communities in a socially responsible and environmentally sustainable manner
Performance measures and targets	<ul style="list-style-type: none"> • Customer overall satisfaction of LMW – Target = >/= prior year performance of survey respondents • Percentage of electrical energy from renewable sources by 2025 – Target = 100% from 2025 • Percentage compliance with EPA General Environmental Duty (GED) – Target - 100% (no reportable incidents)
Major change projects	<ul style="list-style-type: none"> • Invest in blueprint and business case for all of business digital metering to promote water efficiency and ensure compliance • Embed Compliance Framework to ensure all customers are treated fairly and appropriately • Develop/deliver strategy for gender equity and Aboriginal and Torres Strait Islander inclusion • Review recreational water management plan for Lake Cullulleraine, and extend to maintenance of key community assets during drought periods • Work with regional Catchment Management Authorities on water quality and Sustainable Diversion Limit projects • Partner with local stakeholders on Integrated Water Management
Key operational activities	<ul style="list-style-type: none"> • Partner with DELWP on the strategic review for recreational water • Manage the business so that it meets its obligations and does not incur penalties for non-performance • Act as the regional coordinator for blue-green algae monitoring and reporting • Maintain and enhance hardship programs for vulnerable customers • Manage waterways and wetlands used for (rural) water supply to enhance ecological and recreational benefits and implement Murray-Darling Basin obligations • Contribute to state development objectives and projects including the development of sustainable irrigation policies • Increase diversity, inclusion and equality achieved through the effective delivery of LMW’s Gender Equality Action Plan (GEAP) • Improve mechanisms to collect feedback to ensure continuous improvement of service delivery • Identify and deliver of Cultural Heritage programs • Provide sponsorship to key community and trade events
Inputs <ul style="list-style-type: none"> • Cost movements • Resources required 	<ul style="list-style-type: none"> • Digital metering business case and blueprint development - \$0.07m • Maintain a minimum of one identified Aboriginal position • Maintain a Diversity and Inclusion Officer to support the delivery of LMW’s RAP and GEAP • Diversity investment of \$0.02m per annum to support delivery of RAP and GEAP • Victorian Protective Data Security Standards (VPDSS) - \$0.02m per annum.

Table C13: Outcome 4 - Service our Communities in a Socially Responsible and Environmentally Sustainable Manner

3.2 Service Standards

During the review and development of customer outcomes for PS5, relevant services standards were also reviewed and discussed with customers, explaining that they related to service reliability and attending to faults under the provisions of the ESC rural water Customer Service Code. Further, it was explained that any proposed changes in service levels or targets must relate to equivalent service levels or targets in the current regulatory period.

LMW does not propose any changes to current service standards as outlined in the rural customer charter, which was supported by customers who confirmed they were satisfied with LMW's current services standards. Proposed Service Standards are outlined in Table C14:

Service Standards - Rural	Target
Water Supply	
Maximum number channel bursts and leaks (per 100km) - Merbein	151
Maximum number channel bursts and leaks (per 100km) – Red Cliffs	61
Maximum number channel bursts and leaks (per 100km) - Robinvale	10
Maximum number channel bursts and leaks (per 100km) - Millewa	7
Maximum number channel bursts and leaks (per 100km) - Mildura	142
Customer Service	
Average time for calls to be answered in operations / contact room	60 seconds
Maximum time to process a property Information Statement (upon receipt of fully completed application and payment) (10 days)	10 business days
Average time to make Water Use licences determination (30 days)	90%
Average processing time to transfer of water use licences between LMW Customers (10 days)	90%
Average processing time for permanent transfer of water shares between LMW Customers (10 days)	85%
Average processing time for amendment to works licence (30 days)	90%
Complaints	
Maximum time for initial respond to a complaint or enquiry	10 business days

Table C14: Rural Service Outcomes

3.3 Performance Measurement and Reporting

3.2.1 Proposed Outputs, Performance Measures and Targets.

Proposed performance standards and targets for reporting to customers are derived from the customer outcomes detailed in Part C, Section 3.1. Where possible and appropriate, LMW has utilised measures from the current ESC performance reporting suite to track performance and demonstrate improvement over time. These are supplemented by a range of relevant new measures agreed with customers during the engagement process, eg. Resolve customer requests / enquiries within the defined response time (Mean Time to Resolve) – Target = 75% or more. The proposed Performance Assessment Criteria along with their annual targets are summarised in Table C15 overleaf.

To provide customers with confidence that LMW is delivering on its commitments, and ensure transparency where changes occur or challenges exist, all results will be published annually in summary on LMW's website with a supporting downloadable report. Results will be reported to and discussed at SAC and CSAC meetings as part of normal meeting regimes.

In addition to the customer reporting outlined above, LMW has a range of reporting obligations under its Statement of Obligations, the Minister’s Letter of Expectations and to other regulators, of which much is also required to be reported publicly.

Performance Assessment Criteria	Average/ Target for PS4	Annual target for fifth regulatory period				
		2023-24	2024-25	2025-26	2026-27	2027-28
Outcome 1: Services provide customer value for money						
Customer satisfaction for overall services value for money - Target = \geq prior year performance of annual survey respondents	N/A	\geq 22/23	\geq 23/24	\geq 24/25	\geq 25/26	\geq 26/27
Delivery of the approved PS5 price determination	Pass	Yes / No				
Delivery of top 10 capital projects on time and budget (budget set by annual corporate plan, timing set by pricing submission)	NA	\geq progress against capital delivery plan				100% delivery
Outcome 2: Provide customers with water when they need it						
Deliver water orders on time – Target = 98% or more	99.8%	\geq 98%				
Provide report to customer committees annually re: service request vs. service provision (Water Now) – Target = 1	NA	NA	1			
Maintain or improve system reliability – Target = year on year unplanned outages time \leq prior year performance	2022/23 actual	\geq 22/23	\geq 23/24	\geq 24/25	\geq 25/26	\geq 26/27
Outcome 3: Provide customer service channels that are responsive to resolve requests and enquiries						
Resolve customer requests / enquiries within the defined response time (Mean Time to Resolve) - \geq per year from 2024/25	NA	NA	\geq 60%	\geq 65%	\geq 70%	\geq 75%
Resolve customer requests / enquiries “First Time Right” – Target - \geq per year from 2024/25	NA	NA	\geq 75%			
Customers registered for self-service portal – Target - 10% in first year and 5% increase per year for subsequent years	NA	10%	15%	20%	25%	25%
Customer satisfaction for responsiveness to enquiry or request – Target = \geq prior year performance of survey respondents	NA	\geq 22/23	\geq 23/24	\geq 24/25	\geq 25/26	\geq 26/27
Outcome 4: Service our communities in a socially responsible and environmentally sustainable manner						
Percentage compliance with EPA General Environmental Duty (GED) – Target - 100% (no reportable incidents)	100%	100%				
Customer overall satisfaction of LMW – Target = \geq prior year performance of survey respondents	2022/23 result	\geq 22/23	\geq 23/24	\geq 24/25	\geq 25/26	\geq 26/27
Percentage of electrical energy from renewable sources by 2025 – Target = 100%	NA	NA		100%		

Table C15: Customer Outcomes and Proposed Performance Targets

As detailed in above in Section 3.2, proposed changes to service levels and annual targets were informed by LMW’s customer preferences. Customer engagement has clarified and refined the business operations key priorities to ensure changes to people, processes and technology are planned to deliver customer outcomes and value. As LMW continues its business transformation journey existing staff roles and new technology will be designed to meet outcome deliverables with no expected impacts on expenditure forecasts.

3.4 Delivering on Outcomes Commitments

LMW’s Board adopted the Customer Engagement Strategy in 2021 which included the principles articulated by the IAP2. The key aim of this is to ensure a better level of trust, service and appreciation between customers, stakeholders and LMW.

LMW’s review of its People, Customer and Stakeholder functions in 2021 to strengthen the link between internal and external customers has enabled LMW to engage more authentically with the urban customer base, creating better understanding of the diverse needs of this cohort. Early engagement undertaken for PS5 has formed the foundation to maintain momentum with customers and strengthen trust and deeper engagement as the transition into the next regulatory period begins. It will also enable better customer reporting arrangements on the customer outcomes.

LMW will continue to meet with its SAC and district-based CSACs and will develop a new digital communication method to ensure continual updates on achievements can be provided to the community. This is to ensure accountability in meeting the outcomes agreed with the community and that the actions LMW has articulated over the 5-year period are delivered.

Rural customers are seeking a greater business partnership model from LMW, where LMW considers and engages with all rural customers as stakeholders. SAC and CSAC meetings currently exist as a feedback loop to share information and test approaches and options and further opportunity to deepen and value-add to this relationship exists and will continue to be explored. Members of LMW's SAC and in-district CSACs also want LMW to utilise these committee structures to work together in lobbying government to invest in innovative solutions within the Sunraysia region to achieve government initiatives without increasing costs for the agriculture sector, which already faces significant pressures. This presents an opportunity for LMW to align its corporate strategy and customer outcomes to achieve growth for the region and LMW as a successful water corporation delivering its community's needs.

Internal reporting to the Board and management for tracking of progress has been established during the current regulatory period and will continue to be refined to support stringent monitoring of progress, performance, and management of challenges and possible underperformance throughout the PS5 period. This will include all SAC and CSAC Chairs attending a Board meeting with LMW Directors annually to discuss LMW's progress and performance against the PS5 deliverables and achievement of customer outcomes.

The strategic scorecard will cascade key performance indicators throughout the business to allow all staff to have 'line of sight' of where their actions and performance indicators influence the outputs of the business and the overall achievement of customer outcomes. The strategic scorecard will become a key business process with at least quarterly review at Board and Executive level. This means that there will be a greater level of customer engagement embedded throughout the entire organisation.

Commitments have been made to customers to further engage and adapt to changing circumstances and changing customer preferences by:

- Maintaining membership and quarterly meetings with the SAC and in-district CSAC committees including a minimum, annual briefing session to advise on progress against the customer outcomes and PS5 delivery.
- Through business transformation and the implementation of the customer portal, establish electronic means to collect continuous feedback throughout the year which can be discussed with the customer committees at least annually.
- Providing opportunities for indigenous engagement as LMW's Reconciliation Action Plan develops, and indigenous relationships strengthen.

In this way the relevance of the outcomes and measures can be tested and refined as PS5 progresses. It is anticipated that this process will feed directly into the sixth regulatory period (PS6) and influence the annual business planning process.

3.5 Guaranteed Service Levels

LMW engaged with its customers on the need for rural Guaranteed Service Levels (GSLs). This process identified that customers consider compensation that effectively adds additional costs to the rural customer base is not productive. Customers want LMW to be responsive and quickly communicate service delivery issues and focus available resources on improving the performance of the asset base. Consequently, no GSLs were developed for the rural business.

4. Revenue Requirement

4.1 Overview of Revenue Requirement

Table C16 summarises the revenue requirement from the last year of the PS4 period through the PS5 period. The total revenue requirement for the PS5 period is \$139.18m.

The table shows the 2022-23 PS5 revenue requirement of \$29.27m falling to \$26.99m in 2023-24, a step change of \$2.28m in the first year of the PS5 period. This reduction is driven by the following changes in the building block component of the revenue requirement:

- Decrease of \$1.43m in operating expenditure – reductions in electricity and corporate cost allocation methodology change.
- Decrease in return on assets \$1.12m - driven by a reduction of the average 10-year trailing Cost of Debt.
- Increase in regulatory depreciation – growth in regulatory asset base.

	Current	Fifth Regulatory Period					
(\$m 1/1/23)	2022-23	2023-24	2024-25	2025-26	2027-27	2027-28	TOTAL
Operating expenditure	22.15	20.72	20.82	21.46	21.81	21.39	106.20
Return on existing assets	4.06	2.79	2.48	2.30	2.14	2.02	11.72
Return on new assets	-	0.15	0.37	0.52	0.67	0.80	2.52
Regulatory depreciation of existing assets	3.06	3.12	3.02	2.89	2.81	2.69	14.53
Regulatory depreciation of new assets	-	0.20	0.57	0.89	1.15	1.40	4.20
Adjustments from last period	-	-	-	-	-	-	-
Benchmark tax liability	-	-	-	-	-	-	-
Total revenue requirement	29.27	26.99	27.26	28.06	28.57	28.29	139.18

Table C16: Revenue Requirement (\$m 1/1/23)

Figure C1 depicts the revenue requirement through to the PS6 period. After a declining revenue requirement in the current regulatory period, a significant reduction in year one (1) of the 5th period was forecast due to reasons detailed above, and a steady increase over the 5th and 6th period out to 2032-33. Increases in the later part of the 5th period and 6th period are driven by annual increases in ICT costs, purchase of Large Generator Certificates (LGCs) and growth of the RAB, increasing regulatory depreciation.



Figure C1: Revenue Requirement (\$m 1/1/23)

4.2 Demand

4.2.1 Rural Demand Context and Drivers

LMW revenue is dependent on demand from several relatively discrete markets:

- Pumped districts irrigation.
- Private diversion.
- Stock and domestic and other services.

Demand changes impact on capital and operating costs but to a lesser extent than for the urban business. The pumped irrigation districts were largely established decades ago and have not been expanded significantly to date as new capacity for irrigation has been built on greenfield sites that are serviced by private diversion. Nevertheless, modernisation of irrigation infrastructure over the last decade has enabled 365-day irrigation access in most districts via pressure systems that have improved irrigation efficiency and reduced water losses, compared to the original seasonal-supply systems. Other services, which include drainage and stock and domestic services, are not major revenue items so even in periods of change, the impact on revenue can be relatively minor.

Diverters use much larger volumes of water than customers in the pumped irrigation districts. Nonetheless the work and costs associated with diverters tends to be similar regardless of the volume of water being managed as all the assets used to divert water are owned by the customers.

4.2.2 Basis for Demand Forecasts

Charges to LMW's rural customers are levied on the following bases, unchanged from PS4:

- Irrigation:
 - Delivery share, measured as megalitres (ML) of delivery share (being the maximum volume of water able to be delivered in a 14-day period)
 - Water usage, measured in terms of ML of actual water delivered
 - Entitlement storage fees, measured in ML of water shares held in the Victorian Water Register, with charges differentiated according to the source of water
 - A service charge levied on each account.
- Drainage for irrigation customers:
 - Fees are levied on the basis of delivery shares.
- Water Works District:
 - Per connection and per ML usage.
- Millewa stock and domestic districts:
 - Number of connections
 - Per kilolitre (kL) water usage
 - Number of scrub or stocked hectares on each account.
- Private diverters:
 - Largely based on ML per annual use limit, plus
 - Pass through Goulburn-Murray Water (GMW) charges based on per ML water shares held in the Victorian Water Register as at 1 July each year for the forthcoming year.

4.2.3 Demand Forecast

The demand forecasts for all services making up the charging base for the rural business are summarised below. These forecasts form the basis of future revenue, and the water volume forecasts that underpin LMW's capital expenditure requirements.

The methodology applied to forecasting rural demand considers:

- Historic demands and influences, including changes to occupancy and crop types reported by the Mallee Catchment Management Authority (MCMA) in 2019² and 2021³, and weather, COVID-19 and allocation impact on historic forecasts.

² MCMA Horticulture Crop Report 2019 Addendum

³ MCMA Horticulture Crop Report 2021

- Analysis of the effect of both the SMP1 project implemented prior to, and SMP2 project implemented during, the current period, on customer growth and demand.
- Forecasting changes to customer demand based on crop type and irrigation method assumptions.
- Forecasting growth based on available/vacant land, urban encroachment and property exits, available system capacity, and forecast development and maturing of plantings through engagement with customers.
- Potential constraints to water allocation along with climate influences and making assumptions regarding their impact on demand.

The MCMA report is one of the most valuable estimates of the local Mallee Catchment and the different commodities in the region by area, commodity type, irrigation method, compared to other methods which do not break down data by target area. In broad terms:

- The key factor in determining demand usage is the amount of allocation provided, and the weather.
- Water deliveries to the irrigation districts are based on steady growth in all irrigation pumped districts except Robinvale which is at capacity.
- 100% water allocation for the period has been assumed.
- Delivery shares are projected to be stable throughout the regulatory period. The Mildura Irrigation District will have Termination Fees revenue factored in with urban residential encroachment.
- There is projected growth in the annual use limits of private diverters.

Pumped Irrigation

Irrigation water demand from the variety of crops grown in the irrigation districts is rather stable in most irrigation seasons, the recent exceptions being the Millennium drought and 2011 flood. The majority of the irrigated land has permanent plantings with few seasonal or similar crops, with the latest information available on the irrigation districts' crop types⁴ indicating that on average permanent plantings are 68%, seasonal plantings 8%, with 24% vacant land. Crop types change over the long term in response to market factors, as does the method of irrigation which is progressively moving towards more efficient drip or low-level sprays.

The pandemic has slowed growth in the short term due to labour shortages, as well disruption to product transport nationally and internationally, creating market and price challenges. Climate change has been considered, based on the Mallee Climate Projections 2019⁵. The projected changes to temperature and rainfall over the relatively short forecast period will be within the variability range of the other demand factors described above, and hence not material to the demand forecasts. Price elasticity is not considered as its influence is negligible compared to the other factors described above.

By district:

- Mildura and Mildura High Pressure systems demand is forecast to remain stable whereby urban encroachment will continue but balances land that still holds delivery share entitlements and is forecast to redevelop.
- The Merbein District demand is forecast to increase slightly from the completion of development resulting from SMP2.
- The Red Cliffs District demand is also forecast to increase as redevelopment from SMP2 continues.
- The Robinvale District is fully developed and, even with the introduction of cooling sprays, LMW does not foresee any changes to the district's crop types so demand is forecast to be flat.

Figure C2 below shows the actual historic volumes delivered to the irrigation districts since 2013-14, and the forecast for the fifth regulatory period. The historical volumes show the impact of wet and dry years and industry conditions. It can be seen that the PS5 forecast is consistent with actual and forecast usage for PS4, but higher than the previous period and the 8-year average to 2020-21.

⁴ MCMA Horticulture Crop Report 2019 Addendum

⁵ Mallee Climate Projections 2019, CSIRO and DELWP

The allocation of risk of actual demand not meeting forecast demand lies with LMW, particularly when taking into account the history of LMW not recovering foregone revenue, and returning revenue earned over the revenue cap through decreased prices the following year.

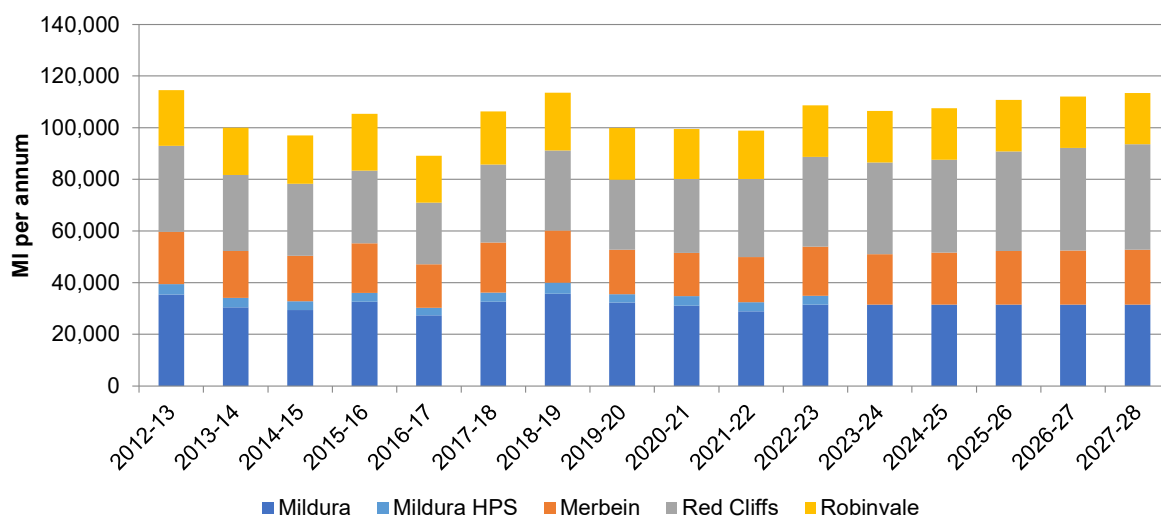


Figure C2: Historic and Forecast Water Usage Irrigation Districts (ML pa)

Stock and Domestic

The Millewa stock and domestic system sees significant water use variation from year-to-year due to weather and market conditions causing stocking and destocking of farmland properties. The four years prior to 2021-22 included both stocked (high demand) and destocked (low demand) years, and the average of these has been used as the forecast.

Diverters

LMW does not bill private diverters for usage and hence no forecast on water usage is required. Charges for private diverters are based on ML per annual use limit, which are forecast to grow by some 5.5% over the forthcoming period to allow for plantings that have occurred coming into full production and likely new developments.

4.2.4 Overall Forecast

Table C17 shows the forecast volumes for all services. Detailed analysis of the basis for each component of the charging base is provided in Appendix C1.

Service/District	Current	Fifth Regulatory Period				
	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Pumped Irrigation						
Mildura	31,425	31,425	31,425	31,425	31,425	31,425
Mildura HPS	3,509	3,509	3,509	3,509	3,509	3,509
Merbein	18,978	19,621	20,211	20,781	21,039	21,323
Red Cliffs	34,858	35,543	35,990	38,620	39,655	40,793
Robinvale	19,934	19,934	19,934	19,934	19,934	19,934
Total Irrigation	108,704	110,032	111,069	114,269	115,562	116,984
Stock & Domestic						
Millewa Urban	46	46	46	46	46	46
Millewa Rural	816	816	816	816	816	816
Diverters						
Diverters (AUL)	682,770	702,216	708,759	715,106	719,570	720,605

Table C17: Rural Services Forecast Volumes Summary – ML pa

4.2.5 Other Services

Water Trading

Water trading is a key feature of the irrigation sector. LMW anticipates continued trading in both permanent water shares and in annual allocation as irrigators reposition their businesses to manage risk and to maximise commodity price opportunities.

Drainage

Drainage services are expected to be maintained at existing levels for the duration of the regulatory period. The forecast for drainage delivery share will mirror the forecast changes for irrigation delivery share.

Groundwater

LMW is responsible for approving Take and Use licences and ongoing management of groundwater extracted from aquifers within LMW's service area. This service currently has one approved licence with 5GL of licenced volume.

4.3 Forecast Operating Expenditure

4.3.1 Actual and Planned Operating Expenditure

Table C18 sets out LMW's proposed prudent and efficient operating expenditure for each year of the fifth regulatory period, across each major service category, amounting to \$106.20m in real dollars (\$1/1/23).

\$m, 1/1/23	Current Period		Fifth Regulatory Period					TOTAL
	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	
Controllable Costs								
Irrigation	12.99	12.27	11.90	11.94	12.38	12.40	12.18	60.81
Drainage	3.55	3.49	2.90	2.82	2.84	2.98	2.83	14.37
Domestic and stock	0.91	1.08	0.73	0.75	0.76	0.76	0.75	3.76
Surface water diversions	1.59	1.64	1.36	1.34	1.35	1.38	1.35	6.79
Groundwater diversion	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.04
Total Controllable costs	19.04	18.47	16.91	16.86	17.34	17.53	17.12	85.76
Total Non-controllable costs	3.81	3.68	3.81	3.97	4.12	4.28	4.28	20.45
Total prescribed opex	22.85	22.15	20.72	20.82	21.46	21.81	21.39	106.20

Table C18: Actual and Planned Operating Expenditure (\$m 1/1/23)

The table separates out the costs that are controllable by LMW and those that are non-controllable. The largest portion of these non-controllable costs, \$17.11m, are pass through fees detailed below in Section 4.3.2, with the balance of \$3.04m comprising environmental levy contribution and regulatory licence fees of the ESC. Material expenditure impacts are discussed below.

4.3.1.1 Electricity

A significant decrease in the electricity forecast from the current period is due to the stabilisation of electricity prices compared to the significant increases anticipated in 2017 during the development of PS4. For PS5, forecasts for electricity costs are based on:

- A Victorian water industry (agency-wide) forecast for energy prices and overall demand prepared by Schneider Electric to provide an informed and consistent basis across the State's water businesses.
- Modelling of forecast energy costs by Schneider Electric based on these forecast prices, applied to LMW's site-specific and seasonal energy requirements for:
 - Energy and other electricity bill tariff components.
 - Large Generator Certificate (LGC) pricing for the emission reduction requirements.

The State Government mandates that, from 1 July 2023, LMW must participate in the large and small electricity State purchase contracts via the Victorian Government Purchasing Board (VGPB). These contracts have been

largely locked in for the next three years, reducing volatility in prices in the short term and high energy price risk subsequently.

For the PS4 period, LMW has had an ‘electricity collar’ mechanism in its rural and urban price paths to enable significant electricity price variations outside specified upper and lower bounds to be reflected in either higher or lower prices to customers. This mechanism has been carefully considered in the light of the current forecast and assessment of market volatility and the VGPB procurement arrangements, and the experience in the collar mechanism application during the PS4 period. While there has been very recent instability in the electricity market, LMW considers that the risk of material changes in electricity prices is sufficiently low to not extend the collar mechanism to the forthcoming period noting that this was discussed with customers during consultation.

4.3.1.2 Labour

Labour costs include the 2021-22 Board-approved organisational structure roles, which were built bottom-up as an efficient structure required to deliver LMW’s commitment to customer services. There are only minor FTE changes forecast for the PS5 period as the labour efficiencies and benefits from the BTP Horizon 2 have been forecast in PS6. The labour forecast includes an EBA increase of 2.5% until the end of the current agreement in June 2025, an increase of 3.0% has been incorporated in the labour forecast for years 2025-26 to 2026-28.

The benefits from BTP Horizon 2 will result in job redesign into new roles throughout the business as LMW evolves into a digitally connected utility to support regional growth, increased regulatory obligations and customer expectations. Labour efficiencies identified in BTP Horizon 2 business case will pave the way for the business to improve service delivery and customer outcomes through enhanced communication and responsive actions.

4.3.1.3 10-year Operating Expenditure Trend

Figure C3 shows the increase in proposed rural operating expenditure and the trend forecast through the next regulatory period.

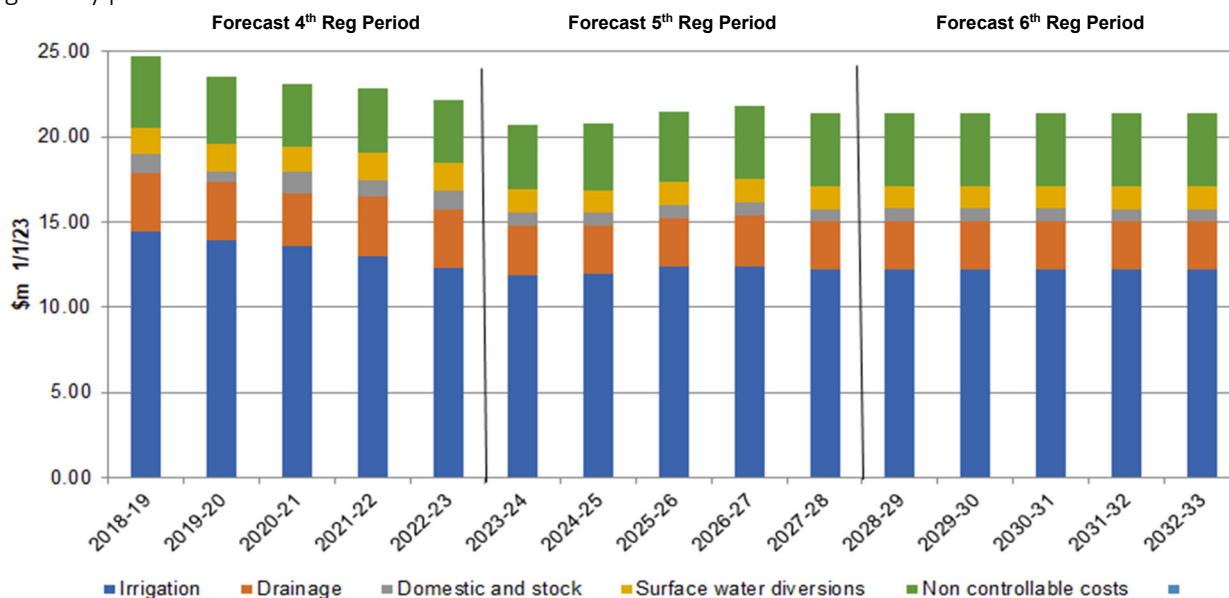


Figure C3: Forecast Operating Expenditure - \$m 1/1/23

This trend shows stable operating expenditure through to the sixth regulatory period and highlights the significant reductions in operating expenditure through the PS4 period, mainly due to reducing electricity costs.

4.3.2 Pass Through Fees

LMW levies ‘pass through’ fees, raised on behalf of other agencies in which the revenue collected is remitted by LMW to those agencies. The cost categories and costs LMW incurs for ‘pass through’ fees are set out in Table C19, including:

- Spillable water fee
- Water storage entitlement fees,
- Delivery Share Entity (DSE) water share fees

The revenue expected to be raised from these charges are included as other revenue. The amount of the fees is also included in LMW's cost base, ensuring that the pass through of these fees has no net effect on the tariffs levied by LMW on its customers.

Current Period	Current Period		Fifth Regulatory Period					TOTAL
	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	
\$m, 1/1/23								
Spillable water	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Storage entitlement fees - total cost	3.21	3.13	3.28	3.43	3.57	3.72	3.72	17.72
LESS Storage entitlement - losses charge to delivery share	0.09	0.10	0.12	0.15	0.20	0.24	0.28	0.99
Storage entitlement fees - net cost passed on	3.12	3.03	3.16	3.27	3.38	3.48	3.45	16.73
Water share (DSE) charge	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.38
Total Costs to be Passed Through	3.20	3.11	3.24	3.35	3.45	3.55	3.52	17.11

Table C19: Costs Attributable to Pass Through Fees - \$m 1/1/23

4.3.3 Baseline Controllable Operating Expenditure

Table C20 overleaf shows the summary calculation of the 2021-22 baseline controllable operating expenditure, and projection through the PS5 period including a reconciliation of variations to the baseline.

Component	Current Period		Fifth Regulatory Period					Total PS5
	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	
Prescribed opex in 2021-22	22.85							
Less non controllable opex	-3.81							
Total controllable opex 2021-22	19.04							
One-off adjustments								
Corporate Cost Allocation changes	-0.90							
PS5 Planning Costs	-0.39							
Millewa PS Temp Pump	-0.29							
Covid-19 Costs	-0.18							
WEP Costs	-0.16							
Electricity	0.29							
Training & Travel	0.08							
Baseline controllable operating expenditure	17.51	17.51	17.51	17.51	17.51	17.51	17.51	87.53
Variations to Baseline								
Electricity			-0.37	-0.37	-0.29	-0.23	-0.30	-1.56
LGC's			0.00	0.06	0.37	0.26	0.19	0.88
PS6 Consulting Costs			0.00	0.00	0.00	0.17	0.05	0.22
Balancing variations			-0.22	-0.35	-0.24	-0.17	-0.32	-1.31
Total Controllable Operating Costs			16.91	16.86	17.34	17.53	17.12	85.76

Table C20: Baseline Controllable Operating Expenditure 2021-22 \$m 1/1/23

4.3.3.1 Establishing the 2021-22 Baseline

The 2021-22 baseline year requires some one-off adjustments to realign prescribed controllable operational expenditure with expected business as usual (BAU) costs. A summary of the one-off baseline adjustments to 2021-22 is provided below:

- Corporate costs were the largest adjustment, reducing by \$0.90m to allow for the revised Corporate Cost Allocation Framework rates proposed for PS5.
- PS5 preparation and planning costs were removed, including customer consultation and engagement, financial modelling, project management and PREMO assessment review.

- Temporary pump hire costs at the Millewa Pump Station were required in 2021-22 to assist with increased demand and provide contingency when the pump station was offline for repairs and maintenance. These costs have been removed from the baseline as the new pump station being constructed in 2022-23 will be able to meet demand requirements.
- Covid-19 costs, with the majority associated with labour costs including Working from Home allowances and Covid-19 leave payments to assist with home schooling, illness, testing and vaccinations.
- Business case costs associated with the Water Efficiency Project (WEP) as these are one-off costs and will not continue into PS5 period.
- Electricity costs have been added to the baseline due to 2021-22 having a decreased volumetric demand, which is a key driver of electricity costs, as demand was reduced because of higher rainfall compared to prior year averages.
- Training and travel costs have been added to the baseline due to 2021-22 being affected by Covid-19 restrictions including travel and work from home directives, as many training programs were delayed and rescheduled. These costs are forecast to increase to ensure that LMW staff remain compliant and upskilled with ever-changing requirements in the water industry.

The net impact of the above adjustments to 'normalise' the 2021-22 operating cost to a baseline for efficient and prudent operation, is a decrease of \$1.53m of controllable operating expenditure.

4.3.3.2 *Variation to Baseline Costs for PS5*

Throughout the PS5 period, there are several variations to baseline expenditure forecast to occur with key movements related to electricity, LGC purchases and Price Submission 2028-33 (PS6) preparation costs:

- Electricity costs are forecast to decrease due to stabilisation of prices compared to PS4 period as discussed above.
- As part of the Victorian Government policy for all sectors of government to source all electricity (Scope 2 Emissions) from renewable sources or purchase offsets by 2025, LMW has budgeted to purchase offsets in the form of LGCs from the market to meet this obligation.
- PS6 preparation costs are forecast for the final two years of the PS5 period and will include activities such as customer consultation and engagement, financial modelling, project management and PREMO assessment review.

4.3.4 **Productivity Improvements for the Forthcoming Period**

In general terms, LMW's proposed service performance represents an incremental improvement on current service levels. Customers have advised they are highly satisfied with LMW service levels and that they wish to keep costs to a minimum. Customers have confirmed that a reliable water supply is their highest priority, followed closely by affordability.

In seeking productivity improvements, LMW has not proposed any cost savings that would reduce LMW's level of service to its customers. LMW has, however, sought productivity improvements through an organisation restructure resulting in improved service delivery teams across the business. Delivery of BTP Horizon 1 and 2 projects will not result in forecast FTE savings in PS5 however the business will deliver outcomes to enhance two of the key customer strategy objectives: improving customer experience, and service excellence.

LMW recognises that it can streamline business processes with the use of technology and enable the information and procedural tasks to flow more efficiently throughout its workforce. Moving into PS6 post-BTP Horizon 2 after new systems and ways of working will continue to be embedded across the business, LMW has forecast a reduction in roles impacted by digitisation and automation of functions, offset by the forecast new operational roles to manage a growing service delivery customer base.

Under the State Government mandate, LMW is participating in the VGPB electricity purchase contract, which is expected to deliver efficient electricity prices for the PS5 period.

4.3.5 Allocation of Shared Costs

The corporate cost allocation between the urban and rural business is discussed in Part A, Section 4.5.

After expenditure is split between urban and rural, there is further cost allocation between rural districts in accordance with the Corporate Allocation Framework, as set out in Table C21. The Framework prescribes two expense categories and different allocation methods for district allocations based on the following:

- Corporate costs (with exception of asset planning activities) are then split based on customer service numbers.
- Asset planning (inc. Geographic Information System (GIS)) activity expenditure is split based on asset replacement costs.

District	Corporate Costs %	Asset Planning %
Mildura	34.64%	35.24%
Mildura HP	1.43%	1.02%
Merbein	14.15%	15.01%
Red Cliffs	23.35%	23.41%
Robinvale	6.30%	11.53%
WWD	0.14%	0.21%
Millewa Rural	2.27%	9.77%
Millewa Urban	1.09%	0.00%
Diverters	14.29%	0.70%
Small Drainage	2.34%	3.11%
	100.00%	100.00%

Table C21: Allocation of Shared Costs

4.3.6 Potential Uncertain Events

Potential uncertain events include VMFRP and WEP as discussed in Part A, Section 4.9, noting that the VMFRP is isolated from the existing LMW business. These events may influence opex positively, but the scope, costs and efficiencies cannot be determined at this stage. In addition, the following uncertain events that could influence operating expenditure include:

- Unforeseen legislative compliance standards and regulations driving increases in compliance costs.
- Material breakdowns of major plant and pumping operations.
- Fines and court prosecutions.
- Escalation of labour costs during the 2025 Enterprise Agreement.
- Major deviation between actual and forecast electricity prices.

4.4 Forecast Capital Expenditure

4.4.1 Forecast Capital Expenditure

Forecast capital expenditure was developed in accordance with the process set out in Part A, Section 4.6. Table C22 overleaf sets out LMW's proposed prudent and efficient capital expenditure for each year of the fifth regulatory period, across each major service category, amounting to a total of \$50.35m in real dollars (\$1/1/23). A detailed capital expenditure program is provided in Appendix C2.

\$m, 1/1/23	Current period		Fifth regulatory period					Total PS5
	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	
Irrigation	7.97	5.36	15.12	7.01	6.75	7.82	6.96	43.66
Drainage	0.08	0.27	0.39	0.53	0.55	0.21	0.89	2.57
Domestic and stock	0.07	0.06	0.07	0.47	0.27	0.77	0.07	1.64
Surface water diversions	0.21	0.33	0.50	0.50	0.50	0.50	0.50	2.49
Total capex	8.34	6.02	16.08	8.51	8.06	9.30	8.41	50.35

Table C22: Forecast Capital Expenditure - \$m 1/1/23

Figure C4 shows the proposed PS5 capital expenditure along with the trend forecast through the sixth regulatory period, revealing a similar program to that delivered over the PS4 period.

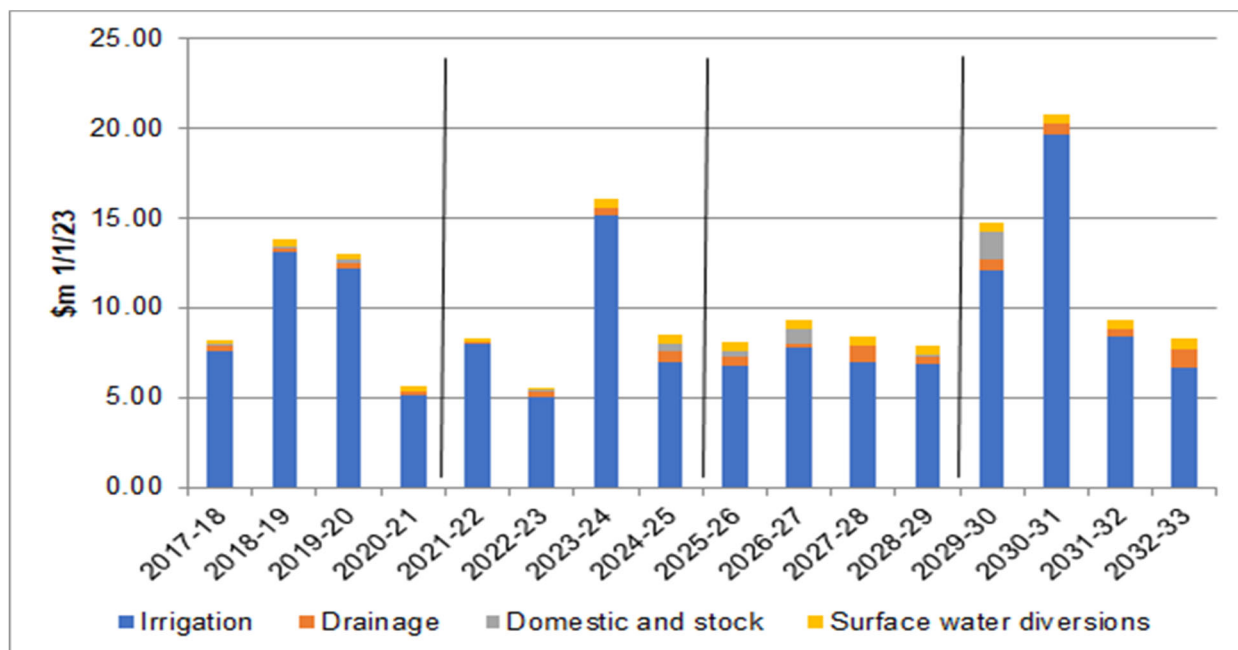


Figure C4: Forecast Capital Expenditure (\$m 1/1/23)

Table C23 shows the proposed PS5 capital expenditure by cost driver, showing that the program is predominantly allocated to renewals and replacement of assets, totaling \$30.55m or 61% of the rural program. The customer contributions shown for 2023-24 are for NSW government contributions to the Millewa Pump Station upgrade, while the balance of customer contributions reflect typical customer connection and metering contributions.

\$m 1/1/23	Fifth Regulatory Period					TOTAL
	2023-24	2024-25	2025-26	2026-27	2027-28	
Renewals	6.51	6.23	6.48	6.11	5.22	30.55
Growth	7.00	0.00	0.00	0.00	0.00	7.00
Improvements/ Compliance	2.57	2.28	1.58	3.19	3.19	12.80
Total capital expenditure	16.08	8.51	8.06	9.30	8.41	50.35
Government Contributions	0.00	0.00	0.00	0.00	0.00	0.00
Customer Contributions	3.92	0.17	0.17	0.17	0.17	4.61

Table C23: Forecast Capital Expenditure by Cost Driver - \$m 1/1/23

4.4.2 Major Projects and Programs

Of the Top 10 Major Projects for the LMW business, there are three for the rural business, of which two are combined corporate projects, as summarised in Table C24 below.

LMW has business cases developed for these projects that are available to the ESC, along with supporting documentation. Appendix C3 provides the alignment between individual projects and the supporting business cases, as well as a summary for each project that provides the information required by the ESC Guidance Paper.

Business Case	Major Projects Description	Service	Project Cost (\$m)*	ESC Cost Driver
8. Customer CRM, Portal Phase 2	Process design & NextGen service catalogue -Portal)	Corporate	0.50	Improvements/ compliance
9. Robinvale Decommissioning	Decommissioning of redundant channels, river suction and pump station and rising main	Rural Irrigation	2.15	Improvements/ compliance
10. Asset Management Improvement – Fixed Asset Implementation & Value Study Initiatives	15 solution initiatives to automate manage asset lifecycle and work orders.	Corporate	0.77	Improvements/ compliance

* Costs for Corporate projects are the Rural component.

Table C24: Proposed Rural Top 10 Capital Projects

The Robinvale Decommissioning project relates to sections of the old irrigation system that were not decommissioned when the new high-pressure system was installed. These assets include relift pump stations, sections of channels and bridges in road reserves where the bridge structure does not meet current traffic design standards, sections of concrete lined channel in channel reserves which are accumulating debris and the original pump station suctions which pass through the levee which protects both the new and old pump stations. These assets are deteriorating and pose safety and maintenance risks that require their removal or decommissioning.

The other two projects are part of the Business Transformation Project described elsewhere in this submission.

In addition, there are a number of major programs that are either specific to the rural business such as Irrigation Mains Replacement, or corporate including Motor Vehicle Fleet or ICT Equipment, as summarised in Table C25. Appendix C3 also provides alignment of major programs with their component programs and the program timing.

Major Program	Component Programs	Total Program Cost (\$m)	Major Service Category	ESC Cost Driver
Irrigation Meter Replacement	Meter replacements all irrigation districts, D & S and Diverters	5.81	Irrigation	Renewals
Irrigation Mains Replacement	Mains replacement all irrigation districts	4.03	Irrigation	Renewals
Minor capex - Irrigation	All Districts, minor Capex: Replacement & New	5.28	Rural Irrigation	Renewals & Improvement
Motor Vehicle Light Fleet - annual vehicle replacements	MV Fleet - annual vehicle replacements	2.16	Corporate	Renewals
Motor Vehicle Heavy Fleet - annual vehicle replacements	MV Fleet - annual vehicle replacements	0.96	Corporate	Renewals
Total ICT equipment		0.51	Corporate	Renewals
Corporate Facilities and Buildings		1.22	Corporate	Improvements / Compliance
	TOTAL Major Programs Rural	19.97		

Note: Costs for Corporate projects are the rural component only

Table C25: Proposed Rural Major Capital Programs

This capital expenditure program continues investment in replacement and renewals of irrigation infrastructure, contributed to a maintaining or decreasing the number of failures and attendant maintenance costs and customer interruptions to supply. In addition, the programs include introducing systematic irrigation meter replacement with digital meters, especially for private diverters. These replacements in the past have been on the basis of failure.

All programs and other projects in the capital program are supported by at least a Project Briefing Sheet that sets out the project drivers, justification, scope, cost and expenditure by year, and alignment with customer outcomes. Further detail of the major programs is provided in Appendix C3.

4.4.3 Capex/Opex Trade-offs

Projects which have potential capex/opex trade-offs include:

- Renewals projects, where replacing a failing asset may reduce future maintenance requirements. In the case of irrigation pipeline renewals, LMW has included reduced reactive maintenance costs for irrigation mains in its operating expenditure forecast.
- Automation projects where increased automation, and remote monitoring and meter reading, provide opportunities for reductions in labour costs and site attendance. The operating expenditure efficiencies from these projects are described elsewhere in this document relating to productivity improvements and the business transformation project.

4.4.4 Uncertain Projects

Red Cliffs Irrigation suction

Throughout PS4 regular monitoring of the silt levels around the Red Cliffs irrigation suction has been conducted. Based on the results of this monitoring LMW has decided to delay the Red Cliffs suction extension project into PS6.

King's Billabong Pumping Station

LMW owns the King's Billabong Pumping Station located on Cooke Street in Nichols Point. This building and the entire lot comprising approximately 1.6Ha. in area is listed on the Victorian Heritage Register as a place of 'national significance for their historical associations'. This listing occurred on 26 October 1993. The building consists of an old pump building which is double brick with an iron roof. Due to its listing by the Heritage Council of Victoria, LMW is bound by the Heritage Act 2017 (Vic). Locally, LMW is bound by the Planning and Environment Act 1987 (Vic) and the Mildura Planning Scheme.

A detailed building condition report and structural assessment was undertaken by Regional Building Consultants in 2020. It has been estimated that to maintain the building to an appropriate standard will cost \$492,000 pending additional approvals. Due to recent deterioration of the building and identified safety risks, LMW has updated the structural assessment report and is now evaluating future options for the building. There is private, community and local government interest in the future development of this asset however no defined scope, commitment or contribution that has been, or will be made until the building is compliant with the appropriate standards. This means that there are a range of options to explore with a spectrum of potential impacts to customers depending on the pathway selected. At this stage, detail regarding whether costs will be borne by customers is unknown.

4.5 Other Revenues

4.5.1 Pass Through Fees

LMW levies 'pass through' fees, raised on behalf of other agencies and the revenue collected is remitted by LMW to those agencies. The charges which are levied by LMW on behalf of other agencies are:

- Spillable water fee.
- Water storage entitlement fees.
- Mallee Catchment Management Authority (MCMA) Salinity Levy.
- DSE water share fees.

The revenue expected to be raised from these charges are included as other revenue. The amount of the fees is also included in LMW’s cost base, ensuring that the pass through of these fees has no effect on the tariffs levied by LMW on its customers. Table C26 summarises the revenue from pass through fees.

Component	Current Period		Fifth Regulatory Period					TOTAL
	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	
\$m 1/1/23								
Spillable water	-	-	-	-	-	-	-	0.00
Storage entitlement fees	3.12	3.03	3.16	3.27	3.38	3.48	3.45	16.73
Water share (DSE) charge	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.38
Total Pass-Through Revenue	3.20	3.11	3.24	3.35	3.45	3.55	3.52	17.12

Table C26: Revenue From Pass Through Fees

4.5.2 Other Revenues

Two additional types of revenue reduce the prescribed revenues recovered through published tariffs, comprising miscellaneous charge revenue and termination fees, summarised in Table C27. Miscellaneous charges are further discussed in Part C, Section 5.2.3.

Termination fees are payable by properties that relinquish their delivery shares. The termination fees are a lump sum equivalent to 10 years’ worth of delivery share fees. Accordingly, termination fee revenue is amortised over 10 years for the purpose of identifying the appropriate addition to other revenue.

Component	Current Period		Fifth Regulatory Period				
	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
\$m 1/1/23							
Misc charge revenue	0.74	0.94	0.94	0.94	0.94	0.94	0.94
Termination fees	0.14	0.14	0.13	0.12	0.11	0.10	0.10

Table C27: Other Revenue

4.6 Return on the RAB

4.6.1 Rolling Forward the RAB

The revenue requirement includes a return on the RAB and depreciation of the RAB. The RAB is rolled forward over time by adding new capital expenditure and deducting government and customer contributions, asset disposals expected for each price review period, and RAB depreciation.

At the start of a new review period, the RAB is updated for actual outcomes with respect to capital expenditure, contributions, and disposals for the current regulatory period. As the final year of the fourth regulatory period is not complete, 2022-23 capital expenditure, contributions and disposals remain as per the 2018 Price Determination and will not be updated until the 6th regulatory review.

Forecast capital expenditure for 2022-23 is anticipated to be greater than that originally budgeted for, which means that LMW will not receive a return on or of this additional planned expenditure during the fifth regulatory period. Table C28 shows the updated roll forward calculation for the RAB, with actuals included for the years 2017-18 to 2021-22.

Refer to Section 2.5.2 above for details of those government and customer contributions that relate to the SMP2 project.

Updated Asset Base	3rd Period	Fourth Regulatory Period				
\$m, 1/1/23	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Opening asset base	94.82	96.72	102.30	103.30	105.43	110.24
<i>plus</i> Gross capital expenditures	8.20	13.78	12.96	5.66	8.34	5.54
<i>less</i> Customer contributions	0.29	0.19	5.33	0.60	0.19	0.17
<i>less</i> Government contributions	2.44	0.88	3.42	-	-	-
<i>less</i> Regulatory depreciation	3.15	2.51	2.72	2.83	2.91	3.06
<i>less</i> Proceeds from disposals	0.41	4.62	0.49	0.10	0.44	0.39
Closing Asset Base	96.72	102.30	103.30	105.43	110.24	112.16

Table C28: Updating the Regulatory Asset Base

Table C29 shows the RAB rolled forward with forecast expenditure, contributions, and disposals for the fifth regulatory period. Customer contributions are discussed in Part C, Section 4.4.1.

Rolled forward asset base	Current	Fifth Regulatory Period				
\$m, 1/1/23	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Opening asset base	110.24	112.16	118.60	122.97	126.75	131.74
<i>plus</i> Gross capital expenditures	5.54	16.08	8.51	8.06	9.30	8.41
<i>less</i> Customer contributions	0.17	3.92	0.17	0.17	0.17	0.17
<i>less</i> Government contributions	-	-	-	-	-	-
<i>less</i> Regulatory depreciation	3.06	3.33	3.59	3.78	3.96	4.08
<i>less</i> Proceeds from disposals	0.39	2.39	0.37	0.33	0.18	0.23
Closing Asset Base	112.16	118.60	122.97	126.75	131.74	135.66

Table C29: Rolling Forward the Regulatory Asset Base

Figure C5 shows the RAB roll forwarded over the 4th, 5th, and 6th regulatory periods, using actual and forecast numbers.

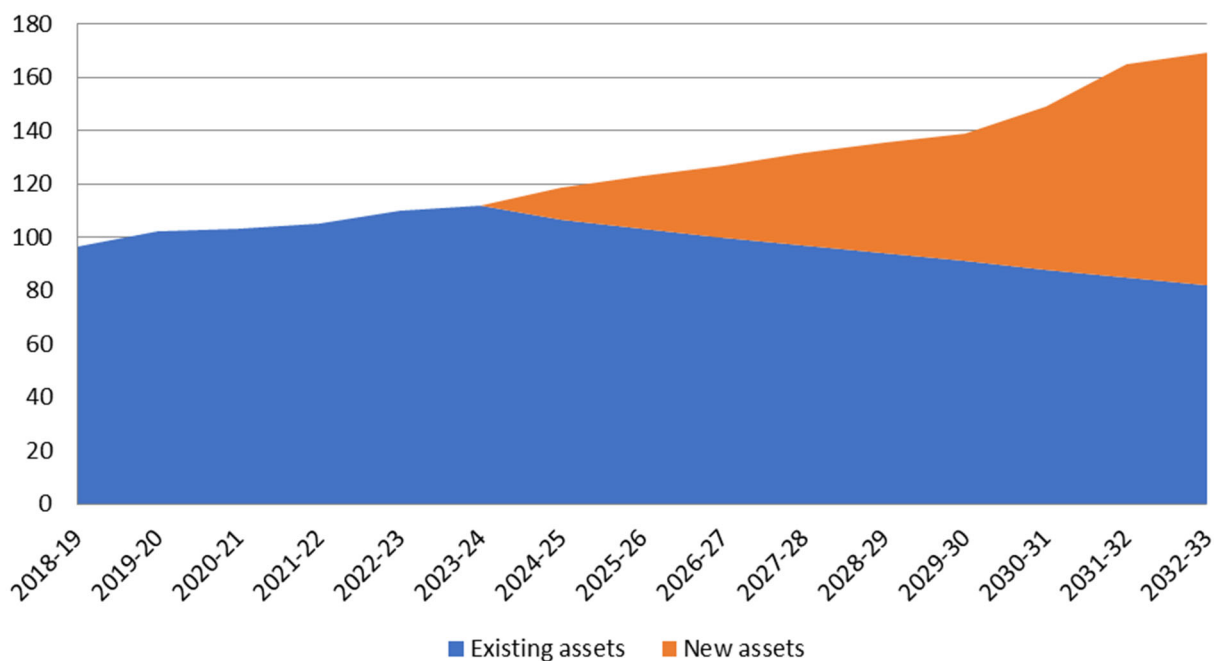


Figure C5: Rolling Forward the Regulatory Asset Base to 2032-33

4.6.2 Regulatory Depreciation

Regulatory depreciation is calculated on a straight line basis, using the ESC's methodology for new asset additions. Regulatory depreciation is calculated separately for each of the rural districts, with the RAB rolled forward from a starting value of zero in 2004/5 using actual/forecast expenditure. As outturn capital expenditure and contributions etc. will differ from forecast, then the regulatory depreciation allowed for in the revenue requirement for the fourth regulatory period may differ from the regulatory depreciation calculated with outturn actuals. Therefore, an adjustment is made to ensure that regulatory depreciation is not over or under recovered in total.

4.6.3 Return on Equity

Based on LMW's proposed PREMO rating of Standard, the proposed maximum Return on Equity is 4.1% as a real rate per year, as per the ESC's Guidance.

5. Prices

5.1 Form of Price Control

LMW has used the revenue cap form of price control to manage rural prices over the past four regulatory periods. LMW proposes to continue to use the revenue cap form of control for the PS5 period, with the exception that the price adjustment mechanism for electricity prices applied in PS4 will no longer apply as agreed with customers.

5.2 Prices and Tariff Structure

The tariff structures of all rural districts are proposed to remain unchanged for the PS5 period. Over the past 4 regulatory periods, LMW refined its tariff structures in response to the changing environment in which LMW operated. The tariff structure changes were mainly due to the introduction of unbundling of water entitlements in 2008 and bringing the merged former First Mildura Irrigation Trust (FMIT) tariff structure in line with LMW's other irrigation districts in 2013-14.

The tariff structure changes were made at that time after comprehensive consultation with LMW customers. With the current tariff structure having been in place for the past 9 years, or more in many instances, the tariffs are now well understood and accepted by customers.

LMW provides its customers with an explanation sheet on tariffs with formal communication regarding the annual tariff adjustments. This information is also provided to new customers. LMW's website contains information to assist customers to understand their account. Other information required in accordance with the Water Charge Infrastructure Rules (WCIR) such as Water Planning and Management Information is also published publicly annually.

5.2.1 Tariff Structures

LMW uses the locational pricing method to set prices for rural services: each district has its own prices for tariffs. There are four pumped irrigation districts: Mildura, Merbein, Red Cliffs and Robinvale; along with the Waterworks district (WWD), the Millewa urban and rural Stock and Domestic district, and the private diversion customers for whom LMW manages their licensing conditions. Mildura district also has a High Pressure zone which has specific prices.

The existing structure is based on unbundling principles to provide the customer with transparency on what they pay for within their account. Prices are calculated for each district based on forecast demand of volumetric water delivery, growth and planned operating and capital expenditure investment.

In determining the revenue requirement, costs that are incurred by an individual district directly are attributed to that service area. Indirect costs such as corporate overheads are allocated to each district in accordance with the Corporate Cost Allocation Framework previously noted.

The tariffs applicable within the tariff basket for each different service, i.e. Irrigation district customer or private diverter customer or Millewa customer, differs due to the varying service being delivered.

During the preparation of PS5, LMW commenced a review to understand the true cost of connection and plan to continue this detailed review across the first two years of the new regulatory period with a view to implement tariff reform, including consideration of an appropriate and justified outlet fee, in the last year or two of the PS5 period.

Irrigation District Tariff Suite

- *Service Charge*: A fixed charge per assessment to contribute to administration costs.
- *Delivery Share Fee*: A fee based on the property's defined level of access to the delivery infrastructure, or its Delivery Share, expressed in ML per 14-day period. This fee contributes to LMW's fixed irrigation infrastructure and maintenance costs.
- *Usage Charge*: Based on the metered volume of water delivered to the property. This fee contributes to the cost of supply for each ML delivered.
- *Drainage Fee*: Based on the property's defined level of access to the drainage infrastructure to collect excess applied irrigation water, equivalent to the Delivery Share expressed in ML per 14-day period. This fee contributes to LMW's fixed drainage infrastructure and maintenance costs.
- *Unmetered Garden Connection*: A flat annual charge for stock and domestic customers that do not have a garden connection metered.

Private Diverter Tariff Suite

- *Service Charge*: A fixed charge per customer assessment to contribute to administration costs.
- *Operational Fee*: A fixed fee per megalitre of the property's annual use limit (AUL). This fee contributes to LMW's fixed diversion infrastructure and maintenance costs, including service costs to manage and ensure compliance with a property's licensing conditions.
- *Domestic and Stock Registration*: Annual charge for stock and domestic service-only customers.
- *Lake Cullulleraine Diversion Fee*: A fee per megalitre for customers diverting water from Lake Cullulleraine.

Millewa Stock and Domestic District Tariff Suite

- *Service Charge*: A fixed charge per customer assessment to contribute to administration costs, applicable to both urban and rural customers.
- *Rural Access – House*: Flat annual charge for water access to a house within the Rural District.
- *Rural Access – Scrub*: Based on the property's defined level of access to the infrastructure based on the number of hectares with scrub land. This fee contributes to LMW's fixed infrastructure and maintenance costs.
- *Rural Access – Stocked*: Based on the property's defined level of access to the infrastructure based on the number of hectares that is cleared and can be stocked (graze sheep/cows). This fee contributes to LMW's fixed infrastructure and maintenance costs.
- *Delivery – Rural*: Based on the metered volume of water delivered to the property. This fee contributes to the cost of supply for each kilolitre delivered.
- *Urban Access – House*: Flat annual charge for water access to a house within the Urban District.
- *Delivery – Urban*: Based on the metered volume of water delivered to the property. This fee contributes to the cost of supply for each kilolitre delivered.

Water Works District

- *Service Charge*: A fixed charge per customer assessment to contribute to administration costs.
- *Connection Charge*: A flat annual charge for access to the delivery infrastructure. This fee contributes to LMW's fixed infrastructure and maintenance costs.
- *Usage Charge*: Based on the metered volume of water delivered to the property. This fee contributes to the cost of supply for each megalitre delivered.

5.2.2 Proposed Tariffs

Table C30 overleaf details the overall tariff schedule for all districts and services. Total tariffs including bulk water charges are proposed to change in real terms by:

- For irrigation and drainage customers, between a 6.4% average annual reduction in the Mildura High Pressure (HP) district to a 1.3% average annual increase in the Merbein district.
- For domestic and stock customers, average annual decreases of between 0.6% and 1.0%.
- For diversions customers, an annual average increase of 0.7%.

Region	Units	2023	2024	2025	2026	2027	2028
Mildura - Irrigation							
Service Charge	\$ per Assessment	100.00	97.09	94.26	91.51	88.85	86.26
Delivery Share	\$ per DS	618.16	622.42	626.72	631.04	635.39	639.77
Usage Charge	\$ per ML Delivery	62.40	59.44	56.62	53.94	51.38	48.94
Garden - unmetered	\$ per property	-	-	-	-	-	-
Mildura - Drainage							
Drainage div 1	\$ per WR/DS	59.36	59.67	59.97	60.28	60.59	60.90
Drainage div 2	\$ per WR/DS	44.48	-	-	-	-	-
Drainage div 3	\$ per WR/DS	29.60	-	-	-	-	-
Drainage div 4	\$ per WR/DS	14.84	-	-	-	-	-
Mildura - HPS							
Service Charge	\$ per Assessment	100.00	97.09	94.26	91.51	88.85	86.26
Delivery Share	\$ per DS	1,031.72	978.90	928.79	881.24	836.13	793.33
Usage Charge	\$ per ML Delivery	95.64	85.89	77.13	69.27	62.20	55.86
Garden - unmetered	\$ per property	-	-	-	-	-	-
Merbein - Irrigation							
Service Charge	\$ per Assessment	100.00	97.09	94.26	91.51	88.85	86.26
Delivery Share	\$ per DS	384.40	407.06	431.05	456.46	483.36	511.85
Usage Charge	\$ per ML Delivery	48.99	47.55	46.15	44.79	43.47	42.18
Garden - unmetered	\$ per property	520.08	517.19	514.33	511.47	508.64	505.81
Merbein - Drainage							
Drainage div 1	\$ per WR/DS	94.32	90.71	87.23	83.89	80.67	77.58
Drainage div 2	\$ per WR/DS	70.76	-	-	-	-	-
Drainage div 3	\$ per WR/DS	46.92	-	-	-	-	-
Drainage div 4	\$ per WR/DS	27.48	25.46	23.59	21.85	20.25	18.76
Red Cliffs - Irrigation							
Service Charge	\$ per Assessment	100.00	97.09	94.26	91.51	88.85	86.26
Delivery Share	\$ per DS	404.80	420.56	436.94	453.95	471.63	489.99
Usage Charge	\$ per ML Delivery	53.68	50.75	47.97	45.35	42.87	40.52
Garden - unmetered	\$ per property	520.08	517.60	515.14	512.68	510.24	507.81
Red Cliffs - Drainage							
Drainage div 1	\$ per WR/DS	93.92	90.41	87.04	83.79	80.66	77.65
Drainage div 2	\$ per WR/DS	88.40	73.04	60.35	49.87	41.20	34.05
Drainage div 3	\$ per WR/DS	51.44	-	-	-	-	-
Drainage div 4	\$ per WR/DS	24.28	23.18	22.12	21.12	20.16	19.24
Robinvale - Irrigation							
Service Charge	\$ per Assessment	100.00	97.09	94.26	91.51	88.85	86.26
Delivery Share	\$ per DS	974.22	927.29	882.63	840.11	799.65	761.13
Usage Charge	\$ per ML Delivery	92.44	85.03	78.21	71.95	66.18	60.87
Garden - unmetered	\$ per property	520.08	-	-	-	-	-
Robinvale - Drainage							
Drainage div 1	\$ per WR/DS	90.00	87.78	85.61	83.50	81.44	79.43
Drainage div 2	\$ per WR/DS	72.16	-	-	-	-	-
Drainage div 3	\$ per WR/DS	48.00	-	-	-	-	-
Drainage div 4	\$ per WR/DS	24.00	-	-	-	-	-
WWD							
Service Charge	\$ per Assessment	100.00	97.09	94.26	91.51	88.85	86.26
Connection charge	\$ per customer	100.00	97.09	94.26	91.51	88.85	86.26
Usage charge	\$ per ML Delivery	432.92	424.51	416.27	408.19	400.26	392.49
Millewa							
Rural access – house	\$ per connection	514.58	502.02	489.77	477.81	466.15	454.77
Rural access - scrub	\$/Ha	0.59	0.59	0.60	0.60	0.61	0.61
Rural access - stocked	\$/Ha	2.44	2.41	2.38	2.35	2.32	2.29
Delivery - rural	\$ per kl	0.12	0.13	0.14	0.15	0.16	0.18
Urban access – offtake	\$ per connection	514.58	501.12	488.02	475.26	462.83	450.73
Urban access - no offtake	\$ per connection	257.29	254.48	251.71	248.96	246.25	243.56
Delivery - urban	\$ per kl	0.80	0.82	0.83	0.85	0.86	0.88
Service Charge - rural	\$ per Assessment	100.00	97.09	94.26	91.51	88.85	86.26
Service Charge - urban	\$ per Assessment	100.00	97.09	94.26	91.51	88.85	86.26
Diverters							
Operational Fee	\$ per ML	158.80	159.02	159.24	159.46	159.68	159.90
Annual Permit	\$ per customer	289.00	341.56	341.56	341.56	341.56	341.56
Service Charge	\$ per Assessment	3.12	2.95	2.78	2.63	2.48	2.34

Table C30: Proposed Rural Tariffs – \$ 1/1/23

The changes to tariffs are reflected in changes to unit prices per ML, which vary according to the balance of service, delivery, and usage charges for any one customer. For comparative purposes, reference customers representing a typical customer in each district and for each service have been defined by their annual usage, as follows:

- Irrigation customers 100ML/annum usage
- Millewa Urban customers 400kL
- Millewa Rural customers 4300kL
- WWD - Other Stock & Domestic 3ML
- Diversions customers 1000ML

The comparison of changes to prices (including pass through bulk water costs) for reference customers is shown in Table C31 in real terms (\$ 1/1/23). Percentage change (% change) is average per annum for period 2023-24 to 2027-28.

Rural District	PS4 2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	Average annual % Change P5 from PS4
Mildura (100ML)	\$15,456	\$15,249	\$15,054	\$14,872	\$14,701	\$14,501	-1.27%
Mildura HP (100ML)	\$23,742	\$22,172	\$20,730	\$19,408	\$18,193	\$17,036	-6.42%
Merbein (100ML)	\$11,729	\$11,848	\$11,986	\$12,145	\$12,327	\$12,491	1.27%
Red Cliffs (100ML)	\$12,438	\$12,326	\$12,237	\$12,170	\$12,126	\$12,063	-0.61%
Robinvale (100ML)	\$23,100	\$21,804	\$20,592	\$19,461	\$18,402	\$17,373	-5.54%
Private Diverters (1,000ML)	\$12,953	\$13,153	\$13,333	\$13,511	\$13,678	\$13,438	0.75%
Total Costs per ML	\$878	\$853	\$825	\$799	\$776	\$753	
ML % Movement		-2.76%	-3.31%	-3.11%	-2.92%	-2.97%	-3.02%
Millewa Rural (4,300kL)	\$8,238	\$8,179	\$8,124	\$8,074	\$8,030	\$7,991	-0.61%
Millewa – Urban (400kL)	\$935	\$924	\$914	\$905	\$896	\$888	-1.01%
Yelta/Wargan WWD (3ML)	\$1,764	\$1,712	\$1,685	\$1,658	\$1,631	\$1,605	-1.86%

Table C31: Comparison of changes to unit prices for reference customers

These changes for reference bills are set out in Figure C6 for irrigation and diversion customers, and in Figure C7 for Millewa customers. There are only 12 customers in the Waterworks District (WWD), shown as ‘Other stock and domestic’ in the table above.

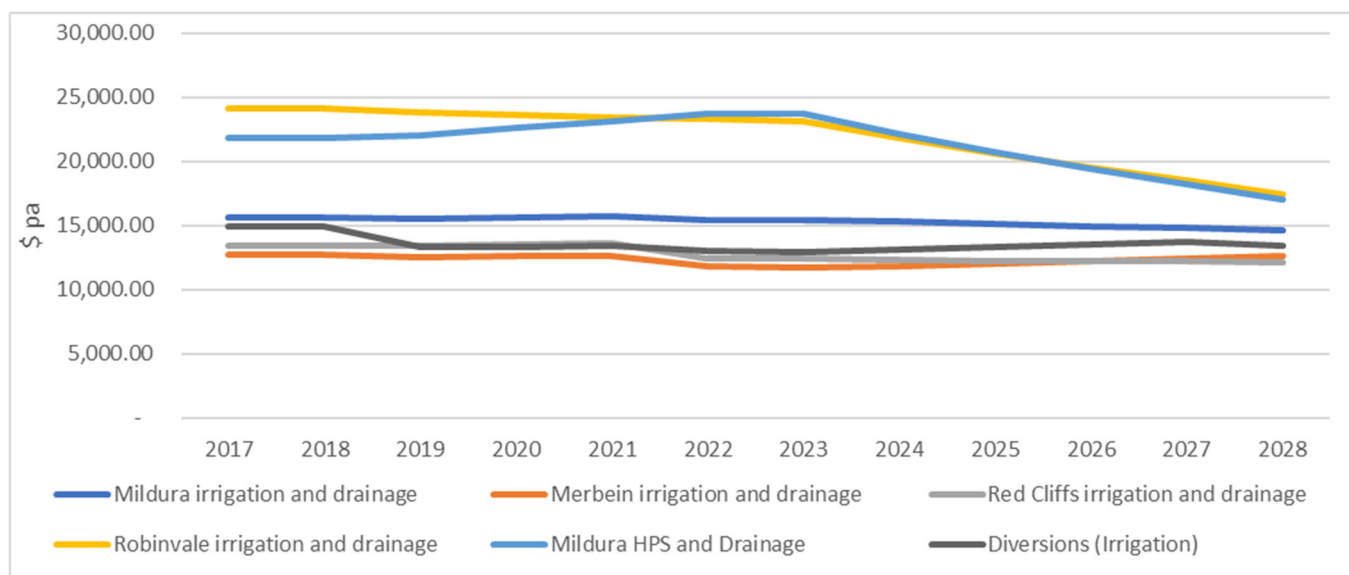


Figure C6: Proposed Bills for Reference Customers - Irrigation & Diversions

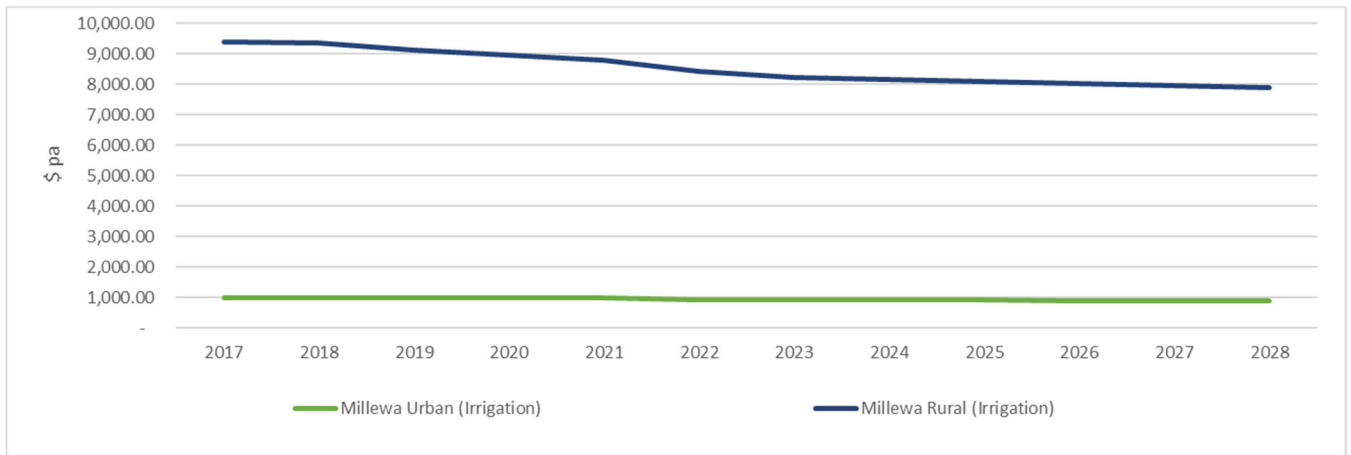


Figure C7: Proposed Bills for Reference Customers - Millewa

5.2.3 Miscellaneous Charges

Miscellaneous charges are calculated on the same basis as the urban business in accordance with the ESC’s pricing principles, i.e. to recover the direct costs involved plus an allowance for overheads excepting bank dishonour, debt collection and legal fees. Appendix C4 lists all of the miscellaneous charges levied by LMW and the charges levied for the current year. The Appendix also sets out the increases in charges proposed for the five years of the regulatory period.

5.2.4 Non-Prescribed Services

Investment income is considered as the only potentially non-prescribed service for the rural business however LMW does not anticipate having any investments for the PS5 period. There are no other non-prescribed services for the rural business and hence no expenditure or revenue associated with non-prescribed services.

5.3 Adjustment to Prices

5.3.1 Uncertain or Unforeseen Events

LMW proposes that the adjustment mechanism for unforeseen or uncertain events continues to apply for this regulatory period unchanged. Under the provisions of a Determination, LMW may apply for an adjustment of the scheduled prices and/or the revenue requirements because of events that could not reasonably have been foreseen or were uncertain at the time the Determination is made. Examples of unforeseen or uncertain events include licence fees or contributions which differ from the forecast, changes in the timing or scope of expenditure on major capital projects, or material differences in outturn demand. Exclusions would continue to apply, including matters which should have been known about or under LMW’s control, could have been planned for or managed by LMW, or reflect inefficient expenditure.

5.3.2 Trailing Cost of Debt

The estimated cost of debt is based on the ESC’s approach, using a 10-year trailing average cost of debt based on the Reserve Bank of Australia’s 10-year BBB-rated corporate bond rate. The historical cost of debt provided by the ESC is reproduced in Table C32.

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Cost of debt	7.1%	5.4%	5.3%	4.9%	4.5%	4.6%	3.3%	3.0%	3.8%	3.8%
* To be updated by ESC prior to the ESC’s Final Decision										

Table C32. Historical Cost of Debt (Annual Values for Calculating Trailing Average)

These values have been used to estimate revenue requirement and prices in this submission.

APPENDICES



PART A – COMMON APPENDICES

Appendix A1 – Business Context

Business Entity

Lower Murray Urban & Rural Water Authority was formed on 1 July 2004 and became the Lower Murray Urban and Rural Water Corporation on 1 July 2007. On 19th August 2008, it took over the functions of the First Mildura Irrigation Trust.

LMW operates as a single business entity with two business units: urban and rural. LMW is currently price-regulated by the Essential Services Commission (ESC) for urban services under the Victorian government's Water Industry Regulatory Order 2014 (WIRO), and for rural services will operate under the WIRO from 1 July 2023 (transferring economic regulation from the Commonwealth under the Water Charge Rules 2010 for Murray-Darling Basin infrastructure operators).

Separate price models and ESC financial templates apply for the urban and rural business units.

Regional Context

LMW's operating region is highly productive, delivering over \$10 billion per annum¹ in gross regional product to the Victorian and Australian economy. Conversely, the region is relatively remote and covers a large geographic area extending over 300 km along the lower Murray River, in the driest part of Victoria.

LMW recognises that its customers' and community's overall well-being and livelihood is directly linked to the agricultural, tourism and support industries which form the region's economic backbone. How it manages regional water resources recognises the intrinsic interrelation between the resource and the region's social and economic fabric.

These factors pose challenges for control of essential water services and their efficient management, whilst also providing opportunities for greater community engagement and a contribution to the community and its growth through the synergies of a combined urban and rural water business.

Services, Customers and Assets

LMW operates across the municipalities of Mildura, Swan Hill and Gannawarra in North-Western Victoria and delivers urban water supply, wastewater, and irrigation/drainage services along the Murray River in Victoria, from Kerang to the South Australian border.

¹Remplan: Swan Hill - <https://app.remplan.com.au/swanhill/economy/summary?state=1VvQS7Z2EF4Qx0qF49LmwmFeIXIJ3p>

Mildura - <https://app.remplan.com.au/milduraregion/economy/industries/gross-regional-product?state=GAbNi6Ing7NF97LZuP5aPYh54ZY1HbizSx4gHRS7SBHrSVEg>

Gannawarra - <https://economy.id.com.au/gannawarra>



Figure A1.1: LMW Operating Area

LMW provides the following services across its reach:

- Treated drinking water to 14 cities and towns
- Sewage collection, wastewater treatment and effluent disposal to 12 cities and towns
- Irrigation networks to 4 irrigation districts integrating 2 high pressure areas
- Surface water diversion licencing along the Murray River between Nyah and the South Australian Border
- Subsurface irrigation drainage to the irrigation districts and some diverter areas
- Stock and domestic ‘river quality’ water services to rural areas and small towns

Urban Business Unit

LMW pumps and treats raw water from the Murray and Loddon Rivers and from Goulburn-Murray Water irrigation channels and supplies almost 37,000 customers from both residential and commercial/industrial sectors with potable drinking water. LMW collects and treats wastewater more than 30,000 connections from residential and commercial/industrial customers. The table below summarises customer and asset data for urban water and sewerage:

Urban customers and volumes	Water supply	Sewerage
Permanent Population Served	Approx. 75,000	66,000
Equivalent Residential Connections	31,238	27,439
Equivalent Non-residential Connections	3,933	3,248
Total Equivalent Connections	35,171	30,687
Water Consumption or Wastewater Collected: Residential	15,683 ML	Not measured
Water Consumption or Wastewater Collected: Non-residential	7,119 ML	Not measured
Total Volume Water Supplied / Wastewater Collected (ML)	22,802 ML	Not measured
Assets	Water supply	Sewerage
Treatment plants (No.)	9	10
Pumping stations (No.)	38	113
Water mains / sewers (km)	988 km	689 km

Table A1.1: Urban Water Supply and Sewerage Customers and Assets (2021-22)

Rural Business Unit

LMW provides minimally treated river water to customers through four pumped irrigation districts, domestic and stock supply, and surface water diverters. A summary of customers and assets is provided in the table below:

Rural customers	Statistic
Irrigation Customers	2,759 No.
Domestic and Stock Customers	1,975 No.
Private Diverters	1,317 No.
Total Customers	6,051 No.
Rural water usage	
District Irrigation Usage	92,317 ML
District Domestic and Stock Usage	2,519 ML
Diverters Annual Usage	449,116 ML
Assets	
Pump Stations	12 No.
Irrigation Channels	36.2km
Irrigation Pipelines	626km

Table A1.2: Rural Customers and Assets (2021-22)

Government and Other Obligations

In addition to specific customer outcomes derived in close consultation with customers (detailed in Parts B and C), LMW has extensive legislative requirements and expectations from government stakeholders, many of which have a significant impact on the LMW business and its strategies, services, plans and processes. The most important of these include:

- Minister's Letter of Expectations²
- Statement of Obligations³ and Statement of Obligations (Emissions Reduction⁴)
- Water for Victoria: The State Water Plan⁵

A summary of the obligations from these key documents include:

- Climate change adaptation and net-zero carbon emissions
- Customer and community outcomes
- Aboriginal and recreational water values
- Resilient and liveable cities and towns, including affordability
- Leadership and culture, incorporating increases in diversity and inclusion
- Strengthening Compliance and Groundwater Management Reform
- Financial sustainability incorporating Department of Treasury and Finance Standing Directions and including Risk Management Framework and Asset Management Accountability Framework
- Drinking Water Quality – Department of Health and Human Services (DHHS), Health-based water quality targets
- Environmental Requirements - Environment Protection Authority (EPA).

² Minister for Water's Letter of Expectations

³ Statement of Obligations

⁴ Statement of Obligations (Emissions Reduction)

⁵ Water for Victoria: The State Water Plan

PART B – URBAN APPENDICES

Appendix B1 – Urban Capital Program

Project/program Name	Service	Major cost driver	2023-24	2024-25	2025-26	2026-27	2027-28	TOTAL
Top 10 Projects - Urban component only								
Purchase of Water	Water	Growth	1.00	1.00	1.00	1.00	4.09	8.09
Water Mains Upgrade in Mildura	Water	Growth	0.75	0.25	0.75	1.00	1.08	3.83
New 10ML Treated Water Storage and Pump Station upgrade at 14th St Mildura (Stage 1)	Water	Renewals	0.00	0.20	0.91	0.00	0.00	1.11
Improving level of service (Pressure) in Red Cliffs Water Distribution	Water	Improvements / Compliance	1.00	6.00	2.41	0.00	0.00	9.41
New Swan Hill water treatment plant (Stage 1)	Water	Growth	0.00	0.00	0.00	0.50	0.50	1.00
Wet Weather Storage for the Koorlong WWTP	Sewerage	Growth	0.00	0.07	1.10	4.90	0.00	6.07
Koorlong Sewer Rising Main Duplication	Sewerage	Growth	0.00	0.00	0.00	0.30	1.20	1.50
Customer CRM, portal Phase 2 (additional process design & NextGen service catalogue Portal)	Water	Improvements / Compliance	0.59	0.59	0.59	0.00	0.00	1.78
Asset Management Improvement - Fixed Asset Implementation & Value Study Initiatives	Water	Improvements / Compliance	0.54	0.54	0.54	0.54	0.54	2.71
Ongoing capital programs								
ALL SITES Land Development	Water	Growth	0.15	0.15	0.15	0.15	0.15	0.75
ALL SITES Minor Capital Works - Replacement	Water	Renewals	0.34	0.34	0.34	0.34	0.34	1.69
ALL SITES Minor Capital Works - New	Water	Improvements / Compliance	0.32	0.32	0.32	0.32	0.32	1.59
ALL SITES Main Replacement	Water	Renewals	0.98	0.98	0.98	0.98	0.98	4.88
ALL SITES - PSP Replacement	Water	Renewals	0.24	0.24	0.24	0.24	0.24	1.22
Adjustment	Water	Improvements / Compliance	3.77	0.00	0.00	0.00	0.00	3.77
ALL SITES Asset Performance & Condition Monitoring Equipment	Sewerage	Improvements / Compliance	0.00	0.00	0.04	0.04	0.00	0.08
Minor Capital Works - Replacement	Sewerage	Renewals	0.47	0.47	0.47	0.47	0.47	2.33
Minor Capital Works - New	Sewerage	Improvements / Compliance	0.30	0.30	0.30	0.30	0.30	1.48
Land Development	Sewerage	Growth	0.25	0.25	0.25	0.25	0.25	1.25

Project/program Name	Service	Major cost driver	2023-24	2024-25	2025-26	2026-27	2027-28	TOTAL
ALL SITES SCADA Upgrades	Sewerage	Renewals	0.20	0.00	0.00	0.00	0.00	0.20
ALL SITES Sewerage Pump Replacement Program	Sewerage	Renewals	0.07	0.07	0.07	0.07	0.07	0.37
ALL SITES SPS Switchboard Replacement/Upgrade Program	Sewerage	Renewals	0.00	0.10	0.10	0.10	0.12	0.42
Reticulation - Water								
RC - DN375 Truck Main for MDA to RC interconnection (includes Ginguam PS upgrade) 14th Street to Beevers Lane (9,500 m)	Water	Growth	0.00	0.00	0.00	0.00	0.30	0.30
Reticulation - Sewer								
MDA - Sewer Rehabilitation	Sewerage	Renewals	0.65	1.40	0.30	0.30	0.60	3.25
ALL SITES HSL replacement	Sewerage	Renewals	0.43	0.43	0.43	0.43	0.43	2.17
ALL SITES Manhole Rehab	Sewerage	Renewals	0.14	0.14	0.14	0.14	0.14	0.68
NPT - Pressure Sewer Rising Main Construction	Sewerage	Growth	0.37	0.23	0.00	0.00	0.00	0.60
Pumping - Water								
MBN VSD, PLC and the switchboards upgrade for the TWPS	Water	Renewals	0.30	0.75	0.00	0.00	0.00	1.05
ROB DN300 Raw water line upgrade	Water	Renewals	0.23	0.68	0.00	0.00	0.00	0.90
LB - LAKE BOGA RE-LIFT PUMP STATION - Control System Renewal	Water	Renewals	0.13	0.13	0.00	0.00	0.00	0.27
NYH - Retic pressure increase with booster pumps	Water	Improvements / Compliance	0.00	0.15	0.20	0.00	0.00	0.35
SH WOORINEN ELEVATED TOWER & RELIFT PS - Control Systems Renewal	Water	Renewals	0.00	0.00	0.00	0.00	0.25	0.25
Pumping - Sewer								
MDA - Sewerage Pumping Station SPS 15	Sewerage	Renewals	0.00	0.05	0.80	0.81	0.00	1.66
ROB - SPS6 : New pumps, switchboards ;500 m rising main replacement (Between SPS 6 and WWTP)	Sewerage	Renewals	0.50	0.25	0.00	0.00	0.00	0.75
Filtration								
ALLSITES Water Q instrumentations replacements/ upgrade/ renewal	Water	Improvements / Compliance	0.12	0.12	0.09	0.11	0.13	0.56
LMW Control network systems- water OT firewall install	Water	Improvements / Compliance	0.30	0.00	0.00	0.00	0.00	0.30
KER Filter media (all 3) replacement and leak (between 2 and 3) repair	Water	Renewals	0.00	0.00	0.10	0.15	0.20	0.45
KER KERANG URBAN (IP) RADIO TELEMETRY NETWORK - S to IP	Water	Improvements / Compliance	0.21	0.00	0.00	0.00	0.00	0.21
MDA West WTP Replace Filter Media	Water	Renewals	0.00	0.10	0.14	0.00	0.00	0.24
MDA WTP Wash Water Balance Tank	Water	Improvements / Compliance	0.20	0.80	0.00	0.00	0.00	1.00
MDA WTP Replace Filter Media	Water	Renewals	0.30	0.45	0.00	0.00	0.00	0.75
MDA Radiotelemetry Network - Water Outstations Renewal	Water	Renewals	0.67	0.00	0.00	0.00	0.00	0.67

Project/program Name	Service	Major cost driver	2023-24	2024-25	2025-26	2026-27	2027-28	TOTAL
MDA - 7th st -Gearbox for clarifiers and sed tanks design upgrade (No 3 and 4 only)	Water	Renewals	0.00	0.00	0.20	0.00	0.00	0.20
MDA 7th st -Replacement of the discharge pipes, pumps and switch boards at the Alum Sludge PS	Water	Renewals	0.00	0.00	0.10	0.10	0.00	0.20
MDA 7th st -Filter Gallery to TWPS pipework repairing/ replacement	Water	Renewals	0.00	0.00	0.00	0.06	0.06	0.11
MDA 7 th st WTP- control system renewal	Water	Renewals	0.00	0.00	0.10	0.12	0.00	0.22
PIA WTP & RWPS - Control Systems Renewal	Water	Renewals	0.00	0.00	0.23	0.23	0.00	0.45
PIA Electrical Cabinet/ Switchboard upgrade	Water	Improvements / Compliance	0.00	0.00	0.15	0.15	0.00	0.30
R/C Radiotelemetry Network Renewal	Water	Renewals	0.00	0.44	0.00	0.00	0.00	0.44
RC WTP Filter to waste design and construction	Water	Improvements / Compliance	0.00	0.28	0.00	0.00	0.00	0.28
ROB WTP & RWPS - SCADA & RWPS Control Systems Renewal	Water	Renewals	0.00	0.10	0.15	0.00	0.00	0.25
SH Clarifier - Launderers replacement	Water	Renewals	0.30	0.00	0.00	0.00	0.00	0.30
Treatment								
KER - WWTP- Power upgrade to run the aerators, option assessment for solar vs power	Sewerage	Improvements / Compliance	0.30	0.00	0.00	0.00	0.00	0.30
KLK - Refurbishment of VSD blowers (5 big and 2 small)	Sewerage	Renewals	0.00	0.00	0.00	0.50	0.20	0.70
KLK - Repairing/ replacement the hand railing and pipework above the reactors	Sewerage	Renewals	0.15	0.00	0.00	0.00	0.00	0.15
KLK - Purchase stand by/ spare band screen	Sewerage	Renewals	0.00	0.00	0.15	0.00	0.00	0.15
KLK - Upgrade of control system and instruments (PLC and fiber)	Sewerage	Renewals	0.00	0.00	0.00	0.75	0.44	1.19
MDA - MILDURA WWTP - Control Systems Legacy Upgrade	Sewerage	Renewals	0.00	0.10	0.00	0.00	0.00	0.10
MDA - Permanent generator at MDA WWTP (150kVA?)	Sewerage	Improvements / Compliance	0.00	0.21	0.00	0.00	0.00	0.21
MER - Partial Decommission of the WWTP (LMW to keep part of it as emergency discharge) and tree plantation for carbon sequestration	Sewerage	Improvements / Compliance	0.15	0.15	0.00	0.00	0.00	0.30
Storage								
KER Vaughan street tower roof refurbishment	Water	Renewals	0.65	0.00	0.00	0.00	0.00	0.65
MDA - Mildura West Ground Level Storage Repaint	Water	Renewals	0.77	0.77	0.00	0.00	0.00	1.54
MDA 10th St Tower Repairs (Tonkin's Report)	Water	Renewals	0.96	0.23	0.00	0.00	0.00	1.18
Corporate - Urban component only								
Motor vehicles - Water	Water	Renewals	1.07	0.72	0.57	0.40	0.47	3.23
Motor vehicles - Sewerage	Sewerage	Renewals	0.91	0.61	0.49	0.34	0.40	2.75
Computer Equipment - Urban - Water	Water	Renewals	0.19	0.22	0.19	0.19	0.20	0.98
Computer Equipment - Urban - Sewerage	Sewerage	Renewals	0.16	0.18	0.16	0.16	0.17	0.84

Project/program Name	Service	Major cost driver	2023-24	2024-25	2025-26	2026-27	2027-28	TOTAL
Business Transformation - Water	Water	Improvements / Compliance	1.26	0.89	0.89	0.27	0.27	3.57
Business Transformation - Sewerage	Sewerage	Improvements / Compliance	1.07	0.76	0.76	0.23	0.23	3.04
General Equipment - Urban - Water	Water	Renewals	0.14	0.15	0.19	0.05	0.05	0.57
General Equipment - Urban - Sewerage	Sewerage	Renewals	0.12	0.13	0.16	0.04	0.04	0.49
Buildings - Water	Water	Improvements / Compliance	0.43	0.20	0.22	0.12	0.11	1.10
Buildings - Sewerage	Sewerage	Improvements / Compliance	0.37	0.17	0.19	0.11	0.10	0.93
TOTAL		\$m 1/1/23	24.49	23.83	17.64	17.23	15.42	98.61

Appendix B2 – Urban Major Projects and Program

B2.1 Top 10 Projects Urban Component – Schedule of Investment

No.	Business Case	Component Projects	Total Project Cost (\$m)	2023-24	2024-25	2025-26	2026-27	2027-28
1	Purchase of Water	Purchase of Water	8.09	1.00	1.00	1.00	1.00	4.09
2	Water Mains Upgrade in Mildura	MDA- Water mains upgrades for growth	3.83	0.75	0.25	0.75	1.00	1.08
3	New 10ML Treated Water Storage and Pump Station upgrade at 14th St Mildura (Stage 1)	New 10ML Treated Water Storage and Pump Station upgrade at 14th St Mildura (Stage 1)	1.11	0.00	0.20	0.91	0.00	0.00
4	Improving level of service (Pressure) in Red Cliffs Water Distribution	Improving level of service (Pressure) in Red Cliffs Water Distribution	9.41	1.00	6.00	2.41	0.00	0.00
5	New Swan Hill water treatment plant (Stage 1)	New Swan Hill water treatment plan (Stage 1)	1.00	0.00	0.00	0.00	0.50	0.50
6	Wet Weather Storage for the Koorlong WWTP	Wet Weather Storage for the Koorlong WWTP	6.07	0.00	0.07	1.10	4.90	0.00
7	Koorlong Sewer Rising Main Duplication	Koorlong Sewer Rising Main Duplication	1.50	0.00	0.00	0.00	0.30	1.20
8	Customer CRM, portal Phase 2	Customer CRM, portal Phase 2 (additional process design & NextGen service catalogue Portal	1.78	0.59	0.59	0.59	0.00	0.00
10	Asset Management Platform uplift	Asset Management Improvement - Fixed Asset Implementation & Value Study Initiatives	2.71	0.54	0.54	0.54	0.54	0.54
TOTAL Top 10 Urban			35.50	3.89	8.66	7.31	8.24	7.41

B2.2 Top 10 Projects Urban Component – Alignment to Customer Outcomes

No.	Business Case	Total Project Cost (\$m)	Major Service Category	ESC Cost Driver	Relevant Customer Outcome	Objective	Scope	Justification
1	Purchase of Water	8.09	Urban Water	Growth	Provide customers reliable and safe drinking water	Maintain security of supply to our current and future customers and agreed level of service.	Purchase additional water entitlements to maintain a buffer to secure an appropriate level of water supply through the PS5 period.	Whilst water supply availability is decreasing due to climate change and other factors, water demand is increasing mainly due to population growth. Therefore, sufficient water entitlements are required to maintain security of supply and to support liveability of our communities.
2	Water Mains Upgrade in Mildura	3.83	Urban Water	Growth	Provide customers reliable and safe drinking water	Maintain agreed level of service and to cater for growth.	Upgrading some of the existing water mains in the Mildura Water distribution network.	As demand in Mildura increases due to projected growth some water mains are required to be upgraded to enhance capacity and maintain level of service.
3	New 10ML Treated Water Storage and Pump Station (PS) upgrade at 14th St Mildura (Stage 1)	1.11	Urban Water	Renewals	Provide customers reliable and safe drinking water	Maintain security of supply, agreed level of service and to cater for growth.	The project includes the following works: 1) A new 10 ML storage, 2) Electrical upgrade of the existing PS at 14th Street and 3) Capacity upgrade to the existing PS at 14 Street. The project will be undertaken in stages and the electrical upgrade will be undertaken in PS5 as Stage 1.	Additional storage and pump station capacity enhancement are required to cater for growth. However, these major works have been deferred to PS6. The upgrade of electrical assets at the existing PS has been prioritised to undertake in PS5 due to the condition to minimise the risk of failures and consequent impact on service levels.
4	Improving level of service (Pressure) in Red Cliffs Water Distribution	9.41	Urban Water	Improvements/ compliance	Provide customers reliable and safe drinking water	Maintain agreed level of service and to cater for growth.	The project includes the following works: 1) Replacement of approx. 4.5km of DN375 trunk main, 2) Cliffside Pump Station upgrade and 3) Reconfiguration of the Red Cliffs distribution network.	Low pressure is experienced in parts of the Red Cliffs network and several complaints were received by LMW. Therefore, the Red Cliffs network is required to be upgraded and reconfigured to improve the system pressure. The growth and asset condition are also considered in the proposed upgrade works.
5	New Swan Hill water treatment plant (Stage 1)	1.00	Urban Water	Growth	Provide customers reliable and safe drinking water	Maintain security of supply, agreed level of service and to cater for growth.	Planning, design, and construction of a new WTP. The planning and design works will be undertaken in PS5 as Stage 1.	The existing water treatment plant nominal capacity is forecast to be exceeded due to growth during WP6. Given that significant planning, approval, and design effort is required prior to constructing a water treatment plant, funding has been included within WP5 to allow construction to begin within WP6. A new 20ML/day WTP will significantly reduce the compliance risk of having a single WTP which requires capacity derating during poor raw water quality events.

No.	Business Case	Total Project Cost (\$m)	Major Service Category	ESC Cost Driver	Relevant Customer Outcome	Objective	Scope	Justification
6	Wet Weather Storage for the Koorlong WWTP	6.07	Urban Sewerage	Growth	Service our communities in a socially responsible and environmentally sustainable manner	Meet compliance with EPA's 90th percentile containment requirement and to support growth and sustainable environmental practices.	Construction of a 400ML wet weather storage lagoon for the Koorlong WWTP.	A water balance assessment showed that the existing storages will be inadequate to manage the future inflows and meet the 90th percentile containment requirement.
7	Koorlong Sewer Rising Main Duplication	1.50	Urban Sewerage	Growth	Provide customers reliable sewerage services.	Maintain agreed level of service standards by reducing the frequency of spills to mandated levels and to cater for growth.	Enhance capacity of the trunk rising main that transfer wastewater from the booster pump station at Dow Ave up to the Koorlong WWTP by duplication of Approx. 11km of DN450 main. The planning and design of the rising main will be undertaken in PS5 as Stage 1.	The existing rising main capacity will be inadequate to cater for the projected growth and the anticipated additional flows from Merbein. Therefore, the capacity needs to be increased to avoid spills and reduce risk of spills (i.e., reduction in freeboard to spill) in the upstream sewer network. Additionally, the duplicate pipe will allow flexibility during maintenance or reactive works.
8	Customer CRM, portal Phase 2	1.78	Corporate	Improvements/compliance	Provide Customer Service Avenues that are responsive to resolve requests/enquiries within the agreed KPIs	To achieve personalised services that improves customer experience, including faster response to customer requests, efficient and streamlined service delivery, improved communication, and resolution of customer issues, and improve level of trust with LMW	Customer journey and service modelling, customer service process redesign, continuous uplift of CRM and Customer Portal capabilities (e.g. online payments, outage notification, online requests, additional advanced capabilities), internal and external change management	Increased customer expectation are driving improvement, including need to clarify services provided to customers, improve ability to monitor and measure service requests. improve efficiency of manual and complex processes, resolve system limitations causing inefficiencies and employee frustration, and improve process documentation.
10	Asset Management Platform uplift	2.71	Corporate	Improvements/compliance	Services provide customers value for money. Provide customers reliable and safe drinking water. Provide customers reliable sewerage services	To drive improved, data-driven and integrated asset lifecycle management and robust expenditure planning, including real-time asset data analysis & visualisation, via a single source of truth.	Implement Infor Value Study initiatives to ensure assets and infrastructure are maintained to support water services. Includes centralised asset register, enhanced work management processes to deliver transparency and improved data capture, simplification of capital works management, and asset reporting and dashboards to gain insights with advanced data intelligence.	The current Asset Management platform is not fit for purpose, and 66% of business processes relating to asset management are performed outside of IPS capability (manual processes). There is limited visibility over asset lifecycle management and there are disparate data and inputs without consolidated data structures. Asset management currently relies on significant manual effort, and reporting is manual leading to duplication of data and large inefficiencies.

B2.3 Major Urban Programs – Schedule of Investment

Major Program	Total Program Cost (\$m)	Major Service Category	ESC Cost Driver	Component Programs	2023-24	2024-25	2025-26	2026-27	2027-28
Urban Water Mains Replacement	6.09	Urban Water	Renewals	ALL SITES Main Replacement	0.97	0.97	0.97	0.97	0.97
				ALL SITES PSP Replacement	0.24	0.24	0.24	0.24	0.24
Sewer Mains and Maintenance Structures Replacement/Rehab.	6.09	Sewerage	Renewals	ALL SITES Rehabilitation of Sewers	0.65	1.40	0.30	0.30	0.60
				ALL SITES HSL replacement	0.43	0.43	0.43	0.43	0.43
				ALL SITES manholes rehab	0.14	0.14	0.14	0.14	0.14
Light Motor Vehicle Fleet - annual vehicle replacements	3.58	Corporate	Renewals	Motor vehicles - Water	0.60	0.37	0.29	0.33	0.34
				Motor vehicles - Sewerage	0.51	0.32	0.25	0.28	0.29
Minor capex - Water	3.27	Urban Water	Renewals	ALL SITES Minor Capital Works - Replacement	0.34	0.34	0.34	0.34	0.34
			Improvements	ALL SITES Minor Capital Works - New	0.32	0.32	0.32	0.32	0.32
Minor capex - Sewer	3.80	Sewerage	Renewals	ALL SITES Minor Capital Works - Replacement	0.46	0.46	0.46	0.46	0.46
			Improvements	ALL SITES Minor Capital Works - New	0.30	0.30	0.30	0.30	0.30
ICT equipment	1.82	Corporate	Renewals	Computer Equipment - Urban - Water	0.19	0.22	0.19	0.19	0.20
				Computer Equipment - Urban - Sewerage	0.16	0.18	0.16	0.16	0.17
Heavy Motor Vehicle Fleet - annual vehicle replacements	1.59	Corporate	Renewals	Motor vehicles - Water	0.28	0.31	0.19	0.00	0.07
				Motor vehicles - Sewerage	0.24	0.26	0.17	0.00	0.06
Corporate Facilities and Buildings	2.03	Corporate	Improvements / Compliance	Buildings - Water	0.43	0.20	0.22	0.12	0.11
				Buildings - Sewerage	0.37	0.17	0.19	0.11	0.10
	28.27			TOTAL Major Programs Urban	6.64	6.63	5.16	4.69	5.15

B2.4 Major Urban Programs – Alignment to Customer Outcomes

Major Program	Total Program Cost (\$m)	Major Service Category	ESC Cost Driver	Relevant Customer Outcome	Objective	Scope	Justification
Urban Water Mains Replacement	6.09	Urban Water	Renewals	Provide customers reliable and safe drinking water	Maintain security of supply, agreed level of service and to minimise backlog works and peak funding requirements in the future.	Replacement, rehabilitation, and renewal of water mains and property service pipelines.	Condition and performance of the water distribution networks.
Sewer Mains and Maintenance Structures Replacement/Rehab.	6.09	Sewerage	Renewals	Provide customers reliable sewerage services.	Maintain level of service (e.g.. reduce spills and service interruptions) and to minimise backlog works and peak funding requirements in the future.	Replacement, rehabilitation, and renewal of sewer mains, house service lines, and manholes/maintenance structures.	Condition and performance of the sewer reticulation networks.
Light Motor Vehicle Fleet - annual vehicle replacements	3.58	Corporate	Renewals	All outcomes	Maintain light vehicle fleet to ensure safety and mobility for customer service and service delivery.	Rolling periodic disposal and replacement of light vehicle fleet.	Optimal replacement regime with respect to triple bottom line (social, environmental, economic) objectives.
Minor capex - Water	3.27	Urban Water	Renewals & Improvement	Provide customers reliable and safe drinking water	Maintain agreed level of service and to mitigate service delivery and operational risks.	Replacement, rehabilitation, and renewal of various water supply assets, excluding water mains and auxiliary assets covered in the Mains Renewal Program.	Assets can deteriorate and/or fail due to several known and unknown factors. Minor ongoing or discrete investments necessary to prevent deterioration, improve asset life and mitigate service delivery and operational risks.
Minor capex - Sewer	3.8	Sewerage	Renewals & Improvement	Provide customers reliable sewerage services.	Maintain agreed level of service and to mitigate service delivery and operational risks.	Replacement, rehabilitation, and renewal of various sewerage assets, excluding sewer mains and auxiliary assets covered in the Mains Renewal Program.	Same as above
Total ICT equipment	1.82	Corporate	Renewals	All outcomes	Maintain ICT equipment to ensure reliable and secure ICT services for business operations, customer service and service delivery.	End of life replacement of ICT equipment including servers, network hardware, UPS batteries, firewalls, telecommunications, and business computing devices.	Economic replacement of ICT equipment to maintain reliability, security and service performance at lowest lifecycle cost.
Heavy Motor Vehicle Fleet - annual vehicle replacements	1.59	Corporate	Renewals	All outcomes	Maintain heavy vehicle fleet to ensure safety and functionality for customer service and service delivery.	Rolling periodic disposal and replacement of heavy vehicle fleet.	Optimal replacement regime with respect to triple bottom line (social, environmental, economic) objectives.
Corporate Facilities and Buildings	2.03	Corporate	Improvements / Compliance	All outcomes	Maintain facilities and buildings in a safe, functional, secure and compliant manner.	Minor interior and exterior building and facility replacements and improvements.	Building and facility improvements arising from safety and amenity inspections, accommodation reviews, etc.

Appendix B3 – Miscellaneous Charges

LOWER MURRAY WATER MISCELLANEOUS CHARGES

<i>Tariff and Price Component 1/1/23 (Indicative only)</i>	<i>Unit</i>	<i>2022-23</i>	<i>2023-24</i>	<i>2024-25</i>	<i>2025-26</i>	<i>2026-27</i>	<i>2027-2</i>
URBAN							
Trade Waste							
Miscellaneous Minor Trade Waste Flow Charge	kL	\$0.9318	\$0.9597	\$0.9597	\$0.9597	\$0.9597	\$0.9597
Septic Tank Effluent Disposal	kL	\$6.59	\$6.00	\$6.00	\$6.00	\$6.00	\$6.00
Trade Waste Establishment Fees	ML	\$4,664.00	\$4,803.92	\$4,803.92	\$4,803.92	\$4,803.92	\$4,803.92
Maintenance Fee	ML	\$141.97	\$146.22	\$146.22	\$146.22	\$146.22	\$146.22
MISCELLANEOUS CHARGES							
Urban							
Subdivision Processing Fee - Water/Sewerage	Lot	\$20.00	\$20.60	\$20.60	\$20.60	\$20.60	\$20.60
Subdivision Processing Fee – Overall	Lot	\$42.20	\$43.46	\$43.46	\$43.46	\$43.46	\$43.46
Developer Design & Construct - Water							
Initial Fee	Cust	2% of Estimated actual cost	2% of Estimated actual cost	2% of Estimated actual cost	2% of Estimated actual cost	2% of Estimated actual cost	2% of Estimated actual cost
Administrative/Review Charge	Cust	4% of Estimated actual cost	4% of Estimated actual cost	4% of Estimated actual cost	4% of Estimated actual cost	4% of Estimated actual cost	4% of Estimated actual cost
Developer Processing and Investigation Fee	Cust	\$350.00	\$350.00	\$350.00	\$350.00	\$350.00	\$350.00
Maintenance Security (Refundable if criteria meet)	Cust	5% of Estimated actual cost	5% of Estimated actual cost	5% of Estimated actual cost	5% of Estimated actual cost	5% of Estimated actual cost	5% of Estimated actual cost
Developer Design & Construct - Wastewater							
Initial Fee	Cust	2% of Estimated actual cost	2% of Estimated actual cost	2% of Estimated actual cost	2% of Estimated actual cost	2% of Estimated actual cost	2% of Estimated actual cost
Administrative/Review Charge	Cust	4% of Estimated actual cost	4% of Estimated actual cost	4% of Estimated actual cost	4% of Estimated actual cost	4% of Estimated actual cost	4% of Estimated actual cost
Developer Processing and Investigation Fee	Cust	\$350.00	\$350.00	\$350.00	\$350.00	\$350.00	\$350.00
Maintenance Security (Refundable if criteria meet)	Cust	5% of Estimated actual cost	5% of Estimated actual cost	5% of Estimated actual cost	5% of Estimated actual cost	5% of Estimated actual cost	5% of Estimated actual cost

**LOWER MURRAY WATER
MISCELLANEOUS CHARGES**

<i>Tariff and Price Component 1/1/23 (Indicative only)</i>	<i>Unit</i>	<i>2022-23</i>	<i>2023-24</i>	<i>2024-25</i>	<i>2025-26</i>	<i>2026-27</i>	<i>2027-28</i>
Property Services							
Sanitary Drainage Plans and/or Block Plans							
Supplied/As constructed Lodged to/by Plumber		\$42.50	\$43.70	\$43.70	\$43.70	\$43.70	\$43.70
Supplied to someone other than a Plumber	Plan	\$42.50	\$43.70	\$43.70	\$43.70	\$43.70	\$43.70
Shut Off Fee	Cust	\$113.60	\$117.00	\$117.00	\$117.00	\$117.00	\$117.00
Plug Off	Cust	\$213.00	\$219.30	\$219.30	\$219.30	\$219.30	\$219.30
Tappings 20 mm Meter	Tapping	\$426.50	\$439.20	\$439.20	\$439.20	\$439.20	\$439.20
Tappings 25 mm Meter	Tapping	\$639.70	\$658.80	\$658.80	\$658.80	\$658.80	\$658.80
Tappings 32 mm Meter	Tapping	\$1,137.30	\$1,171.40	\$1,171.40	\$1,171.40	\$1,171.40	\$1,171.40
Tappings 40 mm Meter	Tapping	\$1,279.60	\$1,317.90	\$1,317.90	\$1,317.90	\$1,317.90	\$1,317.90
Tappings 50 mm Meter	Tapping	\$1,635.00	\$1,684.00	\$1,684.00	\$1,684.00	\$1,684.00	\$1,684.00
Tappings 100 mm Meter	Tapping	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost
Tappings 150 mm Meter	Tapping	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost
Inspection Fee (additional to tapping fee)	Inspection	\$71.00	\$73.10	\$73.10	\$73.10	\$73.10	\$73.10
Tappings over 50 mm	Tapping	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost
Relocation Fee 20 mm Service	Relocation	\$426.50	\$439.20	\$439.20	\$439.20	\$439.20	\$439.20
Restrictors	Restrictor	\$21.40	\$22.00	\$22.00	\$22.00	\$22.00	\$22.00
Meter Price 20 mm	Meter	\$81.90	\$84.30	\$84.30	\$84.30	\$84.30	\$84.30
Meter Price 25 mm	Meter	\$175.10	\$180.30	\$180.30	\$180.30	\$180.30	\$180.30
Meter Price 32 mm	Meter	\$370.10	\$381.20	\$381.20	\$381.20	\$381.20	\$381.20
Meter Price 40 mm	Meter	\$492.70	\$507.40	\$507.40	\$507.40	\$507.40	\$507.40
Meter Price 50 mm	Meter	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost
Meter Price 80 mm	Meter	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost
Meter Price 100 mm	Meter	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost
Meter Price 150 mm	Meter	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost
Meter Price 20 mm Remote Meter - Radio Component Only	Meter	\$163.80	\$168.70	\$168.70	\$168.70	\$168.70	\$168.70
Meter Price 20 mm - New digital remote read meter	Meter	\$196.70	\$202.60	\$202.60	\$202.60	\$202.60	\$202.60
Meter Price 25 mm - New digital remote read meter	Meter	\$283.70	\$292.20	\$292.20	\$292.20	\$292.20	\$292.20
Cost of 20 mm Meter for tenement	Meter	\$81.90	\$84.30	\$84.30	\$84.30	\$84.30	\$84.30
Test Fee	Test	\$99.00	\$101.90	\$101.90	\$101.90	\$101.90	\$101.90
Special Meter Read	Read	\$49.05	\$50.50	\$50.50	\$50.50	\$50.50	\$50.50
New Connection Standard Residential	Connection	\$156.20	\$160.80	\$160.80	\$160.80	\$160.80	\$160.80
New Connection Non Standard Residential	Connection	\$213.20	\$219.50	\$219.50	\$219.50	\$219.50	\$219.50
New Connection Small Industrial/Commercial	Connection	\$213.20	\$219.50	\$219.50	\$219.50	\$219.50	\$219.50
New Connection Large Industrial/Commercial	Connection	\$426.50	\$439.20	\$439.20	\$439.20	\$439.20	\$439.20
As Constructed lodged by Plumber	Cust	\$42.50	\$43.70	\$43.70	\$43.70	\$43.70	\$43.70
Alteration to as constructed plan	Cust	\$42.50	\$43.70	\$43.70	\$43.70	\$43.70	\$43.70
Septic Tank Inside Sewerage District	Cust	\$142.00	\$146.20	\$146.20	\$146.20	\$146.20	\$146.20
Alteration or Extension to Domestic/Com/Ind	Cust	\$142.00	\$146.20	\$146.20	\$146.20	\$146.20	\$146.20
Backflow Prevention Annual Fee for Agreement Renewal	pa	\$56.70	\$58.40	\$58.40	\$58.40	\$58.40	\$58.40
Backflow Prevention Device - Application Assessment Fee	App	\$170.40	\$175.50	\$175.50	\$175.50	\$175.50	\$175.50
Building Over Agreement	Cust	\$198.90	\$204.80	\$204.80	\$204.80	\$204.80	\$204.80
Sewer Cut Ins (150mm x 100mm Junction into 150mm sewer main)	Cut In	\$1,576.00	\$1,623.20	\$1,623.20	\$1,623.20	\$1,623.20	\$1,623.20
Sewer Core Bore (100mm core bore into access chamber)	per Bore	\$2,207.00	\$2,273.20	\$2,273.20	\$2,273.20	\$2,273.20	\$2,273.20
<i>Sewer Grinder Pump Connections</i>							
Road Crossing	Per Meter	\$332.00	\$341.90	\$341.90	\$341.90	\$341.90	\$341.90
Short Connection (same side of road)	Per Meter	\$272.00	\$280.10	\$280.10	\$280.10	\$280.10	\$280.10
or Minimum 5M to be used	Per Meter	\$1,361.00	\$1,401.80	\$1,401.80	\$1,401.80	\$1,401.80	\$1,401.80

**LOWER MURRAY WATER
MISCELLANEOUS CHARGES**

<i>Tariff and Price Component 1/1/23 (Indicative only)</i>	<i>Unit</i>	<i>2022-23</i>	<i>2023-24</i>	<i>2024-25</i>	<i>2025-26</i>	<i>2026-27</i>	<i>2027-28</i>
Fire Services							
Fire Service Tapping 25 mm 100 Dia AC Pipe	Cust	\$337.00	\$347.10	\$347.10	\$347.10	\$347.10	\$347.10
Fire Service Tapping 32 mm 100 Dia AC Pipe	Cust	\$442.30	\$455.50	\$455.50	\$455.50	\$455.50	\$455.50
Fire Service Tapping 40 mm 100 Dia AC Pipe	Cust	\$507.80	\$523.00	\$523.00	\$523.00	\$523.00	\$523.00
Fire Service Tapping 50 mm 100 Dia AC Pipe	Cust	\$817.20	\$841.70	\$841.70	\$841.70	\$841.70	\$841.70
Fire Service Tapping 80 mm 100 Dia AC Pipe	Cust	\$1,520.20	\$1,565.80	\$1,565.80	\$1,565.80	\$1,565.80	\$1,565.80
Fire Service Tapping 100 mm 100 Dia AC Pipe	Cust	\$1,572.20	\$1,619.30	\$1,619.30	\$1,619.30	\$1,619.30	\$1,619.30
Fire Service Tapping 25 mm 150 Dia AC Pipe	Cust	\$343.60	\$353.90	\$353.90	\$353.90	\$353.90	\$353.90
Fire Service Tapping 32 mm 150 Dia AC Pipe	Cust	\$454.50	\$468.10	\$468.10	\$468.10	\$468.10	\$468.10
Fire Service Tapping 40 mm 150 Dia AC Pipe	Cust	\$512.20	\$527.50	\$527.50	\$527.50	\$527.50	\$527.50
Fire Service Tapping 50 mm 150 Dia AC Pipe	Cust	\$831.60	\$856.50	\$856.50	\$856.50	\$856.50	\$856.50
Fire Service Tapping 80 mm 150 Dia AC Pipe	Cust	\$1,691.00	\$1,741.70	\$1,741.70	\$1,741.70	\$1,741.70	\$1,741.70
Fire Service Tapping 100 mm 150 Dia AC Pipe	Cust	\$1,737.50	\$1,789.60	\$1,789.60	\$1,789.60	\$1,789.60	\$1,789.60
Fire Service Tapping 150 mm 150 Dia AC Pipe	Cust	\$2,089.80	\$2,152.40	\$2,152.40	\$2,152.40	\$2,152.40	\$2,152.40
Fire Service Tapping 25 mm 100 Dia UPVC Pipe	Cust	\$337.00	\$347.10	\$347.10	\$347.10	\$347.10	\$347.10
Fire Service Tapping 32 mm 100 Dia UPVC Pipe	Cust	\$442.30	\$455.50	\$455.50	\$455.50	\$455.50	\$455.50
Fire Service Tapping 40 mm 100 Dia UPVC Pipe	Cust	\$507.80	\$523.00	\$523.00	\$523.00	\$523.00	\$523.00
Fire Service Tapping 50 mm 100 Dia UPVC Pipe	Cust	\$817.20	\$841.70	\$841.70	\$841.70	\$841.70	\$841.70
Fire Service Tapping 80 mm 100 Dia UPVC Pipe	Cust	\$1,644.40	\$1,693.70	\$1,693.70	\$1,693.70	\$1,693.70	\$1,693.70
Fire Service Tapping 100 mm 100 Dia UPVC Pipe	Cust	\$1,704.30	\$1,755.40	\$1,755.40	\$1,755.40	\$1,755.40	\$1,755.40
Fire Service Tapping 25 mm 150 Dia UPVC Pipe	Cust	\$343.60	\$353.90	\$353.90	\$353.90	\$353.90	\$353.90
Fire Service Tapping 32 mm 150 Dia UPVC Pipe	Cust	\$454.50	\$468.10	\$468.10	\$468.10	\$468.10	\$468.10
Fire Service Tapping 40 mm 150 Dia UPVC Pipe	Cust	\$512.20	\$527.50	\$527.50	\$527.50	\$527.50	\$527.50
Fire Service Tapping 50 mm 150 Dia UPVC Pipe	Cust	\$831.60	\$856.50	\$856.50	\$856.50	\$856.50	\$856.50
Fire Service Tapping 80 mm 150 Dia UPVC Pipe	Cust	\$1,691.00	\$1,741.70	\$1,741.70	\$1,741.70	\$1,741.70	\$1,741.70
Fire Service Tapping 100 mm 150 Dia UPVC Pipe	Cust	\$1,730.90	\$1,782.80	\$1,782.80	\$1,782.80	\$1,782.80	\$1,782.80
Fire Service Tapping 150 mm 150 Dia UPVC Pipe	Cust	\$2,089.80	\$2,152.40	\$2,152.40	\$2,152.40	\$2,152.40	\$2,152.40
Fire Service Tapping Inspection Fee	Cust	\$71.00	\$73.10	\$73.10	\$73.10	\$73.10	\$73.10
Fire Service Information Fee (Pressure and Flow)	Cust	\$299.80	\$308.70	\$308.70	\$308.70	\$308.70	\$308.70
Fire Service Illegal Use Re-Sealing Fee 1st Reseal	Cust	\$122.60	\$126.20	\$126.20	\$126.20	\$126.20	\$126.20
Fire Service Illegal Use Re-Sealing Fee 2nd Reseal	Cust	\$183.90	\$189.40	\$189.40	\$189.40	\$189.40	\$189.40
Fire Service Illegal Use Re-Sealing Fee 3rd Reseal	Cust	\$244.40	\$251.70	\$251.70	\$251.70	\$251.70	\$251.70
Fire Service Illegal Use Re-Sealing Fee 4th Reseal	Cust	\$368.00	\$379.00	\$379.00	\$379.00	\$379.00	\$379.00
Fire Service Illegal Use Re-Sealing Fee 5th & Sub Reseal	Cust	\$613.10	\$631.40	\$631.40	\$631.40	\$631.40	\$631.40

**LOWER MURRAY WATER
MISCELLANEOUS CHARGES**

<i>Tariff and Price Component 1/1/23 (Indicative only)</i>	<i>Unit</i>	<i>2022-23</i>	<i>2023-24</i>	<i>2024-25</i>	<i>2025-26</i>	<i>2026-27</i>	<i>2027-28</i>
Portable Metered Hydrants							
Casual Use 25 mm Hydrant Administration Charge	Cust	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00
Casual Use 25 mm Hydrant Deposit	Cust	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00
Casual Use 25 mm Hydrant Daily Charge	Per day	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00
Casual Use 25 mm Hydrant Volume Charge	kl	\$0.8515	\$0.8545	\$0.8576	\$0.8607	\$0.8637	\$0.8668
Casual Use 50 mm Hydrant Administration Charge							
Casual Use 50 mm Hydrant Administration Charge	Cust	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00
Casual Use 50 mm Hydrant Deposit	Cust	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00
Casual Use 50 mm Hydrant Daily Charge	Per day	\$7.00	\$7.00	\$7.00	\$7.00	\$7.00	\$7.00
Casual Use 50 mm Hydrant Volume Charge	kl	\$0.8515	\$0.8545	\$0.8576	\$0.8607	\$0.8637	\$0.8668
Permanent Use 25 mm Hydrant Establishment Charge							
Permanent Use 25 mm Hydrant Establishment Charge	Cust	\$454.00	\$454.00	\$454.00	\$454.00	\$454.00	\$454.00
Permanent Use 25 mm Hydrant Yearly Charge	Per year	\$172.00	\$172.00	\$172.00	\$172.00	\$172.00	\$172.00
Permanent Use 25 mm Hydrant Volume Charge	kl	\$0.8515	\$0.8545	\$0.8576	\$0.8607	\$0.8637	\$0.8668
Permanent Use 50 mm Hydrant Establishment Charge							
Permanent Use 50 mm Hydrant Establishment Charge	Cust	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,500.00
Permanent Use 50 mm Hydrant Yearly Charge	Per year	\$688.00	\$688.00	\$688.00	\$688.00	\$688.00	\$688.00
Permanent Use 50 mm Hydrant Volume Charge	kl	\$0.8515	\$0.8545	\$0.8576	\$0.8607	\$0.8637	\$0.8668
Standpipe Charges							
Truck Tanker Load	Load	\$11.60	\$11.90	\$11.90	\$11.90	\$11.90	\$11.90
Spray Vat or Equivalent	Load	\$5.65	\$5.80	\$5.80	\$5.80	\$5.80	\$5.80
Service Availability Charges							
Unmetered Property Charge	Property	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00
Fire Service Availability Charge	Cust	\$196.00	\$201.80	\$201.80	\$201.80	\$201.80	\$201.80
Information Statement Fee							
Information Statement Fee (Includes one (1) meter reading)	Statement	\$98.10	\$101.00 19.5% 0.6% 0.6%	\$101.00	\$101.00	\$101.00	\$101.00
New Customer Contributions							
Water - All Districts - Lot <= 750 sqm	Lot	\$2,075.70	\$2,481.50	\$2,481.50	\$2,481.50	\$2,481.50	\$2,481.50
Water - All Districts - Lot > 750 sqm	Lot	\$4,151.50	\$4,963.00	\$4,963.00	\$4,963.00	\$4,963.00	\$4,963.00
Sewer - All Districts - Lot <= 750 sqm	Lot	\$1,419.50	\$1,428.50	\$1,428.50	\$1,428.50	\$1,428.50	\$1,428.50
Sewer - All Districts - Lot > 750 sqm	Lot	\$2,839.10	\$2,857.00	\$2,857.00	\$2,857.00	\$2,857.00	\$2,857.00
Other Charges							
Final Notice Fee	Notice	\$6.45	\$6.64	\$6.64	\$6.64	\$6.64	\$6.64
Merchant Fee (for payments over \$1,000)	Cust	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost
Hireworks	Cust	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost
Tender Document Charge	Tender	\$144.65	\$148.98	\$148.98	\$148.98	\$148.98	\$148.98
Debt collection fees passed on to customers	Cust	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost
Dishonoured Cheque Fees	Cust	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost
Fire Plug Maintenance	Cust	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost
Water taken through a check meter	kl	\$1.72	\$1.77	\$1.77	\$1.77	\$1.77	\$1.77

**LOWER MURRAY WATER
MISCELLANEOUS CHARGES**

<i>Tariff and Price Component 1/1/23 (Indicative only)</i>	<i>Unit</i>	<i>2022-23</i>	<i>2023-24</i>	<i>2024-25</i>	<i>2025-26</i>	<i>2026-27</i>	<i>2027-28</i>
Property Services							
Measure & Draw (GST excl)	Cust	\$98.10	\$101.00	\$101.00	\$101.00	\$101.00	\$101.00
NON PRESCRIBED CHARGES							
Mulch (Non Prescribed)							
Mulch	per m3	\$42.20	\$42.20	\$42.20	\$42.20	\$42.20	\$42.20
Mulch Delivery Fee within boundary	Per Load	\$21.30	\$21.30	\$21.30	\$21.30	\$21.30	\$21.30
Mulch Delivery Fee outside boundary	Per Load	\$28.30	\$28.30	\$28.30	\$28.30	\$28.30	\$28.30
Antenna Site Charges (Non Prescribed)							
Access for Intermittent Use (GST excl)	per antenna	\$352.00	\$362.50	\$362.50	\$362.50	\$362.50	\$362.50
Volunteer & Community Organisations (GST excl)	per antenna	\$741.70	\$763.90	\$763.90	\$763.90	\$763.90	\$763.90
Organisations receiving at least some State Gvt Fund (GST excl)	per antenna	\$777.90	\$801.20	\$801.20	\$801.20	\$801.20	\$801.20
Commercial Organisation (GST excl)	per antenna	\$2,226.40	\$2,293.10	\$2,293.10	\$2,293.10	\$2,293.10	\$2,293.10
Water Quality Testing on Developer Constructed Pipeline							
LMW Testing of Water Quality on Newly Commissioned Developer Constructed Pipelines	per Test	\$315.10	\$324.50	\$324.50	\$324.50	\$324.50	\$324.50

PART C – RURAL APPENDICES

Appendix C1 - Rural Demand Forecast

C1.1 Pumped Irrigation

Table C1.1 shows the forecast for the fifth regulatory period.

District	Current	Fifth Regulatory Period				
	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Mildura	31,425	31,425	31,425	31,425	31,425	31,425
Mildura HPS	3,509	3,509	3,509	3,509	3,509	3,509
Merbein	18,978	19,621	20,211	20,781	21,039	21,323
Red Cliffs	34,858	35,543	35,990	38,620	39,655	40,793
Robinvale	19,934	19,934	19,934	19,934	19,934	19,934
Total	108,704	110,032	111,069	114,269	115,562	116,984

Table C1.1: Pumped Irrigation Forecast Volumes Summary– ML pa

C1.2 Stock and Domestic Supplies

No significant changes are anticipated in net stock and domestic supplies. Table C1.2 indicates the volumes charged as usage for the Millewa stock and domestic regions. The forecasts for 2022-23 onwards are based on the most recent (2021-22) actual data available.

District	Current	Fourth Regulatory Period				
	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Millewa Urban	46	46	46	46	46	46
Millewa Rural	816	816	816	816	816	816

Table C1.2: Stock and Domestic Volumes (kl pa)

C1.3 Forecast of Delivery Share

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

C1.3.1 Delivery Share Charged for Water

Delivery shares for Merbein, Red Cliffs and Robinvale were calculated on the 1 July 2006 Water Right. Mildura delivery shares are based on the irrigable size of the land (in hectares).

Table C1.3.1 shows expected future delivery shares for the irrigation districts. A nominal decline is forecast for Mildura and Mildura HPS due to urban encroachment on the irrigation area and retirement of some holdings. Nominal increases are forecast for Merbein and Red Cliffs while Robinvale is fully occupied.

District	Current	Fifth Regulatory Period				
	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Mildura	7,246	7,241	7,236	7,231	7,226	7,221
Merbein	4,442	4,447	4,452	4,457	4,462	4,467
Red Cliffs	7,119	7,126	7,133	7,140	7,147	7,154
Robinvale	2,610	2,610	2,610	2,610	2,610	2,610
Mildura HPS	690	685	680	675	670	665

Table C1.3.1 - Delivery Share Forecast – Irrigation Districts (ML pa)

C1.3.2 Delivery Share Charged for Drainage

Drainage charges are based on delivery share also, but with four divisional charges. Table C1.3.2 sets out the past, current and forecast delivery shares used as the basis for the drainage charges. As drainage services are dependent on the irrigation demand in the pumped districts, forecast delivery share is closely related to the pattern of irrigation delivery share, and are assumed to remain constant through the regulatory period.

District/Division	Current	Fourth Regulatory Period				
	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Mildura						
Division 1 water rights	6,127	6,117	6,107	6,097	6,087	6,077
Merbein						
Division 1	3,047	3,052	3,057	3,062	3,067	3,072
Division 2	-	-	-	-	-	-
Division 3	-	-	-	-	-	-
Division 4	67	67	67	67	67	67
Red Cliffs						
Division 1	4,318	4,325	4,332	4,339	4,346	4,353
Division 2	10	10	10	10	10	10
Division 3	-	-	-	-	-	-
Division 4	420	420	420	420	420	420
Robinvale						
Division 1	2,560	2,560	2,560	2,560	2,560	2,560
Division 2	-	-	-	-	-	-
Division 3	-	-	-	-	-	-
Division 4	-	-	-	-	-	-

Table C1.3.2 - Water Rights and AULs (For drainage) (ML pa)

C1.3.3 Diversions

Charges to diverters are based on per ML of water shares held in Victorian Water Register and ML per annual use limit.

Water delivered is expected to progressively increase over the period due to continued development of out-of-district irrigation. Table C1.3.3a shows the quantity expected to be delivered to diverters, on which the operational fee is levied.

	Current	Fourth Regulatory Period				
	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Annual Use Limit	682,770	702,216	708,759	715,106	719,570	720,605

Table C1.3.3a - Water Delivered (ML pa)

Table C1.3.3b shows the number of Annual Stock and Domestic Permits.

	Current	Fifth Regulatory Period				
	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Licensed Number	320	321	321	321	321	321

Table C1.3.3b - Annual Permits (Diverters) (ML pa)

C1.3.4 Other Elements of the Charging Base

Table C1.3.4 sets out past actuals and forecasts of the other elements of the charging base.

The number of unmetered properties in the irrigation districts is reduced to low levels with the completion of the garden metering program. The number of diverters and the number of off-takes in Millewa are assumed to remain the same over the review period.

District/Type	Current	Fifth Regulatory Period				
	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Number of Properties						
Mildura - total properties	1,914	1,914	1,914	1,914	1,914	1,914
Merbein - unmetered	19	19	19	19	19	19
Merbein - total properties	825	825	825	825	825	825
Red Cliffs - unmetered	5	5	5	5	5	5
Red Cliffs - total properties	1,328	1,328	1,328	1,328	1,328	1,328
Robinvale - unmetered	0	0	0	0	0	0
Robinvale - total properties	353	353	353	353	353	353
Diverters	1,214	1,214	1,214	1,214	1,214	1,214
D&S customers	12	12	12	12	12	12
Millewa - no of rural connections	189	189	189	189	189	189
Millewa - no of houses	97	97	97	97	97	97
Millewa - no of urban – offtake	82	82	82	82	82	82
Millewa - no of urban - no offtake	15	15	15	15	15	15
Hectares						
Millewa - Hectares scrub	8,763	8,763	8,763	8,763	8,763	8,763
Millewa - Hectares stock	221,202	221,202	221,202	221,202	221,202	221,202
WWD Hectares - div 1	0	0	0	0	0	0
WWD Hectares - div 2	0	0	0	0	0	0
WWD Hectares - div 3	0	0	0	0	0	0

Table C1.3.4 - Properties and Hectares

Appendix C2 - Rural Capital Program

Project/program Name	Service	Major cost driver	2023-24	2024-25	2025-26	2026-27	2027-28	TOTAL
Top 10 Projects - Rural component only								
ROB - Decommission selected section of redundant channel (rubbish dumping /ongoing opex)	Irrigation	Improvements / Compliance	0.15	0.00	0.00	0.22	0.63	1.00
ROB - Decommission and seal the old suction	Irrigation	Improvements / Compliance	0.00	0.00	0.00	0.15	0.00	0.15
ROB - Decommission the old PS (main and relift) and rising main	Irrigation	Improvements / Compliance	0.00	0.00	0.00	0.22	0.78	1.00
BTS: Customer CRM, Portal Phase 2	Irrigation	Improvements / Compliance	0.17	0.17	0.17	0.00	0.00	0.50
BTS: INFOR Asset Management	Irrigation	Improvements / Compliance	0.15	0.15	0.15	0.15	0.15	0.77
Ongoing capital programs								
LMW Control Network Systems - Rural OT Firewall Install	Irrigation	Renewals	0.16	0.00	0.00	0.00	0.00	0.16
MER Minor Capital - New	Irrigation	Improvements / Compliance	0.10	0.10	0.10	0.10	0.10	0.48
MER Minor Capital - Replacement	Irrigation	Renewals	0.11	0.11	0.11	0.11	0.11	0.56
MDA Minor Capital - New	Irrigation	Improvements / Compliance	0.13	0.13	0.13	0.13	0.13	0.67
MDA Minor Capital - Replacement	Irrigation	Renewals	0.22	0.22	0.22	0.22	0.22	1.11
MILL Minor Capital - New	Domestic and stock	Improvements / Compliance	0.01	0.01	0.01	0.01	0.01	0.07
MILL Minor Capital - Replacement	Domestic and stock	Renewals	0.06	0.06	0.06	0.06	0.06	0.28
RC Minor Capital - New	Irrigation	Improvements / Compliance	0.11	0.11	0.11	0.11	0.11	0.56
RC Minor Capital - Replacement	Irrigation	Renewals	0.21	0.21	0.21	0.21	0.21	1.06
ROB Minor Capital - New	Irrigation	Improvements / Compliance	0.04	0.04	0.04	0.04	0.04	0.21
ROB Minor Capital - Replacement	Irrigation	Renewals	0.06	0.06	0.06	0.06	0.06	0.32
Pumps - Irrigation								
MER - WARGAN RELIFT PUMP STATION - Telemetry Renewal	Irrigation	Improvements / Compliance	0.00	0.00	0.00	0.09	0.00	0.09
MER - Main PS (M1 - M4) VSD Refurb	Irrigation	Renewals	0.00	0.36	0.36	0.00	0.00	0.72
MDA - MILDURA 17TH ST HIGH PRESSURE PUMP STATION - Control Systems Renewal	Irrigation	Renewals	0.10	0.22	0.00	0.00	0.00	0.32
MDA - BENETOOK PRESSURE PUMP STATION - Radio Telemetry Renewal	Irrigation	Renewals	0.00	0.00	0.06	0.00	0.00	0.06

Project/program Name	Service	Major cost driver	2023-24	2024-25	2025-26	2026-27	2027-28	TOTAL
MDA - Low flow Pumps -17th St HP Relift PS	Irrigation	Improvements / Compliance	0.00	0.00	0.05	0.50	0.00	0.55
MDA - Mid Area VSD replacement (9 VSDs)	Irrigation	Renewals	0.00	0.00	0.00	0.20	0.32	0.52
MDA - VSD Replacement - Central PS	Irrigation	Renewals	0.00	0.00	0.00	0.36	0.36	0.72
MDA - CP- central PS and rising main	Irrigation	Renewals	0.00	0.20	0.20	0.00	0.00	0.40
MILL - Millewa Replace River Pump Station	Irrigation	Growth	7.00	0.00	0.00	0.00	0.00	7.00
RC - Pump refurbishment RC main irrigation PS (Pump 1 and pump 2)	Irrigation	Renewals	0.00	0.05	0.25	0.20	0.00	0.50
RC - Pillars pressure pit remediation and insert 3 x isolation valves	Irrigation	Improvements / Compliance	0.33	0.27	0.00	0.00	0.00	0.60
RC - Minor VSD Replacement (Relift A, B & C)	Irrigation	Renewals	0.00	0.00	0.00	0.30	0.31	0.61
RC - Main PS Danfoss VSD Refurbishment	Irrigation	Renewals	0.36	0.36	0.00	0.00	0.00	0.72
ROB - ROBINVALE HIGH PRESSURE PUMP STATION - SCADA & Control Systems Renewal	Irrigation	Renewals	0.00	0.00	0.22	0.44	0.00	0.66
Pumps - Drainage								
MER - Drainage PS Switchboards Replacement	Drainage	Renewals	0.03	0.04	0.00	0.00	0.00	0.07
MER Drainage Pumps	Drainage	Renewals	0.00	0.02	0.00	0.00	0.00	0.02
MDA - Drainage PS Switchboard Replacement	Drainage	Renewals	0.14	0.20	0.00	0.00	0.00	0.34
MDA Drainage Pumps	Drainage	Renewals	0.02	0.02	0.02	0.02	0.02	0.11
RC - Drainage PS Switchboards Replacement	Drainage	Renewals	0.05	0.09	0.00	0.00	0.00	0.14
RC Drainage Pumps	Drainage	Renewals	0.00	0.02	0.00	0.02	0.00	0.03
ROB Replace Drainage Pumps	Drainage	Renewals	0.00	0.00	0.00	0.03	0.00	0.03
Reticulation - Irrigation								
MER D&S Metering Program	Irrigation	Renewals	0.01	0.01	0.01	0.01	0.01	0.04
MER Irrigation Meter Replacement	Irrigation	Renewals	0.11	0.11	0.11	0.11	0.11	0.53
MER - Meridian Road Bridge (Drainage)- replace existing pipe/ headwall (New section: 500 DN PE 70 m section)	Irrigation	Improvements / Compliance	0.03	0.08	0.00	0.00	0.00	0.11
MER - Channel Reserve Reinstatement (selected sections)	Irrigation	Improvements / Compliance	0.00	0.00	0.10	0.00	0.00	0.10
MER - Mains Replacement and upgrade Tight Spurs Program	Irrigation	Renewals	0.16	0.25	0.25	0.26	0.18	1.11
MER - Isolation, Scour & Air Valve Program	Irrigation	Improvements / Compliance	0.30	0.10	0.00	0.30	0.14	0.84
MER - Pipeline Extension of Merbein Termination Structure	Irrigation	Improvements / Compliance	0.00	0.00	0.00	0.26	0.29	0.55
MER - Improve safety and accessibility to the clusters	Irrigation	Improvements / Compliance	0.13	0.00	0.00	0.00	0.00	0.13
MER - MERBEIN RURAL (IP) RADIO TELEMETRY NETWORK - Base Station Renewal	Irrigation	Improvements / Compliance	0.42	0.00	0.00	0.00	0.00	0.42
MDA D & S Metering Program	Irrigation	Renewals	0.02	0.02	0.02	0.02	0.02	0.10
MDA Irrigation Meter Replacement	Irrigation	Renewals	0.28	0.28	0.28	0.28	0.28	1.38

Project/program Name	Service	Major cost driver	2023-24	2024-25	2025-26	2026-27	2027-28	TOTAL
MDA Channel Reserve Reinstatement (selected sections)	Irrigation	Improvements / Compliance	0.00	0.09	0.00	0.06	0.00	0.15
MDA Pipe culverts repair	Irrigation	Improvements / Compliance	0.00	0.17	0.16	0.06	0.00	0.39
MDA Dow Avenue bridge replacement and siphon/ pipes installation	Irrigation	Improvements / Compliance	0.00	0.00	0.00	0.05	0.30	0.35
MDA - Mains Replacement and upgrade tight spurs Program	Irrigation	Renewals	0.29	0.50	0.60	0.53	0.24	2.17
MDA - Isolation, Scour & Air Valve Program	Irrigation	Improvements / Compliance	0.15	0.05	0.00	0.15	0.07	0.42
MDA - MILDURA RURAL (IP) RADIO TELEMETRY NETWORK - Base Station Renewal	Irrigation	Renewals	0.07	0.00	0.00	0.00	0.00	0.07
MILL - MILLEWA RURAL (IP) RADIO TELEMETRY NETWORK - SCADA & Control Systems Renewal	Domestic and stock	Renewals	0.00	0.00	0.20	0.70	0.00	0.90
PD D&S Metering Program	Surface diversions	Renewals	0.02	0.02	0.02	0.02	0.02	0.11
PD Metering Program	Surface diversions	Renewals	0.42	0.42	0.42	0.42	0.42	2.11
PD - Air valve Replacement	Surface diversions	Improvements / Compliance	0.05	0.05	0.05	0.05	0.05	0.27
RC D&S Metering Program	Irrigation	Renewals	0.01	0.01	0.01	0.01	0.01	0.04
RC Irrigation Meter Replacement	Irrigation	Renewals	0.21	0.21	0.21	0.21	0.21	1.06
RC - Channel Reserve Reinstatement (selected sections)	Irrigation	Improvements / Compliance	0.00	0.00	0.50	0.00	0.00	0.50
RC - Mains Replacement and upgrade Tight Spurs Program	Irrigation	Renewals	0.13	0.18	0.18	0.17	0.10	0.76
RC - Isolation, Scour & Air Valve Program	Irrigation	Improvements / Compliance	0.17	0.06	0.00	0.17	0.04	0.43
RC - Drainage design/ Overflow management from the system tank for the PS	Irrigation	Improvements / Compliance	0.01	0.30	0.00	0.00	0.00	0.30
RC - RED CLIFFS RURAL (IP) RADIO TELEMETRY NETWORK - Base Station Renewal	Irrigation	Renewals	0.46	0.00	0.00	0.00	0.00	0.46
RC - Improve safety and accessibility to the clusters	Irrigation	Improvements / Compliance	0.13	0.00	0.00	0.00	0.00	0.13
ROB D&S Metering Program	Irrigation	Renewals	0.01	0.01	0.01	0.01	0.01	0.04
ROB Irrigation Meter Replacement	Irrigation	Renewals	0.08	0.08	0.08	0.08	0.08	0.42
ROB - Control cards for 3 VSDs (Pumps 2,3, 4)	Irrigation	Renewals	0.00	0.00	0.18	0.00	0.00	0.18
ROB - Bermad valve replacement program for WP5	Irrigation	Renewals	0.04	0.04	0.04	0.04	0.04	0.20
ROB - Program to install bypass/ sluice valves in reticulation	Irrigation	Improvements / Compliance	0.00	0.00	0.00	0.36	0.35	0.71
Reticulation - Drainage								
MER Drainage Pit Lids	Drainage	Renewals	0.01	0.01	0.01	0.01	0.01	0.06
MER Minor Drainage Pipeline Replacements	Drainage	Renewals	0.00	0.00	0.08	0.00	0.12	0.19

Project/program Name	Service	Major cost driver	2023-24	2024-25	2025-26	2026-27	2027-28	TOTAL
MDA Drainage Pit Lids	Drainage	Renewals	0.04	0.04	0.04	0.04	0.04	0.21
MDA Minor Drainage Pipeline Replacements	Drainage	Renewals	0.00	0.00	0.15	0.00	0.40	0.55
RC Drainage Pit Lids	Drainage	Renewals	0.06	0.06	0.06	0.06	0.06	0.32
RC Minor Drainage Pipeline Replacements	Drainage	Renewals	0.00	0.00	0.11	0.00	0.21	0.32
ROB Drainage Pit Lids	Drainage	Renewals	0.03	0.03	0.03	0.03	0.03	0.16
ROB Minor Drainage Pipeline Replacements	Drainage	Renewals	0.00	0.00	0.04	0.00	0.00	0.04
Treatment								
MILL - Solution for better sludge management / redesign of the sludge beds	Domestic and stock	Improvements / Compliance	0.00	0.40	0.00	0.00	0.00	0.40
Corporate								
Motor Vehicles	Irrigation	Renewals	1.19	0.80	0.64	0.45	0.53	3.60
Computer Equipment	Irrigation	Renewals	0.10	0.11	0.10	0.10	0.10	0.51
Business Transformation	Irrigation	Renewals	0.66	0.46	0.46	0.14	0.14	1.87
General equipment	Irrigation	Renewals	0.11	0.11	0.12	0.05	0.05	0.44
Buildings	Irrigation	Renewals	0.48	0.22	0.25	0.14	0.13	1.22
TOTAL		\$m 1/1/23	16.08	8.51	8.06	9.30	8.41	50.35

Appendix C3 - Rural Major Projects and Programs

C3.1 Top 10 Projects Rural Component – Schedule of Investment

No.	Business Case	Component Projects, Comments	Total Project Cost (\$m)	Major Service Category	ESC Cost Driver	2023-24	2024-25	2025-26	2026-27	2027-28	TOTAL
8	Customer CRM, portal Phase 2	Customer CRM, portal Phase 2 (additional process design & NextGen service catalogue Portal)	0.50	Corporate	Improvements/compliance	0.17	0.17	0.17	0.00	0.00	0.50
9	Robinvale Decommissioning	ROB - Decommission selected section of redundant channel (rubbish dumping /ongoing opex)	2.15	Rural Irrigation	Improvements/compliance	0.15	0.00	0.00	0.22	0.63	1.00
		ROB - Decommission and seal the old suction				0.00	0.00	0.15	0.00	0.00	0.15
		ROB - Decommission the old PS (main and relift) and rising main				0.00	0.00	0.22	0.78	0.00	1.00
10	Asset Management Platform uplift	Asset Management Improvement - Fixed Asset Implementation & Value Study Initiatives	0.77	Corporate	Improvements/compliance	0.15	0.15	0.15	0.15	0.15	0.77
TOTAL Top 10 Rural			3.42			0.47	0.32	0.69	1.15	0.78	3.42

C3.2 Top 10 Projects Rural Component – Alignment to Customer Outcomes

No.	Business Case	Total Project Cost (\$m)	Major Service Category	ESC Cost Driver	Relevant Customer Outcome	Objective	Scope	Justification
8	Customer CRM, portal Phase 2	0.50	Corporate	Improvements/ compliance	Provide Customer Service Avenues that are responsive to resolve requests/enquiries within the agreed KPIs	To achieve personalised services that improves customer experience, including faster response to customer requests, efficient and streamlined service delivery, improved communication and resolution of customer issues, and improved level of trust with LMW	Customer journey and service modelling, customer service process redesign, continuous uplift of CRM and Customer Portal capabilities (e.g. online payments, outage notification, online requests, additional advanced capabilities), internal and external change management	Increased customer expectation are driving improvement, including need to clarify services provided to customers, improve ability to monitor and measure service requests. improve efficiency of manual and complex processes, resolve system limitations causing inefficiencies and employee frustration, and improve process documentation.
9	Robinvale Decommissioning	2.15	Irrigation	Improvements/ compliance	Services provide customers value for money	To eliminate or reduce risks associated with redundant aging assets	Decommissioning of a selected section of redundant channel, redundant pump stations (Main and re-lift pump stations) and suction line of the main pump station.	The redundant aging assets pose safety risk to the public and LMW staff. Decommissioning of those assets will eliminate/minimise the safety risk and improve amenity of the surrounding environment.
10	Asset Management Platform uplift	0.77	Corporate	Improvements/ compliance	Services provide customers value for money. Provide customers reliable and safe drinking water. Provide customers reliable sewerage services	To drive improved, data-driven and integrated asset lifecycle management and robust expenditure planning, including real-time asset data analysis & visualisation, via a single source of truth.	Implement Infor Value Study initiatives to ensure assets and infrastructure are maintained to support water services. Includes centralised asset register, enhanced work management processes to deliver transparency and improved data capture, simplification of capital works management, and asset reporting and dashboards to gain insights with advanced data intelligence.	The current Asset Management platform is not fit for purpose, and 66% of business processes relating to asset management are performed outside of IPS capability (manual processes). There is limited visibility over asset lifecycle management and there are disparate data and inputs without consolidated data structures. Asset reporting is manual leading to duplication of data and large inefficiencies.

C3.3 Major Rural Programs – Schedule of Investment

Major Program	Total Program Cost (\$m)	Major Service Category	ESC Cost Driver	Component Programs	2023-24	2024-25	2025-26	2026-27	2027-28	TOTAL
Irrigation Meter Replacement	5.81	Irrigation	Renewals	MDA - Irrigation Meter Replacement	0.27	0.27	0.27	0.27	0.27	1.37
				MDA - D & S Meter Replacement	0.02	0.02	0.02	0.02	0.02	0.10
				MER - Irrigation Meter Replacement	0.11	0.11	0.11	0.11	0.11	0.53
				MER - D&S Meter Replacement	0.01	0.01	0.01	0.01	0.01	0.04
				RC - Irrigation Meter Replacement	0.21	0.21	0.21	0.21	0.21	1.06
				RC - D&S Meter Replacement	0.01	0.01	0.01	0.01	0.01	0.04
				ROB - Irrigation Meter Replacement	0.08	0.08	0.08	0.08	0.08	0.42
				ROB - D&S Meter Replacement	0.01	0.01	0.01	0.01	0.01	0.04
				PD - Metering Program	0.42	0.42	0.42	0.42	0.42	2.11
Light Motor Vehicle Fleet - annual vehicle replacements	2.16	Corporate	Renewals	Motor Vehicles	0.67	0.42	0.32	0.37	0.38	2.16
Irrigation Mains Replacement	4.03	Irrigation	Renewals	MDA - Mains Replacement and upgrade tight spurs	0.29	0.50	0.60	0.53	0.24	2.17
				MER - Mains Replacement and upgrade tight spurs	0.16	0.25	0.25	0.26	0.18	1.10
				RC - Mains Replacement and upgrade tight spurs	0.13	0.18	0.18	0.17	0.10	0.76
Minor capex - Irrigation	5.28	Rural Irrigation	Renewals	MILL Minor Capital -Replacement	0.05	0.05	0.05	0.05	0.05	0.27
			Improvements	MILL Minor Capital - New	0.01	0.01	0.01	0.01	0.01	0.06
			Renewals	MDA Minor Capital - Replacement	0.22	0.22	0.22	0.22	0.22	1.11
			Improvements	MDA Minor Capital -New	0.13	0.13	0.13	0.13	0.13	0.67
			Renewals	MER Minor Capital - Replacement	0.11	0.11	0.11	0.11	0.11	0.55
			Improvements	MER Minor Capital - New	0.10	0.10	0.10	0.10	0.10	0.48
			Renewals	RC - Minor Capital - Replacement	0.21	0.21	0.21	0.21	0.21	1.06
			Improvements	RC -Minor Capital - New	0.11	0.11	0.11	0.11	0.11	0.55
			Renewals	ROB - Minor Capital - Replacement	0.06	0.06	0.06	0.06	0.06	0.32
Improvements	ROB - Minor Capital - New	0.04	0.04	0.04	0.04	0.04	0.21			
ICT equipment	0.51	Corporate	Renewals	Computer Equipment	0.10	0.11	0.10	0.10	0.10	0.51
Heavy Motor Vehicle Fleet - annual vehicle replacements	0.96	Corporate	Renewals	Motor Vehicles	0.32	0.34	0.22	0.00	0.08	0.96
Corporate Facilities and Buildings	1.22	Corporate	Improvements / Compliance	Buildings	0.48	0.22	0.25	0.14	0.13	1.22
	19.97			TOTAL Major Programs Rural	4.36	4.24	4.13	3.78	3.44	19.97

Note: Costs for Corporate projects are the rural component, Heavy and Light Motor Vehicle Fleet totals exclude Tractors, Trailers, etc

C3.4 Major Rural Programs – Alignment to Customer Outcomes

Major Program	Total Program Cost (\$m)	Major Service Category	ESC Cost Driver	Relevant Customer Outcome	Objective	Scope	Justification
Irrigation Meter Replacement	5.81	Irrigation	Renewals	Services provide customers value for money	Maintain accurate metering fleet and to meet compliance with National Standards for non-urban metering.	Replacement of aged or inaccurate irrigation and stock & domestic flow meters.	A risk-based approach is adopted based on the condition (asset age), type, size and performance of the existing meters, to proactively replace meters to ensure accuracy and compliance.
Light Motor Vehicle Fleet - annual vehicle replacements	2.16	Corporate	Renewals	All outcomes	Maintain light vehicle fleet to ensure safety and mobility for customer service and service delivery	Rolling periodic disposal and replacement of light vehicle fleet.	Optimal replacement regime with respect to triple bottom line (social, environmental, economic) objectives.
Irrigation Mains Replacement	4.03	Irrigation	Renewals	Provide customers with water when they need it	Maintain security of supply, agreed level of service and to minimise backlog works and peak funding requirements in the future.	Replacement and renewal of irrigation mains and associated structures such as cluster boxes, buffer tanks etc.	Condition and performance of the irrigation networks.
Minor capex - Irrigation	5.28	Irrigation	Renewals & Improvement	Provide customers with water when they need it	Maintain agreed level of service and to mitigate service delivery and operational risks.	Replacement, rehabilitation, and renewal of various irrigation assets, excluding irrigation mains and auxiliary assets covered in the Mains Renewal Program.	Assets can deteriorate and/or fail due to several known and unknown factors. Minor ongoing or discrete investments are necessary to prevent deterioration, improve asset life and mitigate service delivery and operational risks.
Total ICT equipment	0.51	Corporate	Renewals	All outcomes	Maintain ICT equipment to ensure reliable and secure ICT services for business operations, customer service and service delivery.	End of life replacement of ICT equipment including servers, network hardware, UPS batteries, firewalls, telecommunications, and business computing devices.	Economic replacement of ICT equipment to maintain reliability, security and service performance at lowest lifecycle cost.
Heavy Motor Vehicle Fleet - annual vehicle replacements	0.96	Corporate	Renewals	All outcomes	Maintain heavy vehicle fleet to ensure safety and functionality for customer service and service delivery.	Rolling periodic disposal and replacement of heavy vehicle fleet.	Optimal replacement regime with respect to triple bottom line (social, environmental, economic) objectives.
Corporate Facilities and Buildings	1.22	Corporate	Improvements / Compliance	All outcomes	Maintain facilities and buildings in a safe, functional, secure and compliant manner.	Minor interior and exterior building and facility replacements and improvements.	Building and facility improvements arising from safety and amenity inspections, accommodation reviews, etc.

Appendix C4 - Rural Miscellaneous Charges

LOWER MURRAY WATER MISCELLANEOUS CHARGES

Tariff and Price Component 1/1/23 (Indicative only)	Unit	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
RURAL PRICES							
MISCELLANEOUS CHARGES							
Groundwater Licence Fees							
Application for groundwater licence (take and use)	App	\$1,928.00	\$1,985.80	\$1,985.80	\$1,985.80	\$1,985.80	\$1,985.80
Application for groundwater licence (take and use) - HIGH RISK	App	\$1,928 + 180 p/h	\$1,928 + 180 p/h	\$1,928 + 180 p/h	\$1,928 + 180 p/h	\$1,928 + 180 p/h	\$1,928 + 180 p/h
Application for construction of groundwater works (Bore construct licence)	App	\$235.00	\$242.00	\$242.00	\$242.00	\$242.00	\$242.00
Application for a works licence (Licenced dam)	App	\$207.50	\$213.70	\$213.70	\$213.70	\$213.70	\$213.70
Application for renewal of groundwater licence	App	\$207.50	\$213.70	\$213.70	\$213.70	\$213.70	\$213.70
Application for transfer of groundwater licence	App	\$207.50	\$213.70	\$213.70	\$213.70	\$213.70	\$213.70
Ground Water Licence - Take and Use Limit	AUL ML	\$2.70	\$2.70	\$2.70	\$2.70	\$2.70	\$2.70
Service Fee	Ass	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00
Ground Water Capital Charge	ML	\$180.00	\$185.40	\$185.40	\$185.40	\$185.40	\$185.40
Information Statements							
Application for information statement under Sect. 158 of the Act (Includes one (1) meter read) - Fee Listed under other Charges "Special meter Reading Fee"	App	\$98.10	\$101.00	\$101.00	\$101.00	\$101.00	\$101.00
Drainage Diversion Licence Fees							
Application for drainage diversion licenses	App	\$100.70	\$103.70	\$103.70	\$103.70	\$103.70	\$103.70
Subdivision Fee							
Irrigation, 2 lot	App	\$1,049.00	\$1,080.00	\$1,080.00	\$1,080.00	\$1,080.00	\$1,080.00
Irrigation, 3 lot	App	\$1,313.00	\$1,352.00	\$1,352.00	\$1,352.00	\$1,352.00	\$1,352.00
Irrigation, 4 lot	App	\$1,560.00	\$1,606.00	\$1,606.00	\$1,606.00	\$1,606.00	\$1,606.00
Irrigation, 5 lot	App	\$1,841.00	\$1,896.00	\$1,896.00	\$1,896.00	\$1,896.00	\$1,896.00
Irrigation, 6 lot and over	App	\$2,190.00	\$2,255.00	\$2,255.00	\$2,255.00	\$2,255.00	\$2,255.00
*If a Staged Subdivision then 1st Stage is charged as above then remaining Stages charged at 2 lot fee unless other wised determined							
Subdivision of Holdings (halve of a 2 lot subdivision of title)	App	\$520.00	\$535.00	\$535.00	\$535.00	\$535.00	\$535.00
Waterworks	App	\$520.00	\$535.00	\$535.00	\$535.00	\$535.00	\$535.00
Rural	App	\$520.00	\$535.00	\$535.00	\$535.00	\$535.00	\$535.00
Diversion	App	\$520.00	\$535.00	\$535.00	\$535.00	\$535.00	\$535.00
Excision Fee	App	\$1,048.00	\$1,079.00	\$1,079.00	\$1,079.00	\$1,079.00	\$1,079.00
Amalgamation of Holdings (Other than via subdivision process)	App	\$462.00	\$475.00	\$475.00	\$475.00	\$475.00	\$475.00
Resubmission of a Subdivision of Water Entitlements	App	\$100.00	\$103.00	\$103.00	\$103.00	\$103.00	\$103.00
Photocopying							
A0 Plan	Copy	\$14.15	\$14.57	\$14.57	\$14.57	\$14.57	\$14.57
A1 Plan	Copy	\$9.20	\$9.47	\$9.47	\$9.47	\$9.47	\$9.47
A2 Plan	Copy	\$5.10	\$5.25	\$5.25	\$5.25	\$5.25	\$5.25
A3 Copy	Copy	\$2.70	\$2.78	\$2.78	\$2.78	\$2.78	\$2.78
A4 Copy	Copy	\$0.60	\$0.61	\$0.61	\$0.61	\$0.61	\$0.61

**LOWER MURRAY WATER
MISCELLANEOUS CHARGES**

Tariff and Price Component 1/1/23 (Indicative only)	Unit	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Other Charges							
Application Fee - Meter Investigation	App	\$398.70	\$410.86	\$410.86	\$410.86	\$410.86	\$410.86
Special Meter Reading Fee	Read	\$49.05	\$50.52	\$50.52	\$50.52	\$50.52	\$50.52
Application for Reconnection Fee	App	\$90.65	\$93.36	\$93.36	\$93.36	\$93.36	\$93.36
Lockdown and Unlock Fee	Connection	\$149.75	\$154.24	\$154.24	\$154.24	\$154.24	\$154.24
Meter Testing Fee	Test	\$82.25	\$84.71	\$84.71	\$84.71	\$84.71	\$84.71
Application for Hydraulic Assessment	App	\$57.05	\$58.76	\$58.76	\$58.76	\$58.76	\$58.76
Application Fee - District (Outside District) D & S Supply	App	\$149.75	\$154.24	\$154.24	\$154.24	\$154.24	\$154.24
Application Fee - Millewa WWD Domestic and Domestic	App	\$149.75	\$154.24	\$154.24	\$154.24	\$154.24	\$154.24
Title Search Fee	Search	\$74.80	\$77.04	\$77.04	\$77.04	\$77.04	\$77.04
Consolidation (Of Titles) Investigation Fee	App	\$527.95	\$543.78	\$543.78	\$543.78	\$543.78	\$543.78
Water Analysis	Test	\$74.80	\$77.04	\$77.04	\$77.04	\$77.04	\$77.04
Merchant Fee (for payments over \$1,000)	Cust	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost
Direct Connection Fee (\$400 Security-Refundable, \$80 Supervision)	Connection	\$697.25	\$718.16	\$718.16	\$718.16	\$718.16	\$718.16
Tender Document Charge	Tender	\$145.65	\$150.01	\$150.01	\$150.01	\$150.01	\$150.01
Drainage Only							
Merbein - Property Drainage	DS	\$94.32	\$90.86	\$87.52	\$84.30	\$81.21	\$78.22
Red Cliffs - Property Drainage	DS	\$93.92	\$90.86	\$87.52	\$84.48	\$81.55	\$78.72
Robinvale - Property Drainage	DS	\$90.00	\$87.88	\$85.81	\$83.79	\$81.82	\$79.90
Drainage Sales (FMID Only)							
Drainage Reuse Agreement							
Private Use	Agreement	\$169.90	\$174.90	\$174.90	\$174.90	\$174.90	\$174.90
Commercial Use	Agreement	\$690.60	\$711.30	\$711.30	\$711.30	\$711.30	\$711.30
Debt collection fees passed on to customers	Cust	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost
Dishonoured Cheque Fees	Cust	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost
Excess Water	ML	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00
Occupational & Grazing Licences	Licence	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost	Actual Cost
Outside District Winter D & S Supply Valve Opening Fee	Opening	\$41.90	\$43.10	\$43.10	\$43.10	\$43.10	\$43.10
Environmental Water - Cardross Lakes	ML	\$71.00	\$73.10	\$73.10	\$73.10	\$73.10	\$73.10
Environmental Water - Lake Hawthorn (17th St PS Delivery)	ML	\$88.50	\$91.10	\$91.10	\$91.10	\$91.10	\$91.10
Environmental Water - Lake Hawthorn	ML	\$142.00	\$146.20	\$146.20	\$146.20	\$146.20	\$146.20
Private Works Agreement (Licence)							
Application Fee (Initial)	per Agreement	\$198.90	\$204.80	\$204.80	\$204.80	\$204.80	\$204.80
Annual Fee	Licence	\$39.30	\$40.40	\$40.40	\$40.40	\$40.40	\$40.40
Meter and Connection Fee							
Irrigation District							
D & S Supply 40mm meter installation	Meter	\$2,438.00	\$2,511.00	\$2,511.00	\$2,511.00	\$2,511.00	\$2,511.00
D & S Supply 40mm meter installation & tapping band	Meter	\$2,650.00	\$2,729.00	\$2,729.00	\$2,729.00	\$2,729.00	\$2,729.00
Millewa WWD							
Tapping 20mm	Tapping	\$229.00	\$235.00	\$235.00	\$235.00	\$235.00	\$235.00
Tapping 25mm	Tapping	\$260.00	\$267.00	\$267.00	\$267.00	\$267.00	\$267.00
Meter Installation (20mm)	Meter	\$216.00	\$222.00	\$222.00	\$222.00	\$222.00	\$222.00
Meter Installation (25mm)	Meter	\$452.00	\$465.00	\$465.00	\$465.00	\$465.00	\$465.00
D & S Meter Payment (5 Year)	Meter per year	\$553.00	\$569.00	\$569.00	\$569.00	\$569.00	\$569.00
Disconnection Fee D&S	App	\$679.00	\$699.00	\$699.00	\$699.00	\$699.00	\$699.00
Disconnection of an irrigation outlet (Price on Application POA)	App	POA	POA	POA	POA	POA	POA
Disconnection and Removal of an irrigation outlet (Price on Application POA)	App	POA	POA	POA	POA	POA	POA

**LOWER MURRAY WATER
MISCELLANEOUS CHARGES**

<i>Tariff and Price Component 1/1/23 (Indicative only)</i>	<i>Unit</i>	<i>2022-23</i>	<i>2023-24</i>	<i>2024-25</i>	<i>2025-26</i>	<i>2026-27</i>	<i>2027-2</i>
Drainage Schemes							
Nangiloc-Colignan - Operating Rate	AUL	\$3.20	\$3.29	\$3.29	\$3.29	\$3.29	\$3.29
Boundary Bend - O&M	AUL	\$3.20	\$3.29	\$3.29	\$3.29	\$3.29	\$3.29
Bumbang - O&M	AUL	\$3.20	\$3.29	\$3.29	\$3.29	\$3.29	\$3.29
Tol Tol - O&M	AUL	\$3.20	\$3.29	\$3.29	\$3.29	\$3.29	\$3.29
Licences							
Lake Cullulleraine - 12 Months	ML	\$23.28	\$23.97	\$23.97	\$23.97	\$23.97	\$23.97
LMW Specific Fees for Water Register Fees							
Application for a Water Use Licence	App	\$207.50	\$213.70	\$213.70	\$213.70	\$213.70	\$213.70
Application for a Water Use Registration	App	\$207.50	\$213.70	\$213.70	\$213.70	\$213.70	\$213.70
Application for a Works Licence	App	\$207.50	\$213.70	\$213.70	\$213.70	\$213.70	\$213.70
Applications to vary, cancel, issue or transfer a delivery share	App	\$92.40	\$95.10	\$95.10	\$95.10	\$95.10	\$95.10
Applications to vary a water use licence/registration	App	\$92.40	\$95.10	\$95.10	\$95.10	\$95.10	\$95.10
Applications to amend or renew a work licence	App	\$207.50	\$213.70	\$213.70	\$213.70	\$213.70	\$213.70
Applications to establish a tagged interstate entitlement	App	\$174.10	\$179.30	\$179.30	\$179.30	\$179.30	\$179.30
Applications to place an order against a tagged interstate entitlement	App	\$92.40	\$95.10	\$95.10	\$95.10	\$95.10	\$95.10
Applications to issue amend or transfer a bundled entitlement	App	\$207.50	\$213.70	\$213.70	\$213.70	\$213.70	\$213.70
Applications to transfer of Annual Use Limit	App	\$207.50	\$213.70	\$213.70	\$213.70	\$213.70	\$213.70
Cancel a water use licence or registration (Application Form 25)	App	\$92.40	\$95.10	\$95.10	\$95.10	\$95.10	\$95.10
Water Register administration fee (ID check, ABA creation, ASIC extract)	App	\$29.20	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00
Subdivision of Water Entitlements (associated with a subdivision of land)	App	\$105.80	\$108.90	\$108.90	\$108.90	\$108.90	\$108.90
Irrigation, 1 lot	App	\$457.80	\$471.50	\$471.50	\$471.50	\$471.50	\$471.50
Irrigation, 2 lot	App	\$859.60	\$885.30	\$885.30	\$885.30	\$885.30	\$885.30
Irrigation, 3 lot	App	\$1,150.60	\$1,185.10	\$1,185.10	\$1,185.10	\$1,185.10	\$1,185.10
Irrigation, 4 lot	App	\$1,441.50	\$1,484.70	\$1,484.70	\$1,484.70	\$1,484.70	\$1,484.70
Irrigation, 5 lot	App	\$1,732.50	\$1,784.40	\$1,784.40	\$1,784.40	\$1,784.40	\$1,784.40
Irrigation, 6 lot and over	App	Calculated on request	Calculated on request	Calculated on request	Calculated on request	Calculated on request	Calculated on request
Amalgamation of water instruments/entitlements	App	\$392.30	\$404.00	\$404.00	\$404.00	\$404.00	\$404.00

LOWER MURRAY WATER MISCELLANEOUS CHARGES

Tariff and Price Component 1/1/23 (Indicative only)	Unit	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Water Register Fees (Non Prescribed - Set by Water Registrar)							
Transfer a water share including divide and transfer (Forms 1 & 3)	App	\$207.50	\$207.50	\$207.50	\$207.50	\$207.50	\$207.50
Divide a water share (Application Form 5)	App	\$174.80	\$174.80	\$174.80	\$174.80	\$174.80	\$174.80
Consolidate water shares (Application Form 6)	App	\$174.80	\$174.80	\$174.80	\$174.80	\$174.80	\$174.80
Issue a water share (Application Form 7)	App	\$207.50	\$207.50	\$207.50	\$207.50	\$207.50	\$207.50
Cancel a water share (Application Form 8)	App	\$207.50	\$207.50	\$207.50	\$207.50	\$207.50	\$207.50
Surrender a water share	App	\$207.50	\$207.50	\$207.50	\$207.50	\$207.50	\$207.50
Vary and/or associate, or revoke a water share association and standing direction (Application Form 9)	App	\$92.40	\$92.40	\$92.40	\$92.40	\$92.40	\$92.40
Give a limited term transfer (Application Form 10)	App	\$207.50	\$207.50	\$207.50	\$207.50	\$207.50	\$207.50
Trade water allocation (Form 39)	App	\$92.40	\$92.40	\$92.40	\$92.40	\$92.40	\$92.40
On line Trade water allocation (Form 39)		\$49.00	\$49.00	\$49.00	\$49.00	\$49.00	\$49.00
Form 9 & 5 Vary and Divide Water Share	App	\$174.80	\$174.80	\$174.80	\$174.80	\$174.80	\$174.80
Form 6 & 9 Vary and Consolidate Water Share	App	\$174.80	\$174.80	\$174.80	\$174.80	\$174.80	\$174.80
Form 40 application to link multiple licences/shares to a single account	Per Transaction	\$92.40	\$92.40	\$92.40	\$92.40	\$92.40	\$92.40
Search Fee by applicant using online facilities	App	\$15.30	\$15.30	\$15.30	\$15.30	\$15.30	\$15.30
Search Fee by LMW on behalf of applicant	App	\$29.20	\$29.20	\$29.20	\$29.20	\$29.20	\$29.20
Salinity Disposal Fees (Non Prescribed)							
SDE Levy Post 14th April 2002 LIZ 1 Lump Sum	ML/AUL	\$40.59	\$41.80	\$41.80	\$41.80	\$41.80	\$41.80
SDE Levy Post 14th April 2002 LIZ 2 Lump Sum	ML/AUL	\$104.18	\$107.30	\$107.30	\$107.30	\$107.30	\$107.30
SDE Levy Post 14th April 2002 LIZ 3 Lump Sum	ML/AUL	\$208.42	\$214.67	\$214.67	\$214.67	\$214.67	\$214.67
SDE Levy Post 14th April 2002 LIZ 4 Lump Sum	ML/AUL	\$416.90	\$429.40	\$429.40	\$429.40	\$429.40	\$429.40
SDE Levy Post 14th April 2002 HIZ Lump Sum	ML/AUL	\$859.62	\$885.40	\$885.40	\$885.40	\$885.40	\$885.40
O&M Charge	ML	\$3.76	\$3.87	\$3.87	\$3.87	\$3.87	\$3.87
SDE Levy Post 14th April 2002 LIZ 1 Over 10 Years	ML/AUL	\$4.88	\$5.02	\$5.02	\$5.02	\$5.02	\$5.02
SDE Levy Post 14th April 2002 LIZ 2 Over 10 Years	ML/AUL	\$12.50	\$12.87	\$12.87	\$12.87	\$12.87	\$12.87
SDE Levy Post 14th April 2002 LIZ 3 Over 10 Years	ML/AUL	\$25.01	\$25.76	\$25.76	\$25.76	\$25.76	\$25.76
SDE Levy Post 14th April 2002 LIZ 4 Over 10 Years	ML/AUL	\$50.05	\$51.55	\$51.55	\$51.55	\$51.55	\$51.55
SDE Levy Post 14th April 2002 HIZ Over 10 Years	ML/AUL	\$103.19	\$106.28	\$106.28	\$106.28	\$106.28	\$106.28