



**For the consideration of
the Essential Services Commission**

Price Submission
1 July 2018 to 30 June 2023

28 September 2017

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FOREWORD

Goulburn Valley Water (GVW) is pleased to be a foundation participant in the Essential Services Commission's new PREMO pricing model. We believe that it fosters initiative and innovation, and a platform for positive evolution of Victoria's water corporations.

This Price Submission has been developed with reference to the guidance materials issued by ESC and other legal, regulatory and policy parameters. It responds to the expectations and preferences of our customers and communities, and strategic priorities adopted by our Board.

In developing this Price Submission we have applied tailored governance and accountability frameworks to ensure sufficient rigour and transparency to underpin the Board's confidence in its attestation. We engaged external specialists to review all aspects of the direction, build-up and compilation of the Price Submission.

GVW has a genuine commitment to provide value for money to customers and to be a respected contributor to the fabric of our regional communities. We are focused on ensuring that our services and manner of delivery are reflective of the expectations and preferences of our customers, for the Price Period and beyond. This document comprises GVW's *best offer*, after conducting a comprehensive engagement process with our customers.

In preparing this document we have heeded calls for substance and brevity. We would be pleased to provide further information as necessary.

We trust that this Price Submission meets the requirements of the Essential Services Commission.

BOARD ATTESTATION

As at 28 September 2017, the directors of Goulburn Valley Water, 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 2018 Water Price Review:

- information and documentation provided in the Price Submission and relied upon to support Goulburn Valley Water'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; and
- the Price Submission satisfies the requirements of the 2018 Water Price Review Guidance paper issued by the Essential Services Commission in all material respects.



Catherine Scott
Chair



Peter Quinn
Managing Director

EXECUTIVE SUMMARY

Goulburn Valley Water ("GVW") is pleased to present this Price Submission for the period from 2018-23. We have assessed our submission as LEADING, premised on the following:

1. RELEVANT AND AUTHENTIC CUSTOMER ENGAGEMENT

Through Water Cafés in each of our 54 towns, around 60 GVW employees directly engaged, face to face, with our customers and communities. We focused on areas where customers could have genuine influence, whilst also ensuring we heard unconstrained views about how GVW could provide better value for money.

2. OUTCOMES THAT ARE VALUED BY CUSTOMERS

The Outcomes proposed have been directly informed by our engagement findings. These include a focus on water taste and pressure; digital enablement; assisting customers with their water usage; upgrading of non-potable and water by agreement customers; a tariff-structure trial; and ongoing engagement and influence on our carbon emissions reduction targets.

3. MANAGING COSTS AND REVENUES TO THE BENEFIT OF CUSTOMERS

We have applied an approach to cost-management and contribution of non-prescribed revenues which is genuine in our endeavour to unearth value for customers. Operating cost savings from a range of targeted initiatives result in a productivity improvement of 3.1% per annum. Capital cost estimates for major projects are at P40, whilst we have reduced cost estimates of smaller projects by 10%. We have contributed non-prescribed revenues from farming, rentals and biogas sales of \$0.9m (net) p.a. as an offset to the Revenue Requirement, as well as targeting an additional \$1.0m of revenue from better processes around sundry and trade waste charges.

4. INNOVATIVE RESPONSES TO SYSTEM CAPACITY CONSTRAINTS

We have developed projects that will curb traditional engineering solutions in favour of more innovative and much lower-cost initiatives. For example, the Environmental Offsets concept responds to wastewater capacity constraints with a sharper focus on environmental outcomes rather than engineering inputs. A capital cost of \$7.51m during the Price Period is expected to save around \$60m capital in the longer-term.

5. AN EFFICIENCY DIVIDEND TO CUSTOMERS

GVW's financial performance over Water Plan 3 has exceeded expectations, as a result of operating and capital initiatives which have flowed from our focus on efficiency and innovation. During the current period we have applied these savings to emerging operational priorities and debt containment. This submission now proposes a pass-back to customers in the 2018-23 period, in the form of an efficiency dividend of \$1.3m p.a. in the regulatory model as an offset to the Revenue Requirement.

6. ACCOUNTABILITY TO CUSTOMERS FOR PERFORMANCE

We will report annually to customers on our performance against the delivery of Outcomes, and other metrics, and introduce new Guaranteed Service Levels. Most importantly, we will introduce Annual Performance Forums where customers will adjudicate on our progress in delivering on this Price Submission.

7. THE BEST PRICES FOR CUSTOMERS

GVW's current prices are close to the lowest in Victoria. Our proposed price path for 2018-23 is CPI minus 2% p.a. This will result in a total price reduction of 9.6% and a typical annual saving to a residential customer of \$93 by 2022/23. The cumulative saving over the Price Period will be \$283 per customer.

8. FINANCIAL SUSTAINABILITY

Whilst delivering improved services and lower prices, we have been careful to ensure our financial standing will remain strong and sustainable. Our forecast level of debt over the price period remains consistent at around 29% of the Regulated Asset Base.

FAST-TRACK PROCESS

We respectfully contend that the presentation and content of this Price Submission provides a strong case for it to be FAST-TRACKED.

PRICE SUBMISSION ON A PAGE

ENGAGEMENT Driver	OUTCOMES for the Customer
KEY THEME 1. THE BEST PRICES FOR CUSTOMERS	
A. Affordability	Real price decreases of 2% per year or 9.6% over five years
B. Fixed charges	An interactive tariff structure trial at Cobram and Kilmore
C. Non-potable price	A 30% reduction in the usage tariff for non-potable water supply
KEY THEME 2. A RENEWED FOCUS ON WATER QUALITY AND SUPPLY	
A. Water pressure	Improved water pressure for communities with identified issues
B. Water taste	Improved water quality through addressing localised taste issues
C. Non-potable quality	Upgraded water quality to towns supplied with non-potable water
D. Private pipes	Relief from costly maintenance and replacement obligations
KEY THEME 3. MODERN AND THOUGHTFUL CUSTOMER SERVICE	
A. Customer complaints	A more efficient and consistent customer experience
B. Digital access	24/7 digital access and online self-service through an internet portal
C. Timely notifications	Real-time notification of details and locations of faults and outages
D. Water efficiency	Assistance with water efficiency and leak detection
E. Desire to be heard	Ongoing opportunities to express preferences and expectations
KEY THEME 4. MEANINGFUL ENVIRONMENTAL AND RECREATIONAL OUTCOMES	
A. Carbon emissions	Reduction of carbon emissions in line with customer preferences
B. Desire to participate	Ongoing participation in the choice of carbon emission solutions
C. The environment	Improved environmental and community recreation outcomes
D. Public amenity	Access to fresh drinking water in public places in all towns

PERFORMANCE Accountability

GVW will report annually to its customers on progress against the key activities that will deliver the Outcomes, as well as the results of customer satisfaction surveys and other metrics. We will introduce an Annual Performance Forum where a representative group of customers will consider and provide recommendations in relation to progress in delivering Outcomes. New Guaranteed Service Levels are being introduced as a means of setting expectations and compensating customers where progress with the delivery of outcomes is delayed. Each Outcome set out in Chapter 2 has a basis of accountability.

MANAGEMENT and RISK

The initiatives below are key to the delivery of Outcomes

OPERATING COSTS

- operating cost savings from a range of targeted initiatives that result in a productivity improvement of 3.1% per annum
- an "efficiency dividend" of \$1.3m p.a

CAPITAL EXPENDITURE

- optimised capital spend, including lower contingencies (estimates at P40)

REVENUE

- making sundry charges more consistent and cost-reflective;
- reform the monitoring of trade waste composition for improved revenue recoveries;
- contribution of non-prescribed revenues from farming, property rentals and biogas

RISK

- Environmental Offsets Projects of \$7.51m to avoid long-term capex of \$60m
- Peak Demand Reduction Projects to realise a net capital saving of around \$8.7m

FINANCIAL SUSTAINABILITY

- Our forecast level of debt over the Price Period remains consistent with its current level of around 29% of the Regulated Asset Base.

Our nominated PREMO rating

We have rated this submission as LEADING having regard to:

- relevant and authentic customer engagement;
- outcomes that are valued by customers;
- managing costs and revenues to the benefits of customers;
- innovative responses to system capacity constraints;
- an efficiency dividend to customers;
- accountability to customers for performance; and
- a price path of CPI minus 2% p.a., with typical cumulative savings of \$283 per customer.

1. ENGAGEMENT

1.1 A RELEVANT AND AUTHENTIC APPROACH

GVW's approach to engagement has been framed by the defining characteristics of our customer base. GVW provides water services to 54 towns via 37 discreet water systems and sewerage services to 30 towns via 26 discreet wastewater systems. Our customers do not receive a common set or quality of services depending upon which town they live. Variables include:

- customers may receive water and wastewater services, or water only;
- raw water sources are many and variable, both from town to town and day to day, depending on climatic conditions and events;
- water treatment processes differ from town to town, e.g. traditional settling and filtration, Dissolved Air Flotation and Filtration ("DAFF"), microfiltration or just basic disinfection. This can impact on the aesthetic quality (taste, odour, colour) of water between towns;
- some customers receive 'non-potable' water (i.e. unsuitable for drinking);
- customers receive differing levels of water pressure, both from town to town and in different areas of the same town; and
- response times can vary depending on the remoteness of some towns to GVW's operational centres, e.g. Woods Point.

In planning for a relevant and authentic customer engagement process for this Price Submission, GVW decided early that we needed to talk face to face, on the ground with customers in all of our 54 towns to genuinely uncover what they value. *It has been a positive and enlightening experience for us.*

To better understand our customers' expectations and preferences, we not only developed an external engagement process, but also mined an array of existing sources of intelligence of our customers' views. To ascertain key topics of customer concern we reviewed information in our Customer Relationship Management data base, results of ongoing annual customer satisfaction surveys and the nature of complaints to the Energy and Water Ombudsman Victoria.

We also undertook a survey of employees' experiences and perceptions on how to improve value to customers. Where findings could not be totally acted upon,

or where further customer engagement were warranted, we designed future engagement activities.

Below we have set out our approach to engagement and information gathering and our ongoing activities. *Chapter 2 - Outcomes* sets out key engagement findings and the corresponding proposed Outcomes.

1.2 ENGAGEMENT ACTIVITIES

Designing the survey and the approach to customers

Our approach to engagement has been led by a senior multi-disciplinary team informed by specialist external advice. It has been characterised by an upfront process that involved careful and thoughtful mapping of our approach; being open-minded about the topics around which we would engage; and exhaustive in our thinking – "is there anything else?". Deliberately, we were ambitious in what we could achieve.

We ensured a mix of quantitative and qualitative questions, to achieve both *definition* and *colour* in the responses, and ensured that customers were not constrained in their thoughts on what we could do better.

Our approach was intended to be relevant to our customers and communities, and to be authentic and comprehensive. We wanted to identify areas where customers could have a *real say* in the decisions of GVW. We deliberately did not engage in questions relating to regulatory obligations, such as how much customers value safe drinking water.

In the implementation we were determined to be structured, yet flexible, to ensure we weren't bounded in our thinking by any "theoretical correctness" in engagement methodologies, and so that we could properly respond to new and emerging information.

We decided to bring "life" to the process through the visual and interactive nature of Water Cafés at public events and venues, and to have a broad involvement across the business. Around 60 of our employees were directly involved.

To begin, we undertook a series of internal workshops, led by a General Manager and guided by *Insync Surveys*, to consider potential topics where customers could

have a *real say* in decision-making and/or could *genuinely influence* the outcomes. We believed that it was relevant that 72% of our capital expenditure program is around renewal, improvement or compliance of existing assets, thus the opportunity for customer choice in core asset management processes has some limits. Growth assets represent the balance of 28% of capital expenditures.

We focused on targeted questions around discretionary matters such as digital access, supply of non-potable water, carbon-neutrality, hydration stations, and assistance with water efficiency. Open questions allowed customers to provide their unfettered views around issues that they consider to be important, for example, “How could GVV give you better value for money than you’re currently getting?”. This sort of question led to receiving particular customer views regarding price, tariff structure, pressure and taste.

Water Cafés

Water Cafés were held at public events, or otherwise in public places, in each of the 54 towns that we service. The running of the Water Cafés (and question-asking) was undertaken by a cross-section of over one-quarter of GVV’s employees, including all of our Executive Management Team and our emerging leaders group. At the Water Cafés, customers and community members were served chilled water and asked for their opinion on key issues.

There were three main approaches to gathering customer views:

- through employees chatting to customers, asking key questions and recording comments;
- through customers sitting down and completing a survey on the spot (225 completed surveys); and
- through customers being referred to our website and completing the survey online (see below).

Online Surveys

Separate from the Water Cafés, other customers were invited to complete the Online Survey through direct emailing and local media, and targeting by consultants, *Insync Surveys* and *SSI*. A total of 686 respondents, spread geographically across our region, completed the Online Survey.

Mini-Public event

A “Mini-Public” event was held at La Trobe University in Shepparton over a period of five hours on Saturday 13 May 2017, with its primary purpose being to further test the findings from the Water Cafés and Online Surveys, and our proposed responses.

The Mini-Public involved a geographically and demographically representative group of 38 customers selected by specialist consultants, *Deliberately Engaging*. It was facilitated by *Insync Surveys* and was also attended by GVV presenters, Board members, executives and managers.

Key topics included carbon-neutrality, digital enablement, upgrade of non-potable towns, peak demand reduction, installation of hydration stations and tariff structures. Background information, options and willingness-to-pay scenarios were presented to ascertain consensus views of preferences.

Whilst the Mini-Public provided supporting evidence of customer preferences, in some cases it is clear that an amount of further ongoing engagement is justified (e.g. carbon-neutrality and non-potable supplies – refer further below).

Participants in the Mini-Public were then invited to attend a tour of the Shepparton Water Treatment Plant, which took place on 12 August 2017.

1.3 OTHER CUSTOMER INTELLIGENCE PROCESSES

Towns supplied with non-potable water

GVV supplies non-potable water to six towns – Corop, Strathbogie, Goulburn Weir, Kirwan’s Bridge, Woods Point and Molesworth. Discussions at the Water Cafés at these towns were largely centred on the price being paid by these customers (the same as potable water customers) and/or a desire for the water standard to be upgraded, but not necessarily to potable standard.

Further in-person engagement with the customers in towns supplied with non-potable water was undertaken to ensure views were understood. Letters were then sent to all of these customers to seek further views on their appetite for upgraded water supply. Feedback to date has identified two towns that have a preference for an upgrade, whilst others may be content with a lower price.

The next stage of customer engagement is to communicate proposed outcomes back to customers. For the towns with a preference for water quality improvement, it is proposed that further investigations are undertaken with a view to moving to potable, or otherwise improved, water quality. Our broader engagement has indicated that our general customer base is happy for savings that might be realised elsewhere to fund conversions to potable water.

Annual Customer Service Evaluation Research Survey

Each year we engage specialist consultancy *New Focus* to undertake a survey of customers who have had recent contact with GVW in order to understand what customers' value, and to provide feedback on how well GVW delivers its services. The most recent survey was undertaken in May 2017, with 421 completed.

Key themes that were tested included satisfaction in most recent service encounter, overall satisfaction with GVW, favourability towards GVW, confidence in GVW meeting needs, customer effort in dealing with GVW and comparisons to other utilities.

Annual Connections Customer Survey

Plumbers, builders and land developers typically have a more complex transactional involvement with GVW than residential customers. This cohort deals through our Technical Customer Services team on planning and connections issues on a day to day basis.

GVW undertakes an annual survey of our connections customers to gauge levels of satisfaction with GVW's services and understand potential areas for improvement. This year the survey was augmented with additional questions around topics where customer views can impact decision-making, consistent with our Water Cafés and Online Surveys. Key issues include information availability and consistency, getting things done quickly, responsiveness, real-time information on water use and quality, and more information on our website.

Major customer surveys and meetings

For many years GVW has undertaken regular face-to-face onsite meetings with our major customers to understand and respond to their needs. Our four largest customers, being Tatura Milk Industries, SPC, Murray Goulburn and Campbell's, provide 16% of GVW's total service and usage tariff revenues.

We also undertake annual surveys of major customers, aimed at gauging levels of satisfaction with GVW's services and understanding key areas for improvements. Overall satisfaction levels are high.

In addition to regular customer relationship visits, discussions were held with a number of major customers in the light of Price Submission process (which highlighted concerns around financial viability in the sector and a desire for integrated energy, water and waste solutions). Findings are expanded upon in Section 4.2.

Employee Survey - on perceptions and suggestions around customers

Consistent with our authentic approach to customer engagement, and to mine the immense body of customer intelligence in the experiences of our employees, we undertook a survey of employees' views on customer issues. Whilst this was important in accessing the full body of knowledge around customers, it was also intended to identify any key areas of disconnect between the experiences of customers and the perceptions of employees, and gauge employees' views on the importance of their roles in providing customer outcomes. The survey identified:

- the nature, frequency and subject of customer interactions;
- perceptions of the importance of the employee's role in customer outcomes;
- specific knowledge and experience of issues impacting customers; and
- views on how we could provide better value for money for customers.

Review of historic and current customer data

Our Customer Relationship Management system is a repository of thousands of data points regarding issues and complaints raised by customers over time. We have reviewed this information alongside those of the engagement activities to ensure we were not overlooking any material areas of customer concern.

Closing the Loop

We have been pragmatic in our closing the loop activities, recognising that most proposed Outcomes had clear support at the Mini-Public, are subject to ongoing engagement activities or have an underlying commercial logic which will benefit customers.

A survey was undertaken to obtain customer feedback on the quality of the engagement program. It indicated that 89% of survey respondents who had participated in, or were otherwise aware of, the engagement activities were satisfied or very satisfied with the approach.

1.4 CONSEQUENT ENGAGEMENT ACTIVITIES

Further engagement with customers will be undertaken to gather additional information around key topics:

Tariff-structure trial

A significant number of customers indicated an interest in GVW reducing the fixed component of tariffs in favour of a higher variable component. Any such change would inevitably involve “winners” and “losers” (including a shift of costs to tenants), uncertainty around whether customer water use behavior would change, and revenue risk to GVW. Thus, GVW does not see that it currently has the insight to make such a change or, indeed, understand whether such a change would be favoured by most customers. Therefore, GVW will implement a tariff-structure trial to commence by 1 July 2019, as a means to further engage with customers around this matter. Refer *Chapter 2 – Outcomes*, item 1B), for further details. This will be a key area of structured customer engagement during the Price Period.

Carbon-Neutrality Customer Reference Group

GVW has an obligation to reduce carbon emissions by 19% by 2025 pursuant to the new *Statement of Obligations (Emissions Reduction)*. Customers have strongly endorsed a more ambitious target of 30% and decisions will need to be made around the approach to be applied, in the light of rapidly-evolving technologies and changing energy supply industry dynamics. Customers expressed a strong interest in participating in how the reductions are achieved. Thus, a standing Carbon-Neutrality Customer Group has been established (having already met twice) to have an ongoing role in steering consideration of options to deliver on carbon targets. The group will meet on a periodic basis over an initial period of three years. A key area of interest identified is a preference for local solutions.

Hydration Station locations engagement process

Water Café, Online Survey and Mini-Public findings indicated strong support for an accelerated roll-out of hydration stations. GVW recognises that the relevant communities are best positioned to understand where such hydration stations should be located. An ongoing engagement process is being designed to ensure each city or town has hydration stations in preferred locations.

1.5 ONGOING CULTURE OF EMBEDDED ENGAGEMENT

We will implement our strategy of ongoing structured engagement to ensure activities and delivery of services are in line with the expectations and preferences of our customers and communities. It will be a core “business-as-usual” activity. We will continue having a wide cross-section of employees participate in engagement activities. We will employ a range of techniques to ensure coverage of demographic diversity.

In addition, we will have an Annual Performance Forum (APF) where a representative group of customers will critique our progress against delivery of Outcomes and our broader performance, and provide recommendations for any remedial action. The APF will be a key element of ensuring our accountability to customers (refer Section 5.4).

2. OUTCOMES

The table overleaf sets out Outcomes flowing from Engagement findings, being:

1. THE BEST PRICES FOR CUSTOMERS;
2. A RENEWED FOCUS ON WATER QUALITY AND SUPPLY;
3. MODERN AND THOUGHTFUL CUSTOMER SERVICE; and
4. MEANINGFUL ENVIRONMENTAL AND RECREATIONAL OUTCOMES.

Separate to these Outcomes is our pledge to continue operating our core regulated business at a high level and a not-negotiable promise to fulfill legal and regulatory obligations and maintain or improve service standards. We clearly understand that the need to comply with public health requirements is not subject to testing with our customers.

We have treated price as an Outcome as it is a central plank of what customers perceive and measure. We have had an unfettered focus on finding means to provide the best customer-favourable price path whilst delivering other Outcomes valued by customers, and without adversely impacting our financial position.

Outcomes include ongoing structured engagement around key topics of customer interest. In this group are the Tariff-Structure trial and the Carbon-Neutrality Customer Group. Whilst not an end in itself, we see that a Tariff-Structure trial will intrinsically involve customers in a key issue of great interest to them. Participating customers will have the opportunity to benefit from lower fixed charges during the period of the trial. We see it as the best way to investigate the pros and cons of any permanent changes to tariff structures.

The issue of carbon-neutrality will involve a series of important decisions over time, each which may have particular importance for our customers and communities. Involving customers in this ongoing decision-making was seen to be the best way to ensure that Outcomes will align with customer interests.

Whilst some Outcomes only directly benefit particular groups of customers, e.g. non-potable price and quality, and private 'water by agreement' services there has been clear customer interest in equity in service provision. It has also been recognised within the business that certain "legacy" arrangements are now dated or administratively difficult for both customers and GVW.

We have grouped a number of Outcomes under the heading of *Modern and Thoughtful Customer Service*. These Outcomes reflect the interrelated themes of customer at the centre, embedded customer engagement activities, digital progression and helping customers with their water usage and leak detection.

In response to feedback around water pressure (2A) and taste (2B) we will undertake further targeted investigations and prioritisation to ensure that responses are fit-for-purpose. It is recognised that some of the feedback received to date is likely to be event-driven (for example, a black-water event impacting taste), whilst other feedback may possibly be reflective of systemic issues. Any rectification works will be funded from within existing budgets.

Other Outcomes recognise our customers' interest in protecting the environment through adopting an extended carbon emissions reduction target, environmental improvement of riparian zones and the benefit of having the convenience of hydration stations in all of our towns.

Most of the Outcomes are expected to have very little cost and/or will be absorbed by efficiencies or reprioritisation within existing budgets. Some Outcomes are associated with projects which are expected to realise significant cost savings. Water efficiency is part of the Peak Demand Reduction project which is budgeted to cost \$1.8m and avoid or delay greater than \$10m of capital expenditure. The environmental benefits are part of the \$7.51m Environmental Offsets Project which is expected to achieve a long-term saving of around \$60m. The investment in digital enablement is expected to be highly valued by customers and provide a substantial financial payback over time.

KEY THEME 1.

THE BEST PRICES FOR CUSTOMERS

1A) MORE AFFORDABLE PRICES - THROUGH REAL REDUCTIONS OF 2% P.A., BEING A TOTAL REDUCTION OF 9.6% OVER THE PRICE PERIOD

BACKGROUND: Whilst GVW's current prices are close to the lowest in Victoria we recognise the desire of our customers to receive the best value for money possible.

ENGAGEMENT FINDING

14% of survey respondents, in response to open questioning, indicated concern with the price of water and sewerage services. It was the second highest area of concern (after tariff-structure). This sentiment was backed-up at Water Cafés (6%).

OUTPUTS AND DELIVERABLES

A real 2% price decrease p.a. on water, wastewater and trade waste service and volumetric charges, being a total reduction of 9.6% over the Price Period. This will deliver a cumulative saving to a typical residential customer of \$283 over the Price Period.

ACTIVITIES AND PROCESSES

There are a range of cost reductions, risk management and revenue enhancement initiatives which will deliver the price decreases. Refer further to *Chapter 3 - Management* for detail.

INPUTS

An ESC price determination mandating a real 2% decrease p.a. for service and volumetric charges.

ACCOUNTABILITY: Our delivery of this price path will be subject to a Price Determination and ESC compliance processes.

KEY THEME 1.

THE BEST PRICES FOR CUSTOMERS

1B) CHOICE ON THE SPLIT OF FIXED VERSUS VARIABLE CHARGES - THROUGH A TARIFF STRUCTURE TRIAL AT EACH OF COBRAM AND KILMORE

BACKGROUND: Currently, GVW's standard residential water and sewerage tariffs includes fixed components of \$170.87 water and \$443.77 for sewerage, aimed at recovering the long-term, largely-fixed costs, of the water and sewerage systems (with the variable component aimed at recovering volume-based costs).

ENGAGEMENT FINDING	OUTPUTS AND DELIVERABLES	ACTIVITIES AND PROCESSES	INPUTS
<p>In response to open questioning, tariff structure was the highest area of concern of our customers. 18% of Online Survey respondents indicated a strong interest in a revision of our tariff structure to reduce the fixed charges in favour of higher volumetric charges. This sentiment was backed-up at the Water Cafés (5%). Customers indicated that such a change would provide them with greater control over their bills and provide an incentive to reduce water usage.</p> <p>It is noted by GVW that there may be considerable complexity and risk with changing the balance of tariffs between fixed and variable.</p>	<p>A trial will be conducted as a means of structured customer engagement on this issue. The trial, over a three year period from 1 July 2019, will involve customers having the option of selecting a tariff-structure with lower fixed charges or continuing with the existing tariff. Outcomes of the trial might be a decision to extend the trial, refine or otherwise alter the trial, or decide to permanently adopt a varied tariff-structure.</p> <p>Through this trial, customers will have the benefit of lower fixed charges, if they choose, and will have a real voice in tariff-structure decision-making.</p>	<p>Develop communication and education processes to explain and support the trial. Develop an alternative tariff-structure and business rules to underpin the trial.</p> <p>During the trial, monitor and evaluate:</p> <ul style="list-style-type: none"> - the number of customers who select the new option, and those who may change back; - water consumption behaviours arising from one tariff versus the other; - the revenue impact of the new tariff structure/s; and - customer satisfaction/feedback. 	<p>Cobram and Kilmore have been chosen as trial towns due to growth and water usage varying significantly between northern and southern regions.</p> <p>GVW has not made any assumptions about reductions in revenue that would result from the implementation of the trial and is thus not seeking any recovery of such during the Price Period.</p> <p>The trial will be managed by existing employee resources.</p> <p>Customer engagement program to design the tariff options for the trial completed by 31 December 2018.</p>

ACCOUNTABILITY: We are committed to having the trial underway by 1 July 2019, and a decision by 30 June 2022 as to whether to extend or vary the trial or to adopt a new tariff structure. In the event of not achieving either deadline we will make a GSL credit of \$5 to each of our residential customers. The GSL is intended to reflect our commitment and accountability to implement the trial and to using its findings to inform decision-making.

KEY THEME 1.

THE BEST PRICES FOR CUSTOMERS

1C) A 30% REDUCTION IN THE USAGE TARIFF FOR ALL CUSTOMERS RECEIVING NON-POTABLE WATER

BACKGROUND: GVW supplies six towns with non-potable water, rather than potable water. These towns are Corop, Goulburn Weir, Kirwan's Bridge, Molesworth, Strathbogie and Woods Point. Customers receiving non-potable water have been paying the same price as customers receiving potable water.

ENGAGEMENT FINDING

Through Water Cafés and Online Surveys customers registered concern with the inequity of customers in six towns receiving non-potable water paying the same tariff as for potable water

Face to face engagement was undertaken in each of the six towns to understand customers' views, followed by writing to each customer in those towns, seeking feedback. A significant number of customers indicated dissatisfaction with paying the same tariff as customers receiving potable water and many preferred a lower price over a water quality upgrade.

Mini-Public participants supported a 30% reduction in the usage tariff for non-potable customers.

OUTPUTS AND DELIVERABLES

As a measure of timely responsiveness a 30% reduction in the variable usage tariff for non-potable customers has been implemented from 1 July 2017. This compares to the 50% reduction which currently applies to raw water supplies. (The fixed service charge will remain unchanged).

Whilst already actioned, it is noted in this Price Submission as part of a packaged response to customers in non-potable towns, which flows from the Price Submission engagement.

ACTIVITIES AND PROCESSES

Maintain reduced variable usage tariff for non-potable towns.

INPUTS

The reduced revenue from applying the 30% variable tariff reduction will be absorbed by operating cost efficiencies. The average saving to each customer will be around \$84 p.a.

ACCOUNTABILITY: This initiative has already been implemented. Ongoing engagement will gauge customers' satisfaction with the price reduction.

KEY THEME 2.

A RENEWED FOCUS ON WATER QUALITY AND SUPPLY

2A) IMPROVED WATER PRESSURE FOR IDENTIFIED COMMUNITIES – THROUGH TARGETED INVESTIGATIONS AND RESPONSES

BACKGROUND: GVW has 37 discrete water treatment and supply systems, which can lead to variable, albeit compliant, pressure outcomes for different communities.

ENGAGEMENT FINDING	OUTPUTS AND DELIVERABLES	ACTIVITIES AND PROCESSES	INPUTS
<p>In response to a survey question of “how GVW can offer greater value for customers” 3.2% of customers identified water pressure as an issue, being the fourth most mentioned issue. In addition, over the four years to 30 June 2017, 588 customer complaints regarding water pressure were received.</p> <p>Although it is believed that our water pressure does meet minimum standards, this feedback indicates that it is not meeting the expectations of some customers. Most concern with pressure seems to be in smaller towns such as Barmah, Picola and Stanhope.</p>	<p>Development and implementation of a program by 30 June 2019 to address localised water pressure issues in identified towns.</p> <p>Completion of a review of water pressure standards and development of a new GVW standard in consultation with customers by 30 June 2019.</p> <p>Completion of water pressure improvements for a pilot town (Picola is currently proposed) by 30 June 2020.</p> <p>Prioritised water pressure improvements for at least two towns per year, if needed, from 2020/21 until all identified towns with issues are improved.</p>	<p>Further targeted customer engagement to fully understand the extent of towns that have water pressure issues.</p> <p>Development of a small town water pressure improvement program.</p> <p>Undertake a review of water pressure standards.</p> <p>Implementation of water pressure improvement projects.</p>	<p>Whilst water pressure improvements will be undertaken during the Price Period, the precise responses and their costs are not known at this stage, and accordingly have not been built into this Price Submission. However, this does not diminish the commitment.</p> <p>Rather GVW will include such capital costs into the opening RAB for the subsequent price period.</p>

ACCOUNTABILITY: The identified towns will be addressed in priority order. It is proposed that surveying of water pressure satisfaction will be undertaken for each subject town immediately before and after any works. Where results do not meet Customer Charter requirements a GSL credit of \$25 p.a. will be made to affected customers until such time as the pressure meets the standard.

KEY THEME 2.

A RENEWED FOCUS ON WATER QUALITY AND SUPPLY

2B) IMPROVED WATER TASTE FOR COMMUNITIES WITH SYSTEMIC ISSUES - THROUGH TARGETED INVESTIGATIONS AND RESPONSES

BACKGROUND: GVW has 37 discrete sources of water and/or treatment facilities, which can sometimes lead to variable taste outcomes across our region. Moreover, taste issues can often be event-driven.

ENGAGEMENT FINDING	OUTPUTS AND DELIVERABLES	ACTIVITIES AND PROCESSES	INPUTS
<p>In response to a survey question of “how GVW can offer greater value for customers” 6.8% of customers identified water taste as an issue, being the third highest concern of customers. This engagement feedback was in addition to the regular customer feedback we receive through our complaint processes. Over the four years to 30 June 2017, 214 customer complaints regarding water taste were received. Analysis of complaint data does not indicated any towns that consistently have issues.</p>	<p>Customer engagement program to be undertaken by 30 June 2019 to identify towns with taste issues that warrant further investigation.</p> <p>Delivery of water taste improvement for two towns per year from 2021/22 in a prioritised manner until completion of all identified towns with issues.</p>	<p>Development of:</p> <ul style="list-style-type: none"> - a customer engagement program; - options to improve service to customers if warranted; - water taste improvement program developed by 30 June 2020; and - specific water taste improvement projects. 	<p>Improved and ongoing collection of water quality data.</p> <p>Given that improvement options are uncertain at this stage GVW has not included funding for improvement works in this Price Submission.</p> <p>The commitment is however to implement improvement options as per the outputs in the Price Period and seek inclusion of any significant costs incurred in the RAB for the subsequent price period.</p>

ACCOUNTABILITY: Once the program is established, any towns with systemic taste issues (non-event driven) will be informed of the timing for improvements. In the event of the timing not being achieved a GSL credit of \$25 p.a. per affected customer will be made for each year of delay.

KEY THEME 2. A RENEWED FOCUS ON WATER QUALITY AND SUPPLY

2C) MUCH IMPROVED STANDARD OF WATER TO BE SUPPLIED TO SELECTED TOWNS RECEIVING NON-POTABLE WATER - THROUGH TARGETED UPGRADES

BACKGROUND: GVW supplies six towns with non-potable water - Corop, Goulburn Weir, Kirwan's Bridge, Molesworth, Strathbogie and Woods Point. Non-potable water quality can vary markedly from town to town. Customers receiving non-potable water have been paying the same price as customers receiving potable water. Most customers in these towns have invested in rainwater tanks to supply some of their household water, and some use the water to irrigate.

ENGAGEMENT FINDING	OUTPUTS AND DELIVERABLES	ACTIVITIES AND PROCESSES	INPUTS
<p>91% of Water Café and Online Survey respondents indicated support for upgrading supplies to towns that currently receive non-potable water, if there was no cost to them. This topic was explored further at the Mini-Public. It was concluded that upgrade of non-potable supplies should proceed if supported by the specific towns.</p> <p>In-person engagement was undertaken in each affected town to understand customers' views, followed by GVW writing to each customer, seeking feedback. Two towns in particular indicate a preference for an upgrade, whilst other towns may be content with just receiving a price decrease. This is largely driven by the difference in water quality.</p>	<p>Progressive upgrade of the water quality to those towns currently supplied with non-potable water in line with the preferences of affected customers.</p> <p>Customer Reference Groups for towns with an interest in improved water quality will be formed by 30 June 2018.</p> <p>Options for water quality improvement developed in consultation with reference groups by 30 June 2019.</p> <p>Agreed improvement option for at least two towns developed by 30 June 2021.</p> <p>If improvements are needed, agreed improvement options for remaining towns developed by 30 June 2023.</p>	<p>Further engagement with all customers of non-potable towns to better understand individual preferences for water upgrades.</p> <p>Formation of Customer Reference Groups for each town.</p> <p>Development of options for each upgrade project.</p> <p>Planning, design and implementation of improvement works.</p> <p>Research & Development on fit-for-purpose WTP upgrades in non-potable systems will occur during the Price Period.</p>	<p>Engagement activities to be funded from existing budgets.</p> <p>\$315,000 of capital works funding for planning and design of improvement projects.</p> <p>It is expected that improvement works may cost in the order of \$0.5m-\$1m per town, however, given that improvement options are uncertain at this stage, funding is not sought during the Price Period. Rather, approved expenditure will be included in the RAB for the subsequent price period.</p>

ACCOUNTABILITY: Based on priority and the above dates, each customer of each impacted town will receive a GSL credit of \$50 p.a. for each year of delay.

KEY THEME 2.

A RENEWED FOCUS ON WATER QUALITY AND SUPPLY

2D) RELIEF FROM COSTLY MAINTENANCE AND REPLACEMENT OBLIGATIONS AND COMPLEX ADMINISTRATION PROCESSES FOR PRIVATE SERVICE CUSTOMERS

BACKGROUND: As a result of legacy arrangements, around 1,500 customers are supplied with water via private water pipes under “Water by Agreement” arrangements, paying the same prices as other GVW customers. These customers have repair and maintenance obligations and, at times, difficult administration processes to negotiate. These customers are often not aware that they have private services until a problem occurs.

ENGAGEMENT FINDING	OUTPUTS AND DELIVERABLES	ACTIVITIES AND PROCESSES	INPUTS
<p>During the past year, over 200 “Water by Agreement” customers indicated dissatisfaction with private supply arrangements (through their transaction engagement with our Technical Customer Services team).</p> <p>Issues arise due to the assets being near the end of their lives and/or in disrepair and customers not understanding that responsibility sits with them rather than GVW.</p>	<p>A program to progressively replace private pipes with GVW-owned assets or otherwise transfer customers from private water pipes to GVW owned assets.</p> <p>We will deliver at least 60 property conversions per year over the Price Period.</p>	<p>Development of guidelines for the progressive replacement of private services with GVW owned assets by 30 December 2018.</p> <p>Private service assessment process for inclusion in the program.</p> <p>Water main replacement program</p>	<p>To be funded from the existing GVW water main replacement program, at the rate of up to \$300,000 per year.</p>

ACCOUNTABILITY: We will include information on progress against targets in our annual reporting to customers. In the event of the funds not being effectively spent in property service conversions, any appropriate remedy will be considered by customers through the Annual Performance Forum.

KEY THEME 3.

MODERN AND THOUGHTFUL CUSTOMER SERVICE

3A) A MORE EFFICIENT AND CONSISTENT CUSTOMER EXPERIENCE - THROUGH IMPLEMENTATION OF OUR "CUSTOMER AT THE CENTRE" STRATEGY

BACKGROUND: In parallel with the preparation of this Price Submission, a Customer Strategy Working Group has been focused on improving our approach to delivering service excellence to customers. It is noted that GVW has traditionally had four key customer interface groups without common oversight or co-ordination. Whilst this configuration has served the organisation well, we have been exploring options which may include a different basis of working between customer facing groups or other process improvements.

ENGAGEMENT FINDING	OUTPUTS AND DELIVERABLES	ACTIVITIES AND PROCESSES	INPUTS
<p>Results from the <i>Annual Customer Service Evaluation Research Survey</i> and the <i>Employee Survey</i>, indicate generally high, but varying, levels of customer satisfaction when dealing with different GVW customer service groups. Experiences can be inconsistent and, at times, unnecessarily difficult for customers (for example where a customer may need to make contact a number of times before an issue is resolved).</p>	<p>Improvement in customer satisfaction levels over the price period.</p> <p>Implementation of improvements flowing from the Digital Enablement Strategy (see Outcome 3B) below).</p> <p>Key aspects of the strategy include:</p> <ul style="list-style-type: none"> - continue to reinforce the importance of first contact resolution; - listen and demonstrate understanding of customer needs; - online services to be implemented; - keep customers informed on progress; - speed of response and clarity of answering questions; and - develop an understanding of customers' business needs. 	<p>A Customer Strategy Governance Group to implement our new "customer at the centre" strategy has been established to progress a number of initiatives to address feedback and improve the customer experience.</p> <p>Ongoing development and training for all employees that have external facing engagement with customers.</p> <p>Feedback mechanisms improved and utilised across the business in a consistent manner.</p> <p>Embed customer at the centre thinking into business as usual activities.</p> <p>Establish and implement a customer journey improvement program (informed by process and customer journey mapping).</p>	<p>External customer advice from KPMG.</p> <p>The projects will be funded from within the \$5.72m capital works budget for the Digital Enablement strategy.</p> <p>Project management and other employee resourcing to develop the customer focused projects will be provided from the \$3.12m operating budget for the Digital Enablement Strategy.</p> <p>The customer based projects will contribute to operating cost savings to be achieved from implementation of the Digital Enablement Strategy.</p>

ACCOUNTABILITY: The results of our annual Customer Satisfaction Survey will be reported to customers each year and considered at each Annual Performance Forum to seek customers' view on any action needed. Where there is any shortfall in performance against previous levels we will undertake targeted improvement activities to close the gap.

KEY THEME 3.

MODERN AND THOUGHTFUL CUSTOMER SERVICE

3B) 24/7 DIGITAL ACCESS AND ONLINE SELF-SERVICE – THROUGH IMPLEMENTATION OF RESIDENTIAL AND BUSINESS ONLINE PORTALS

BACKGROUND: GVW currently has a modern functional website, and communication functionality including webchat. However we do not the portal functionality of the Melbourne-based water corporations.

ENGAGEMENT FINDING	OUTPUTS AND DELIVERABLES	ACTIVITIES AND PROCESSES	INPUTS
<p>Customers support the utilisation of digital technology for access and self-service. Priorities are:</p> <ul style="list-style-type: none"> - online bill payment options; - online customer portal (containing account balance, billing history; personal details); - maps showing current and planned interruptions. <p>We further investigated this topic in our <i>Annual Customer Service Evaluation Research Survey</i>. 65% of connection customers and 66% of residential customers were likely-to-very-likely to use a portal to perform self-service functions.</p>	<p>A residential customer internet portal by 30 June 2019 with functionality to:</p> <ul style="list-style-type: none"> - manage account details; - pay and view invoices; - request payment extensions; and - view information of scheduled and unscheduled water outages and locations. <p>Implementation of a 'connections' customer (developers, plumbers, builders, consultants.) internet portal by 30 June 2020 with the functionality for self-service of:</p> <ul style="list-style-type: none"> - building plan approvals; - diagrams; - pressure enquiries; and - meter installations. 	<p>Education of GVW employees in the use and benefits of digital technologies, making this business as usual thinking.</p> <p>Educational programs for our customers to explain the new and upgraded digital enhancements (online videos, information sheets).</p> <p>Further Digital Enablement will allow better data analytics/business intelligence to improve our service offering.</p>	<p>A dedicated project team to support the development of new online services for customers.</p> <p>The customer portals will be funded from within the \$5.72m capital works budget for implementation of the Digital Enablement Strategy.</p> <p>Project management and other employees resourcing to develop the customer portals will be provided from the \$3.12m operating budget for implementation of the Digital Enablement Strategy.</p> <p>The customer portals will contribute to operating cost savings to be achieved from the Digital Enablement Strategy implementation.</p>

ACCOUNTABILITY: GVW sees significant value and efficiency savings through having an effective customer portal and therefore has commercial alignment with the desires of customers. Where customers are able to directly manage their accounts, GVW should benefit from cost-efficiency gains in this administrative function.

KEY THEME 3.

MODERN AND THOUGHTFUL CUSTOMER SERVICE

3C) REAL-TIME NOTIFICATION OF DETAILS AND LOCATIONS OF FAULTS AND OUTAGES – THROUGH AUTOMATED SMS NOTIFICATIONS

BACKGROUND: Currently GVW does not have an automated systematic means to notify customers of faults, outages or other essential or emergency information.

ENGAGEMENT FINDING	OUTPUTS AND DELIVERABLES	ACTIVITIES AND PROCESSES	INPUTS
<p>Water Cafés and Online Surveys found that customers place much higher value on timely information about faults and interruptions than on response times.</p> <p>Whilst there is a 68% satisfaction with being kept informed, there is clearly room for improvement.</p> <p>A follow up question was developed for the <i>Annual Customer Service Evaluation Research Survey</i> to determine opportunities for improvement around notifications.</p>	<p>Improved customer access to faults and interruptions information through Short Message Service (SMS) messaging, including links to information relevant to customers, and online mapping through the GVW website.</p> <p>SMS notification is completed for 100% of faults and interruption events that impact customers from 30 June 2019.</p> <p>Online faults and interruption mapping tool is developed by 30 June 2020.</p> <p>100% of faults and interruptions are recorded on the online mapping tool by 30 June 2021.</p>	<p>Proactively build our database of customers' mobile phone numbers.</p> <p>Develop a formal SMS messaging protocol and procedure.</p> <p>Online faults mapping forms part of the Digital Enablement Strategy.</p>	<p>Online faults mapping will be funded from within the \$5.72m capital works budget for implementation of the Digital Enablement Strategy.</p> <p>Project management and other internal employees resourcing to develop online faults mapping will be provided from the \$3.12m operating budget for implementation of the Digital Enablement Strategy.</p>

ACCOUNTABILITY: From 1 July 2019 onwards in the event of GVW not sending an SMS notification to affected customers when a prescribed event occurs, a GSL credit of \$25 will be due to all affected customers. This GSL commitment applies only to customers who have provided their mobile number to GVW.

KEY THEME 3.

MODERN AND THOUGHTFUL CUSTOMER SERVICE

D) ONGOING OPPORTUNITIES TO EXPRESS PREFERENCES AND EXPECTATIONS - THROUGH A RANGE OF CULTURALLY-EMBEDDED ENGAGEMENT PROCESSES

BACKGROUND: With the introduction of the PREMO approach, GVW has recognised new opportunities to improve engagement activities with our customers and communities.

ENGAGEMENT FINDING	OUTPUTS AND DELIVERABLES	ACTIVITIES AND PROCESSES	INPUTS
<p>Engagement activities have highlighted the depth and breadth of issues upon which customers hold opinions and the value placed on “having a voice”. At the Water Cafés and the Mini-Public, many customers expressed gratitude for being acknowledged and heard.</p> <p>GVW employees have also seen the benefits of engagement activities with around 60 of our employees being directly involved with customers.</p> <p>The value of this type of engagement into the future, as a business as usual activity and way of thinking has been recognised.</p> <p>There is a need for ongoing integrated customer engagement to inform business activities, and better utilisation of business analytics to understand customer needs.</p>	<p>Ongoing decision-making and accountability for delivery of Outcomes, to be guided by customer views.</p> <p>Implementation of the Customer Engagement Strategy, providing multiple opportunities for customers to express expectations and preferences, to inform business decision-making.</p> <p>Ongoing structured review of customer intelligence in our CRM as an input to effective business planning.</p> <p>We will hold an Annual Performance Forum (APF) where a representative group of customers will critique our progress against delivery of Outcomes and our broader performance, and provide recommendations for action. The APF will be a key element of ensuring our accountability to customers.</p>	<p>Development of an ongoing Customer Engagement Strategy for 2018/23 by 30 June 2018 (interim strategy currently in place for 2017/18). It will culturally embed the methods and tools utilised throughout the Price Submission process as business-as-usual activities.</p> <p>Each year have at least: 15 Water Café events, 2 customer surveys, 3 community meetings and 1 Annual Performance Forum.</p> <p>Continue with the annual Customer Satisfaction Survey.</p> <p>Continue to improve data collection from our customers.</p> <p>Employee training in engagement techniques.</p> <p>Recruit customer participants for the Mini-Public and Annual Performance Forum.</p>	<p>To be managed within existing resources across the organisation.</p>

ACCOUNTABILITY: The Annual Performance Forum will consider the success of the ongoing engagement activities (as well as progress against the delivery of other Outcomes) and make recommendations for any improvements required.

KEY THEME 3. MODERN AND THOUGHTFUL CUSTOMER SERVICE

E) ASSISTANCE WITH WATER EFFICIENCY AND LEAK DETECTION – THROUGH THE PEAK DEMAND REDUCTION PROJECT

BACKGROUND: If the capacity of water mains is exceeded, water pressure will decline to unacceptable levels. In Kilmore, Mansfield, Kialla Lakes and Broadford times of peak usage water use (e.g. in early evenings when families might be showering and watering their gardens) are presenting capacity constraints. A mains upgrade response would require an investment of around \$10m within the next three years. However, if time-of-day or day-of-week water use can be changed to smooth-out peak demand, the need for the upgrade could be delayed or avoided.

ENGAGEMENT FINDING	OUTPUTS AND DELIVERABLES	ACTIVITIES AND PROCESSES	INPUTS
<p>50% of surveyed customers answered positively to the question, <i>“Do you want more information on how to use water efficiently?”</i></p> <p>At the Mini-Public it was explained that customer involvement in reducing and/or shifting demand can assist in deferring capital expenditures otherwise required to increase supply capacity.</p> <p>Such an initiative would involve intelligent metering of target areas with related support around water efficiency products and advice.</p> <p>Mini-Public findings indicate strong support for intelligent metering, whilst noting that customer behavior can be difficult to predict.</p>	<p>A Peak Demand Reduction Project focused on avoiding or deferring capital expenditures which would otherwise be needed to increase supply capacity.</p> <p>Avoidance or deferral of capital expenditure of greater than \$10m that would otherwise be required to provide peak capacity.</p> <p>Intelligent meters that can be read remotely in real-time will:</p> <ul style="list-style-type: none"> - allow customers to monitor their usage on a daily, time of day and seasonal basis; - enable prompt notification to customers if meter activity indicates a likely leak on a customer’s property; - provide information and potential incentives for customers to use water at different times of the day, to reduce time-of-day usage peaks. 	<p>Intelligent metering to provide real-time usage data for over 9,000 customers in growth towns by 30 June 2021.</p> <p>Development of an interactive customer portal.</p> <p>Customer engagement program to inform the development of behaviour change support programs.</p> <p>By 30 June 2022 implement a water-use behavior change project involving:</p> <ul style="list-style-type: none"> - analysis of real-time usage data; - focus on those customers most contributing to peak-time usage; - assist customers to reduce water use at peak times. Methods may include water audits, installation of water-efficient appliances and programmable sprinklers, and one-on-one / tailored assistance. 	<p>\$1.8m of capital works funding for intelligent meters.</p> <p>Future behaviour change support programs will be funded from savings achieved in deferral of growth projects.</p>

ACCOUNTABILITY: In the event of the Peak Demand Reduction Project, not being successful, more than \$10m of capital will need to be expended by GVW.

KEY THEME 4.

MEANINGFUL ENVIRONMENTAL AND RECREATIONAL OUTCOMES

A) REDUCTION OF CARBON EMISSIONS IN LINE WITH COMMUNITY PREFERENCE - THROUGH AN EXTENDED TARGET OF 30%

BACKGROUND: GVW's business activities create carbon emissions from two sources, firstly, the use of electricity in transporting and treating water and wastewater, and secondly, direct emissions from the treatment of wastewater. Under the *Statement of Obligations (Emissions Reduction)* GVW has an obligation to reduce carbon emissions by 19% (or 9,046 tCO₂/y) by 2025.

ENGAGEMENT FINDING	OUTPUTS AND DELIVERABLES	ACTIVITIES AND PROCESSES	INPUTS
<p>At the Mini-Public, based on a willingness-to-pay analysis, customers provided strong endorsement for a more ambitious carbon emissions reduction of at least 30% (with some supporting a target of 40%) by 2025, having been informed of the indicative bill impact. There is also customer interest in a focus on prioritising cost-effective local investment.</p>	<p>Projects to deliver a 30% reduction in carbon emissions by 2025, including:</p> <ul style="list-style-type: none"> - solar photovoltaic panels at 74 sites; - 237 energy efficiency projects; and - enhanced reporting and process analysis at wastewater treatment sites, stricter low-carbon asset standards and a targeted leak detection program. 	<p>Implementation of carbon emission reduction projects, as set out in our Climate Change Mitigation Strategy, recently prepared with the assistance of engineering consultants, <i>Jacobs</i>.</p> <p>Actioning of ongoing input from the Carbon Neutrality Customer Group (see 4B) below).</p>	<p>\$5.8m of capital expenditure (\$4.2m for solar panels and \$1.6m for energy efficiency) which is expected to only have a very minor impact on required revenue, due to the financial payback of the initiatives.</p> <p>GVW is a potential participant in the Intelligent Water Network's Large Scale Renewables Project, if it eventuates.</p>

ACCOUNTABILITY: We will report to customers annually on progress against the forecast carbon reduction trajectory. In the event of being significantly below the planned trajectory at the end of any year, the Carbon-Neutrality Customer Group will consider and advise upon what may be an appropriate response for customers.

KEY THEME 4.

MEANINGFUL ENVIRONMENTAL AND RECREATIONAL OUTCOMES

B) ONGOING PARTICIPATION IN THE CHOICE AND DESIGN OF CARBON EMISSION SOLUTIONS - THROUGH THE CARBON-NEUTRALITY CUSTOMER GROUP

BACKGROUND: Whilst we have developed a Climate Change Mitigation Strategy it will need to be guided by a series of decisions over time. This is particularly pertinent as new and emerging technologies are evolving at a rapid rate, both in terms of cost and effectiveness. In addition, the development of Intelligent Water Network's Large Scale Renewables project remains largely beyond the control of GVW and, thus will require future consideration.

ENGAGEMENT FINDING	OUTPUTS AND DELIVERABLES	ACTIVITIES AND PROCESSES	INPUTS
Customer feedback from Water Cafés and the Online Survey, indicated that 50% of respondents think that the community should be consulted on how to reduce carbon emissions.	Ongoing customer input to carbon neutrality decisions through the work of a standing Carbon-Neutrality Customer Group. It will provide customer guidance on carbon reduction activities and participation in the key approaches adopted.	<p>A Carbon-Neutrality Customer Group of 23 independently recruited customers has been established (and already met twice).</p> <p>A Terms of Reference has been developed.</p> <p>The Group is exploring the scope for local solutions and synergies, and will provide indications of preferences and expectations.</p> <p>The Group will meet around three times per year during the Price Period.</p> <p>Ongoing development of agendas and options for consideration.</p>	<p>Ongoing venue, hosting and facilitation of the Carbon-Neutrality Customer Group.</p> <p>Ongoing participation of Carbon-Neutrality Customer Group members.</p>

ACCOUNTABILITY: The group has been convened. It will report annually on its utilisation and effectiveness as a customer voice in the methods to reduce carbon emissions.

KEY THEME 4.

MEANINGFUL ENVIRONMENTAL AND RECREATIONAL OUTCOMES

C) IMPROVED ENVIRONMENTAL AND COMMUNITY RECREATION OUTCOMES IN RIPARIAN ZONES – THROUGH ENVIRONMENTAL OFFSETS PROJECTS

BACKGROUND: In response to wastewater treatment capacity constraints we have developed an Environmental Offsets Project (“EOP”) that involves low energy techniques, riparian zone improvement and stormwater management, rather than relying upon traditional engineering responses. An EOP involves an extra aeration stage during lagoon-based treatment as well as rock filters, nutrient removal and disinfection to improve the recycled water quality, and a program of off-site catchment improvement works. GVW has received Environment Protection Agency (“EPA”) approval to implement and EOP at Kilmore.

ENGAGEMENT FINDING	OUTPUTS AND DELIVERABLES	ACTIVITIES AND PROCESSES	INPUTS
<p>Direct engagement activities resulted in the support of local stakeholders (CMA, Council, Community, and Landcare) for EOPs. Engagement findings indicate that customers have supporting interests in cost reduction and environment care/protection.</p> <p>Whilst the EOP concept was developed as a more cost-effective and environmentally friendly solution, engagement findings have confirmed it is valued by customers and communities.</p>	<p>Obtain EPA works approval for an EOP at Mansfield by 30 December 2018.</p> <p>Complete the Mansfield WMF EOP during 2020/21.</p> <p>Complete the Kilmore WMF EOP during 2021/22.</p> <p>Improved environmental outcomes.</p> <p>Improved recreational environments for local communities.</p>	<p>In accordance with the Environmental Offsets Project implementation plans.</p>	<p>\$7.51m of capital works funding for the two offsets projects during the 2018-2023 period.</p> <p>This expenditure compares to around \$60m that would otherwise be required to implement traditional engineering measures over the longer term.</p>

ACCOUNTABILITY: If GVW is not successful in implementing EOPs we will face possible sanctions from the EPA, and will then have to make compensating expenditures (possibly by traditional means) to rectify the situation. Thus GVW is clearly incentivised to deliver this Outcome.

KEY THEME 4.

MEANINGFUL ENVIRONMENTAL AND RECREATIONAL OUTCOMES

D) ACCESS TO FRESH DRINKING WATER IN PUBLIC PLACES IN ALL TOWNS SUPPLIED WITH POTABLE WATER – THROUGH INSTALLATION OF HYDRATIONS STATIONS

BACKGROUND: To provide fresh drinking water in public places, GVW periodically installs hydration stations (public drinking and water bottle-filling stations). To date 12 hydration stations have been installed. Hydration stations are suitable for locations like community centres, sports venues, parks and gardens and central shopping areas.

ENGAGEMENT FINDING	OUTPUTS AND DELIVERABLES	ACTIVITIES AND PROCESSES	INPUTS
<p>Water Cafés (88% support), Online Survey and the Mini-Public feedback indicated strong support for an expanded program of hydration station installations.</p> <p>At the Mini-Public an option of installing hydration stations at the rate of eight per year received support. It was also recommended by customers that the locations of hydration stations should be promoted.</p>	<p>Installation of an additional 40 hydration stations in public places at the rate of eight per year to ensure there is at least one in each of GVW's 48 towns supplied with potable water by the end of the Price Period.</p> <p>Community health benefits by providing access to free safe water.</p>	<p>A targeted customer engagement program to identify desired locations.</p> <p>Annual delivery program in collaboration with relevant local authorities and/ or other community organisations.</p> <p>Engagement to establish priority and preferred locations for the hydration stations.</p>	<p>\$64,000 per year for installation of hydration stations.</p> <p>Memorandum of Understanding established with each local Council for ongoing maintenance of the hydration stations</p>

ACCOUNTABILITY: A prioritised list of hydration station installations to cover all of our towns over the Price Period will be developed. In the event of a hydration station not being delivered within the indicated timeframe, each customer in that town will receive a GSL payment of \$20 for each year of delay.

3. MANAGEMENT

3.1. GOVERNANCE

In compiling this Price Submission we have applied tailored governance and accountability frameworks to ensure sufficient rigour and transparency to support the Board's attestation.

Our 2017-22 Corporate Plan was used as the starting point for development of the Price Submission forecasts. This allowed focus on things which are different, incremental or where leaner margins and/or contingencies were adopted. Our project team was led by two General Managers with wide support across the business. Specialist advisors were utilised to provide objective advice and scrutiny of our approach. Such key advisors included *Insync Surveys* for engagement activities, *KPMG* for our financial model and advice around the PREMO criteria, *Frontier Economics* in relation to demand forecasts, *Jacobs* in relation to capital expenditure projects and their cost estimation, *GHD* in relation to moving to ISO55001 certification for asset management, *Inside Infrastructure* in relation to operating expenditures, and a number of specialist advisories such as *RMCG* in relation to farming operations and *Crowe Horwath* in relation to the motor vehicle fleet.

At each Board meeting over the past 18 months the Board has been informed of updates from the ESC and the development of GVW's approach, progress and key matters requiring decisions.

3.2 DEMAND

Water Demand Forecasts

Our water demand forecasts used in this Price Submission are based on our Urban Water Strategy (UWS) forecasts for the 2016-2065 period. The UWS was prepared in line with principles and assumptions in the "*Guidelines for the Development of Urban Water Strategies and the Melbourne Water System Strategy*" as issued by DELWP. It is assumed that average climate conditions occur over the Price Period and that no water restrictions other than permanent water conservation measures are applied.

We engaged consultant *Frontier Economics* to independently review our forecasts and we made some minor updates in line with their recommendations.

Categories of water demand are as follows:

Residential Customers (56.8%) Forecast growth in residential demand is based on an assessment of historical connection growth rates, along with *Victoria in Future 2016* growth forecasts.

Two multi-variate regression models were developed to forecast residential water demand, based on the aggregated demand for all systems managed by GVW and including climatic variables. Model outputs enabled estimation of future demand taking into account forecast development, predicted climate change and the impact of demand management initiatives, such as the Water Conservation By-Law and Permanent Water Saving Rules, with relative confidence. Two models were developed to improve forecast accuracy and recognise differing demand patterns/usage between the northern and southern areas of GVW's region.

Commercial and minor industrial customers (18.2%) In absolute terms, this portion of demand has been relatively static over the past 10 years. The nature and number of these customers change quite slowly, without there being a defined trend. Thus, any benefit of using a complex forecasting model would be spurious. Consequently, for forecasting purposes, the existing average demand per assessment has been adopted after taking into account the predicted increase in assessments.

Forecast growth in non-residential customer demand is based on an assessment of historical connection growth rates along with *Victoria in Future 2016* growth forecasts.

Major Industrial customers (25%) are predominately dairy, fruit and other food processing companies. Such demand can be subject to a multitude of influences such as economic conditions, changes in technology, production volumes and water conservation efforts. Seasonal climatic variations have limited impact on industry demand, although one-off events, such as frosts, storms and floods, may impact on primary production to the extent that industry productivity is also affected. These events are generally not predictable. In order to prepare forecasts for major industry demand, each industry has been considered in isolation and consulted in relation to their expected production growth and any other proposed changes over the forecast period.

Industry contacts have indicated a high level of uncertainty in forecasting future demand. Consequently, industrial demand has been forecast as maintaining existing levels. Related revenue risk is discussed at section 4.2.

Raw Water Transfer & Distribution Systems Non-Revenue Water have been forecast based on a review and evaluation of historic data for each water supply system. Where the historic data is not considered representative of current conditions or is impacted by meter error it has been excluded from the analysis. A forecast of non-revenue water has then been generated based on the average from the years with reliable data.

Water Treatment Plant Production Water is the volume of water used in treatment processes such as sludge removal and backwashing. It varies according to the type of facility and technology utilised. Its volume is proportional to the aggregated residential, commercial and major industrial consumption, and distribution system non-revenue water, being the volume of water produced and delivered into the distribution system. It is generally in the range 3% to 10% of production.

The volume of production water included in the demand forecasts for each water treatment plant is based on an assessment of historical production water percentages.

Impact of Prices on Demand

GVW does not have the information to understand the impact of changes in price on demand. However, as context:

- our regulated water tariffs are close to the lowest in Victoria;
- changes in residential demand in recent years can largely be explained by climate variations;
- we do not have any means to discern or isolate any price impacts on demand;
- commercial demand has remained relatively static in recent years and there is no indication that price increases have impacted on demand; and
- water costs represent only a minor portion of input costs for major industrial customers, whereas economic conditions, changes to technology and water conservation initiatives by the individual businesses will have greater impact.

Accordingly, we have not made any allowance in the demand forecasts for any impact of reduced prices on demand. Tariff-structure trials at Cobram and Kilmore may provide evidence of price impact on demand for future price periods.

Recent variations in demand are related to extreme dry climate conditions in 2015/16 and wetter than average climate conditions in 2016/17. The forecast for 2017/18 and beyond is based on long-term average climate conditions occurring.

Wastewater Demand Forecasts

GVW operates 26 wastewater management facilities and, in the case of Wandong/Heathcote Junction, delivers wastewater to Yarra Valley Water. Demand forecasts have been formulated through the aggregation of five categories of demand being residential, non-residential, industrial trade waste, water treatment plant waste and infiltration volumes.

Only non-residential customers incur a volumetric charge. Major trade waste customers are also charged based on waste composition parameters. Only major trade waste customer and water treatment plant waste discharges to the sewerage system are metered. The other non-residential customers are charged on an estimated volume, based on applying discharge factors, depending on the type of property-use, to the volume of water consumed,. The discharge factor varies for different customer categories, necessitating individual calculation of property volumes and aggregation of the results on a township or region basis. Residential customers are charged a fixed service fee unrelated to volume discharged.

For the purposes of estimating residential, non-residential and infiltration volumes, the known major industrial discharge and water treatment plant waste volumes are subtracted from the bulk metered inflow to the wastewater management facility.

The residual volume is attributed to residential sewage and infiltration/meter error, neither of which impacts on revenue. The residential volume component has been estimated having regard to the number of residential connections and average occupancy rate on a township basis, with a typical allowance of 175 litres per capita per day.

Forecasting of trade waste volumes has had regard to the discussions held with major customers. The forecasts have taken into account historic growth trends and waste characteristics, development outlook, waste minimisation initiatives, water conservation and sodium reduction programs.

3.3 OPERATING EXPENDITURE

All dollar figures in this document are at 1 January 2018 (\$2018) unless otherwise indicated.

Water Plan 3 (2013-18) Performance

The table below summarises operating cost performance over Water Plan 3 (WP3). Total ESC-approved operating expenditure was \$208.5m (\$2013), equating to \$230.6m in 2018 dollars. During the first year of WP3, the Fairer Water Bills Initiative (FWBI) was introduced by the Victorian Government. GVW identified \$5.2m of operating expenditure savings. This resulted in a revised target for WP3 operating expenditure of \$225.4m. Actual operating expenditure for WP3 is currently forecast to be \$227.1m, being within 1% of the revised target.

	13/14	14/15	15/16	16/17	17/18	Total
Determination	47.1	46.2	45.4	46.0	45.8	230.6
Revised target net of FWBI	47.1	45.2	44.2	44.5	44.4	225.4
Actual/forecast expenditure	43.3	43.1	45.6	48.0	47.1	227.1

Recent increases in expenditure are attributable to: a number of one-off expenditure items; wet climate conditions in 2016/17; increased expenditure to improve GVW's safety performance; and measures to address gaps in preventative maintenance programs.

2018-23 Price Submission Expenditure

Baseline Operating Expenditure

GVW engaged consultant *Inside Infrastructure* to independently review operating costs and provide recommendations to establish the expenditure baseline, with reference to actual prescribed operating expenditure for 2016/17. Figures below exclude the Environmental Contribution paid to the Government.

The adopted baseline operating expenditure is \$43.3m (or \$41.8m excluding non-controllable costs). This is significantly less than the actual operating expenditure for 2016/17 of \$48.0m (or \$44.2m excluding non-controllable costs) and reflects adjustments that have been made to remove one-off or non-recurring expenditure, and incremental expenditures incurred which rightly should have been included in WP3 forecasts.

Customer connections are forecast to grow at 1.3% p.a. over the Price Period. In addition, total expenditure of \$22.2m on new initiatives was assessed by *Inside Infrastructure* as being prudent and efficient. The items are shown below:

	\$m
Consequential operating costs relating to new capital assets	6.3
Addressing identified gaps in preventative maintenance programs	4.4
Digital enablement to deliver customer portals, notification processes and other	3.1
Operational resourcing to continue to maintain existing service levels	2.6
Forecast electricity price increases	1.7
Corporate resourcing for safety, Water for Victoria and engagement activities	1.7
Improved environmental compliance and reduce biosolids stockpiles	0.7
Sundry	1.6
Total	22.2

The consequent rolled-forward baseline operating expenditure is shown below.

	17/18	18/19	19/20	20/21	21/22	22/23	Total
Baseline opex	41.8						
Baseline plus 1.3% growth		42.3	42.9	43.4	44.0	44.5	217.1
Prudent & efficient new initiatives		4.0	4.2	4.5	4.7	4.8	22.2
Total baseline opex incl. growth		46.3	47.1	47.9	48.7	49.3	239.3

Operating Efficiencies

We have pursued operating cost savings on a number of fronts to offset the cost of new initiatives. In particular \$20.2m of operating efficiencies are targeted over the Price Period, through the following:

- implementation of recommendations from the motor vehicle fleet review, which will consider optimal means of procurement and optimising the size and composition of the fleet;
- savings from Digital Enablement automation processes and customers being able to self-serve;
- implementation of the farming operation recommendations, which include leasing certain properties for growing fodder, rather than directly managing

the properties for running livestock (dealt with as an adjustment to non-prescribed revenues which have been contributed);

- acceptance of additional risk through extending the time between growth related planning consultancies;
- improved consideration of opex/capex trade-off decisions;
- ending the past practice of allowing for increases in materials costs above CPI;
- introduction of an efficiency target for consultancy costs;
- reducing payroll costs following the implementation of new initiatives or performance improvements; and
- managing customer growth within existing resources.

Proposed Operating Expenditure

In the light of the above new initiative and indicated operating efficiencies, total forecast operating expenditure for the Price Period is \$220.2m, as shown below.

(\$m)	17/18	18/19	19/20	20/21	21/22	22/23	Total
Baseline opex	41.8						
Plus new initiatives		4.0	4.2	4.5	4.7	4.8	22.2
Less operating efficiencies		-2.0	-4.1	-4.2	-4.3	-5.6	-20.2
Total expenditure	41.8	43.8	43.9	44.2	44.6	43.8	220.2

Proposed operating expenditure by Service Type and by Category is set out in Tables A3.3 and A3.4 in *Appendix 3 – The Building Blocks*.

The amount of \$220.2m is less than both the approved (\$230.6m) and forecast actual (\$227.1m) WP3 expenditures. It is a saving of \$19.1m in comparison to the indicated baseline of \$246.3m. This represents an annual average productivity improvement of 3.1% per year.

3.4 “EFFICIENCY DIVIDEND” FOR CUSTOMERS

It is currently forecast that GVW’s debt at 30 June 2018 will be around \$106m. This compares to \$149m in our WP3 financial forecasts. This out-performance versus expectations is the result of operating and capital expenditure initiatives which flowed from our focus on efficiency and innovation (through our Ideas Hub initiative commenced in July 2013).

An example is the approach to the Shepparton WTP capacity constraint. The traditional solution was to upgrade the DAFF plant at a cost of \$17m. However, trial and error innovations at a total cost of \$0.25m were used to improve the performance of the plant through modifications. The result is a deferral of the need for an upgrade for at least 10 years.

This submission includes a reward to customers in the form of an “efficiency dividend” of \$1.3m p.a. during the Price Period as an offset to the Required Revenue (to arrive at a price path of minus 2% p.a.).

3.5 NON-PRESCRIBED AND OTHER ADDITIONAL REVENUES

Farming operations (to utilise treated wastewater), rental properties and biogas generation have traditionally been treated as non-prescribed activities with revenues and costs being excluded from previous price submissions. All of our 26 Wastewater Management Facilities, other than Eildon, have some form of associated farming operation.

These non-prescribed activities generate \$1.9m of revenues p.a. and deliver a surplus of around \$0.5m p.a. Over the price period we have estimated that a cost saving of \$0.4m p.a. might be achievable from out-sourcing a portion of farm operations. On this basis the net contribution of non-prescribed activities is around \$0.9m p.a. over the Price Period.

We decided to contribute this net revenue to reduce the Revenue Requirement thus delivering the benefits of the above activities to customers. Accordingly, we have included the associated revenues and expenses in our forecasts.

We have also undertaken a comprehensive review of both scheduled and non-scheduled sundry tariffs to ensure that they adequately recover costs (in line with the WIRO requirements) which has resulted in the revision upwards of a number of charges and a better focus on revenue recovery, with a total benefit of \$0.4m p.a.

Other revenue enhancement initiatives and target revenue gains are:

- trade waste revenue of \$600,000 p.a. Currently invoicing of trade waste customers (which is highly dependent on the composition of the waste stream) is based on composition measurements undertaken by the customers. It is believed the significant revenue gains could result from GVW directly undertaking the measuring rather than relying upon the information from customers; and

- standpipe water revenue of \$50,000 p.a. Currently a key and manual docket book system is used to record water taken from standpipes by tanker customers. It is intended to automate the process for measuring and billing standpipe water sales to avoid “lost water” as a result of lost, stolen or damaged/illegible manual standpipe log books and stolen water.

3.6 CAPITAL EXPENDITURE

Water Plan 3

Approved capital expenditure for WP3 was \$148.0m (\$2013) or \$163.7m (\$2018).

During the first year of WP3 we identified capital works savings (primarily through innovative alternative options for projects) that could be achieved as part of the FWBI process. A total of \$9.4m (\$2018) of savings was expected to be achieved.

The overall FWBI outcome for GVW was for savings to be used to reduce forecast future debt. Achieving savings in capital works expenditure represented a key part of delivering future debt reduction. A revised target for WP3 capital expenditure of \$154.3m (\$2018) was adopted.

Actual capital expenditure for WP3 (including the current 2017/18 budget) is forecast to total \$145.9m. This represents 95% of the revised budget (\$154.3m) being expended over the WP3 period as shown in Table 3.5.

	13/14	14/15	15/16	16/17	17/18	Total
Determination	35.1	34.0	34.1	31.6	29.0	163.7
Revised target net of FWBI	35.1	31.9	31.5	29.2	26.7	154.3
Actual/forecast expenditure	24.0	32.0	26.8	34.2	29.0	145.9

Delivery of Key Capital Projects

Six projects were identified as key capital projects for WP3 of which two have been completed with a third due for completion during 2017/18. Three of the key projects were deferred due to GVW pursuing innovative responses to project objectives rather than traditional infrastructure solutions, of which two will now involve Environmental Offsets Projects during the coming Price Period.

Proposed expenditure for the Price Period

GVW's asset base includes 37 water treatment plants and 26 wastewater management facilities. It is both diverse and complex. However, demand requirements are reasonably stable in the northern and outlying towns and industry growth quite limited in much of our region. Growth is mainly around Shepparton and in the southern towns of Kilmore, Broadford and Mansfield.

The consequent impact on capital expenditure is that around 72% is directed towards renewals (pipes, pumps, tanks, treatment processes, computers and motor vehicles), to avoid or minimise asset failures, meet compliance requirements and/or to update existing assets to maintain existing service levels.

Tables A3.5 and A3.6 in *Appendix 3 – The Building Blocks* set out capital expenditure forecasts by service type and key driver. The total for the Price Period is \$145.0m, being a significant decrease on the approved WP3 expenditure of \$163.7m and also less than forecast actual WP3 expenditure of \$145.9m. This is despite a number of new capital initiatives shown in Table 3.6 which include:

	\$m
Digital Enablement Strategy implementation	5.72
Planning & Design works for Non-Potable water supply upgrades	0.32
Intelligent Customer Metering	1.80
Climate Change Mitigation Strategy Projects	5.76
Total of these initiatives	13.6

Tables A3.7 and A3.8 in *Appendix 3 – The Building Blocks* set out summary details of 10 Major Capital Projects and top three Major Capital Programs by expenditure.

Environmental Offsets Projects (Outcome 4C)

Since 2013 we have developed and received approval for our Environmental Offsets Project (“EOP”) concept, which involves minimising traditional high-cost engineering responses in favour of more innovative environmentally-attuned processes. As explained further in Section 4.4 below, EOPs involving expenditure of \$7.51m during the 2018-23 period (around \$3m has already or will be spent during the current price period) are expected to result in a capital savings in the order of \$60m which would otherwise be required over the longer term.

Peak Demand Reduction Projects (Outcome 3E)

As explained further in Section 4.3 below, Peak Demand Reduction Projects are being planned with the aim of identifying leaks both in the GVW network and “behind the meter” on customer properties, and also with the aim of altering customers’ peak period water usage. It is estimated that the projects will cost around \$1.8m and, if successful, peak water demand will decline and more than \$10m of capital expenditure will be delayed or avoided.

Water Pressure and Taste (Outcomes 2A and 2B)

GVW will implement water pressure and water taste improvement projects during the Price Period. Whilst we are confident in developing a solution in each case, the scope of improvements required and project options are currently uncertain. Thus, no expenditure has been allowed in the Price Submission for these projects. However, the commitment by GVW is to implement the improvements in the Price Period and seek to include the expenditure in the RAB for the subsequent price period.

Supply to towns receiving non-potable water (Outcome 2C)

GVW is committed to upgrade two towns currently receiving non-potable water within the Price Period. Given that further engagement is required and project options are uncertain, only Planning and Design expenditure has been included in the Price Submission. Expected expenditure in the order of \$1m per town is not included in proposed expenditure and, as expended, will be added to the RAB for the subsequent price period.

Our approach to Cost Estimating and Asset Management

This section sets out an overview of our approach to planning and ongoing review, cost estimating and management of capital assets.

Project Approval Process and Annual Review

New projects are subject to an annual business case preparation and review process. A number of projects will have originated from a long-term masterplan report (often completed by an external consultant).

Once projects are approved to be included in the capital works program, the timing, need for the project and cost estimate are reviewed at least annually.

Capital Cost Estimating

Our capital cost estimating approach typically involves:

- project costs being built up from individual components (e.g. pipes, pumps, switchboards) based on actual costs of previous projects;
- a 15% allowance for engineering costs (planning, design, tendering and contract management). However, where this results in an unrealistic estimate (e.g. \$1.5m is too high for a \$10m pipeline project), the estimate is adjusted downwards, based on actual costs for previous similar projects;
- separate costing of any specialised engineering services (e.g. land acquisition, cultural heritage management plans) in addition to the 15% allowance;
- a contingency amount that varies depending on the stage of the project:
 - 40% at planning stage for complex or high uncertainty projects;
 - 25% at planning stage for most other projects;
 - 15% following detailed design; and
 - 10% after the construction contract is awarded.

For the largest projects, a separate risk-based Monte-Carlo cost analysis was undertaken by consultant *Jacobs*. For these projects, efficiency savings will be targeted either through the delivery approach or through adopting innovative project options, rather than traditional solutions. This efficiency saving has been incorporated into the Price Submission capital expenditure by adopting a P40 cost estimate rather than a traditional P50 estimate. For all other projects GVW has adopted a 10% efficiency savings target.

The capital expenditure forecasts involve GVW accepting additional risk (compared to past practices), rather than imposing costs on customers. Besides reductions of cost estimates and contingencies, we have aimed to be innovative and deliver programs that efficiently deliver optimum outcomes for customers.

Future control of Capital Expenditures and Risk

We are currently establishing consultant service panels to streamline the future utilisation of specialist engineering and technical service providers. Selection criteria has been weighted to the ability to provide innovative service solutions that challenge traditional asset planning, design, construction and service delivery assumptions. A key purpose of the establishment of the panels is to support the achievement of P40 estimates and the 10% capital program efficiency target, whilst still achieving the required risk management and customer service levels.

Asset Management

We will be in compliance with the Victorian Government's Asset Management Accountability Framework by 30 June 2018 and are committed to achieving ISO55001:2014 certification by 30 June 2023, funded from within existing budgets.

As background, during 2016 we participated in the Water Services Association of Australia's Asset Management Customer Value ("AMCV") Benchmarking Project, which incorporated the principles of ISO55001:2014. GVW was assessed as one of the leading corporations in the "small" Australian Water Utilities category. In all functions, GVW was at or above the median of our peer organisations.

Nevertheless, the project highlighted opportunities for GVW to improve asset management performance. To that end we have major project underway focused on upgrading our asset management systems and processes. We also commissioned GHD to prepare a gap analysis to provide a pathway to ISO55001:2014 certification.

3.7 FINANCIAL SUSTAINABILITY

Whilst delivering improved services and lower prices, we have been careful to ensure our financial standing will remain strong and sustainable. Our forecast level of debt over the price period remains consistent at around 29% of the Regulated Asset Base.

Table 3.7 shows key performance indicators for GVW over the Price Period alongside Moody's credit rating metrics. On the measures shown, GVW is rated Aa or A, indicating a continuing strong position.

Indicator	GVW	Aaa	Aa	A	Baa	Ba	B	Caa
Funds From Operations (FFO) to Net Debt	27%	>40%	25-40%	15-25%	10-15%	6-10%	4-6%	<4%
Retained Cash Flow to Net Debt	27%	>30%	20-30%	10-20%	6-10%	4-6%	2-4%	<2%
FFO to Interest	4.7x	>10x	7-10x	4.5-7x	2.5-4.5x	1.8-2.5x	1.5-1.8x	<1.5x
Net debt to RAB	29.8%	<25%	25-40%	40-55%	55-70%	70-85%	85-100%	>100%

The GVW figures are averages for the Price Period.

4. RISK

4.1 OUR APPROACH

Our approach to bearing risk around expenditures and additional revenues, is set out in *Chapter 3 - Management*. Other key areas of risk and its treatment include:

4.2 DEMAND FORECASTS

Under-achievement of revenue forecasts is the most significant non-controllable risk of GVW. It is exceedingly difficult to ascribe meaningful probabilities to the scale and probability of unforeseen weather patterns and to the loss or decline of major customers.

Weather Variability

Weather affects the supply, demand and cost of providing services. Extreme weather events such as flooding or heavy rainfall may result in additional costs to ensure compliance with drinking water standards. Rainfall patterns also impact on demand, with higher rainfall generally resulting in lower demand for water and consequently lower sales of water. GVW has a high average water usage per customer which may be susceptible to customers changing their water use behaviours.

We have forecast demand and revenues based on a continuation of past trends in the light of local population forecasts. We have not provided any buffer in the forecasts for the inevitable volatility of demand.

Major Customer Revenue Risk

GVW's major customers are mainly fruit, dairy and livestock processing businesses, with the top four contributing around 16% of total tariff revenues (these customers being Tatura Milk Industries, SPC, Murray Goulburn and Campbell's). Thus, GVW has an exposure to their level of economic activity. A decline or termination of these customers could have a material impact on net results.

Engagement with major customers has indicated that a number are experiencing difficulty in sustaining or achieving operational profitability. A matter of particular concern is the escalating cost of energy (in particular natural gas). In response, a collective of these customers, with the assistance of Regional Development Victoria, is working on a business case to develop a bio-digester to convert organic waste to biogas for use in generation of energy, likely using a

cogeneration process. Such a project would involve the pooling of their organic waste streams, which would otherwise flow to GVW as trade waste.

In the event of such a project proceeding, implications for GVW would be much reduced trade waste streams and thus reduced revenues. However, treatment costs would also reduce and capacity pressure on our wastewater treatment plant/s would lessen, with the consequent potential to avoid capital and excess processing costs.

We did consider the merit of having a price reset mechanism to protect against the risk of the decline or loss one of more major customers, particularly as our price path is based on leaner costs than may have been the case in the past and the utilisation of revenue contributions from outside the regulatory model. However, to avoid unnecessary complexity, we propose to instead rely upon our Price Determination having *Uncertain or unforeseen events* provisions of the same sort as those in our June 2013 Determination.

4.3 PEAK DEMAND REDUCTION PROJECT

Population-driven demand growth is expected to result in water supply constraints at Kilmore, Mansfield, Kialla Lakes and Broadford due to the capacity of supply mains being exceeded. Without action, water pressure will decline to unacceptable levels. The traditional approach would be to replace the mains with larger pipes. In particular, there are times of day and times of year when water use is much higher than average (for example, in early evenings when families might be showering and watering their gardens). It is these times of peak usage which are emerging as being capacity constrained in areas of the mentioned towns.

A mains upgrade response would require an investment of around \$10m within the next three years. However, if patterns of time-of-day or day-of-week water use could be changed such to "smooth-out" peak demand, then the need for the upgrade could be delayed or avoided. In addition, identification of leaks both in GVW's network and on customers' premises would assist in relieving capacity constraints and also save water supply costs.

The Peak Demand Reduction Project involves spending \$1.8m on intelligent metering for customers in the areas facing capacity constraints and an intention that the expenditure of greater than \$10m on growth projects will be avoided or deferred.

The current analogue meters are read via a manual meter reading program on a four month cycle. Real-time meter data would allow GVW to better identify leaks

and, if on customers' properties, notify those customers. It will also allow GVW to identify those customers that are most contributing to peak time usage and, thus, develop targeted behaviour change assistance in the form of advice or products. As a simple example, peak and off-peak water use can be varied setting garden-timers to off peak times, which would also conserve water due to less evaporation. Intelligent metering will allow customers to see real-time information such as usage patterns, which in itself can drive behaviour change.

There is a risk that the desired benefits from intelligent metering will not be achieved and that the growth projects will still need to be constructed in the original timeframes. GVW is accepting this risk.

4.4 ENVIRONMENTAL OFFSETS PROJECTS

GVW is faced with emerging wastewater capacity constraints at Kilmore and Mansfield. The traditional response would involve treatment facilities, winter storages and suitable irrigation areas, at an estimated long-term cost of around \$50m for Kilmore and \$10m for Mansfield. In a groundbreaking achievement, GVW has recently received EPA approval for an EOP at Kilmore. It involves minimising traditional high-cost engineering responses in favour of more innovative environmentally-attuned processes. An EOP will upgrade treated wastewater using low energy treatment processes to a standard where the water can be returned to a stream as an environmental flow. The process includes an extra aeration stage, during the lagoon-based treatment, as well as rock filters, nutrient removal and disinfection to improve the recycled water quality.

An off-site program of catchment improvement works (or environmental offsets) will be undertaken at the same time. This will include improvements to the riparian zones, whilst working with councils to ensure best practice management of storm water in towns. We have undertaken considerable community engagement involving public meetings and negotiations with local land holders and community agencies such as GBCMA, Land Care and Council. The project will create wetlands and enhanced flows to receiving streams while improving riparian zones, making the precincts more attractive for recreational usage.

In the event of the EOPs not successfully delivering the required environment outcomes, traditional engineering solutions may need to be implemented.

4.5 OTHER RISKS THAT WE WILL BEAR

Further key areas where we are accepting risk, rather than imposing additional costs on our customers are set out in Table 4.1:

Table 4.1 Other bearing of risk

Initiative	Risk borne by GVW
Tariff structure trial	Risk of negative impact on revenue from participants.
Upgrade of non-potable towns	Upgrade costs have not been included in the Price Period forecasts, but rather will be rolled-into the RAB for the next price period.
Rectification of pressure issues	Where systemic taste issues are identified, GVW will bear the rectification cost within existing budgets.
Rectification of taste issues	Where systemic taste issues are identified, GVW will bear the rectification cost within existing budgets.
Operating cost forecasts	There are a number of cost saving initiatives which have uncertain outcomes. In addition, the historical contingency has been removed from materials costings. The inferred increase risk of cost-overruns is borne by GVW.
Capital cost forecasts	Estimates are at P40 level or otherwise reduced by 10%. The inferred increased risk of cost-overruns is borne by GVW.
Contribution of non-prescribed revenues	The contribution of revenue streams from activities such as farming and property rentals means that the business's overall buffer for risk is reduced.

5. PERFORMANCE

5.1 CURRENT PERFORMANCE

The Australian Bureau of Meteorology's *National performance report 2015-16: urban water utilities* shows GVW's better than average performance (in the 50,000-100,000 customer utility category). Examples are set out in Table 5.1:

Indicator	Unit	Average	GVW
Total complaints	Per 1,000 properties	11.7	6.6
Typical residential bill	\$	1,303	925
Annual bill based on 200kL	\$	1,274	826
Operating cost	\$/property	890	846
Capital expenditure	\$/property	498	570
Water main breaks	Per 100km	20.0	19.9
Sewerage blockages	Per 100km	22.9	9.5
Water quality compliance	%	98.1	100

5.2 ACCOUNTABILITY FOR DELIVERY OF OUTCOMES

We are determined to be accountable for the delivery of the Outcomes set out in this Price Submission. We have proposed reduced operating and capital cost forecasts, contributed non-prescribed revenues to the benefit of customers and taken innovative (cost-saving) approaches to water and wastewater constraints. Our key proposed Outcomes do not involve large cost outlays and/or we have pledged to fund them within existing budgets. That is, we have intended to deliver valuable Outcomes without any incremental cost impost on customers.

In the light, our approach to accountability for delivering on this Price Submission includes the following components:

5.3 PROGRESSIVE REPORTING TO CUSTOMERS

We will report progressively and annually to our customers on performance and progress towards achievement of proposed Outcomes and outputs, both online and through mail-outs. We will develop a comprehensive annual package of reporting to customers in relation to progress against the key activities that will deliver the Outcomes, as well as the results of customer satisfaction surveys and other key metrics.

5.4 ANNUAL PERFORMANCE FORUM

Each year we will hold an Annual Performance Forum involving a representative group of around 40 customers. At each forum we will share key performance information, in particular in relation to progress with the delivery of the commitments in this Price Submission, and seek feedback to understand customer perceptions of our performance for the past year and to inform decisions or consequences around any under-delivery that may have occurred.

5.5 GUARANTEED SERVICE LEVELS

We engaged with our customers around existing Guaranteed Service Levels (GSLs) and found that customers had little interest in these parameters, but rather greater interest in being kept informed of any interruptions and other events.

We nevertheless propose maintaining the existing GSLs whilst adding new GSLs as performance incentives and consequences in relation to the late or non-delivery of proposed Outcomes. The amounts payable for failure to satisfy new GSLs were necessarily subjective and reflective of a commitment to be accountable and/or an amount that was deemed reasonable recompense for the inconvenience to customers. Table 5.2 sets out proposed new GSLs.

Table 5.2 Proposed new GSLs	Payment (\$)
Tariff-structure trial: A tariff-structure trial will be underway from 1 July 2019. In the event of this deadline not being achieved all residential customers will receive a GSL credit.	5
Tariff-structure trial: A decision will be made by 30 June 2022 as to whether to extend or vary the trial or to adopt a new tariff structure.	5
Water pressure: In the event of water pressure still not being up to standard set out in our customer charter after the implementation of the pressure improvement program, affected customers will receive an annual credit until such time as the pressure meets the standard.	25
Water taste: Once the program is established, any towns with systemic taste issues will be informed of the timing for improvements. In the event of the timing not being achieved affected customers will receive a credit for each year of delay.	25
Non-potable water: Based on the prioritised dates, each customer of each impacted town will receive a credit for each year of delay.	50
Real-time notification of supply events: In the event of an SMS notification not being sent when a prescribed event occurs after 1 July 2019, a credit will be due to all affected customers.	25
Hydration stations: In the event of a hydration station not being delivered within the indicated timeframe, each customer in that town will receive a GSL credit for each year of delay.	20

5.6 APPROVED SERVICE STANDARDS

We have reviewed our Approved Service Standards in the light of our performance over WP3 and alignment with the expectations and proposed Outcomes for this Price Period. The standards have been maintained or improved, other than in respect of the average duration of water interruptions (which have been increased from 100 to 120 minutes), where greater time has been allowed to ensure safety is not compromised by an artificial sense of urgency.

The service standards which have been tightened include: the time to attend Priority 2 and 3 leaks and bursts; the number of customers experiencing multiple interruptions; the incidence and time to attend at sewerage blockages; and the number of EWOV complaints.

Appendix 2 sets out the existing and proposed new levels of Approved Service Standards.

6. PRICES

6.1 FORM OF PRICE CONTROL

We propose keeping the existing price cap means of price control.

6.2 PRICES AND TARIFF STRUCTURES

A price path of CPI minus 2% p.a. (9.6% over five years) is proposed for water, sewerage and trade waste service and volumetric charges. Other scheduled charges will be increased by CPI each year. Modelling of the subsequent five year price period (2023-28) shows a real upward price path of 0.5% p.a. Clearly, at the time of preparing the price submission for that period, appropriate efforts will be made to ensure the best price outcome for customers.

Appendix 4 sets out scheduled tariffs for 2018/19 (based on an assumed CPI of 2.3%)

6.3 NEW CUSTOMER CONTRIBUTIONS

The calculated New Customer Contribution ("NCC") for water connections for the Price Period is \$2,594.00 (compared to the current NCC of \$2,578.30). The approach applied was that same as that used for WP3.

We do not charge or intend to charge an NCC for sewerage connections.

7. PREMO RATING

7.1 OUR RATING

We have assessed our submission as LEADING having regard to:

- relevant and authentic customer engagement;
- outcomes that are valued by customers;
- managing costs and revenues to the benefits of customers;
- Innovative responses to system capacity constraints;
- an efficiency dividend to customers;
- accountability to customers for performance; and
- a price path of CPI minus 2%, with cumulative savings of \$283 per customer.

7.2 APPROACH TO SCORING

Whilst we have had reference to the ESC's PREMO Assessment tool, we have chosen to present our argument and assessment in narrative form.

We will deliver a diverse and targeted package of outcomes to customers whilst reducing real prices by 9.6% during the Price Period.

We employed relevant and authentic engagement processes that have resonated with our customer base. Most of our Outcomes have directly resulted from engagement findings. Others such as those around water efficiency and environmental benefits are direct endorsements of initiatives which were otherwise in development with wider cost and risk objectives.

Our engagement activities have been across all 54 towns and directly involved around 60 of our employees, face to face with customers on the ground. We also reviewed the large body of existing customer contact information and surveyed our employees on customer service matters. We have designed further structured engagement activities to inform the next stage of decision-making around tariff-structure, carbon-neutrality and the locations of hydration stations.

Our approach to minimising operational costs, contributing non-prescribed revenues and delivering an efficiency dividend from past performance (of \$1.3m p.a.) has been as diligent, and as customer-focused, as is possible without causing a deterioration in our financial standing. It presents a much more commercially-attuned risk profile than may have previously been the case. Our underlining cost productivity improvement is 3.1% p.a.

Our endeavours to deliver better price outcomes for customers is from a base of already having close to the lowest prices in Victoria and above average performance with key performance metrics (refer Table 5.1).

We have focused on innovation and sensible adoption of risk as a means to deliver operational and cost efficiencies for customers. The Peak Demand Reduction Project will involve a convergence of digital tools, customer engagement and engineering knowhow at a cost of around \$1.8m to avoid or defer greater than \$10m of capital expenditures. The Environmental Offsets Project will improve the natural environment in riparian zones, using low energy processes at a cost of \$7.51m and save around \$60m over the long-term.

We will have an Annual Performance Forum where a representative group of customers will critique our progress against delivery of Outcomes and our broader performance and provide recommendations where there might be under-performance. This will be a key element of ensuring our accountability to customers. Where possible or appropriate we have designed new targeted GSLs to respond to any non-delivery against our commitments.

We believe that the case for a LEADING rating is underscored by our absolute endeavours to do the best we could with our customers and communities foremost in our minds.

APPENDIX 1 – ACRONYMS

APF	Annual Performance Forum
Capex	Capital Expenditure
CPI	Consumer Price Index
CRM	Customer Relationship Management
DAFF	Dissolved Air Flotation and Filtration
DELWP	Department of Environment, Land, Water and Planning
EOP	Environmental Offsets Project
ESC	Essential Services Commission
EWOV	Energy and Water Ombudsman Victoria
GBCMA	Goulburn Broken Catchment Management Authority
FWBI	Fairer Water Bills Initiative
GSL	Guaranteed Service Levels
GVW	Goulburn Valley Water
HRAL	High Rate Anaerobic Lagoon
p.a.	per annum
Price Period	Period from 1 July 2018 to 30 June 2023
Price Submission	This document
RAB	Regulated Asset Base
SMS	Short Message Service
SPS	Sewerage Pump Station
WMF	Wastewater Management Facility
WP3	Water Plan 3, for the period 1 July 2013 to 30 June 2018
WTP	Water Treatment Plant

APPENDIX 2 – APPROVED SERVICE LEVELS

Approved Service Levels Indicator	W3 Target	2018/2023 Target
WATER		
Unplanned interruption events per 100km of water main	18.7	18
Average minutes to attend Priority 1 leaks/bursts	30	30
Average minutes to attend Priority 2 leaks/bursts	51	35
Average minutes to attend Priority 3 leaks/bursts	200	100
Unplanned interruptions restored within 5 hours - %	98	98
Planned interruptions restored within 5 hours - %	99	99
Average unplanned customer minutes off water supply	13.6	13
Average planned customer minutes off water supply	6.0	6.0
Average unplanned frequency of interruptions – per customer	0.15	0.15
Average planned frequency of interruptions – per customer	0.05	0.05
Average duration of unplanned interruptions – minutes	100	120
Average duration of planned interruptions – minutes	95	120
Customers experiencing five unplanned interruptions in a year	85	40
SEWERAGE		
Sewerage blockages – per 100km fo sewer	23.6	15
Average time to attend sewer blockages and spills – minutes	51	40
Average time to rectify a sewer blockage – minutes	120	100
Spills contained within 5 hours - %	100	100
Customers receiving 3 sewer blockage in the year – no.	0	0

Approved Service Levels Indicator	W3 Target	2018/2023 Target
CUSTOMER SERVICE		
Complaints to EWOV – per 1,000 customers	0.68	0.60
Telephone calls answered within 30 seconds - %	97	97
WATER QUALITY		
Localities complying with E.coli standard (%)	100	100
Localities complying with turbidity standard (%)	100	100
Localities complying with disinfection by-product standard (%)	100	100
Tighter targets		
Less tight targets		

APPENDIX 3 – BUILDING BLOCKS

A3.1. REGULATORY PERIOD

We propose a five year regulatory period.

A3.2. THE REGULATED ASSET BASE

Table A3.1 - RAB	
at 1 July 2018	\$345,000
30 June 2019	\$355,786
30 June 2020	\$367,370
30 June 2021	\$375,955
30 June 2022	\$378,430
30 June 2023	\$380,009
30 June 2024	\$381,632
30 June 2025	\$382,454
30 June 2026	\$382,477
30 June 2027	\$381,700
30 June 2028	\$380,123

A3.3 REVENUE REQUIREMENT

Table A3.2 Components of the annual Revenue Requirement						
	2018/19	2019/20	2020/21	2021/22	2022/23	Totals
	\$m	\$m	\$m	\$m	\$m	\$,000
Operating costs	48.40	48.44	48.73	49.04	48.13	242.74
Return on equity	15.45	16.17	16.90	17.42	17.82	83.77
Depreciation	11.02	11.83	12.93	14.08	14.97	64.83
Sub-total	74.87	76.44	78.56	80.54	80.93	391.34
Less Revenue:						
Net non-prescribed	1.55	1.55	1.55	1.55	1.55	7.75
Efficiency dividend	1.30	1.30	1.30	1.30	1.30	6.50
Sub-total	2.85	2.85	2.85	2.85	2.85	14.25
Total	72.02	73.59	75.71	77.69	78.08	377.09

A3.4 TAX ALLOWANCE

Based on the forecasts for the Price Period and beyond, to 2027/28, GVW will not be in a tax payable position.

A3.5 OPERATING EXPENDITURE

Summaries of Operating Expenditures by Service Type and Category are set out in Tables A3.3 and A3.4.

A3.6 CAPITAL EXPENDITURE

Summaries of Capital Expenditure by service type and driver are set out in Tables A3.5 and A3.6. The major capital projects and programs are set out in Table A3.7 and A3.8.

Year (\$m)	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28
Water	24.4	24.5	24.2	24.4	24.3	21.9	21.9	21.9	21.9	21.9
Sewerage	19.1	19.2	19.8	19.9	19.2	17.9	17.9	17.9	17.9	17.9
Recycled Water	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Total	43.8	43.9	44.2	44.6	43.8	40.1	40.1	40.1	40.1	40.1

Year (\$m)	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28
Controllable costs										
Operations & Maintenance	9.8	9.8	9.1	9.2	9.1	8.3	8.3	8.3	8.3	8.3
Treatment	15.2	15.2	15.6	15.5	15.3	14.0	14.0	14.0	14.0	14.0
Customer Service & Billing	3.3	3.3	3.4	3.5	3.4	3.2	3.2	3.2	3.2	3.2
GSL Payments	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Corporate	15.5	15.5	16.1	16.3	16.0	14.5	14.5	14.5	14.5	14.5
Other Operating Expenditure	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	43.8	43.9	44.2	44.6	43.8	40.1	40.1	40.1	40.1	40.1
Non-controllable costs										
External Bulk Water Charges	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Licence Fees	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Plus Environmental Contribution	3.4	3.3	3.3	3.2	3.1	3.1	3.1	3.1	3.1	3.1
	4.6	4.6	4.5	4.5	4.4	4.3	4.3	4.3	4.3	4.3
Total Prescribed Operating Expenditure	48.4	48.4	48.7	49.0	48.1	44.4	44.4	44.4	44.4	44.4

Year	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Totals
Sewerage (\$m)	12.9	16.7	14.6	7.2	11.2	10.1	13.5	13.7	7.4	6.2	113.7
Water (\$m)	16.2	15.5	16.8	17.5	16.5	25.3	19.1	18.6	13.2	15.5	173.8
Total (\$m)	29.1	32.2	31.3	24.6	27.7	35.4	32.5	32.2	20.6	21.7	287.6

Year	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	Totals
Growth (\$m)	7.4	11.3	9.6	5.3	7.2	7.5	15.8	14.8	5.4	6.3	90.6
Improvement / Compliance (\$m)	5.2	3.5	5.0	4.8	3.9	8.4	2.3	3.5	4.8	5.2	46.6
Renewal (\$m)	16.5	17.4	16.7	14.5	16.7	19.6	14.5	13.9	10.4	10.2	150.3
Total (\$m)	29.1	32.2	31.3	24.6	27.7	35.4	32.5	32.2	20.6	21.7	287.6

Objective	Service	Driver	Category	Start Year	Finish Year	Project Expenditure (\$m)					Total
						18/19	19/20	20/21	21/22	22/23	
Broadford Water Treatment Plant Upgrade	Water	Growth	Treatment	2017/18	2020/21	0.23	3.40	3.77	-	-	7.40
Shepparton Raw Water Pump Station Augmentation	Water	Growth	Treatment	2017/18	2021/22	0.15	0.15	2.45	3.13	-	5.88
Climate Change Mitigation Strategy	Water & Sewerage	Improve ment	Treatment	2017/18	2023/24	0.85	0.70	0.93	1.65	1.63	5.76
Digital Enablement Strategy	Water & Sewerage	Improve ment	Corporate	2017/18	2024/25	0.50	1.04	1.40	1.44	1.35	5.72
Nathalia Treated Water Pipeline	Water	Renewal	Treatment	2020/21	2023/24	-	-	0.20	0.45	4.55	5.20
Shepparton WMF HRAL Cover Replacement	Sewerage	Renewal	Treatment	2016/17	2020/21	0.80	2.00	2.33	-	-	5.13

	Objective	Service	Driver	Category	Start Year	Finish Year	Project Expenditure (\$m)					Total
							18/19	19/20	20/21	21/22	22/23	
Kilmore WMF Offsets	Capacity for future growth	Sewer	Growth	Treatment	2017/18	2021/22	1.41	1.44	0.90	0.55	-	4.30
Shepparton Outfall Rising Main Replacement	Replace asset that is at the end of its service life	Sewer	Renewal	Pipelines	2017/18	2019/20	2.16	2.08	-	-	-	4.24
Replacement of Abbinga Reservoir	Reduce dam safety risk and improve supply reliability	Water	Improve ment	Headworks	2021/22	2022/23	-	-	-	3.00	0.99	3.99
Seymour SPS01 Rising Main Replacement	Replace existing asset that is at the end of its service life	Sewer	Renewal	Pipelines	2019/20	2020/21	-	1.00	2.70	-	-	3.70

Project	Objective	Service	Driver	Category	Finish Year	Project Expenditure					WP3 Expenditure	
						18/19	19/20	20/21	21/22	22/23	Total	Total
Corporate Asset Acquisitions	Replacement of Corporate Assets at end of useful life (plant, vehicles, IT)	Water & Sewerage	Renewal	Corporate	Ongoing	2.61	2.61	2.61	2.61	2.61	13.05	16.51
Water Main Renewals	Replacement of water mains to maintain customer service standards	Water	Renewal	Pipelines	Ongoing	2.25	2.25	2.25	2.48	2.70	11.93	13.62
Sewer Main Renewals	Replacement of sewer mains to maintain service standards and reduce risk of sewer collapse	Sewerage	Renewal	Pipelines	Ongoing	1.73	1.8.2	1.91	2.10	2.47	10.04	8.53
Total						6.59	6.68	6.77	7.19	7.78	35.02	38.66

APPENDIX 4 – SCHEDULED TARIFFS

(FOR 2018/19 ASSUMING CPI OF 2.3%)

1. Water

1.1 SERVICE CHARGES, per meter size	<i>Per annum</i>
20mm	\$171.30
25mm	\$267.66
32mm	\$438.54
40mm	\$685.22
50mm	\$1,070.65
80mm	\$2,740.86
100mm	\$4,282.60
150mm	\$9,635.85
200mm	\$17,130.40
250mm	\$26,766.25
Vacant Lots	\$85.66

1.2 USAGE CHARGES	<i>Per kL</i>
Potable water	\$1.1791
Non-potable water	\$0.8254
Raw water	\$0.5894
Standpipe water	\$2.5280

1.3 NEW CONNECTION CHARGES (plus GST)	
a) Tapping, per meter size	<i>Per tapping</i>
20mm	\$57.60
25mm	\$67.37
32mm	\$76.89
40mm	\$86.57
50mm	\$96.24
80mm, 100mm, 150mm and 225mm	\$482.87

b) Consent to Connect, per meter size	<i>Per connection</i>
20mm	\$96.24
25mm, 32mm, 40mm and 50mm	\$144.77
80mm, 100mm, 150mm and 225mm	\$289.73

c) New or Replacement Meters	<i>Per meter</i>
20mm	\$164.02
25mm	\$289.73
32mm	\$579.57
40mm	\$821.18
50mm	\$1,932.50
80mm	\$2,512.21
100mm	\$3,236.85
150mm	\$3,478.61
225mm	\$5,555.63

d) New Customer Contribution	\$2,594.00
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2. Sewerage

2.1 Service Charge, per meter size	<i>Per annum</i>
Residential & non-residential	\$444.90
Vacant land	\$222.42
Non-residential, per cistern	\$444.90

2.2 Volumetric Charge, non-residential	<i>Per kL</i>
In excess of 180kL p.a., multiplied by a discharge factor (section 4 below)	\$1.6073

3. Trade Waste

Application fee	\$96.41
Category 1 and 2 annual service charge	\$230.01

Usage charges, based on volumes (/kL) and quantities (/kg)

	Category 3:			Category 4:	
	Shepparton	Tatura	All Other Districts	Shepparton/Mooroopna	Tatura
Flow	\$0.6631	\$0.8446	\$0.7963	\$0.5593	\$0.9057
BOD	\$0.4094	\$0.5305	\$0.5305	\$0.2789	\$0.1990
Sodium	\$0.9289	\$1.1823	\$0.9407	\$0.7059	\$1.2522
Nitrogen	\$0.7963	\$0.9407	\$0.7763	\$0.9855	\$0.9855
Phosphorus	\$2.1242	\$2.1242	\$2.1242	\$2.2390	\$2.2390

4. DISCHARGE FACTORS, based on property activity %

Farm Land (stock trough), Fire Service, Median Strip, Pumping Station, Quarry, Tip, Vacant Land, Water Reserve, Water Storage, Water Treatment Plant 0

Concreting Plant 10

Bowling Club, Car Park, Cemetery, Croquet Club, Golf Course, Ovals, Plant Nursery/Garden Supplies, Public Gardens/Parks, Race Course, Recreation Reserve, Reserve - Other, Tennis Courts, Tennis Courts (lawn) 25

Retirement Village 40

Ambulance Service, Caravan Park/Camping Ground, Foundry, Pre-school/Kindergarten, School, School - Secondary, Swimming Pool 50

Rest Area (Vic Roads) 70

Trotting Track, Animal Pound, Bed and Breakfast, Boarding House/Guest House, Church, Church Hall, Community Centre, Child Minding Centre, Car Yard, Disability Centre, Fire Station, Hall, Hostel, Hotel/Motel, Infant Welfare Centre, Motel, Nursing Home, Stables, School-Primary, Shed 80

Abattoir, Aerodrome, Art Gallery, Bank, Boat Shed/Storage, Building(s), Business Premises, Café/Take-a-Way/Coffee Shop, Cattle Yards/ Saleyards, Club/Clubrooms, Dairy, Dentist Surgery, Depot, Doctors Surgery/Rooms, Drive-in Theatre, Factory, Funeral Parlour, Garage-Auto Repairs, Gymnasium, Hairdresser/Barber, Health Centre, Hospital, Hotel, Laboratory, Laundry, Library, Mill - other, Motor & Engineering Works, Motor Race Track, Museum, Museum/Historical Buildings/Tourist Att., Office, Paper Mill, Police Station, Post Office, Railway Station, Recreation Camp, Restaurant, Rooms - Consulting, Rooms - Professional, Service Station, Shire Offices, Shop, Shop & Dwelling, Show Room, Sporting Complex, Squash Courts, Store/Warehouse, Sub-station 95

(elect.), Supermarket, Telephone Exchange, Television Station, Theatre, Timber Yard/Mill, Toilet Block, Tourist/Reception Complex, Veterinary Clinic, Weighbridge, Workshop, Wrecking Yard.