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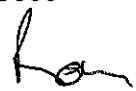
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Our ref: HR/0307  
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19 October 2012

Dr Ron Ben David  
Chairperson  
Essential Services Commission  
Level 2  
35 Spring Street  
MELBOURNE VIC 3000

Dear Dr Ben David 

### **2013-2018 Water Plan**

Please find enclosed the 2013-2018 Water Plan that outlines the service expectations, expenditure program, revenue requirement and pricing and tariff proposals for the 5 year period covered by the Water Plan.

GWMWater has been consulting in this exposure draft period in a window where there has been some uncertainty around some material issues that had implications for the programs to be delivered and the tariffs and prices to be charged. These issues have been; the future of the Wimmera Irrigation System, the financial closure of the Wimmera Mallee Pipeline, and the outcome of the growth water sales process.

We are confident that the proposed purchase of irrigation water in the Wimmera Irrigation system by the Commonwealth will now proceed. All 219 Wimmera irrigators have signed their surrender agreements and GWMWater has satisfied all conditions placed on the sale by the Commonwealth. Our planning assumptions reflect the implications of this transaction on the operations of GWMWater including the call by the Commonwealth on the unspent funds of the Wimmera Mallee Pipeline as a source of funds for the channel decommissioning effort that is estimated to cost \$4.75 million.

The financial closure of the Wimmera Mallee Pipeline is not as well advanced but we believe that we have reached agreement with the Commonwealth that the remaining \$27.25 million will be 'ring fenced' and that any remaining expenditure will be incurred on the project that will provide the best value outcome to the customers of GWMWater. The most significant project in the near term is the proposal to build greater intelligence into the rural pipeline

network. A further project is to deliver some immediate augmentation to facilitate large water volume developments that will maximise the use of capacity not taken up by the growth water sales process.

The growth water sales process only yielded 424.3 ML of in system growth water and this is reflected in the business outlook. There remains a further 9,575.7 ML of growth water potentially available for purchase. There is however a more tenuous expression of interest for 3,000 ML that will only proceed if the nominated customer 'starts up' in the region. We have been relatively conservative about the growth water prospects and as a result we have expressed a desire to have a tariff basket within a revenue cap as the form of price control.

The revenue cap is being proposed as a way of managing any 'upside' arising from the growth water sales process. Any growth water sales beyond the conservative estimates in the Water Plan will potentially produce a windfall that should be shared with customers. All customer groups should have access to the benefits of growth water sales as all customers, urban and rural alike are serviced by and paying for the Wimmera Mallee Pipeline. Growth water sales formed an integral part of the funding model for the WMPP that also underpinned the 2008-2013 Water Plan. The prices being proposed in this 2013-2018 Water Plan are higher than those we expected to lag into Water Plan 3 and this is partly due to the less than anticipated growth water sales.

The price increases being proposed are less than those projected in the Exposure Draft released in June 2012 with lower price increases being proposed beyond the first year. The scope of work has not varied with the exception of the Wimmera Mallee Pipeline residual expenditure program that is now more reflective of the in principle agreement reached on how and where the residual expenditure will be incurred. The technical solutions for water quality projects have been varied to reflect the lower lifecycle cost solutions developed in this period. Wastewater projects have been staged to maximise the opportunity to get any contingent expenditure better represented.

The most significant issue raised by the community through the consultative period has been recreation water. The issues specific to recreation water relate to equity in access as well as equity in price. These issues also extend to the price paid for water by sporting clubs in the region. The concept of a recreation contribution charge that was released concurrently with the Water Plan 3 Exposure Draft has been strongly supported through the consultative period. The recreation contribution charge proposes to provide water supplied to lakes serviced by the pipeline at a discount. Sporting clubs will also be able to access a discount of 40% on the first 5 ML of consumption and 25% on the next 5 ML under the recreation charge. Through the consultation period submissions received have requested that the scope of the recreation contribution charge be

expanded to cover the provision of public use facilities at GWMWater headworks and assisting sporting clubs that do not presently receive a reticulated water supply. These are still to be formally considered and would be contingent upon the levy collecting sufficient revenue to cover these activities.

When GWMWater committed to the Wimmera Mallee Pipeline it entered into a new social contract with the region. The creation of recreation water and growth water as well as returning water to the environment meant that GWMWater was carrying economic, social and environmental aspirations of the region on its balance sheet. The delivery of these benefits lags into this Water Plan 3 and the definitive policy in relation to these issues are being defined in the context of this 2013-2018 Water Plan.

A further issue for Water Plan 3 relates to the extent of water quality works to be undertaken during the period. Significant water quality upgrade expenditure is to be undertaken across the regulatory period but this still falls somewhat short of Department of Health expectations. The Board has maintained an expenditure program in this area that it considers have put prices at the upper end of customer affordability for water and wastewater services.

We submit the 2013-2018 Water Plan for formal consideration and should you have any queries about the Water Plan these should be directed to Sally Marshall, Executive Manager Business Planning and Performance or myself.

Yours faithfully

A handwritten signature in black ink, appearing to be 'Mark Williams', written over a light blue horizontal line.

**Mark Williams**  
Managing Director



# Water Plan

## 2013 - 2018



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## 1 Executive Summary

The 2013-2018 Water Plan (Water Plan 3) is the third Water Plan GWMWater will be presenting to the Essential Services Commission (ESC) since independent price and service regulation of the Victorian water industry was introduced in 2004.

Water Plan 3 outlines GWMWater's service objectives over the 2013-2018 periods, the cost of providing these services and the revenue required to meet these services. Tariffs and prices have been proposed that reflect the risk appetite of GWMWater. These tariffs have been applied against the demand and customer growth assumptions to meet this revenue requirement.

GWMWater is entering a more stable operating environment than experienced since 2004 when independent economic and service regulation commenced. The period covered by Water Plan 3 will provide an opportunity to consolidate and bed down the substantial investments in infrastructure over the past two regulatory periods.

### 1.1 Planning Context

During the consultative period of Water Plan 3, GWMWater has been able to achieve greater clarity on the three significant issues that influence the financial outlook and the price paths proposed in draft Water Plan 3. These are:

- The Wimmera Irrigation Association Irrigator Led Group Proposal to sell irrigation water to the Commonwealth.
- Financial closure of the Wimmera Mallee Pipeline Project (WMPP) and the scope of work to be undertaken with unspent funds.
- The outcome of the WMPP growth water sales process.

The Wimmera irrigation community has accepted an offer from the Commonwealth to sell their collective irrigation entitlement. The irrigation water will be used to fulfil the environmental shortfall in the Wimmera Avoca catchment as identified in the draft Murray Darling Basin Plan.

The Commonwealth nominated their share of the WMPP unspent funds as the funding source for the channel decommissioning part of the project. In doing so, in principle agreement has been reached with the Commonwealth and Victorian governments that the remaining unspent funds should be applied to meet design shortcomings and other projects specific to the pipeline that will enhance the value to customers.

During the consultative period, GWMWater also completed the Expressions of Interest (EOI) phase of the growth water sales process. Arising from this process there were 472 EOIs that sought 424.3 ML (316.3 ML Peak and 108 ML off season water) spread across the various supply systems. This was supplemented by EOIs from mining interests looking to secure water to advance their developments.



During the consultative period, GWMWater further refined its capital program. The principle changes related to the technical solutions to deliver water quality improvements and the staging of wastewater treatment upgrades. The program for GWMWater to fulfil its financial commitments to the WMPP remains the subject of discussions with the Victorian and Commonwealth governments although we are close to reaching agreement on these issues.

The recurrent expenditure program has been adjusted to reflect the changes to the capital program. The changes have provided more favourable lifecycle options than those presented in the draft Water Plan 3 and this is reflected in the pricing proposals.

A key objective during Water Plan 3 will be the maintenance of GWMWater's overall financial viability. The Corporation's financial position is dominated by the funding of GWMWater's commitment to the WMPP. These commitments were to be funded from borrowings and the sale of growth water and these programs lag into Water Plan 3.

Water Plan 3 is underpinned by conservative assumptions of growth water sales. Consistent with the commercial principles established by the affordability study that underpinned the final funding contributions by the Commonwealth and State for the WMPP, any further sales will be applied to retire debt. Growth water sales have the impact of reducing the regulatory asset base which in turn reduces the regulatory depreciation and regulatory return. The new operating revenue created by the growth water sales will allow further price benefits to be shared with customers under the revenue cap.

## 1.2 Supply Augmentation

Previous GWMWater Water Plans have been dominated by water security upgrades.

The primary objective of the WMPP was to reset the water equation for the region and redefine the sharing of water between the competing requirements of the environment, consumptive use and recreation.

The drought that prevailed for the first decade of this century gave rise to a reassessment of the water equation and this work was undertaken by the CSIRO. The Murray Darling Basin Plan drew upon the work of the CSIRO and identified a shortfall of 23 gegalitres (GL) in the annual environmental water requirements of the Wimmera Avoca system. It was identified that this shortfall could be met from water presently committed to the Wimmera irrigation system.

The Wimmera Irrigators Association, with the support of GWMWater, developed an Irrigator Led Group Proposal (ILGP) offering the sale of the 28 GL irrigation entitlements (23 GL average annual volume) to the Commonwealth government. The reconfiguration of the irrigation system will effectively secure the system for consumptive and environmental use.

Water Plan 3 assumes that the ILGP will be accepted and the irrigation water transferred to the Commonwealth for the benefit of the environment. Under the planning assumptions it is assumed that the sale and transfer will be cost neutral for GWMWater. The environment will continue to meet the headworks charge of the irrigation water entitlement. The recurrent bulk water charges will be prescribed services for the purposes of the WIRO and will be regulated by the Essential Services Commission (ESC).

### **1.3 Urban Drinking Water Quality**

By the end of the period covered by Water Plan 2, GWMWater will have upgraded the Natimuk, Nhill and Jeparit water supplies to drinking water quality.

Following consultation with customers in Wycheproof, Donald, Minyip and Rupanyup, water supplies to these towns will be upgraded to drinking water quality early in Water Plan 3 at a total estimated cost of \$8.9 million. These projects have been supported by a \$4 million contribution from the Victorian government under the Small Town Water Quality Fund.

GWMWater is trialling innovative water treatment technologies at Manangatang and Quambatook. If successful, this will provide the opportunity for these towns to receive drinking quality water, subject to the communities desire to upgrade water quality arising from the consultative processes presently being undertaken.

Water quality upgrades are proposed for Beulah, Brim, Woomelang, Lalbert and Sea Lake during Water Plan 3. The implementation of these projects remains the subject of further consultation with these communities.

When the water quality service upgrades are completed, water tariffs for each town will be adjusted to reflect the water quality standard delivered. The water tariff will be set in accordance with the GWMWater 'like-service for like-price' pricing policy.

### **1.4 New Town Sewerage Schemes**

New sewerage systems in Lake Bolac and Great Western will be completed by the end of Water Plan 2.

Water Plan 2 allocated funds to plan for construction of a sewerage scheme in Rupanyup during Water Plan 3. Further Victorian government support of \$705,000 has been received for the project under the Country Towns Water Supply and Sewerage Scheme.

### **1.5 Wastewater Treatment Upgrades**

Significant upgrades have been undertaken to wastewater treatment processes at Nhill, Warracknabeal, St Arnaud and Stawell during Water Plan 2, with upgrades proposed for Dimboola and Donald wastewater treatment plants during Water Plan 3.

Further consultation will be undertaken with the EPA during the consultative period to confirm the scope of work required at the Dimboola and Donald wastewater treatment plants.

A major review of the Horsham Wastewater Treatment Plant will be undertaken during Water Plan 3. A key part of this review will be the possible relocation of the wastewater treatment plant from the current site to a greenfield site.

### **1.6 Dam Safety Works**

Dam safety works have been completed at Taylors Lake during Water Plan 2. These works were required to upgrade the dam wall to ANCOLD dam safety standards.

Works at Lake Fyans and Lake Lonsdale programmed for Water Plan 2 have been deferred beyond Water Plan 3 following a detailed technical assessment that assessed these structures as being low risk. GWMWater will only advance these works if the risk status changes for these structures.

### **1.7 Wimmera Mallee Pipeline**

Expenditure on the WMP has been less than the \$688 million budget that was reset in August 2007. The core construction effort is complete but there remain opportunities and risks that GWMWater will need to manage that were not foreseen in the design. These have the potential to deliver a better service to the customer and improve the efficiency of the rural pipeline network.

GWMWater is well advanced on reaching agreement with the Commonwealth and State governments on the scope of work to be undertaken in order for it to fulfil its residual financial obligations on the WMP. The program represented in Water Plan 3 reflects the current status of negotiations in agreeing to a program for the unspent funds including the \$4.75 million required to decommission the Wimmera Irrigation System.

The more favourable price outcomes reflected in this final Water Plan 3 to the draft are representative of the improved synergies and efficiencies created by the revised investment program to complete the WMP.

### **1.8 Productivity Savings**

Water Plan 3 provides a period of consolidation and benefit realisation from the significant investments made during Water Plan 2.

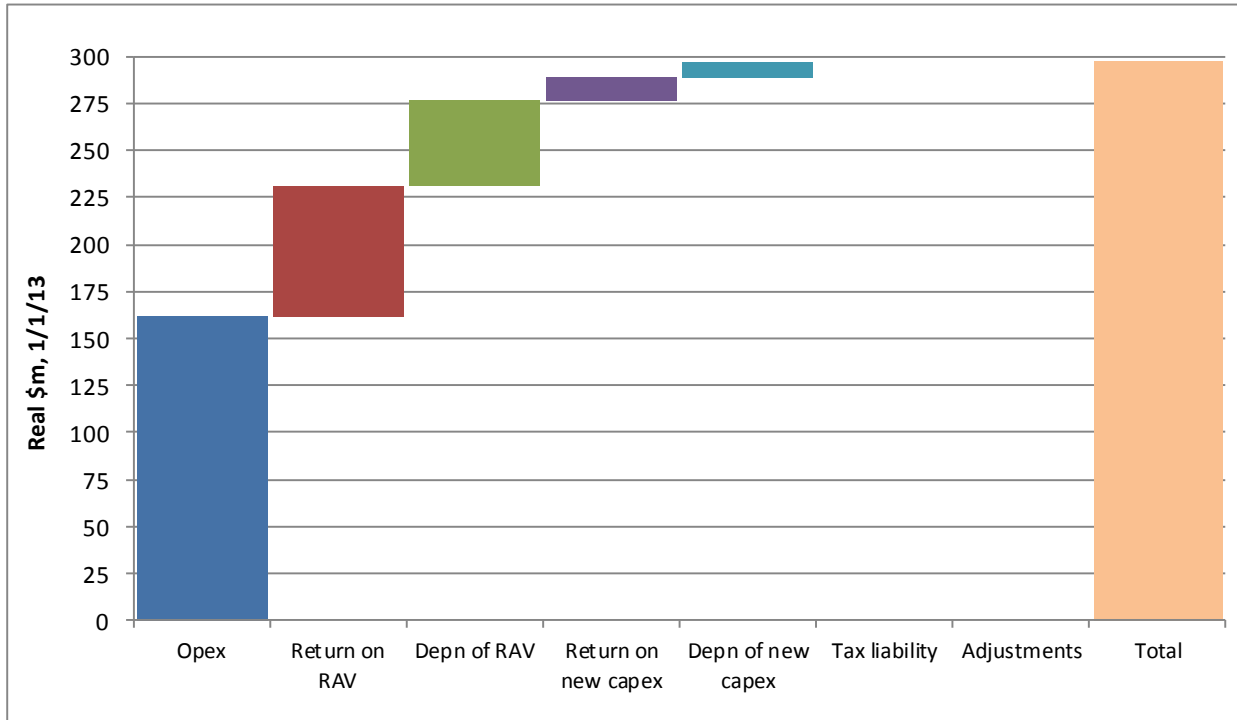
The WMP itself provides opportunities to improve efficiency that are still to be fully realised. The reengineering of back office systems including the introduction of a Supervisory Control and Data Acquisition system (SCADA) provides further opportunities for realisation of efficiencies.

The benefits associated with the investments made during Water Plan 2 will provide the opportunity to deliver productivity savings of 2% per annum in the Water Plan 3 period.

### 1.9 Outline of Revenue Projections

Proposed expenditure, combined with demand forecasts, has been consolidated to show GWMWater’s overall revenue requirement in Figure 1 below.

Figure 1 - Building Block Revenue Requirement 2013/14 to 2017/18



### 1.10 Form of Price Control

GWMWater is proposing a tariff basket within a revenue cap.

A tariff basket within a revenue cap will not only allow price increases to be kept to a minimum without putting GWMWater at undue financial risk, but will allow any ‘upside’ in the growth water sales to be shared with customers. It will also provide us with the flexibility to review bulk water charges as part of the overall review of the bulk entitlement order.

### 1.11 Tariff Design and Water Trading

Construction of the WMP was accompanied by a redesign of the tariff system to provide a more efficient and equitable basis for rural water service charges.

A larger percentage of the bill is now volumetric as opposed to fixed service charges. The volumetric component now averages 35% as opposed to 15% under the old hectare charge. This customer empowerment is enhanced as the rural pipeline tariff provides customers with the opportunity to reduce water bills through water trading.

The urban tariff rebalancing process was ostensibly completed during Water Plan 2 with all residential urban water and wastewater services now on a uniform tariff differentiated on a 'like-price for like-service' basis. There has been a further realignment proposed in Water Plan 3 which removes the disposal charge from non-residential wastewater charges (including minor trade waste customers) and provides a corresponding increase in the trade waste charge.

### 1.12 Overview of Price Paths

The price increases in Table 1 below are proposed over the Water Plan 3 period to produce the revenue requirements identified in Figure 1 above.

Modest increases are proposed for most services, with the most significant increase being for groundwater, which has been under recovering the cost of providing the service.

**Table 1 - Overview of Real Price Increases (excluding CPI) 2013-2018**

Service	Average annual real price increase per annum				
	2013/14	2014/15	2015/16	2016/17	2017/18
Urban water	3%	2.4%	2.4%	2.4%	2.4%
Urban wastewater	3%	2.4%	2.4%	2.4%	2.4%
Rural domestic and stock	2.5%	1.5%	1.5%	1.5%	1.5%
Irrigation	2.5%	2.4%	2.4%	2.4%	2.4%
Groundwater	17.6%	17.6%	17.6%	1.5%	1.5%
Unregulated licences surface water	2.5%	1.5%	1.5%	1.5%	1.5%
Bulk water	2.5%	2.4%	2.4%	2.4%	2.4%

### 1.13 Recreation Contribution

GWMWater has been consulting within its customer committees regarding the possible introduction of a recreation water contribution to enable discounts to be provided for water supplied to recreation lakes and eligible sporting clubs.

A discussion paper has been prepared that proposes the introduction of a contribution of \$16 per rural and urban water customer (\$8 for health care card holders). The contribution would allow water supplied to recreation lakes to be reduced from the current charge of \$48 to \$20 per ML and volumetric discounts of between 25-40% for eligible sporting clubs.

The recreation contribution charge has been strongly supported in the consultative period and is reflected in the prices that underpin this final Water Plan 3.

### 1.14 Outline of Process of Engagement

GWMWater has undertaken extensive consultation on the draft Water Plan. This has included:

- presentations to GWMWater customer committees and working groups
- presentations to local government
- presentations to community groups
- the issue of regional media releases and advertising
- public information sessions held in Great Western, Horsham, Nhill and Hopetoun
- attendance at regional events including the Mallee Field Days
- regular articles in our quarterly customer newsletter issued to all customers.

A more detailed summary of the consultation program undertaken is attached (refer Appendix 7).

Twenty formal submissions were received on the draft Water Plan 3.

The proposed recreation contribution charge attracted the most feedback, with 17 of the 20 submissions making comment. Of the comments received, three submissions directly supported the concept, eleven either supported and/or sought further clarification, two did not express a preference for either supporting or opposing the proposed charge and one opposed the charge.

Three submissions expressed concern on proposed groundwater price increases, however supported the 'like price for like service' pricing model.

A number of submissions raised issues outside of the Water Plan 3. Where permission was received, formal submissions were displayed on the website for public viewing.



## 2 Introduction

When GWMWater committed to the construction of the Wimmera Mallee Pipeline (WMP) in 2006, it entered into a new social contract with the Wimmera Mallee community.

The WMP carried much of the economic, social and environmental aspirations of the region. These aspirations were reflected in the Wimmera Mallee Pipeline Interim Business Case developed as a 'community solution' prior to the formation of GWMWater in 2004.

The development of the Interim Business Case was undertaken by the Pipeline Project Planning Group. The primary objective of the WMP was to improve the efficiency and reliability of the water delivery system by converting the channel network to a pipeline system. The project had other benefits that were informed by an exhaustive community consultation process run by the Pipeline Project Planning Group.

This new social contract relates to the role in supporting the economic, environmental and social aspirations of the region when it committed to construction of the WMP. Pipeline construction was ostensibly completed in June 2010 and since this time a key focus of GWMWater has centred on facilitating the delivery of the economic, environmental and social benefits of the pipeline. Many of the issues associated with the delivery of these benefits carry over to Water Plan 3.

The WMP is a project that reengineered the bulk water delivery system. In doing so, it has given rise to a change in the operation of the headworks network. Most of the implications of piping were foreshadowed in the planning phases of the WMP. There was however some unforeseen consequences in the headworks configuration that are still being worked through in the implementation phase.

When plans for the WMP were under development, the key driver was to improve the water efficiency of the Wimmera Mallee system. It was assumed that the water savings would generate sufficient 'new water' to secure supply for existing water users, create water for new development, assure water supply to nominated recreation lakes and return sufficient water to the environment. The drought that prevailed during the first decade of this century gave rise to climate studies that have led to weather and rainfall projections that challenge the water modelling assumptions that underpinned the development of the WMP. The implications of these scenarios have been represented in the Murray Darling Basin Plan which identified a 23 GL shortfall in the Wimmera Avoca basin when assessed against the Sustainable Diversion Limits.

The prolonged drought also gave rise to an extended period of zero allocation of irrigation water from the Wimmera Glenelg headworks. This combined with the cost impact of the revised headworks cost sharing arrangements that arose from the introduction of the Wimmera Glenelg bulk entitlement order, gave rise to considerable concerns about the future viability of the Wimmera Irrigation system. Wimmera irrigators formed the Wimmera Irrigation Association (WIA) and developed an Irrigator Led Group Proposal

(ILGP) to sell the 28 GL of water held collectively by the Wimmera irrigation community to the Commonwealth under a Commonwealth Government water recovery scheme.

An integral part of the ILGP is the closure and decommissioning of the Wimmera Irrigation system. In May 2012, the Commonwealth government made a conditional offer of \$900 per ML for the irrigation water. The Commonwealth Government also nominated the anticipated \$32 million in unspent funds from the Wimmera Mallee Pipeline as the source of funds for the decommissioning effort.

When construction of the pipeline was completed in 2010, an assessment was made of work to complete the scope of work under contract as well as completing GWMWater's commitment to channel decommissioning of high risk channel infrastructure. Under the governance structure for the WMP, the projects commitment to the decommissioning of channels was capped at \$15.8 million. This assessment gave rise to a total outturn cost of \$638 million to complete the project for works delivered and had the effect of delivering the project within \$25 million of the project budget. By virtue of the funding arrangements for the pipeline, a further \$7 million was earned in interest that has been applied to the benefit of the project producing a total amount of unspent funds of \$32 million.

At the completion of the construction effort of the WMP in 2010, GWMWater registered a number of risks and opportunities to improve the efficiency and performance of the pipeline. The tight budgetary environment in which the pipeline was developed gave rise to a basic solution that did not include technologies to regulate water supply or maintain water quality that would be considered as part of a modern engineering equivalent.

### 3 Water Plan 2 in Review

The WMP was a dominant influence on Water Plan 2. The primary purpose of the WMP was to return 83,000 ML of water to the environment, to create an extra 20,000 ML of water for new development and improve the security of all other consumptive water users with the exception of irrigation. Momentum for the project gathered as the drought that commenced prior to Water Plan 2 deepened.

GWMWater planned for an earlier break in the drought and an associated recovery in the resource position. The deepening of the drought required a change to our operating model with greater access to water from the Waranga system and additional water from the Murray River system being required. Supply from the Grampians reservoirs was restricted to deliveries to urban storages and other suitable locations accessible for water carting. All water supplied to rural customers was then sourced from these locations and delivered via a large scale water carting program around the region.

The drought had a material impact on revenue through the early years of Water Plan 2. Water restrictions were maintained at Stage Four (the highest level) for an extended period and when supply capability was restored, wet and mild summers continued to suppress demand. Domestic and stock revenue was compromised by the channel systems' inability to maintain supply in the early years and, once converted to a pipeline, low demand under the rural pipeline tariff exposed GWMWater to a greater level of demand risk.

Minimal revenue was received from irrigators as a special drought tariff was maintained for the first three years whilst the system was 'mothballed' awaiting the outcome of the ILGP to the Commonwealth.

The WMP was delivered inside the revised \$688 million budget adopted in August 2007. There was little change to the core capital program although the drought did cause some delays in delivery due to the need to advance some drought related works.

Overall, the anticipated financial position of GWMWater is close to the target established by Water Plan 2. Borrowings are lower than anticipated due to the reduced capital expenditure associated with the WMP. The ability to service this debt as represented by the interest cover charges is consistent with Water Plan 2 projections with lower returns being offset by reduced rates and charges revenue and higher operating expenses.

#### 3.1 Revenue

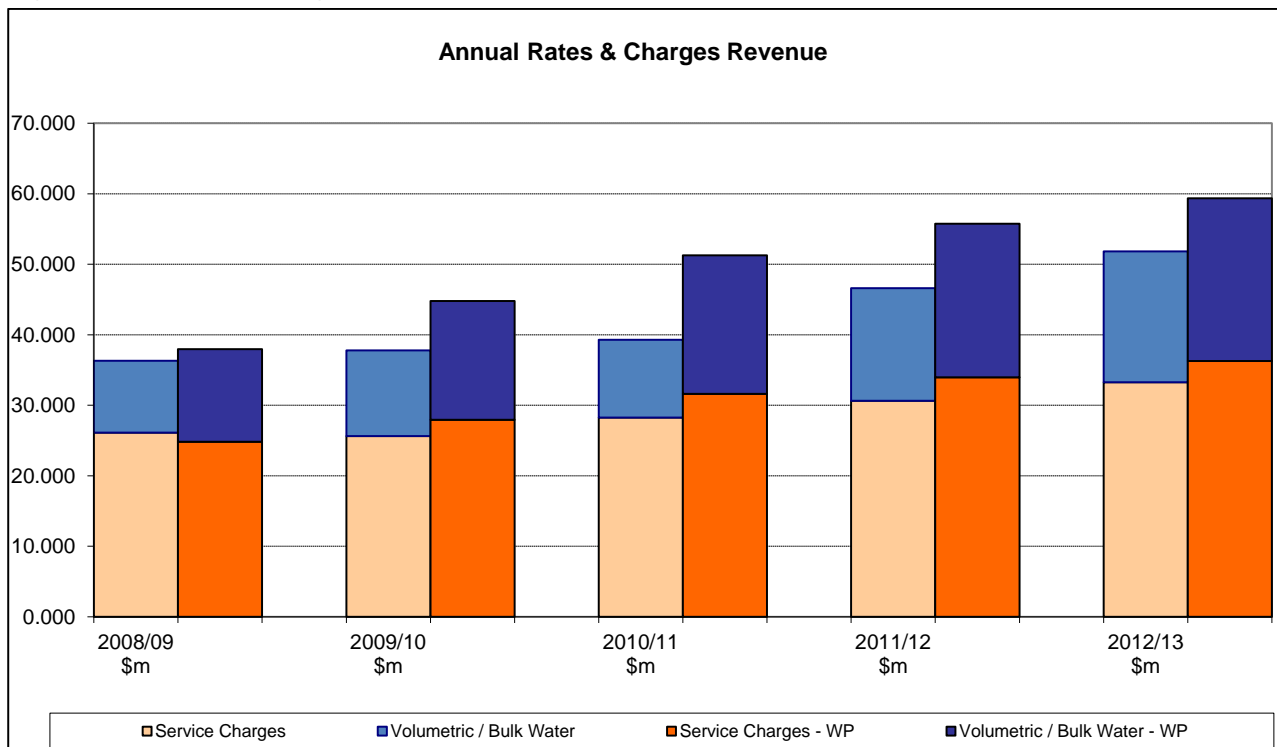
When the region emerged from drought, wet summers followed further suppressing demand. This resulted in total revenue being below the forecasts established in Water Plan 2.

Water Plan 2 assumed that urban water restriction levels would progressively ease. The wet summers following the drought however resulted in 2010/11 being a lower consumption year than the previous two years under Stage 4 restrictions. There has been a modest recovery in 2011/12.

During the drought, rural domestic and stock revenue was impacted by a reduction in dam fill charges and the impact of low consumption as customers converted to the WMP. During the rural water carting program, the only revenue collected was the hectare charge which represented 85% of the total revenue derived from domestic and stock customers. Conversion of rural customers to the new rural pipeline tariff exposed GWMWater to greater volumetric risk as customers converted at the same restriction level as urban customers. Meter charges only applied as customers connected.

Water Plan 2 assumed that the water resource position would progressively recover. The depth of the drought was such however that the Wimmera irrigation system continued to receive minimal water allocation until 2010/11. Wimmera irrigators chose to keep the system mothballed in support of their ILGP to the Commonwealth government; a position that continues to be maintained. In support of this position, GWMWater has preserved the special drought tariff for irrigators.

Figure 2 - Rates and Charges Revenue 2008/09 to 2012/13



### 3.2 Capital Program

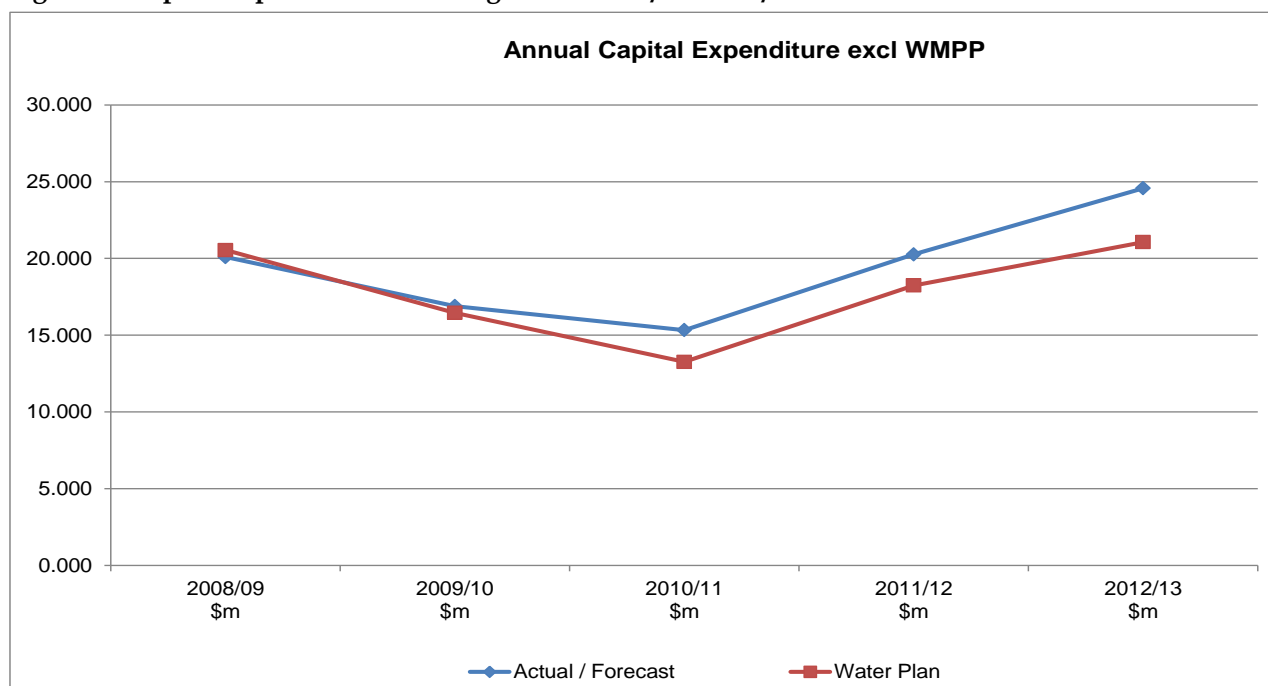
The capital program has been generally consistent with the program foreshadowed in Water Plan 2. The most material variations were the purchase of a permanent water entitlement from the Murray River system and the deferral of proposed dams risk works at Lake Lonsdale and Lake Fyans.

The WMP Business Case assumed that the water resource available to GWMWater from the Goulburn Bulk Entitlement Order would convert to a Murray River entitlement to meet the shortfall arising from construction of the Cannie Ridge and Patchewollock pipelines. This did not occur and as a result GWMWater invested \$6 million acquiring 2,450 ML of permanent water entitlement from the Murray River to supply the Cannie Ridge and Patchewollock pipeline sections, as well as shortfalls from the Northern Mallee Pipeline.

Lake Lonsdale and Lake Fyans dam safety works were included in Water Plan 2 on the understanding that the technical requirement would be confirmed subsequent to lodgement of the Water Plan. The reports received resulted in the projects being deferred until Water Plan 4. Remedial work at Copes Hill storage in Ararat was undertaken instead based on an identified emerging risk.

The permanent water entitlement purchase from the Murray River has offset the deferred expenditure on Lake Lonsdale and Lake Fyans. Total capital expenditure however is marginally above budget as a consequence of construction price escalation exceeding general price movements of the consumer price index (CPI).

Figure 3 - Capital Expenditure excluding WMPP 2008/09 - 2012/13



This chart includes water purchases from the Murray system that are presently the subject of further discussions with the Commonwealth to be recognised as part of the WMPP.

### 3.3 Wimmera Mallee Pipeline

From a pipeline construction perspective, the WMP was completed in June 2010. Whilst the construction is complete, channel decommissioning and other elements of the project are still being undertaken. These works have had budget allocated with the amounts capped to reflect the agreed financial position established by the WMP Project Council.

Prior to the lodgement of Water Plan 2, the capital cost of the WMP was reset to \$688 million. The revised estimate was adopted by the Victorian and Commonwealth governments with a further allocation of \$99 million from both increasing the government contribution to \$532 million (\$266 million each). A further \$25 million was pledged by the Commonwealth, if required, subject to separate terms and conditions.

Under the agreed funding formula, GWMWater was to contribute \$131 million toward the project cost with GWMWater's contributions to be spent after the Commonwealth and State funds were exhausted. GWMWater is still to fulfil its financial commitment to the pipeline. The underspend on the pipeline can be attributed to design optimisation and deletion of items that would meet modern engineering standards without compromising the functional performance. Under the funding agreement, GWMWater was to assume responsibility for the construction price risk as well as the risk of the operating performance of the system.

GWMWater is committed to fulfilling its financial commitment to the WMP and is close to reaching agreement with the Commonwealth and State government as to how this will be achieved. The Commonwealth government nominated the unspent pipeline money as a source of funds for the \$4.75 million channel decommissioning effort required to complete the closure of the Wimmera irrigation system under the ILGP. The sale of irrigation water to the Commonwealth under the ILGP will ensure that the environmental shortfalls of the Wimmera Avoca system as represented in the Murray Darling Basin Plan are fully subscribed.

GWMWater is seeking to secure agreement with the Commonwealth on the scope of work to be undertaken to fulfil its remaining financial obligations under the WMP funding agreement. GWMWater is seeking to deliver a program of work that is consistent with the objectives of the WMP but ensures that this delivers the best value to the customers of GWMWater. In the absence of any definitive agreement with the Commonwealth government, GWMWater has programmed work during Water Plan 3 that will ensure its financial commitments to the WMP are met. Specific projects identified include:

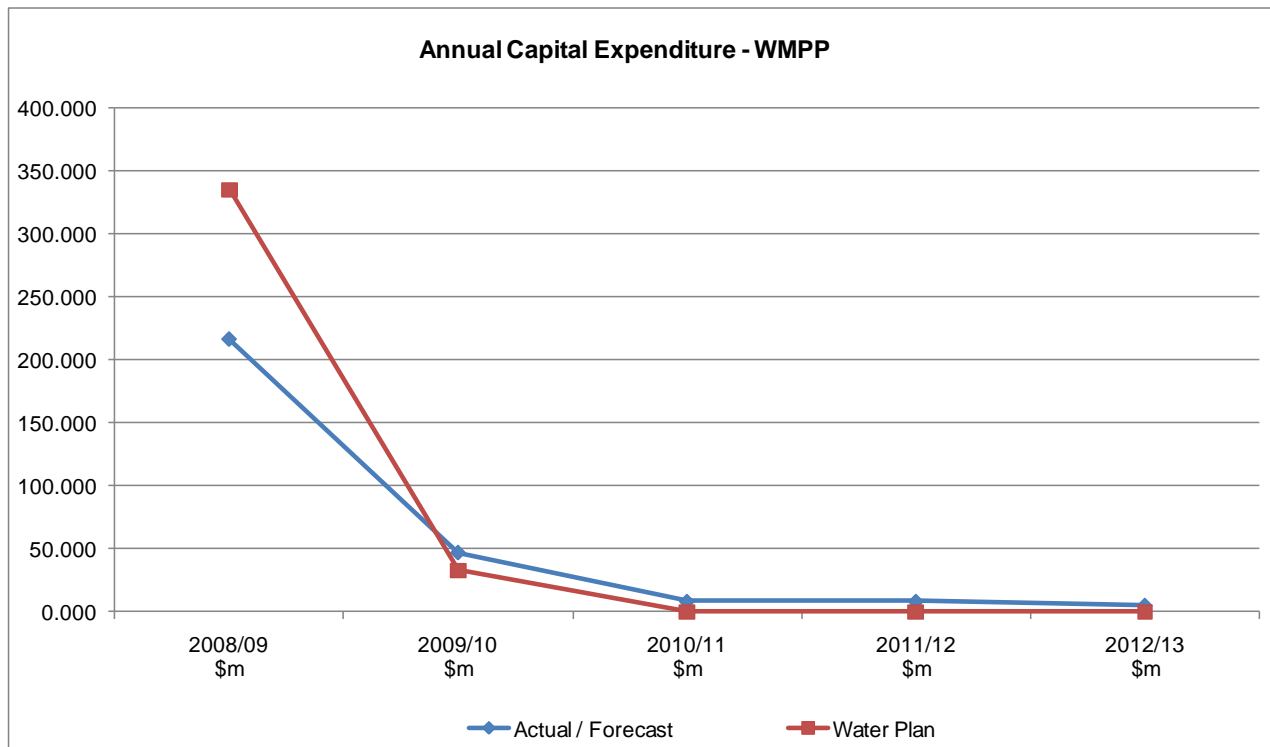
- Retrofitting the pipeline with technology that will provide greater operating intelligence.
- Retrofitting with structures to facilitate improved water quality management.
- Augmentation to support known growth opportunities.



- Reflecting the provision of fire fighting infrastructure as a legitimate part of channel system conversion.
- Facilitating peripheral growth opportunities outside the footprint of the pipeline.

In addition to these initiatives, GWMWater is seeking to have the expenditure incurred securing permanent water from the Murray system acquitted against the WMPP. The water purchases were necessary to meet demands on sections of the WMP in the north that were sourced from the Murray River.

Figure 4 - WMPP Expenditure 2008/09 to 2012/13



### 3.4 Recurrent Expenditure

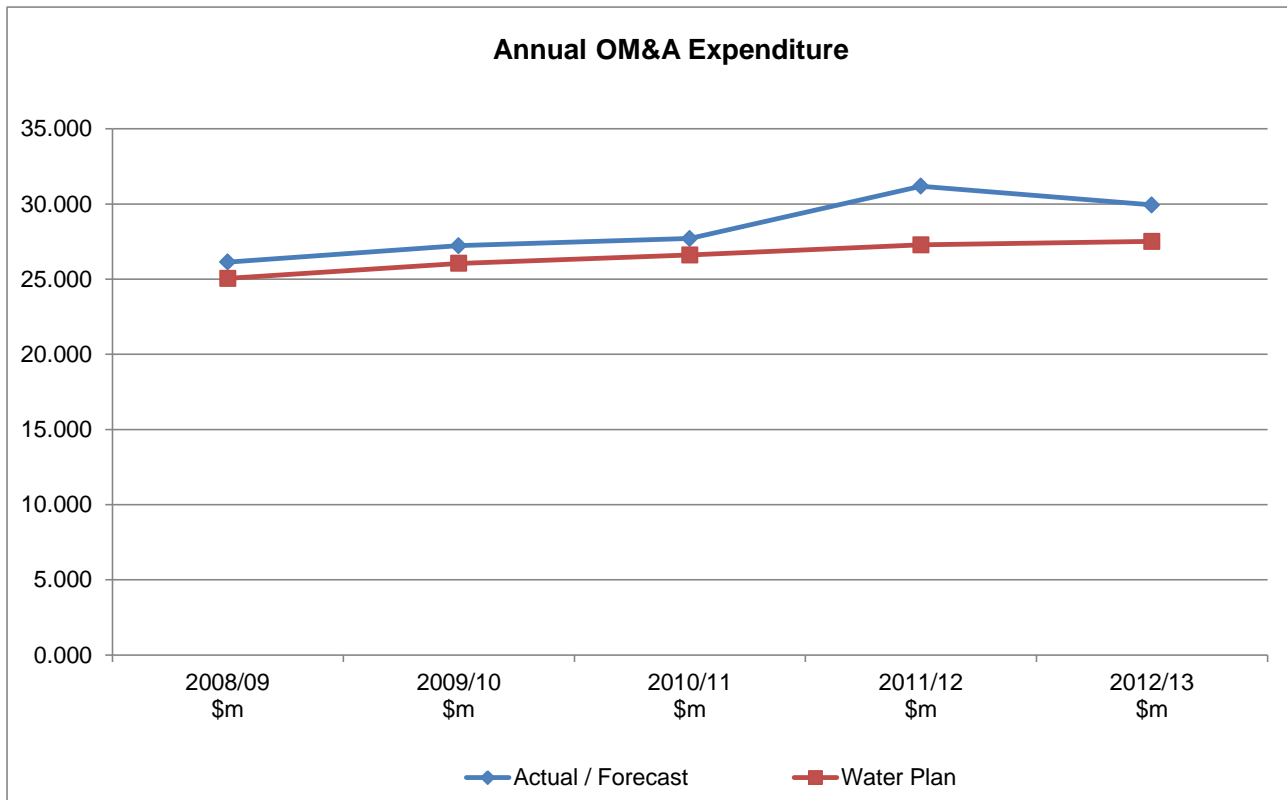
Recurrent expenditure has been affected by our drought response in the earlier years and, in later years, transitioning to the WMP.

Early in Water Plan 2, GWMWater was carting water to rural customers serviced by the Grampians system and was purchasing temporary water from the Murray System to secure water for rural pipeline customers in the north.

Labour related costs have risen as a result of funding calls to the Vision Super defined benefits superannuation scheme.

While many costs have been greater than anticipated, there has also been a corresponding underspend in electricity costs as a result of WMP design modifications allowing for the greater use of gravity.

Figure 5 - Operations Maintenance and Administration 2008/09 to 2012/13



### 3.5 Service Performance

The level of service provided to customers during Water Plan 2 was reasonably consistent with that planned. The areas where targets were not met are discussed below.

#### 3.5.1 Staff Response to Service Interruptions

GWMWater consistently improved its response and repair times for water and sewer interruptions over the past five years. The positive shift was assisted by the introduction of technology with the consolidation of the SCADA network and a strong commitment to minimising water loss from pipe breaks during the height of the drought.

#### 3.5.2 Water Quality Issues

Significant water quality issues experienced by major flood events resulted in greater planned interruptions, customers off supply and water quality complaints. To combat water quality issues, routine planned shut downs for whole towns occurred in order to clean silt built up in the reticulation systems.

The poor source water quality gave rise to towns with potable water supplies with single treatment barrier being unable to consistently meet drinking water regulations. GWMWater applied to have ten of these towns declared regulated water supplies. This application was approved by the Minister for Water and these towns were formally declared regulated water supplies in February 2012.

### **3.5.3 Rural Service Reliability**

GWMWater strives to provide customers on our distribution networks with an uninterrupted water supply.

Pipeline design principles require rural customers to have sufficient on site infrastructure to allow for up to three days interrupted supply.

### **3.5.4 Unaccounted Water**

A large amount of work has been undertaken to reduce losses in our networks over the last regulatory period.

GWMWater has had relatively poor performance in the area of unaccounted water and this can be in part attributed to the vagaries of the water measurement technologies of the channel system. The key focus for the organisation is to better understand the methodology and improve the accuracy of calculations for losses across the various systems. This will include improved knowledge about the use of water for fire fighting, theft, evaporation, seepage and other non-metered uses.

### **3.5.5 Urban System Water Restrictions**

In the lead up to Water Plan 2 inflows were critically low, being the second lowest on record since 1903. The tightest restrictions were therefore enforced.

Assumptions made at the beginning of Water Plan 2 suggested that with the combination of the construction of the WMP and a return to more average rainfall seasons, restrictions would progressively ease for all towns.

What eventuated in 2008/09 and into 2009/10 was a continuation of drier than expected seasons. This subsequently prompted the fast tracking of the construction of the WMP so that customers could be connected as soon as possible. During this period many rural customers were receiving carted water for essential supplies.

The drier than expected seasons placed additional pressure on many of the already stressed catchments, which ultimately led to a delay of about 12 months in lifting restrictions for many customers.

At the time the region and state received the higher rainfall events in 2010, much of our region had been relieved of restrictions as most of the WMP had been commissioned.

## **3.6 Pricing and Tariff Outcomes**

The final decision handed down by the Essential Service Commission provided an initial price reset followed by annual price increases of 4.4% across years 2 through 5. The final decision also granted GWMWater a hybrid price cap as the form of price control as opposed to the tariff basket in a revenue cap sought by GWMWater.

During Water Plan 2, GWMWater made four separate applications for tariff approvals. The first was made in October 2008 and had the specific objective of gaining approval for the rural pipeline tariff disallowed as part of the final decision. Subsequent tariff submissions were lodged in 2009/10, 2010/11 and 2011/12 to gain endorsement for the specific pricing and tariff objectives inherent in Water Plan 2.

Through Water Plan 2, GWMWater has progressively converted rural domestic and stock tariffs from a tariff based on land holding to a tariff based on the water service. A greater proportion of the rural account has been based on volumetric use and since the point of conversion to the new rural pipeline tariff, domestic and stock customers have had the opportunity to trade away any capacity beyond their needs. A key element of the changes to the rural pipeline tariff was the removal of the subsidy provided to supply-by-agreement customers.

During Water Plan 2, GWMWater was also successful at completing its urban tariff rebalancing program. We now have a tariff policy that has a consistent basis of charging depending on the level of service. The dimensions of service relates to water quality and the capacity of the service. This rebalancing also applies to the removal of the differential charging that has applied to residential and non-residential tariffs.

GWMWater enters this third regulatory period with a more equitable and efficient tariff base with any refinements to be based on improved cost reflectivity. This will be the subject of greater focus when the cost of bulk water services is considered in the review of the bulk water entitlement in 2013.

### **3.7 Adjustments from Water Plan 2**

There have been significant variations from Water Plan 2 that in the overall wrap up tend to net off. The softer revenue and additional expense incurred have been offset by the current underspend of the WMP.

No attempt has been made to reflect adjustments from the period covered by Water Plan 2 into Water Plan 3 as it is considered is easier to discount these issues and not attempt to reflect them in any way in the cut across to Water Plan 3.

## 4 Water Plan 3 (2013-18)

The Water Plan 3 planning period represents a period of consolidation for GWMWater following eight years of water reform and investment. The relative stability expected over period presents an opportunity for GWMWater to improve its focus on operational activities.

Water Plan 3 has been developed in the policy framework of the Murray Darling Basin Plan (MDBP), the Western Region Sustainable Water Strategy (SWS), Living Victoria and the population projections of Victoria in Future.

The GWMWater Board has also sought to redefine its Strategic Plan with this process finalised concurrently with the development of Water Plan 3.

### 4.1 Planning Policy Environment

#### 4.1.1 Murray Darling Basin Plan

The MDBP focuses on setting a long term sustainable level of extraction from basin surface and groundwater systems. This level is based on analysis of the risks to the health of water resources including current extraction levels and climate change. The plan attempts to balance the social, economic and environmental demands for water.

GWMWater currently operate within the Murray Darling Basin cap. This cap volume applies to the Wimmera-Glenelg system and is currently being reviewed to reflect the change in average consumptive demands since completion of the Northern Mallee and Wimmera Mallee pipeline systems.

Under the draft MDBP, the cap will be replaced by sustainable diversion limits (SDLs) which define the maximum volume that can be extracted from a water resource each year. The MDBP seeks to achieve the SDLs through investments to recover water in areas where the current level of diversion exceeds the SDL.

The Plan has identified a 23 GL gap in the level of extraction from the Wimmera Avoca basin and the needs of the environment. This gap will be bridged through the purchase of the Wimmera irrigation entitlement by the Commonwealth Government.

There will be no impact on Murray based systems where the SDL is already deemed to be achieved.

#### 4.1.2 Western Region Sustainable Water Supply Strategy

The Western Region SWS outlines the various supply sources in Western Victoria and the extent that these are committed to consumptive water uses.

For GWMWater, the Western Region SWSS retrofitted the impact of the WMP on the resource position of the Wimmera Glenelg system. The Western Region SWSS also embraced the West Wimmera Groundwater Management Strategy developed by GWMWater and provided the framework for GWMWater's 50 year Water Supply Demand Strategy, a foundation planning document for Water Plan 3.

#### **4.1.3 Living Victoria**

The Living Victoria policy framework is principally focussed on metropolitan Melbourne.

One element of the policy agenda embraced by GWMWater in the development of Water Plan 3 has been the concept of third party access. Greater transparency is being built into the bulk water charges and distribution costs.

The Living Victoria policy framework has also had a significant emphasis on integrated resource planning, which has been embraced by GWMWater as an integral part of its planning process. The principles have had greater focus on integrated resource planning at the community level.

#### **4.1.4 Victoria in Future**

Victoria in Future applies the census data and other planning assumptions to underpin demand assumptions used in the development of Water Plan 3.

The most recent projections have provided a more optimistic outlook on population projections and these have been reflected in the planning assumptions supporting the demand projections.

### **4.2 2013-2018 Strategic Directions**

The 2013-2018 Strategic Directions acknowledges the position of GWMWater relative to its role in the community it serves and the environment it operates within.

*'We operate within a dynamic region in an environment that is very much weather dependant. Our services support regional growth and promote the liveability of our communities. Our recent investments reinforce our commitment to regional growth and liveability which in turn supports our future success and viability.'*

In reviewing the strategic plan it was considered that the Vision and Mission have been durable and have maintained their relevance.

#### **4.2.1 Vision**

Sustainable water for regional growth and vibrant communities.



### 4.2.1 Mission

Providing innovative and affordable services through partnerships with stakeholders, customers and the community.

### 4.2.2 Themes

The Strategic Plan has an overarching theme of supporting sustainable growth. It is acknowledged that this will only be achieved by achieving an agreed level of performance in the six areas that support this objective.



### 4.3 Risk

For GWMWater, effective risk management is about identifying and managing potential issues that might jeopardise the organisation's ability to deliver acceptable water and wastewater services to our customers.

GWMWater's risk management framework is based on International Standards ISO 31000 and has formed an integral part of the planning process to establish prudent expenditure and affordable price proposals.

The dominant risks facing GWMWater in the period covered by Water Plan 2 were inflow risks centring very much on both short and long term water security. As the water security issues evolved into the commitments for the WMP, construction, project management, finance and affordability risks dominated the risks facing the corporation.

The core WMP construction effort is now complete but there remain operational risks that GWMWater needs to manage that were not foreseen in the design. This includes the

ability to better manage water quality, as well as better monitoring of water movement and delivery in the pipeline. The pipeline was also somewhat of a distraction for the business and during the construction phase some operational focus was lost. The management of operational risks will receive greater attention and will be enhanced by leveraging our investment in SCADA and the works management system.

These operational risks also spill over into environmental risks where the high intensity rainfall events that occurred in 2011 resulted in poor source water quality. These events exposed the vulnerability of our drinkable urban supplies relying solely on disinfection as the source of treatment. These elevated risks are being met by improving the barriers with technical solutions. The ten towns that were gazetted as regulated water supplies in February 2012 are to be reclassified as potable water supplies when these technical solutions are delivered. Other towns that have been impacted by variable source water are presently being consulted on possible water quality upgrades.

The investment program undertaken during Water Plan 2 has been dominated by the pipeline but also affected by delivering improved water quality and environmental outcomes. These investments have attracted considerable contributions from government but have been supplemented by contributions from GWMWater financed by borrowings.

The affordability study that underpinned GWMWater commitments to the WMP was reflected in Water Plan 2 and projected a 'window of vulnerability' in the immediate post pipeline period. A key initiative to manage this risk was the sale of growth water and substantial inroads were made in 2011/12 to mitigating this risk. The continued sale of growth water remains a priority and is the source of demand risk (opportunity).

The other dimension of finance risk is customer affordability. Whilst GWMWater urban prices have moderated relative to other water businesses, GWMWater remains one of the highest priced water businesses in the state for urban services. Rural affordability needs to be considered in the context of the industries we serve but pricing to achieve competitive advantage for the region is a key consideration.

Appendix 1 provides a response to the different types of risk for the water industry and how they specifically apply to GWMWater and Water Plan 3.

#### **4.4 Length of the Regulatory Period**

GWMWater considers the five year planning period appropriate as the timeframe for establishing price paths for the period covered by Water Plan 3.

The outcome of the growth water sales process could materially impact the revenue requirement and price paths. Should the opportunities currently under consideration materialise, then the baseline for pricing will need to be reassessed.

Water Plan 3 is not well informed by an asset management plan, which will be critical in the development of future water plans. A key focus in Water Plan 3 will be to improve its performance in asset management to ensure efficiency of renewal versus maintenance versus operation strategies will be the key driver of organisational efficiency moving forward.

Lengthening the regulatory period would only be contemplated if and when we return to a more stable operating environment.

#### **4.5 Service Standards**

Our proposed approach is to focus strongly on improvements within our current resource base. The most significant shift in service standard to be delivered across Water Plan 3 is in the area of water quality.

The proposed targets have been based on GWMWater's historical performance. They include discussions and feedback from customers (including complaints received) and comparisons against the rest of the Victorian water industry.

The majority of the proposed targets for Water Plan 3 reflect the actual businesses performance during Water Plan 2. There has however been a considerable improvement in operator efficiency that has allowed for the tightening up of operator response time targets for water and sewer incidents. The administration targets for responding to licence applications has also improved considerably.

Due to the continuing water quality concerns of source water from the catchments, Water Plan 3 allows for the continuation of air scouring at many of our towns. This will inevitably increase the number of planned interruptions and therefore potential customers impacted by these works. Therefore the target times for some of these indicators have risen slightly in Water Plan 3.

The service standards to be delivered during Water Plan 3 are detailed in Appendix 2.

#### **4.6 Incentive Mechanisms**

Guaranteed Service Levels (GSLs) are a mechanism whereby GWMWater will provide a financial rebate on bills to customers who receive services that do not meet agreed levels of service. GWMWater has established a range of performance parameters to support a proposed GSL scheme after extensive consultation with our customer committees. The GSL scheme being proposed has been strongly supported by the Customer Committee's.

Table 2 - Guaranteed Service Levels Proposed

Guaranteed Service Level – Urban customers only	Rebate
<b>Water</b>	
Unplanned water supply interruptions to be restored within five (5) hours of notification.	\$50
Planned water supply interruption longer than notification.	\$50
<b>Sewer</b>	
Interruptions to sewer supply to be restored within five (5) hours of notification.	\$50
Sewer spills within a house that are a result of failure in our system, to be contained within one hour of notification.	\$1,000
<b>Other</b>	
Restricting the water supply of, or taking legal action against, a residential customer prior to taking reasonable endeavours (as defined by the Essential Services Commission) to contact the customer and provide information about help that is available if the customer is experiencing difficulties paying.	\$300

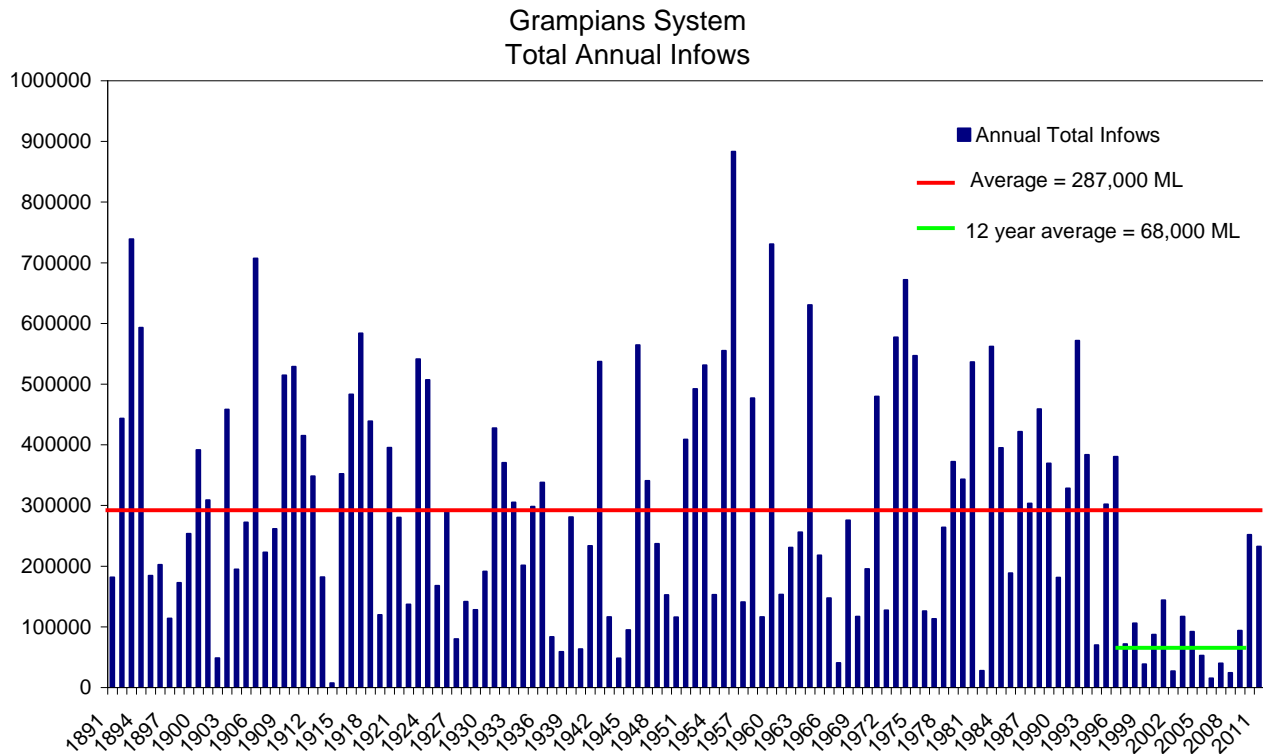
Table 2 outlines the GSLs proposed by GWMWater in Water Plan 3. The detail of the GSL scheme is covered by a fact sheet used during the exposure draft period.

#### 4.7 Water Resource Outlook

GWMWater possess high reliability entitlements from the River Murray and Wimmera and Glenelg Rivers. These entitlements underpin GWMWater’s ability to supply water to its customers.

The historic variability in our Wimmera climate, and the corresponding variability in Grampians headworks inflows, is shown in Figure 6:

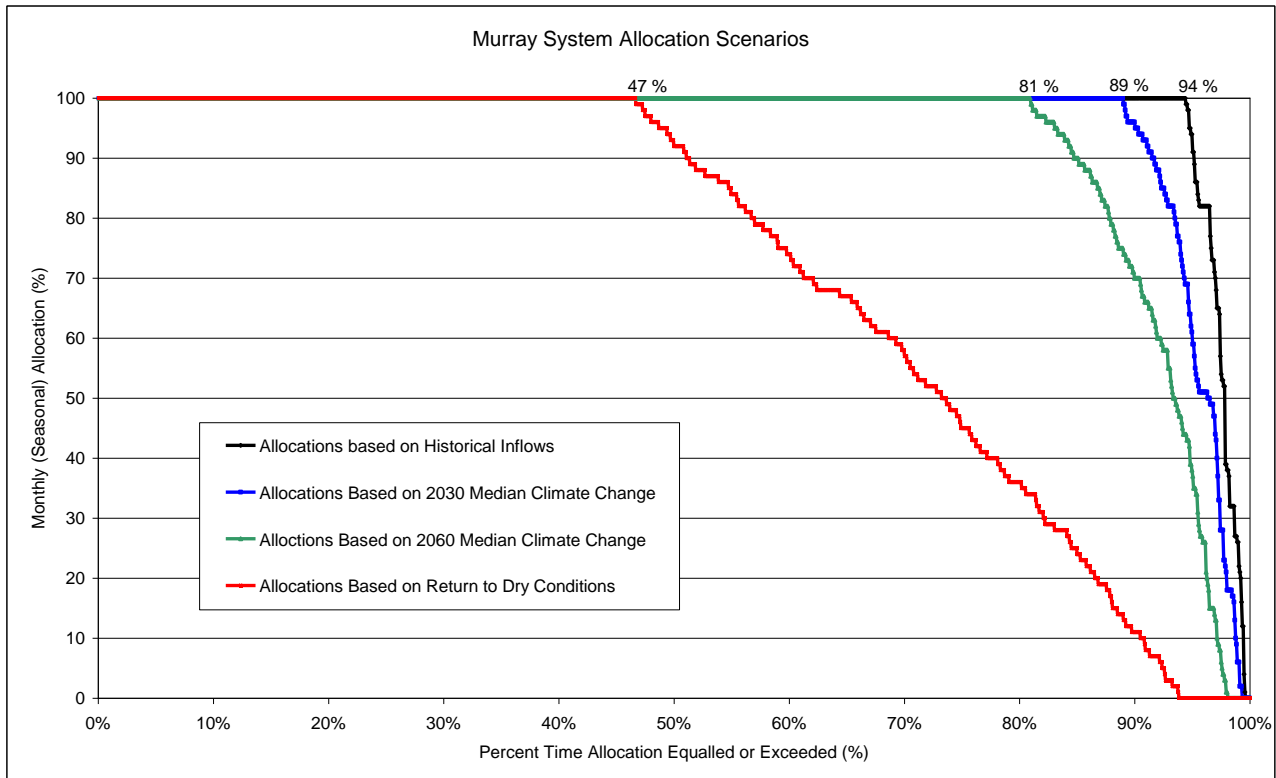
Figure 6 - Annual Inflow Grampians Supply System - 1891to 2011



Our future resource outlook was modelled as part of our Water Supply-Demand Strategy using historic climate data and CSIRO projections for future climate, being either 'wet', 'median' or 'dry'. The 'dry' scenario was refined using local inflow data from the recent drought period. This modelling shows that our entitlements may be impacted by future climate scenarios.

Figure 7 shows how the 6,409 ML Murray entitlement may be impacted. Based on a repeat of historical inflows, GWMWater would only receive a 100% allocation in about 94% of years. With a return to dry conditions like those experienced between 1997 and 2009, allocations may only reach 100% in about 47% of years.

Figure 7 - Murray System Allocation Scenarios



Additional Murray River entitlement was purchased during Water Plan 2 to meet the additional demands of the Murray connections that formed part of the WMP. At the time of preparing Water Plan 2, it was assumed that GWMWater would not need to purchase additional water and that water for the northern systems would be secured by converting the existing entitlement from the existing Goulburn entitlement.

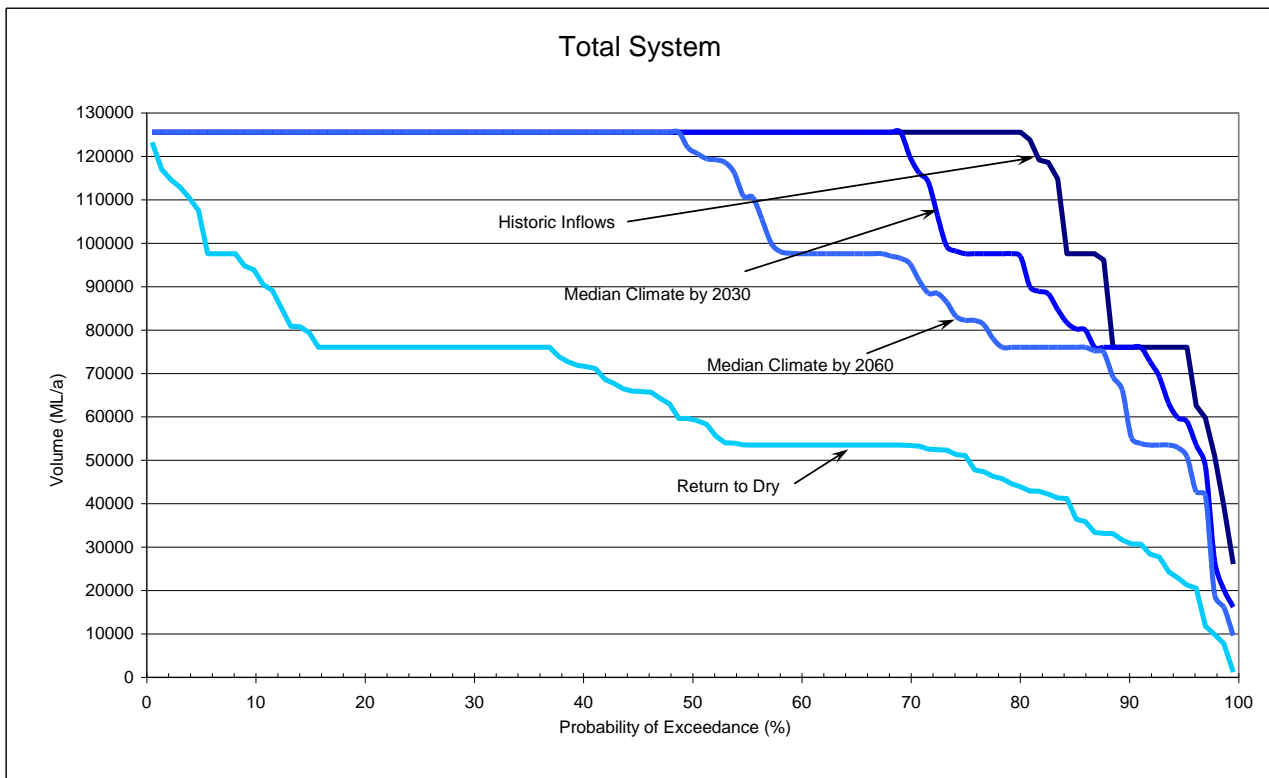
GWMWater is presently seeking to have the \$6 million spent on securing the 2,450 ML shortfall recognised as part of the WMPP. This avoids the need to account for the water as an adjustment from the Water Plan 2 regulatory period covered by.

GWMWater diverted a total of 3,031 ML against its entitlement during 2011/12. This demand is expected to increase to around 3,200 ML by 2018. GWMWater will also hold about 7,000 ML of carryover from 1 July 2013. The current favourable resource position and the existing high reliability Murray entitlement, means that Murray supplied customers are unlikely to face restriction in their water use over the Water Plan 3 period. A key objective of GWMWater is to ensure that the water entitlement held from the Murray System is set at a level that ensures a consistent level of service (reliability) with the Wimmera Glenelg system.



GWMWater holds entitlement to 81,570 ML from the Wimmera-Glenelg system in a variety of different water products. 28,000 ML of this water is associated with the irrigation water products that are presently the subject of the Commonwealth proposal to purchase as part of the ILGP. Figure 8 illustrates how the volume of water available across the whole Wimmera-Glenelg system may be impacted by various climate scenarios. The total annual entitlement available from the Wimmera Glenelg system is 125,550 ML.

Figure 8 - Wimmera-Glenelg Available Water Frequency Plot



The modelling that underpinned the development of the Wimmera Glenelg bulk entitlement indicates that all entitlements, other than irrigation, have 93% reliability using bulk entitlement volumes and historic climate data (1891-2009). This differs from the WMP business case outcome of 96% (modelled on 1906-2000 data) as two additional drought periods are included in the data. In a return to dry scenario like those experienced between 1997 and 2009, allocations may only reach 100% in about 75% of years.

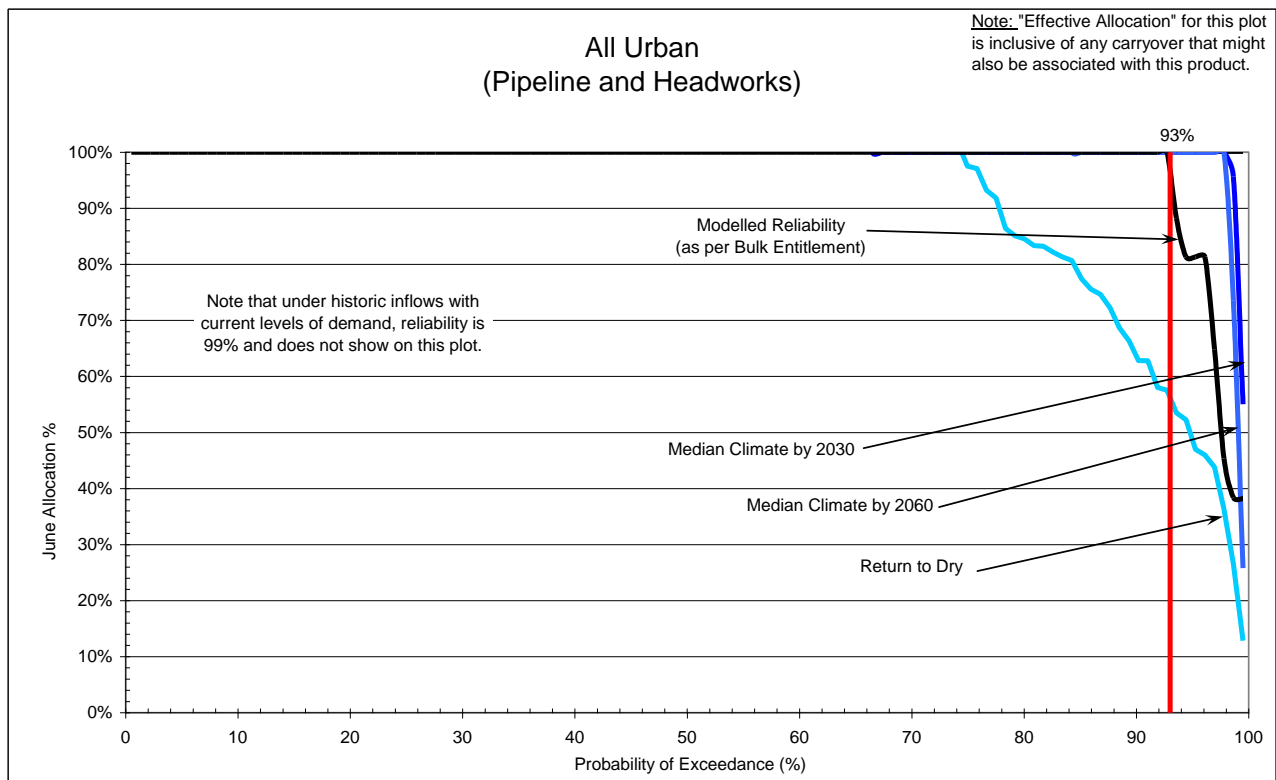
The reliability of urban and rural pipeline supplies remains high under the median climate change scenario. The exception is Lake Wartook, which supplies Horsham and Natimuk which has a reliability of 86% under historic climate and declines further under median and dry climate futures. This indicates the continued use of groundwater as a supplementary supply for Horsham in a sequence of dry years.

In February 2012, GWMWater prepared a discussion paper on water supply reliability as part of a suite of papers aimed at obtaining community feedback on key issues identified in the draft Water Plan 3. The paper did not generate any significant community debate but there was strong support from Customer Committees for the following levels of service:

- Agreed Service Level of 93% (full demand 93 years in 100 or some restrictions in seven years out of 100).
- Minimum Service Level of 50% of full demands during restricted years (equivalent of Stage 4 water restrictions).

Figure 9 shows the reliability of urban entitlements from the Wimmera-Glenelg system.

**Figure 9 - Urban entitlements frequency of effective allocations**



Further modelling was completed for the development of the annual operating plan of the Wimmera-Glenelg system. Table 3 shows how much water GWMWater is projected to have available over the five years from 2012/13 to 2016/17. Note that total available water is inclusive of all carryover. The table has been presented as three inflow scenarios of wet, median and dry.

**Table 3 Total water available to GMMWater from its Wimmera-Glenelg entitlement.**

Inflow Scenario	Available Water	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
Wet Sequence of Years (July 1988 - June 1993)	Seasonal Allocation	81,570	81,570	81,570	81,570	81,570
	Carryover	56,596	63,049	68,647	73,316	46,623
	<b>Total Available Water</b>	<b>138,166</b>	<b>144,619</b>	<b>150,217</b>	<b>154,886</b>	<b>128,193</b>
Median Sequence of Years (July 1968 - June 1973)	Seasonal Allocation	81,570	53,609	81,570	81,570	81,570
	Carryover	56,596	75,317	82,121	73,321	77,129
	<b>Total Available Water</b>	<b>138,166</b>	<b>128,926</b>	<b>163,691</b>	<b>154,891</b>	<b>158,699</b>
Dry Sequence of Years (July 2000 - June 2005)	Seasonal Allocation	46,742	81,570	29,217	40,798	35,204
	Carryover	66,852	70,859	75,719	65,452	65,486
	<b>Total Available Water</b>	<b>113,594</b>	<b>152,429</b>	<b>104,936</b>	<b>106,250</b>	<b>100,690</b>

Note: This modelling assumes that the irrigation product is used each year.

Table 3 shows that GMMWater customers will be secure over the next five years. This is due to the favourable starting resource situation and current low levels of demand which will result in unused water being carried over from year to year. GMMWater's urban and rural customers in particular are not expected to have any form of restrictions to their use over the next five years.

Groundwater supplies to towns in the West Wimmera are highly reliable, however we will closely monitor the newly developed groundwater resources for Edenhope.

Given the reliability that now exists in our systems as a consequence of the investments made, no infrastructure projects are programmed to augment supply in the foreseeable future. Efficiency measures will continue to be pursued along with measures to improve our understanding of supply and demand factors, and the accuracy of meters and stream flow information.

The water allocations and the underlying system operating rules are based on assumptions about how the system would operate in the post pipeline operating model. A review of the Wimmera-Glenelg bulk and environmental entitlements will begin in July 2013 to ensure they adequately reflect the systems performance. The review will analyse the operation of the entitlements and associated storage operating rules to date and suggest refinements.

A key focus of the review relates to the role of carryover in the system. Carryover has been a useful tool for dealing with a sequence of dry years but the accumulation of large volumes of carryover may have unintended impacts.

The review will also focus on the costs of bulk water and cost sharing arrangements. GMMWater is seeking to refine its bulk water costs and internal transfer pricing and believes that the review is the most appropriate forum for undertaking this. This is consistent with GMMWater's application for a tariff basket inside a revenue cap as the form of price control.

#### 4.8 Demand Projections

GWMWater has prepared a Water Supply Demand Strategy to assess long term water demands, taking into consideration factors which could influence demand and available supply and possible measures to ensure water supplies meet future customer needs.

Population is projected to gradually decline in many municipalities. The exceptions are the Pyrenees Shire and the rural cities of Horsham, Ararat and Stawell where gradual growth is projected by the movement of people from surrounding rural areas into the major towns.

The urban assessment demand projections incorporate Victoria in Future 2012 projections released in April 2012. The projections assume a greater level of growth in major regional cities than those reflected in the Water Supply Demand Strategy. The more optimistic projections are reflected in the planning assumptions.

The urban assessment projections also incorporate changes in demand resulting from capital works projects. These changes are reflected in the year following the programmed completion of capital works. The areas of capital expenditure which impact on demands include water quality improvement projects and new town sewer scheme projects.

Figure 10 - Forecast urban water assessment demand 2013/14 to 2022/23

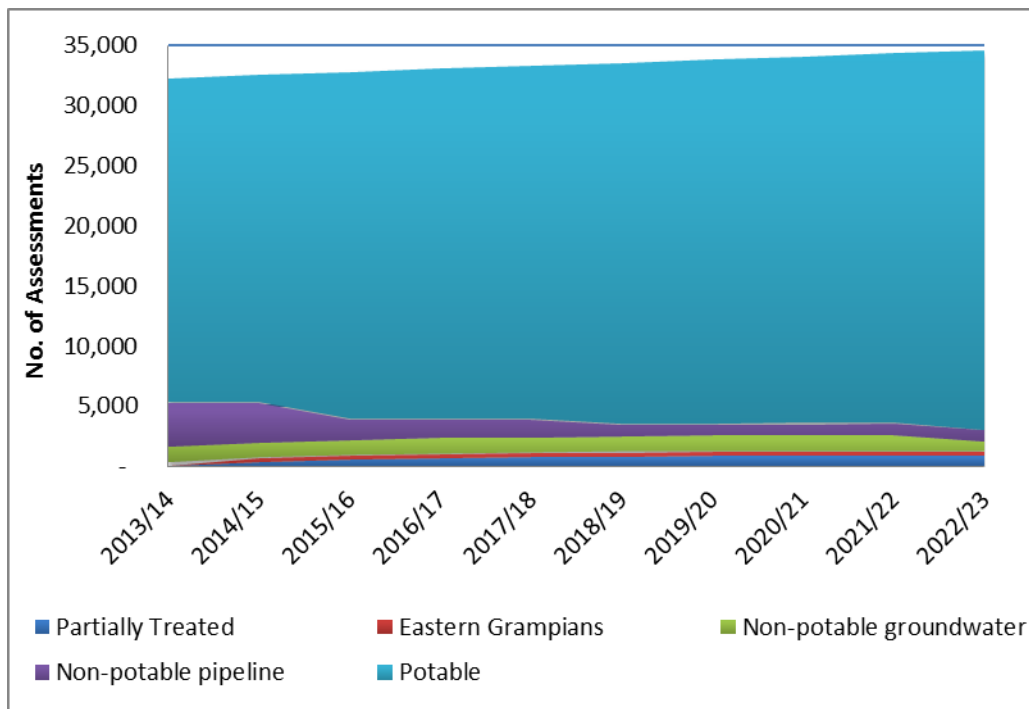
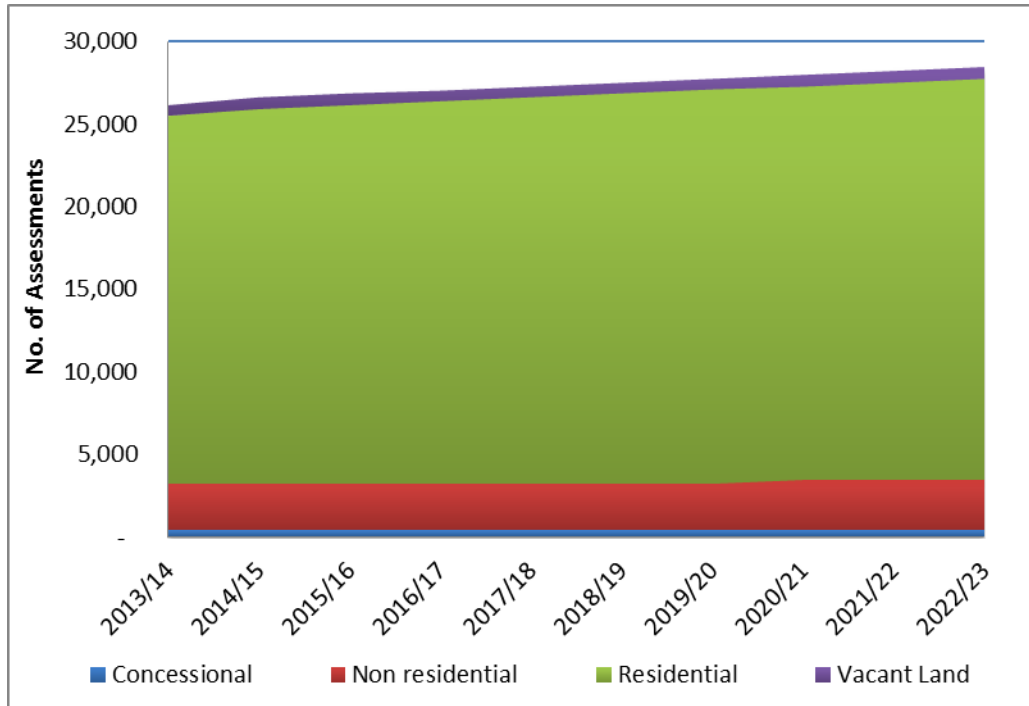


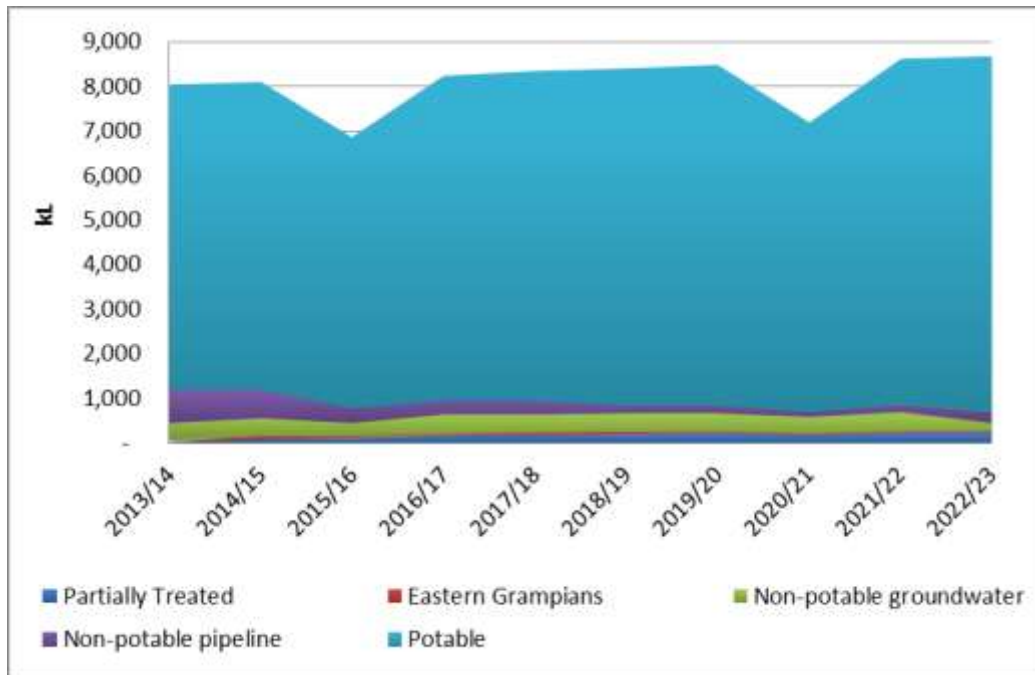
Figure 11 - Forecast wastewater assessment demand 2013/14 to 2022/23



Urban consumption demand projections have been calculated based on average consumptions relative to the number of assessments. The average consumption per assessment by location, customer type and meter size is based on the analysis undertaken for the Water Supply Demand Strategy.

The prolonged drought and many years of restrictions have led to behavioural change in water consumption. This behavioural change has been supplemented by investments that take greater advantage of local harvesting of water and the extended application of greywater systems. With the lifting of water restrictions, we projected urban demand would 'bounce-back' to 71% of pre-drought usage. Recent experience shows an exceptionally wet summer also results in very low demands at similar levels to Stage 4 restrictions. The impact of a wet summer has been factored into the planning projections with an assumption that one in five summers will be cool and wet and suppress demand. It is assumed that the cool and wet year will only impact on residential consumption. Non-residential consumption has not been adjusted.

Figure 12 - Forecast water consumption demand 2013/14 to 2022/23



The urban demand assumptions have been compared and are consistent with the econometric analysis on post restrictions ‘bounce-back’ prepared by Deloitte in December 2011. GWMWater participated in the analysis as a case study utility using water consumption data for Horsham from 2001/02 to 2010/11. The study found that the bounce-back in residential consumption experienced in Horsham when restrictions were lifted was 25%. There appeared to be minimal or no impact from the easing of restrictions on non-residential consumption.

Rural demand projections assume the intensity of water use (ML/ha) and the mix of farming enterprises will remain at existing levels. It is assumed that the allocation of growth water will progressively increase to 100% of peak and off peak growth water volumes over the next ten years. On the basis of our current understanding of regional development opportunities, it is anticipated that mineral sand mining will be the primary source of new demand.

The WMP, along with the Northern Mallee Pipeline, have significantly improved the reliability of water supplies in our region. The focus for Water Plan 3 is to capitalise on the current situation and refine our knowledge of all aspects of the water balance.

Figure 13 - Forecast rural capacity demand 2013/14 to 2022/23

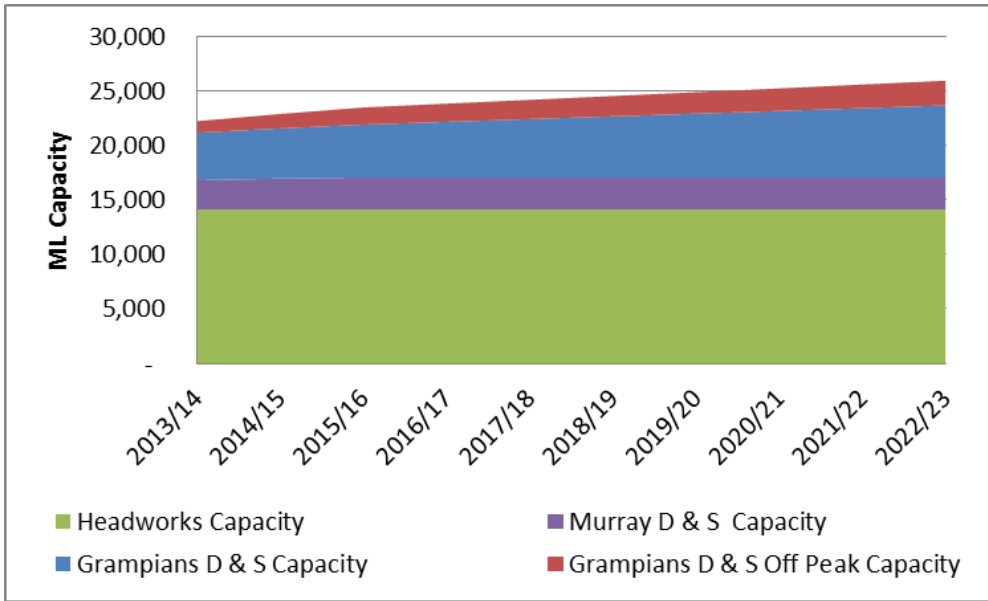
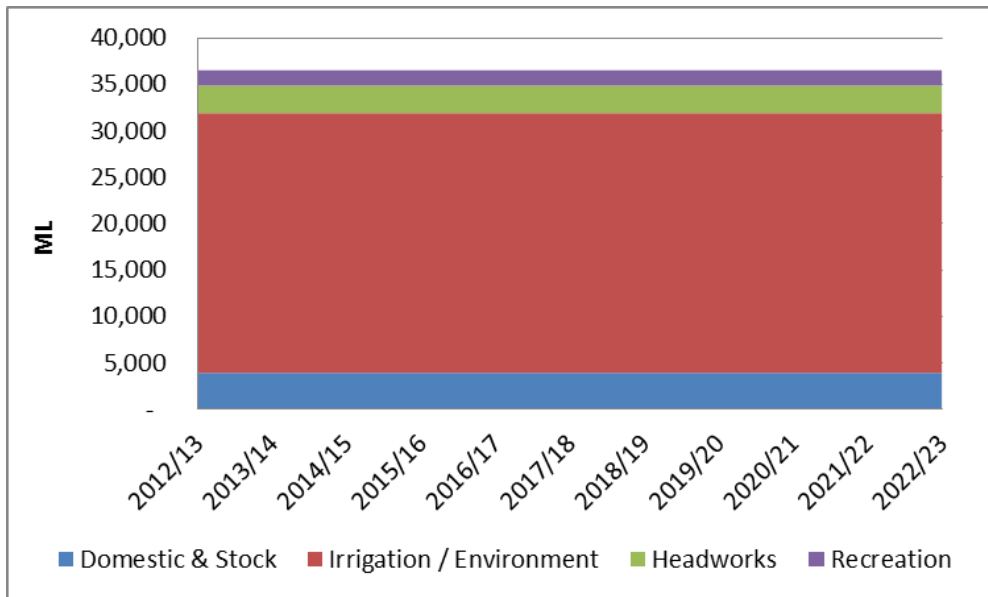


Figure 14 - Forecast rural consumption demand 2013/14 to 2022/23



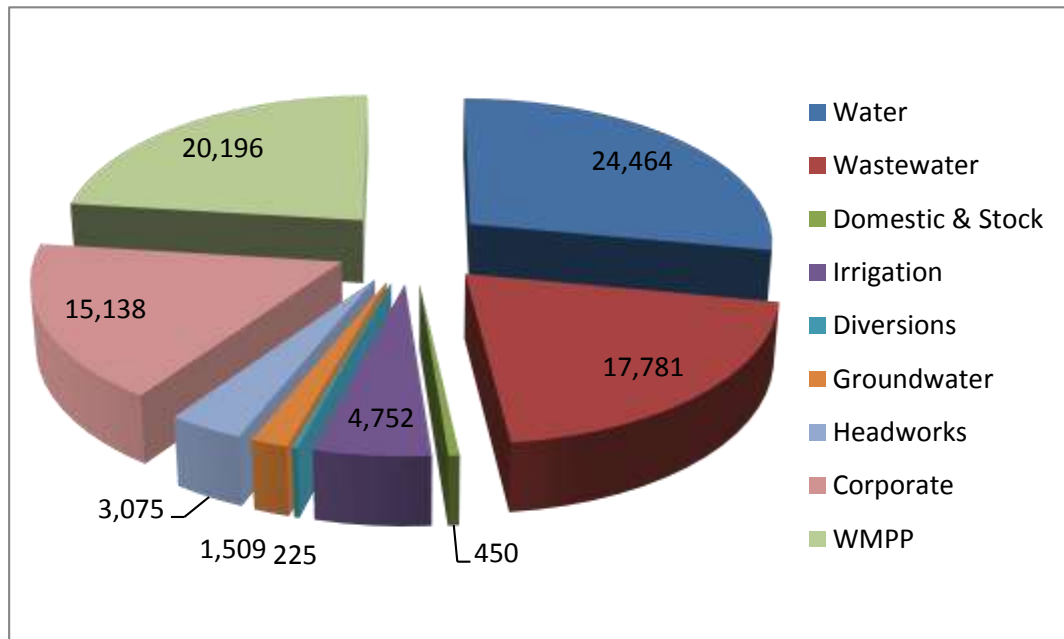
#### 4.9 Infrastructure Investment

The total forecast capital expenditure for Water Plan 3 is \$87.6 million including channel and irrigation system decommissioning. This is 23% lower than the \$103.6 million in Water Plan 2, excluding the WMP and decommissioning.

GMMWater’s forecast capital expenditure for Water Plan 3 is as follows:



Figure 15 - Forecast capital expenditure by service outcome 2013/14 to 2017/18 (P50 Real, \$'000 1/1/13)



The key outcomes over Water Plan 3 will be:

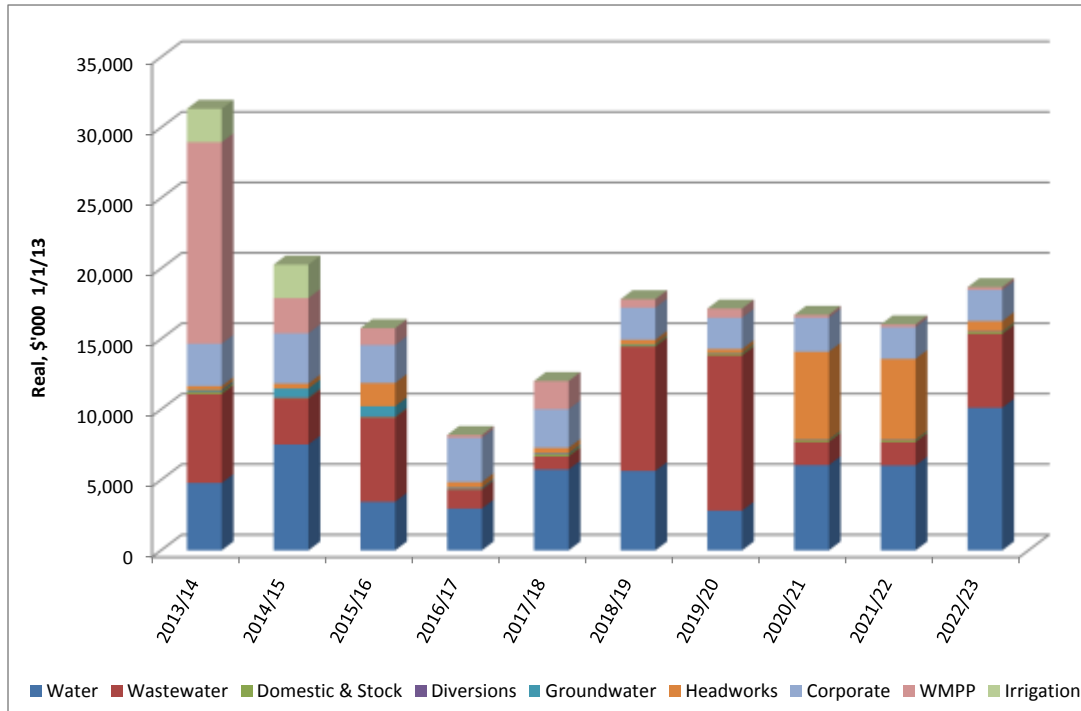
- Delivery of water compliant with Australian Drinking Water Guidelines to Donald, Quambatook, Minyip, Rupanyup, Brim, Jung, Lalbert, Woomelang, Beulah and Sea Lake with a combined population of approximately 4,300.
- Delivery of reticulated wastewater services to Rupanyup (population of approximately 400).
- Maintenance of existing service levels through continued maintenance, refurbishment and renewal of infrastructure.

The water quality upgrades being proposed for Donald, Minyip, Rupanyup and Wycheproof have already been through a process of community consultation and acceptance. Improvements in Brim, Lalbert, Woomelang, Beulah and Sea Lake all require further consultation.

The delivery of the majority of the capital expenditure program is outsourced and is therefore subject to market testing, ensuring cost efficiency in its delivery.

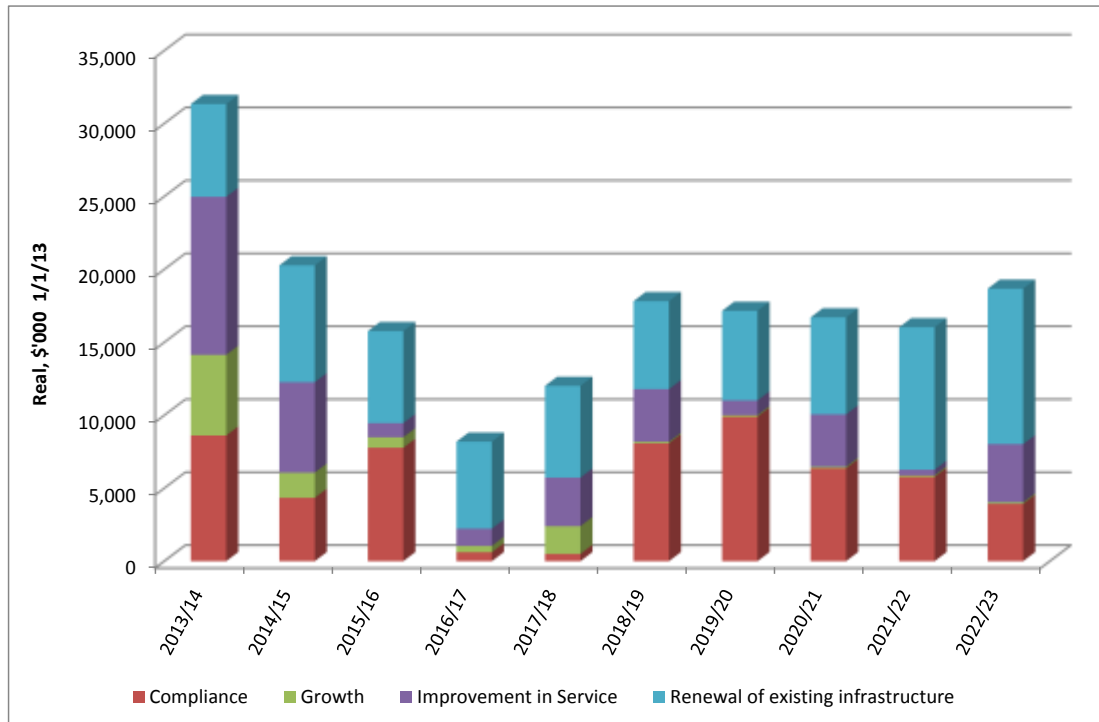
The next five years has been identified as a period of consolidation for the delivery of capital works, with priority being given to water quality upgrades.

Figure 16 - Capital Expenditure by Class 2013/14 to 2022/23



The following chart is the same representation with an emphasis on drivers for expenditure.

Figure 17 - Capital Expenditure by Driver 2013/14 to 2022/23



The detailed capital expenditure program is outlined in Appendix 3

The major capital projects to be undertaken in Water Plan 3 are listed below. Further details are included in Appendix 4.

**Table 4 - Major capital projects listing**

Line of Business	Project Description	2013/14 (\$'000)	2014/15 (\$'000)	2015/16 (\$'000)	2016/17 (\$'000)	2017/18 (\$'000)	Total WP 3 (\$'000)
Domestic & Stock	Intelligent rural pipeline networks	6,466	0	0	0	0	6,466
Irrigation	Irrigation Network Decommissioning	2,376	2,376	0	0	0	4,752
WMPP	WMP Augmentation	4,600	0	0	0	0	4,600
Urban Water	Treated Water Supply - Donald	900	3,000	0	0	0	3,900
Wastewater	Sewerage Scheme - Rupanyup	3,700	0	0	0	0	3,700
Wastewater	Upgrade WWTP and Reuse System - Donald	0	0	2,725	0	0	2,725
Urban Water	Water Treatment - Sea Lake	0	0	0	0	2,500	2,500
Urban Water	Wycheproof Treated Water Supply	2,200	0	0	0	0	2,200
WMPP	Taylors Lake Booster Pump station	0	0	0	0	1,800	1,800
Urban Water	Minyip Drinking Water Supply	611	1,039	0	0	0	1,650
WMPP	Belfield Multi - Level off take	0	1,500	0	0	0	1,500
Wastewater	Upgrade WWTP & Reuse System - Dimboola	0	0	1,482	0	0	1,482
Urban Water	Rupanyup Drinking Water Supply	444	756	0	0	0	1,200

#### **4.9.1 Asset Management - Renewal Expenditure**

GWMWater is still evolving in its maturity in asset management and this was recognised in the 2010/11 regulatory audit undertaken by Pitcher Partners.

Water Plan 3 provides for modest expenditure on asset renewal relative to the asset base of GWMWater. This also needs to be considered in the context of the relative age and performance of the infrastructure.

The rural linear network has been reengineered over the past two decades transforming and earthen channel system to a piped delivery network. Some earlier sections of the rural pipeline systems have mechanical and electrical components that are approaching the end of their nominal technical life.

The urban linear water and wastewater network is generally more aged but the performance data would suggest that the expenditure profile is representative of recent performance and expenditure. The nature of our systems also makes it relatively easy to recover any failure of the linear water and wastewater network.

Water treatment facilities remain relatively new and any expenditure is likely to be limited to mechanical and electrical equipment at the plants. All mechanical wastewater treatment plants have now been upgraded with the exception of Horsham and Dimboola. Dimboola is programmed for replacement / upgrade during Water Plan 3 and Horsham will be the subject of major study.

Headworks and major storage expenditure is driven by the regulatory standards of ANCOLD and all business critical major structures have now been addressed. Any major work in this area has been deferred subject to a better understanding of the operation of headworks that will be informed by the review of the Wimmera Glenelg Bulk Entitlement Order and scheduled for the Water Plan 4 period.

GWMWater is presently reinvesting in its asset management capability with a new system being installed. This investment is being made with a view to ensuring that future Water Plans are better informed by asset management information.

#### **4.10 Recurrent Expenditure**

The key assumptions and major items of recurrent expenditure are covered in the following sections.

##### **4.10.1 Baseline Expenditure**

The extent of reengineering undertaken during Water Plan 2, combined with initiatives to maintain supply during the drought, have distorted the 'business as usual' cost base of GWMWater. In the earlier years of the drought, GWMWater purchased temporary water to meet shortfalls in the Murray system. Access to water from the Goulburn system was also maximised with this water 'lifted' and pumped 'further south' against gravity to preserve water in the Grampians system for distributed to urban storages and other identified locations for carting to rural customers.

There has been expenditure associated with improved water accounting and more frequent meter reading in rural pipeline operations not forecast in Water Plan 2. Rural pipeline meters are now read quarterly, an increase on the biannual meter reads undertaken on the Northern Mallee Pipeline prior to completion of the WMP, bringing our rural and urban billing cycle into alignment.

The introduction of water trading and the establishment of tradeable water allowances in the Victorian Water Register as part of the rural pipeline tariff is a further cost that was not foreshadowed. Other expenditure includes a greater commitment to research to improve understanding of the operations and opportunities arising from the WMP as it has been built.

##### **4.10.2 Service Upgrade Expenditure**

A number of new initiatives planned during Water Plan 2 are only just being delivered, affecting the cost base in 2012/13 and beyond.

The most significant service upgrade was the WMP which dominated the first half of the regulatory period. It was assumed that the increases in the cost of power as a result of the WMP would be offset by corresponding reductions in the number of employees required to support the operation of the channel system.

System design concepts were refined in the process of preparing tender documents resulting in a deviation in some original design concepts. Natimuk water quality upgrades were achieved in the second year of Water Plan 2 by connecting part of WMP Supply System 6 to the Horsham urban network.

Other projects that were delivering improvements were 'back ended' in the capital program and are now starting to come on-line. These include upgrades to the Warracknabeal and St Arnaud wastewater treatment plants, Lake Bolac sewerage scheme and the Willaura reuse scheme.

A number of other projects are at the advanced stage of planning and/or design and will carry over into Water Plan 3. These include Nhill and Jeparit water quality upgrades and the Great Western and Rupanyup sewerage schemes. In the case of Rupanyup sewerage it was always assumed that construction would be undertaken during Water Plan 3.

A number of service upgrades have been committed to recently that were not planned in Water Plan 2. These are planned to be delivered over the next 18 months and will be progressively brought on line in 2013/14. The technical solutions for these upgrades are being refined and it is anticipated that most will be achieved by piping from a neighbouring town that already has water treatment. In some cases this water will be able to be delivered by gravitation. These solutions will further impact on the cost base of GWMWater, and include water quality improvements in Wycheproof, Donald, Minyip, Rupanyup and Quambatook.

Any additional recurrent expenditure to operate and maintain these facilities or infrastructure has been included in the year following the completion of the project.

#### **4.10.3 Programmed Maintenance Expenditure**

##### *Water Mains Cleaning Program*

GWMWater undertakes an extensive program of air scouring in its urban water reticulation systems. The program is one of a range of measures employed to comply with the *Safe Drinking Water Act 2003* for treated supplies and to provide aesthetically acceptable water quality in regulated supplies.

The replacement of the channel based bulk water delivery system with the NMP and WMP means GWMWater has an additional 12,000km of pipeline (approximately) that will require mains cleaning from time to time.

GWMWater expects to review its main cleaning program, including consideration of emerging technologies like 'ice pigging', to maximise the efficiency of the program.

#### *Wastewater Lagoon De-sludging Program*

GWMWater's wastewater lagoon de-sludging program is informed by periodic sludge surveys and ongoing monitoring of the performance of the lagoons. The frequency of de-sludging varies from site to site and depends on a number of variables including rate of inflow, lagoon size etc.

#### **4.10.4 Decommissioning of Assets**

GWMWater has management responsibility for a number of redundant major assets including earthen urban raw water storages, concrete water towers and pump stations. These assets present a significant organisational risk in terms of:

- Public liability risk
- Fire risk
- Vermin control

GWMWater has allocated \$1 million per annum over Water Plan 3 to decommission these assets on a priority basis. This is separate to channel and irrigation system decommissioning expenditure reflected in the capital expenditure program.

#### **4.10.5 Electricity Costs**

Electricity expenditure estimates have been calculated relative to urban and rural demand assumptions.

GWMWater is participating in the Greener Government Building Scheme. This program will reduce electricity use, greenhouse emissions and operational costs. Preliminary indications are that energy savings in the order of \$190k per annum are possible.

There will be a corresponding cost impost associated with the introduction of the Carbon Tax which at this stage is assumed to be \$270,000 in 2012/13. This has been included in the Water Plan and is adjusted annually relative to demand.

#### **4.11 Productivity**

GWMWater is a vertically integrated water business involved in all aspects of water cycle management.

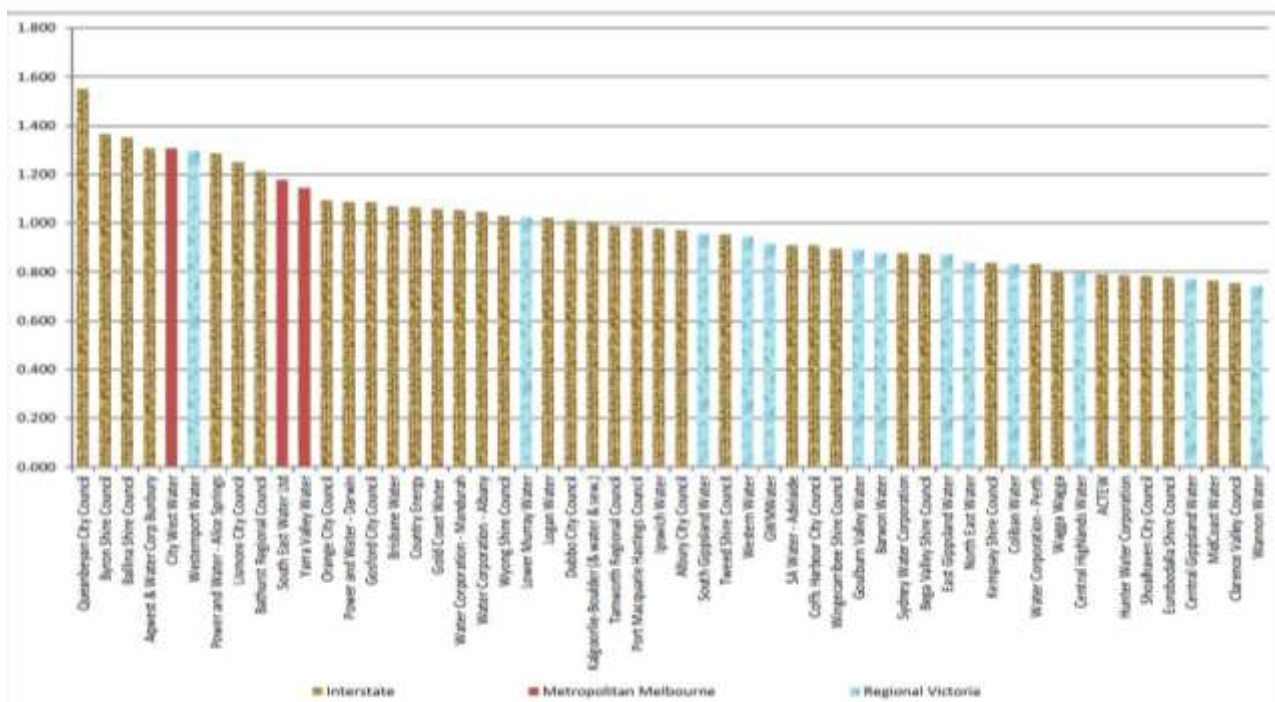
It is only one of two water businesses in Victoria that is both a rural and urban water business. The other rural urban water business does not have a headworks management function making comparative analysis a little more difficult.

All water businesses in Victoria are relatively unique and the cost basis will vary relative to the age of the infrastructure, access to source water, population density, distances to transport water and any relative advantage on wastewater treatment and disposal.



GWMWater has analysed the Productivity Study of Victorian Water Utilities report released in March 2012. The report found that based on the aggregate measures used by the report, GWMWater was one of the more productive regional water businesses. GWMWater was ranked the fifth most productive regional water business in Victoria when assessed against the aggregate of the index approach, random effects and stochastic frontier methods used in the study. This is represented in Table 5 below.

Table 5 - Aggregate Productivity Score - ESC Productivity Study



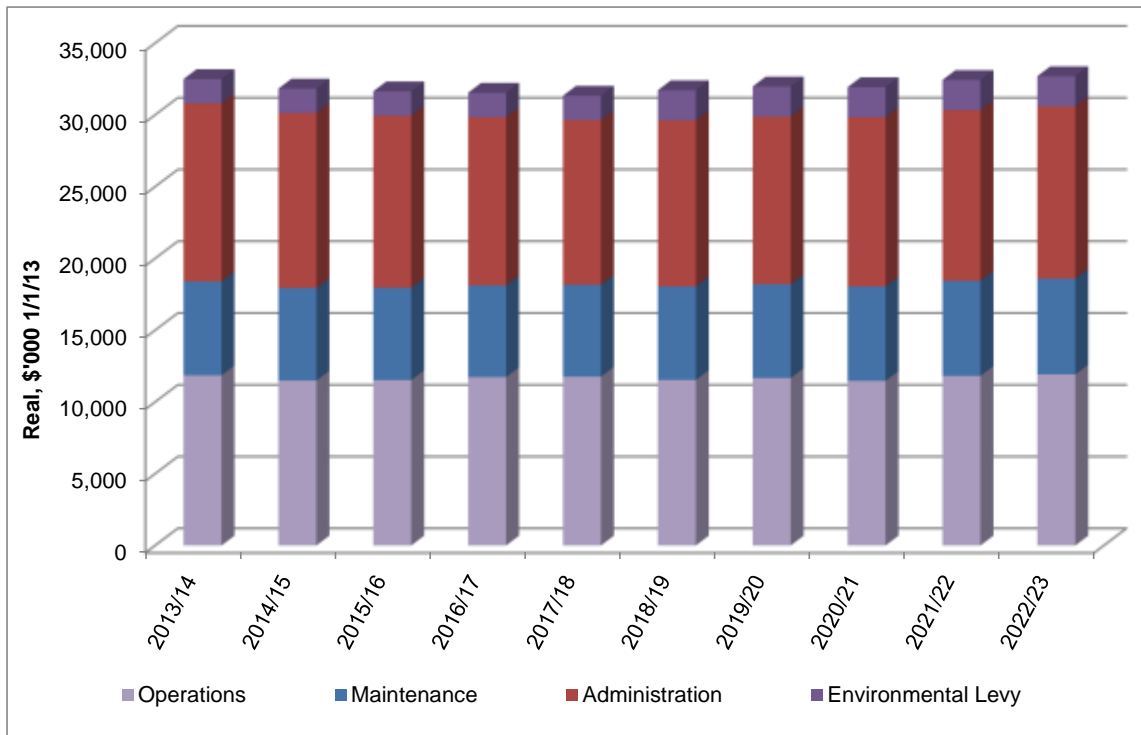
GWMWater has included productivity targets in Water Plan 3 that go beyond the 1% minimum established by the ESC. The proposed 2% productivity improvement will be achieved by reductions in employee numbers over time and improved operational efficiency of water and wastewater networks. These savings will leverage the technology investments undertaken in Water Plan 2 including the WMP, SCADA, finance and customer billing systems and works, and asset management systems.

The closure of the Wimmera Irrigation System is assumed to produce savings in administration expenditure of \$150,000 per annum.

Further productivity savings are assumed as a result of changes to the capital program. The water quality projects assume a more favourable lifecycle outcomes and the investment in the intelligent rural pipeline networks project will further reduce costs.



Figure 18 - Recurrent Expenditure Projections 2013/14 to 2022/23



#### 4.12 Revenue Requirement

GWMWater has applied the benchmark return on capital (Weighted Average Cost of Capital) as the interest rate (discount rate) to support the determination of the revenue requirement. GWMWater considers it appropriate to continue to apply the WACC to its pricing moving forward.

A key element of the pipeline project has been the decommissioning of the channel network. This has been differentiated in the template as expenditure that GWMWater has funded inside the project.

Australian Accounting Standards requires decommissioning to be expensed unless it is considered to be an integral part of the preparation of the site. Pipeline infrastructure has been laid independent of the channel infrastructure and therefore expensed. For the purpose of its representation in the building block model, GWMWater has treated channel decommissioning as a separate asset class and amortised the expenditure over a ten year period.

Figure 19 - Revenue Requirement 2013/14 - 2022/23

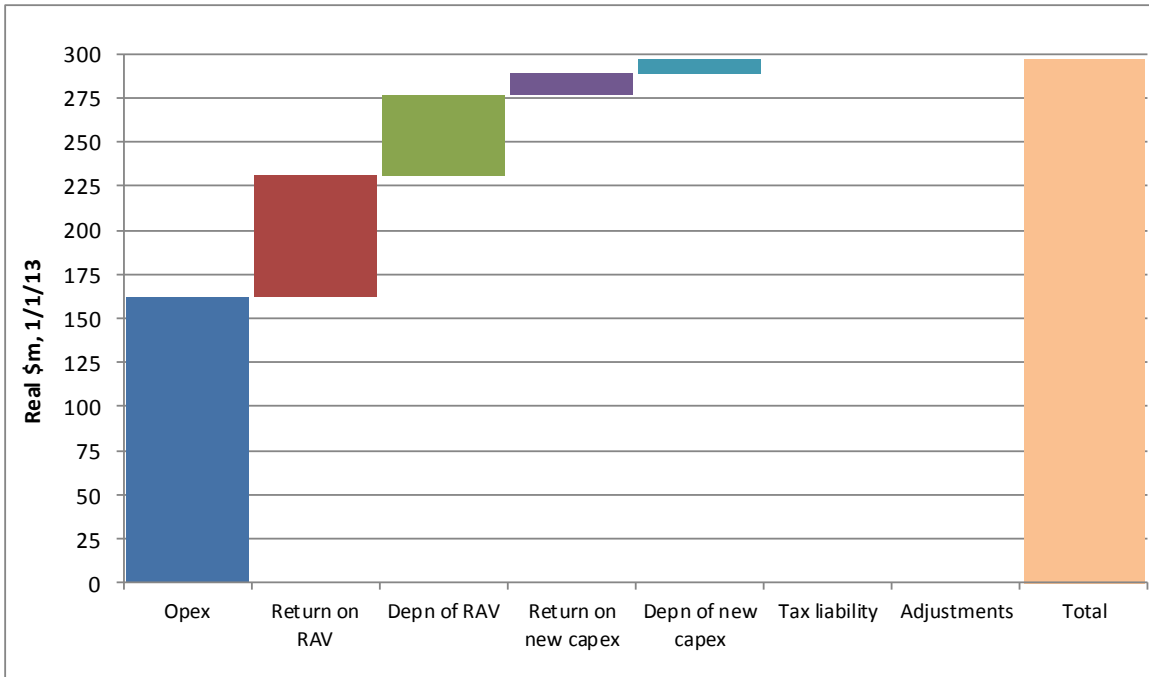
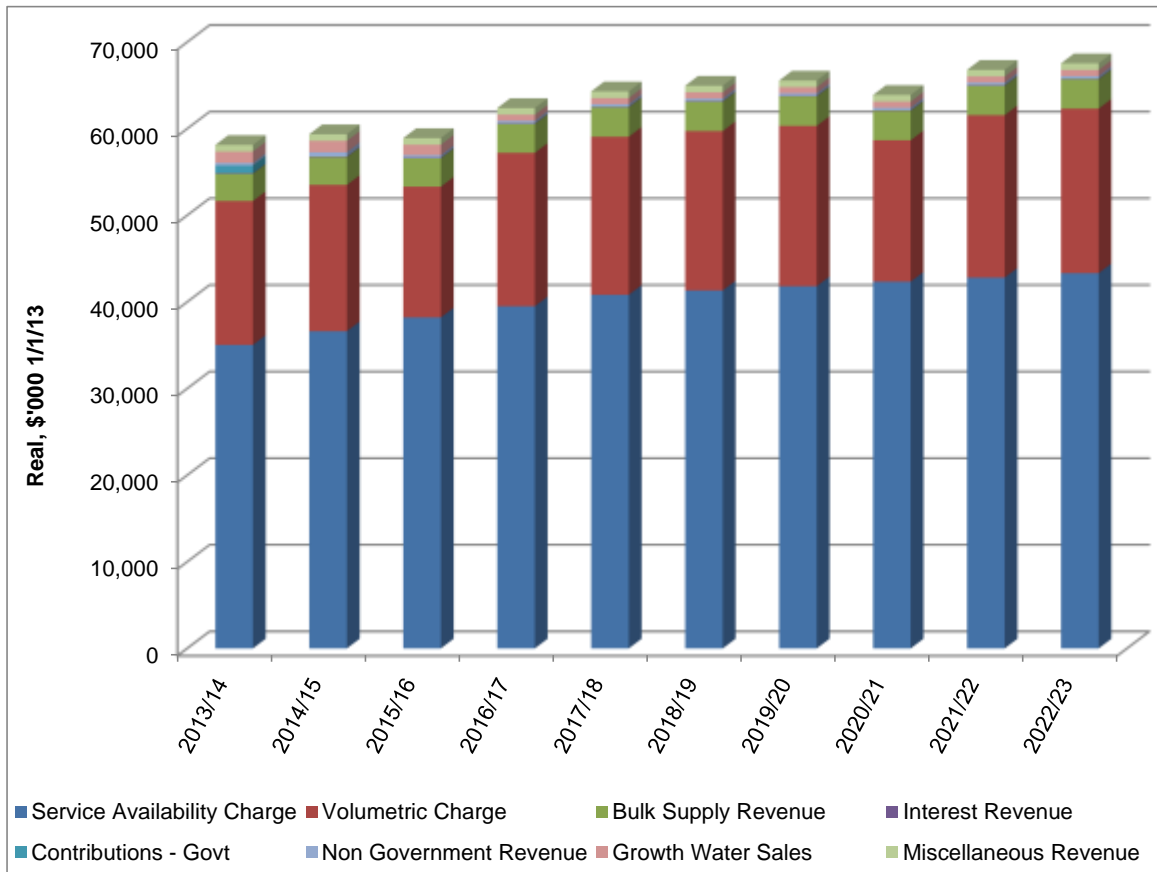


Figure 20 below provides a more traditional representation of revenue across the planning period.

Figure 20 - Revenue Projections 2013/14 - 2022/23



It has been assumed that all cost and revenue differences that transfer into the Water Plan 3 period have been offset and therefore no adjustments have been proposed in transitioning across regulatory periods.

#### **4.13 Form of Price Control**

The GWMWater contribution to the WMP funding model was very much reliant on revenue generated from the growth water sales process. There remains some considerable risk as to the extent that growth water sales will be realised in the regulatory period.

The relatively high level of gearing based on regulatory asset values combined with the tight interest cover projections give rise to a desire to protect revenue. The financial risks will be mitigated by adopting a revenue cap with the revenue inside the cap supported by a high proportion of fixed charges.

The tariff basket inside a revenue cap will avoid the prospect of a 'windfall' in the event that growth water sales exceed planning expectations. In the event that growth water sales do materialise beyond current projections, the sale of the water asset will reduce the regulatory asset base (RAB) as it will be applied to reduce debt. The associated revenue stream broadens the revenue base that can be shared with customers if and when this occurs. This sharing of the benefit can be accompanied by a refinement of the tariff by exposing a greater proportion of the revenue to variable tariff components to provide greater customer empowerment.

A further justification for the tariff basket is specific to GWMWater's desire to revisit bulk water (headworks) pricing when the Wimmera Glenelg bulk entitlement is reviewed in 2013. Bulk water pricing including any cost associated with 'storing' water as carryover has not been considered in the development of pricing proposals leading into Water Plan 3. It was considered that there was insufficient understanding of how the storage operating rules work to overlay these into cost sharing arrangements and associated prices including any possible introduction of water 'holding costs'. Carryover has been identified as the most significant issue to be considered in the bulk entitlement review.

In 2008, GWMWater undertook a reservoirs review that nominally identified a number of storages as being no longer required for water supply purposes. Any abandonment of storages requires ministerial approval and this has not occurred. The assumptions that supported this position need to be revisited as part of the bulk entitlement review to be undertaken in 2013.

GWMWater is proposing a tariff basket with a revenue cap to provide maximum flexibility in any refinement of tariffs through Water Plan 3. A revenue cap will also enable GWMWater to share the benefit of any windfall that arises from the sale of growth water exceeding expectations.

More importantly, GWMWater experienced considerable difficulty in applying the hybrid price cap to its pricing model that underpinned the final decision of the ESC in the 2008 Water Price Review. As a consequence of the concerns raised about the application of the hybrid price cap GWMWater specifically requests that the hybrid price cap not be applied to GWMWater prices.

## 5 Tariff Levels and Structure

GMMWater has undertaken substantial tariff reform over recent years.

### 5.1 Urban Pricing

The urban pricing policy is based on uniform prices differentiated only by the level of service.

#### 5.1.1 Water Capacity Service Parameter

Service capacity to all non-residential customers is based on meter size. The standard tapping size for all urban customers is 20mm although in some isolated instances the service size is 25mm. The multiplier that applies to tapping sizes of greater than 20mm is outlined in Table 6 below.

Table 6 - Meter Size Multiplier

Meter Size (mm)	Service Charge Multiplier
20	1
25	1.6
32	2.6
40	4
50	6.25
60	10
65/70	12.5
75/80	16
100	25
150	56.25
200	100

#### 5.1.2 Water Quality Service Standard

The services and the relevant towns are summarised below:

##### *Group 1 - Drinking Water (full treatment)*

Common tariff for towns receiving drinking quality water, regardless of supply source:

Ararat	Halls Gap	Natimuk	St Arnaud
Birchip	Hopetoun	Nhill*	Stawell
Charlton	Horsham	Ouyen	Underbool
Dimboola	Jeparit*	Pomonal	Warracknabeal
Edenhope	Lake Bolac	Rainbow	Willaura
Great Western	Murtoa		

\* Nhill and Jeparit were nominated to receive water quality upgrades in Water Plan 2 but are yet to have their water supplies upgraded and tariffs increased to the drinking water tariff.

**Group 2 - Drinking Water (partial treatment)**

Common tariff for towns supplied with disinfected only drinking water, regardless of supply source:

Walpeup	Manangatang*	Quambatook*	Sea Lake #
Nullawil			

# Sea Lake has been programmed to receive water quality upgrades in 2018 of Water Plan 3

\* Low cost treatment solutions being investigated, with the price outcomes to be assessed based on water quality outcomes.

**Group 3 - Regulated Supplies (no treatment)**

Common tariff for all towns supplied with Regulated water via channel/WMP or Northern Mallee Pipeline:

Antwerp	Marnoo	Pimpinio	Culgoa
Berriwillock	Nandaly	Speed	Lascelles
Dooen	Chillingollah	Tarranyurk	Patchewollock
Glenorchy	Brim *	Tempy	Chinkapook
Beulah*	Minyip #	Waitchie	Yaapeet
Rupanyup #	Lalbert *	Donald #	Wycheproof #
Jung *	Watchem	Ultima	Woomelang*

\* Low cost treatment solutions presently being considered.

# GWMWater has received funds to advance water treatment and these towns will progress to the drinking water (potable) tariff.

**Group 4 - Eastern Grampians Pipeline (no treatment)**

Common tariff for Eastern Grampians pipeline towns supplied with regulated water.

Buangor	Elmhurst	Wickliffe	Moyston
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**Group 5 - Groundwater (no treatment)**

A common tariff applies to all groundwater towns receiving a Regulated water supply:

Apsley	Kaniva	Murrayville	Westmere
Cowangie	Kiata	Harrow	Miram
Goroke	Lillimur	Serviceton	Streatham

## 5.2 Urban Water Tariffs

During Water Plan 2, GWMWater completed the rebalancing of residential and non-residential tariffs. Table 7 summarises the proposed prices to apply to standard urban services in 2012/13 through until 2017/18 for both residential and non-residential water products.

Table 7 - Summary of Urban Water Tariffs (Real, \$1/1/13)

	Service Avail Charge		Volumetric	
	2012/13	2017/18	2012/13	2017/18
Drinking Water Supply (Full Treatment)	\$414.48	\$469.39	\$1.5444	\$1.7490
Drinking Water Supply (Disinfected only)	\$392.59	\$444.61	\$1.4723	\$1.6675
Regulated Supply - Pipeline/Channel	\$366.84	\$415.46	\$1.4055	\$1.5917
Regulated Supply - Groundwater	\$364.74	\$413.06	\$0.8650	\$0.9797
Regulated Supply - Eastern Grampians	\$366.84	\$415.46	\$1.1377	\$1.2884
Development Rate (Growth Towns) *	\$190.87	\$216.17	Na	Na
Concessional (All Supplies) #	\$272.33	\$308.41	Variable	Variable
Fire Service (All Supplies)	\$418.49	\$473.93	Na	Na

\* Growth Towns include Horsham, Stawell, Ararat, Halls Gap and Great Western

# Concessional approved sporting clubs also have access to a 15% night watering discount.

## 5.3 Urban Wastewater Tariffs

GWMWater has rebalanced all tariffs on the principle of like-price for like-service, with the exception of the wastewater charge which has been adjusted to remove the non-residential volumetric charge. A corresponding adjustment has been made to the minor trade waste charge for non-residential customers regulated by the Trade Waste By-Law.

Table 8 - Summary of Urban Wastewater Prices (Real, \$1/1/13)

Customer Group	Charge		Minor Trade Waste	
	2012/13	2017/18	2012/13	2017/18
Residential	\$433.26	\$490.68	Na	Na
Non Residential	\$433.26	\$490.68	\$146.12	\$306.37
Non Residential Volumetric kL #	\$0.6717	\$0	Na	Na
Development Rate (Growth Towns)	\$199.28	\$225.69	Na	Na
Concessional (All Supplies)	\$259.04	\$293.36	\$146.12	\$306.37

# Minor trade waste charges increased in year one to offset removal of non-residential volumetric charges.

The details of the urban water and wastewater tariffs are provided in Appendix 5.



### 5.4 Urban Customer Impact Analysis

The following chart outlines the expected real price increase for urban customers over Water Plan 3, based on different consumption levels (kL).

Figure 21 - Overview of Price increases 2012/13 to 2017/18

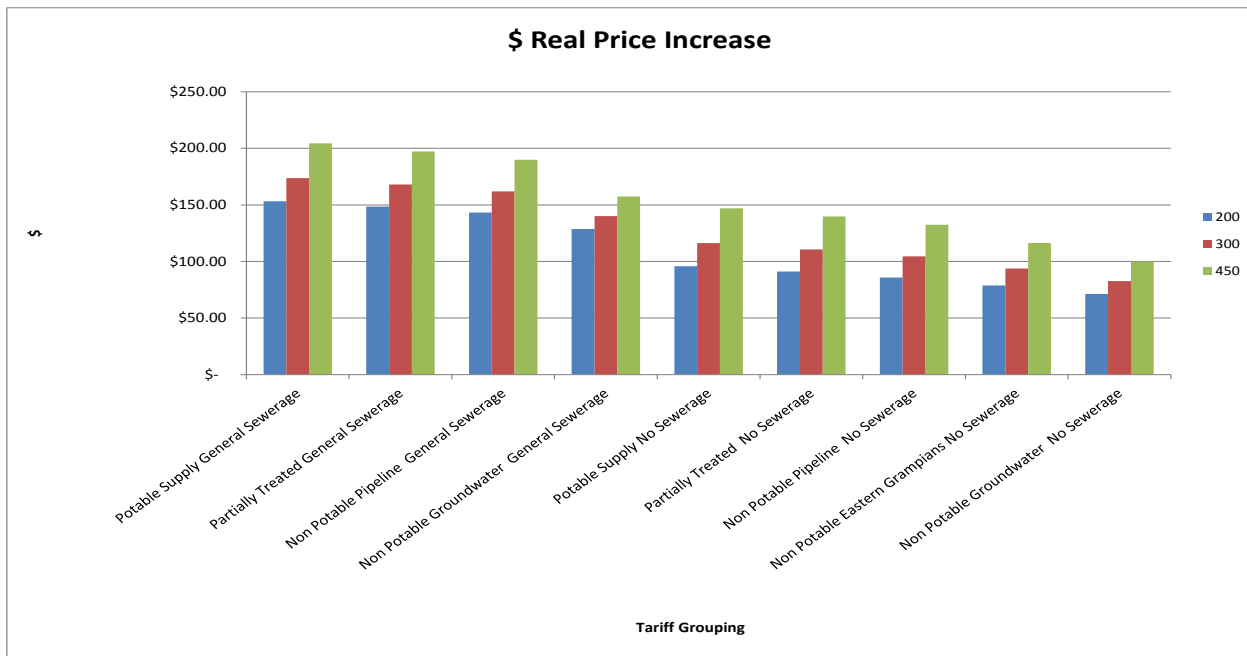
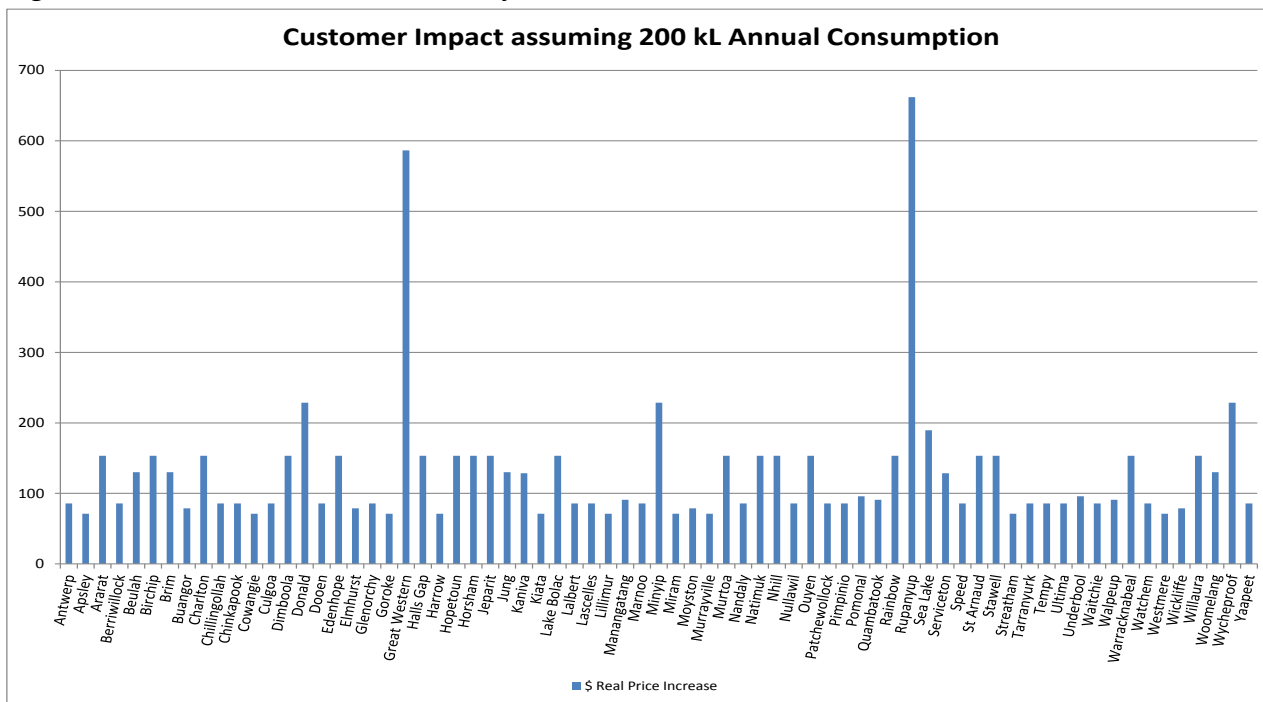


Figure 22 - Overview of Price Increases by Town 2012/13 to 2017/18



Note: Great Western and Rupanyup pricing impact include the introduction of wastewater charges in these towns following construction of new sewerage schemes.

## 5.5 Rural Water Pricing

The main pricing focus during Water Plan 2 related to the rural domestic and stock tariff. Any other rural pricing and tariff reform has carried over to Water Plan 3.

### 5.5.1 Domestic and Stock - Rural Pipeline

The reset of the Wimmera Glenelg bulk entitlement establishes a new 'cap' on the amount of water available for consumptive use in the Wimmera Glenelg system, with access to additional water only able to be achieved through water trading.

Water allowances have been established for rural pipeline customers based on volumes developed as part of the WMP Business Case which reflects rural water usage during the most recent high use period in the Wimmera Mallee channel system.

Supply by Agreement customers have been converted to the rural pipeline tariff, with any price impact managed by a 50% price cap which will not be required after Water Plan 2 as all will have transitioned to the rural pipeline tariff.

The introduction of the excess charge is a pricing mechanism aimed at stimulating the sale of growth water. The rural pipeline tariff has been designed to provide an incentive for rural customers to ensure they have sufficient tradable water allowance to avoid using more than their allowance and paying the excess rate on any excess consumption.

The Off Peak rural pipeline charge has been adjusted following a review of the cost base upon which it was modelled when the pipeline was being designed. The restructure provides a lesser volumetric charge and higher capacity charge.

Table 9 - Summary of Rural Pipeline Charges (Real, \$/1/13)

Charge Element	Service Charge	
	2012/13	2017/18
Primary Meter Charge	\$278.00	\$302.34
Standard Meter Charge	\$138.99	\$151.15
Capacity Charge - Peak Season (kL)	\$0.7922	\$0.8615
Capacity Charge - Off Peak Season (kL) #	\$0.2163	\$0.2800
Volumetric Rate - Peak Season (kL)	\$0.9104	\$0.9902
Volumetric Rate - Off Peak Season (kL) #	\$0.9104	\$0.8590
Excess Charge (kL)	\$3.40	\$3.70

# Structural changes have been made to the off-season charge

### 5.5.2 Domestic and Stock - Walpeup Bores

The Walpeup Bore water supply network has not convert to the rural pipeline tariff. The hectare charge has been maintained but will be reviewed during Water Plan 3.

**Table 10 - Summary of Domestic and Stock Bore Supply Charges (Real, \$1/1/13)**

Charge Element	Service Charge	
	2012/13	2017/18
Area Charge - Division 2	\$2.41	\$2.63
Area Charge - Division 2 Special	\$0.70	\$0.76
Area Charge - Division 3	\$1.20	\$1.31
Area Charge - Division 3 Special	\$0.34	\$0.39
Minimum Area Charge	\$453.93	\$493.66

### 5.5.3 Irrigation Tariff

It is assumed that the current WIA ILGP to the Commonwealth will be successful. The headworks component of the irrigation tariff has therefore been adjusted to reflect the removal of distribution infrastructure.

**Table 11 - Summary Irrigation Tariff (ex headworks) (Real, \$1/1/13)**

Charge Element	Service Charge	
	2012/13	2017/18
Fixed Charge (ML)	\$6.00	\$6.52
Variable Charge (ML)	\$12.00	\$13.53

If the proposal is unsuccessful, GWMWater will seek to reconstitute an irrigation supply tariff which will start to embrace the principles of modernisation as foreshadowed in previous Wimmera Irrigation system studies.

### 5.5.4 Groundwater Charges

GWMWater has reviewed the cost of providing groundwater services during Water Plan 2 and found that the cost is being under recovered. A review has also found that there is no rationale for maintaining differential pricing in different groundwater supply zones.

It is proposed that tariffs for groundwater customers presently paying the lowest tariff will be lifted by approximately 68% over a three year period, while tariffs in the Murrayville area will be reduced. At the end of the third year, groundwater customers are assumed to have reached full cost recovery, with tariffs increased by 1.5% per annum over the last two years, consistent for all rural customers.

**Table 12 - Summary of Groundwater Charges 2012/13 to 2017/18 (Real, \$1/1/13)**

Charge Element	Service Charge	
	2012/13	2017/18
Murrayville Water Supply Protection Area (ML)	\$9.48	\$7.15
West Wimmera Groundwater Management Area (ML)	\$4.08	\$7.15
Other areas (ML)	\$4.08	\$7.15
All (licence fee)	\$105.60	\$164.16

### 5.5.5 Unregulated Surface Water Diversions

Unregulated surface water diversions will be increased by 2.5% in 2013/14 and then by 1.5% per annum across Water Plan 3.

### 5.6 Bulk Water Charges

Bulk water charges will be increased by 2.5% in 2013/14 and then by 2.4% per annum across Water Plan 3.

The details of the rural charges are provided in Appendix 6.

### 5.7 Rural Customer Impact Analysis

The overall impact on rural customers across the Water Plan 3 period is outlined below:

**Figure 23 - Real % Price Increase Rural Customers (excluding CPI)**

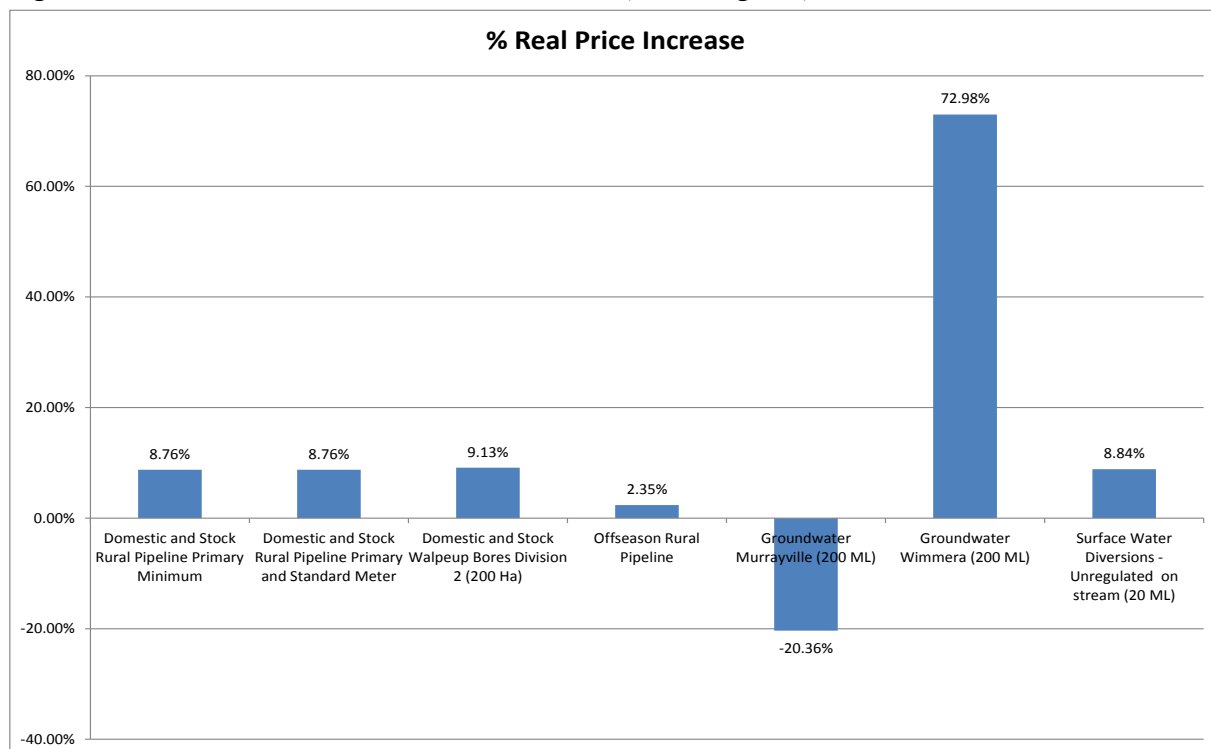
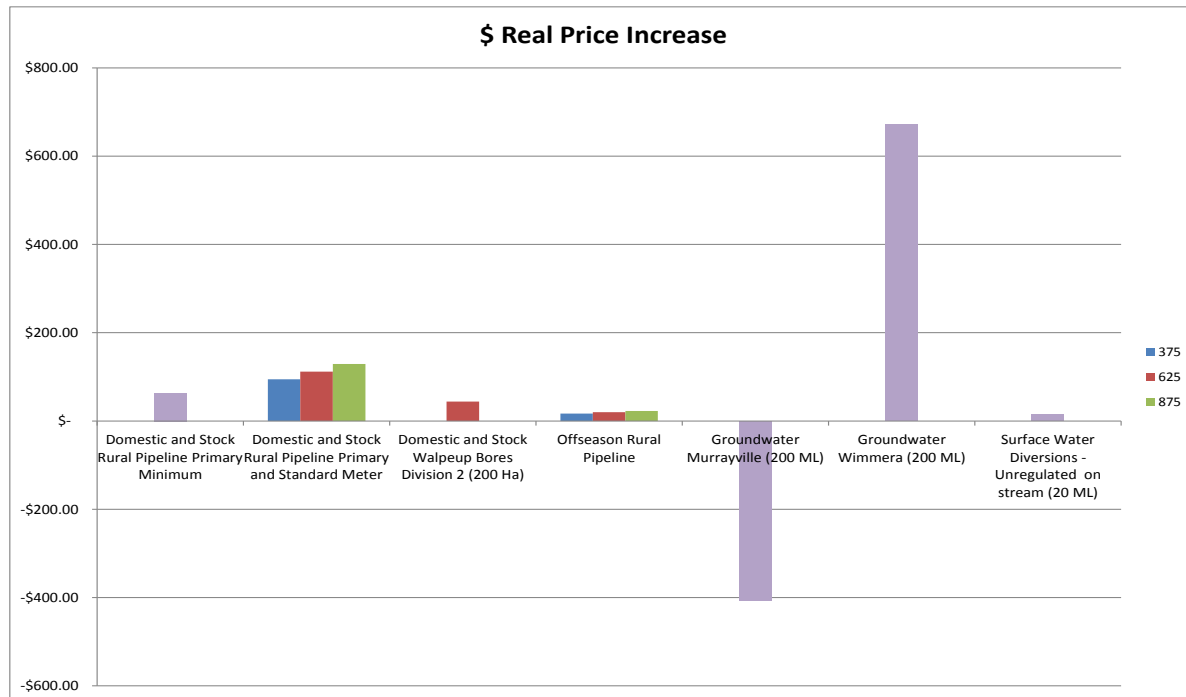


Figure 24 - Real \$ Price Increase Rural Customers



### 5.7.1 Recreation Water Pricing

Recreation water pricing has been subject to a separate review process in the development of Water Plan 3, with the primary focus being the price of water supplied to recreation lakes.

The supply of water to recreation lakes was the most significant issue raised during the Water Plan 3 consultative period. These issues centred primarily on equity relating to access and pricing. Whilst not much can be addressed in relation to access, the proposed recreation contribution charge will at least provide greater equity on price. The proposed rebate for water supply to recreation lakes provides for a small co-payment by the legal entity responsible for the lake.

While water supply to recreation lakes was a specific deliverable under the WMP, no specific pricing policy was developed at that time. The Victorian Government has since confirmed that it was government's objective in funding the WMP that water supply to recreation lakes and water created for the environment be treated the same.

Recreation water does not attract a headworks charge and is therefore only subject to network distribution charges. The prospect of introducing a contribution charge to assist in funding the cost of supplying water to recreation lakes has been investigated. The scope of the proposed recreation contribution was subsequently expanded to include water supplied to sporting clubs following consultation with customer committees.

The contribution proposed is \$16 per rural and urban water customer with this amount reduced to \$8 where the customer is a health care card holder. The recreation contribution charge would allow the cost of water supplied to recreation lakes to be discounted from the current charge of \$48 per ML to \$20 per ML and volumetric discounts of between 25-40% for eligible sporting clubs.

The proposed recreation contribution charge featured prominently in the consultation program for Water Plan 3. The charge was strongly supported but a number of respondents suggested that the scope be extended beyond discounting water supply to recreation lakes and sporting clubs. This included assisting the provision of recreation amenity at GWMWater headworks and meeting part of the cost of delivering water services to sporting facilities where they are not part of a reticulated delivery network. These requests are to be further considered by the GWMWater Board in the ESC consultative period.

The recreation contribution charge is to be based on the number of assessments that form part of the customer 'census' as at 30 June each year as published in the annual financial statements. The recreation contribution revenue will then be applied to the cost of providing the discounts to customers nominated to be beneficiaries of the scheme. The amount collected and the value of the amount attributed to the discount will be reported annually in the GWMWater financial statements.

These issues have been considered in a separate discussion paper dealing with recreation water which was available for public comment. A copy of the discussion paper is provided in Appendix 8.

## Appendix 1 Managing Risk

### Inflow

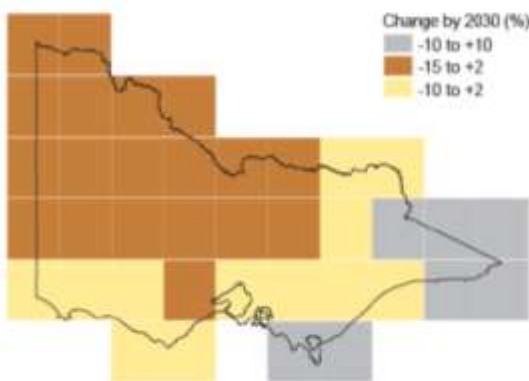
The WMP has significantly improved the security of regional water supplies.

The CSIRO has undertaken considerable research assessing the implications of predicted climate change in various regions across Australia. The findings are quite significant for the Wimmera Mallee region in terms of reduced water availability.

### Figure 25 - Climate Variability

Figure 26: Projected average rainfall change by 2030

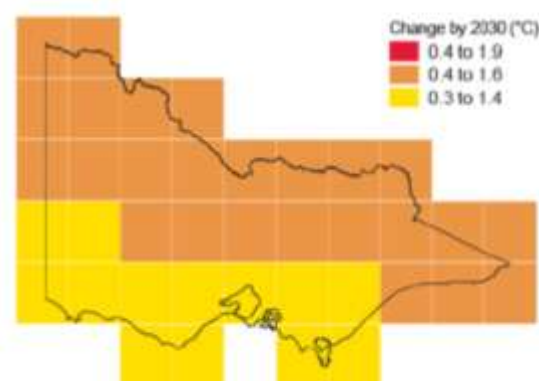
Range of projected change in rainfall relative to 1990 levels (%)  
(degrees)



Source: DSE Climate Change projections prepared by CSIRO 2007

Figure 27: Projected average temperature change by 2030

Range of projected change in temperature relative to 1990 levels



Source: DSE Climate Change projections prepared by CSIRO 2007

The ILGP to sell the Wimmera irrigation area's water entitlement to the Commonwealth provides an opportunity to improve environmental water security in the Wimmera Avoca system by the transfer of the annual average 23 GL irrigation water entitlement to the environment.

The Western Region Sustainable Water Strategy and our own Water Supply Demand Strategy confirms that long-term inflows for the region may be significantly reduced. The Strategy highlights under median 2030 scenarios, Horsham and district demands will need to be augmented by additional sources. Similar long term predictions occur for several of our Eastern supply systems.

The high reliability of all systems gives rise to a very low risk of inflow during the period of Water Plan 3.

### Demand

The main source of demand risk relates to GWMWater's exposure to growth objectives in the WMP Business Case.

The WMP Business Case was based on assumptions about growth and this remains GWMWater's primary source of demand risk. GWMWater has set some relatively conservative growth projections in forming the Water Plan.



The most recent population projections of Victoria in Future 2012 have been a little more optimistic about the prospects of regional Victoria. This optimism has been reflected in the demand forecasts that underpin the urban customer assumptions of Water Plan 3.

The depth of the recent drought has produced some permanent behavioural change in relation to consumption. The average urban consumption figures reflect the behavioural changes that have occurred over the past decade. The Water Plan has also attempted to mimic the impact of a wet season. The wet summer of 2011 gave rise to volumetric demand less than the levels of demand recorded in Stage 4 restriction years. It has been assumed that such events will occur one in every five years.

The growth aspirations of the WMPP have been carried by GWMWater. The most significant interest to date has come from the emerging mineral sands industry. GWMWater has been conservative in its assumptions for growth for the purpose of this Water Plan 3.

In order to provide the greatest flexibility to share the benefit of any growth GWMWater has sought a tariff basket inside a revenue cap.

### **Operational**

GWMWater provides stewardship of over \$2 billion of assets on a gross replacement cost.

GWMWater's bulk delivery systems have been reengineered over the past two decades and as a result it is still realigning its operational model. The WMPP has been delivered with a limited amount of intelligence. Telemetry exists at the pump stations but not beyond these sites. There is significant scope to minimise the operational risks by improving the level of intelligence in the pipeline network. GWMWater has programmed \$6 million of pipeline expenditure from unspent funds as a project that will enable GWMWater to fulfil its financial commitment to the WMPP.

Asset management at GWMWater is still maturing and improvements are to be assisted by the investment in a new asset management system. The existing Hansen 7 system is being replaced with TechnologyOne Works and Assets module. As part of the transition to the new system, assets are being risk assessed and operation and maintenance strategies developed based on criticality overlaid with the likelihood and consequence of failure.

Most operational risks will be managed typically through operating policies and maintenance.

The introduction of a new asset management system is expected to result in a more targeted, proactive approach to managing our assets.

The most significant operational risk will be addressing the deterioration in source water quality as a result of the 2011 floods. This has significantly impacted urban and rural customers receiving water from systems with no water filtration technologies in place. As a result of this external event GWMWater is receiving a high number of customer complaints and is consistently failing to meet drinking water standards in a number of disinfected only towns.

To temporarily manage the health risks associated with poor quality water, negotiations with the Department of Health allowed us to reclassify a number to non-drinking water supplies until permanent solutions could be determined.

Following detailed consultation with customers in Wycheproof, Donald, Minyip and Rupanyup, water supplies to these towns will be upgraded to drinking water quality early in Water Plan 3 at a total estimated cost of \$12 million. By the end of Water Plan 3, water compliant with the Australian Drinking Water Guidelines will be offered to 11 towns, with a total population of approximately 4,300.

### **Construction**

Specific risks associated with the delivery of the \$87.6 million in capital works are considered in detail for the major projects that make up these costs. Each project requires a business case with full costing for options under consideration (including the base case option) and potential risks assessed.

The capital expenditure being proposed is relatively modest compared to the programs delivered in previous Water Plan periods. GWMWater has refined the capital lifecycle planning processes to ensure better discipline in the planning and delivery of capital works.

The program is also well informed by current market information that suggests that some of the heat is coming out of the construction industry. Market prices for pipeline work recently tendered came in 35% below pre tender prices with a large amount of interest in the work.

This most recent market information has been fed into the Water Plan 3 capital estimates.

### **Flooding**

The climate scenarios produced by the CSIRO suggest that the region is more likely to experience extreme weather events. This will increase the probability of high rainfall events like those experienced in January 2011 that led to wide spread flooding throughout the region.

The nature of our systems is such that there is little risk of surge events that will cause significant damage to infrastructure. The only exception to this principle that was informed by the January 2011 floods are Lake Lonsdale and Charlton. The Lake Lonsdale catchment can gather water faster than it can be released whilst Charlton is on a river that is prone to rapid increase flooding.

Whilst other parts of the region are susceptible to flood these waters tend to rise at slower rates and should they breach, the flat country tends to have the flood water disperse far and wide.

The nature of the floods in Water Plan 2 has however altered the businesses priorities to focus on mitigating strategies to ensure more resilience in the face of repeated floods. The water quality improvements being proposed in this plan are in part a response to the vulnerabilities of our urban systems to variations in source water quality caused invariably by high rainfall events.

### **Regulatory**

There are no substantial changes in laws, regulations or policy decisions anticipated that are likely to materially alter the expected outcomes of Water Plan 3.

Where these are to occur during Water Plan 3, and substantial expenditure is required to meet these mandatory obligations, these will be addressed with the ESC before costs are passed through to customers.

### **Environmental**

GWMWater has a corporate licence with the EPA for the operation of its wastewater facilities and any associated use of the wastewater. Twenty six wastewater treatment plants are licenced under the corporate licence with regular monitoring and reporting provided to EPA.

A new sewerage scheme is planned for Rupanyup and upgrades proposed for Dimboola and Donald wastewater treatment plants during Water Plan 3.

Further consultation will be undertaken with the EPA during the consultative period to confirm the scope of work required at the Dimboola and Donald plants.

There are relatively few risks associated with the proposed works or existing wastewater infrastructure that are likely to adversely affect the environment.

### **Policy**

Similar to regulatory risks, where substantial changes to policy or even a change of government occurs, material consequences will be addressed with the appropriate department and costs associated with these changes will be passed through to the appropriate customer or stakeholder.

## Financial

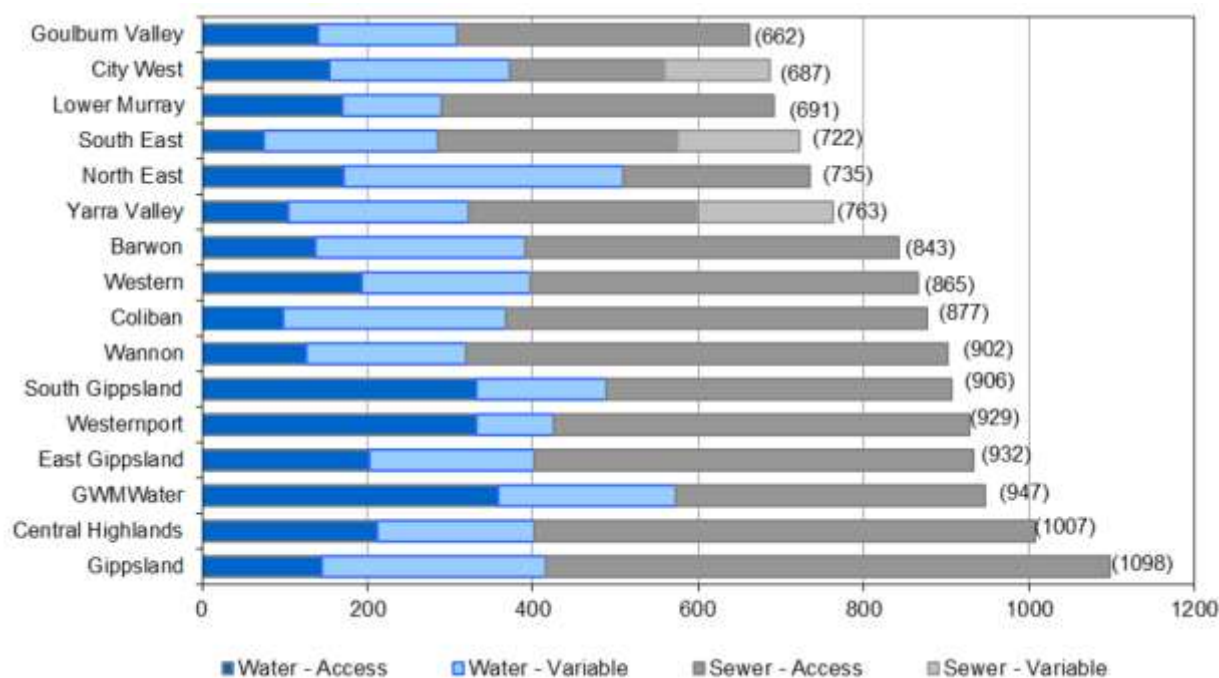
Meeting our financial requirements, while at the same time recognising affordability concerns of customers, has been a key challenge in developing our 2013-2018 tariff proposal.

As part of the funding model for the WMPP that underpinned Water Plan 2, GWMWater agreed to make a contribution toward the WMPP that was to be met from a combination of tariff increases, borrowings and growth water sales. This was based on modelling that indicated that at the end of the construction period, GWMWater was operating in a 'window of vulnerability' where;

- customer affordability would be challenged,
- GWMWater finances would be under pressure as consequence of the very high regulatory gearing, and
- an element of risk about the potential sale of growth water.

Leading into Water Plan 3 the issue of customer affordability remains an issue but GWMWater is no longer the highest priced water business.

**Figure 26 - Urban Customer Affordability - Price Comparisons for Average Consumption**



Source: ESC Water Industry Performance Report 2010/11

GWMWater borrowed significantly during Water Plan 2 to meet its financial commitments to deliver the WMP as well as improve water and wastewater services to urban customers. These commitments, combined with the commitments to continue to upgrade water and wastewater services in Water Plan 3, will continue to place affordability pressures on GWMWater that will need to be closely monitored. The borrowing levels do not presently exceed GWMWater's ability to meet its debt servicing obligations as reflected in the interest coverage ratios.

All this has been assisted by a very successful headworks growth water sales process. The success of this has been undermined by the fact that it is headworks growth water. The 'in system' growth water has the ability to start generating a return on the additional capacity that has been invested into the WMP providing greater long term financial benefits.

Given certain assumptions about demand and customer growth, the modest tariffs increases proposed will balance the revenue requirement needed to manage debt and minimise further impact on customer affordability. Any further sales of growth water will enhance GWMWater's ability to improve customer affordability as well as mitigating the corporations' financial risk by further reducing debt.

The proposed tariff basket with a revenue cap approach to pricing will provide maximum flexibility in any refinement of tariffs through Water Plan 3.

### **Business**

Risks associated with business continuity, technology and competitiveness are generally managed through internal risk oversight by management and Board.

Whilst competition is not a key threat for the industry at this stage, business productivity and efficiency targets are an attempt to stimulate improvements in the absence of competition.

## Appendix 2 Proposed Service Standard Targets

Urban Water Delivery Service Standards								
Service Standard	Existing Target	5 Year GWMWater Performance (Average)	Proposed Target					Comments
			13/14	14/15	15/16	16/17	17/18	
Rate of unplanned urban water supply interruptions per 100km of water main	40	29	40	40	30	30	30	Maintain the existing level of service at the same time as improving knowledge of where to invest in preventative maintenance and water mains replacement programs.
Average time from notification to attend urban water bursts and leaks (minutes) - Priority 1	30	25	30	30	30	30	30	Maintain existing level of response times.
Average time from notification to attend urban water bursts and leaks (minutes) - Priority 2	60	28	40	40	40	40	40	Priority 2 bursts and leaks are categorised as less important than Priority 1 bursts and leaks. The past response times suggests that this target can be reduced without additional expenditure to reflect current practice.
Average time from notification to attend urban water bursts and leaks (minutes) - Priority 3	60	35	40	40	40	40	40	Priority 3 leaks generally require a less timely response than other bursts and leaks. The past response times for Priority 3 bursts and leaks suggest that this target can be reduced without additional expenditure to reflect current practice.
Unplanned water supply interruptions restored within 5 hours (%) #	97.5%	98%	97%	97%	97%	97%	97%	Performance has been consistent with the previous target and industry performance. A GSL is proposed for this indicator, with a \$50 rebate for customers impacted by poor performance.
Planned water supply interruptions restored within 5 hours (%) #	95%	97%	97%	97%	97%	97%	97%	Performance has been consistent with the previous target and industry performance. A GSL is proposed for this indicator, with a \$50 rebate for customers impacted by poor performance.

Urban Water Delivery Service Standards								
Service Standard	Existing Target	5 Year GWMWater Performance (Average)	Proposed Target					Comments
			13/14	14/15	15/16	16/17	17/18	
Average unplanned customer minutes off water supply	20	16.5	20	20	20	20	20	Business as usual. This level of service is consistent with the Victorian water industry.
Average planned customer minutes off water supply	12	40	30	30	30	30	30	The frequency of air scouring in towns to clean water mains to improve water quality has resulted in a large increase in planned interruptions. Customers are notified 2 days prior to the works. It is anticipated that poor water from the Murray and Grampians catchments will last for some time. Customers have expressed a greater desire for better water quality over minor interruptions to service.
Average frequency of unplanned water supply interruptions (number)	0.2	0.19	0.2	0.2	0.2	0.2	0.2	Consistent with target but slightly higher than industry average. This suggests water infrastructure maintenance requirements may be higher for GWMWater than other utilities. No significant events have taken place to suggest significant increases in the budget are required.
Average frequency of planned water supply interruptions (number)	0.05	0.23	0.3	0.3	0.3	0.3	0.3	Similar to the average minutes of customers off supply for planned works, air scouring programs across a number of towns has attributed to the increased result for this indicator. It is anticipated that poor water from the Murray and Grampians catchments will last for some time. Customers have expressed a greater desire for better water quality over minor interruptions to service.
Average duration of unplanned water supply interruptions (minutes)	100	84	100	100	100	100	100	Business as usual. This level of service is consistent with the Victorian water industry.
Average duration of planned water supply interruptions (minutes)	180	157	180	180	180	180	180	Service is within the existing and proposed target. Maintenance times are slightly higher than the industry average. Relatively few service reliability complaints are received for planned interruptions. The increase may partly be explained by the increase in cleaning water mains to improve water quality.



Urban Water Delivery Service Standards								
Service Standard	Existing	5 Year	Proposed Target					Comments
Number of customers experiencing five unplanned water supply interruptions within a year	0	0	0	0	0	0	0	It is difficult to calculate all the potential customers that are interrupted when a supply is turned off unless they ring up and complain. Our overall asset management system will be upgraded to better capture this information. The additional expense to monitor and report this information will cost about \$10,000.
Level of Unaccounted Water (%)	10%	29%	12%	12%	12%	12%	12%	Improving the techniques to report this information will allow GWMWater to identify where to better invest in this area. No additional expenditure is proposed at this stage.

Urban Sewerage Collection Service Standards								
Service Standard	Existing target	5 Year GWMWater Performance (Average)	Proposed Target					Requirements needed to meet proposed target
			13/14	14/15	15/16	16/17	17/18	
Rate of sewerage blockages per 100km main	36	35	36	36	36	25	25	Whilst higher than the industry average, prioritisation for replacing and maintaining sewers should see improvements in the later part of the Water Plan period.
Average time to attend sewer spills and blockages (min)	30	21	30	30	30	30	30	The response times for sewer incidents is acceptable
Average time to rectify a sewer blockage (min) #	180	124	130	130	130	130	130	The times taken to rectify sewer blockages are acceptable across the industry. Where a sewer blockage is not rectified in 5 hours, there is a proposed GSL of \$50 per customer affected.
Proportion of spills contained within 3 hours - Priority 1 (%)	98%	94%	97	97	97	97	97	This performance is better than the industry average who set their containment times to 5 hours, not 3 hours.
Proportion of spills contained within 3 hours - Priority 2 (%)	98%	100%	98	98	98	98	98	Business as usual. Response times are better than the industry average.
Number of customers experiencing 3 sewer blockages	0	0	0	0	0	0	0	It is difficult to calculate all the potential customers that are interrupted when a supply is turned off unless they ring up and complain. Our overall asset management system will be upgraded to better capture this information. The additional expense to monitor and report this information will cost about \$10,000.
Sewer spills within a house that is a result of failure in our system, to be contained within one hour of notification. #	0	0	0	0	0	0	0	Where a sewer spill occurs within a house, that is a result of failure in our system and they are not contained within one hour of notification there is a proposed GSL rebate of \$1,000. This is in addition to in-kind services to assist with clean-up, accommodation, etc.

<b>Rural Service Standards</b>								
Service Standard	Existing target	5 Year GWMWater Performance (Average)	Proposed Target					Requirements needed to meet proposed target
			13/14	14/15	15/16	16/17	17/18	
Applications for new groundwater licenses determined within 60 days (%)	80.0%	100.0%	100%	100%	100%	100%	100%	GWMWater consistently meet targets.
Applications for new surface diversion licenses determined within 30 days (%)	80.0%	100.0%	100%	100%	100%	100%	100%	GWMWater consistently meet targets.
Applications for new supply by agreement licenses determined within 60 days (%)	80.0%	100.0%	100%	100%	100%	100%	100%	GWMWater consistently meet targets.
Applications for renewal of groundwater licenses determined within 40 days (%)	80.0%	100.0%	100%	100%	100%	100%	100%	GWMWater consistently meet targets.
Applications for new surface diversion determined within 22 days (%)	80.0%	100.0%	100%	100%	100%	100%	100%	GWMWater consistently meet targets.
Processing temporary transfer of water entitlement volumes within 15 days (%)	80.0%	90.0%	100%	100%	100%	100%	100%	GWMWater consistently meet targets.
Processing of permanent transfer of surface diversion or groundwater licences within [60] days (%)	80.0%	100.0%	100%	100%	100%	100%	100%	GWMWater consistently meet targets.
Processing permanent transfer of water entitlement volumes within 60 days (%)	80.0%	100.0%	100%	100%	100%	100%	100%	GWMWater consistently meet targets.
Number of diversion licenses metered or assess for metering at 30 June (%)	90.0%	100.0%	100%	100%	100%	100%	100%	GWMWater consistently meet targets.
Volume of total surface water and groundwater entitlements metered at 30 June (%)	80.0%	90.0%	90%	90%	90%	90%	90%	GWMWater consistently meet targets.

Rural Pipeline Service Standards								
Service Standard	Existing target	3 Year GWMWater Performance (Average)	Proposed Target					Requirements needed to meet proposed target
			13/14	14/15	15/16	16/17	17/18	
Unavailability of D&S Supply Systems for continuous periods in excess of 72 hours (%)	2.0%	N/A	2.5%	2.5%	2.5%	2.5%	2.5%	The requirement to install tanks sufficient to store three days supply has largely mitigated any service interruption concerns for the majority of rural piped customers. days supply has been taken into account. I.e. the 8 hours commences after three days. Investment has been made in storages on-site.
Number of rural pipeline bursts and leaks per 100km of pipeline	10	1	1	1	1	1	1	With the introduction of the WMP and the ability to capture this information, the target for this indicator has been reviewed.
Unaccounted rural water (%)	8%	15%	10%	10%	10%	10%	10%	It is difficult to calculate all the potential customers that are interrupted when a supply is turned off unless they ring up and complain. Our overall asset management system will be upgraded to better capture this information. The additional expense to monitor and report this information will cost about \$10,000.

Bulk Water								
Service Standard	Existing target	5 Year GWMWater Performance (Average)	Proposed Target					Requirements needed to meet proposed target
			13/14	14/15	15/16	16/17	17/18	
Bulk Water annual compliance with storage operator obligations (%)	100%	100%	100%	100%	100%	100%	100%	Compliance is considered in accordance with Schedule 2 of the Wimmera Glenelg Bulk Entitlement. This result is expected

Customer Service Centre Standards (Rural and Urban)								
Service Standard	Existing target	5 Year GWMWater Performance (Average)	Proposed Target					Requirements needed to meet proposed target
			13/14	14/15	15/16	16/17	17/18	
Rural and Urban complaints to EWOV (number per 1,000 customers)	0.9	1.3	0.9	0.9	0.9	0.9	0.9	Access to available water during severe drought has resulted in a greater number of unhappy customers. There are no proposed changes to this target.
Rural and Urban telephone calls answered within 30 seconds (%)	80%	84%	80%	80%	80%	80%	80%	A previous customer survey and customer committees agreed that they would prefer to receive a response from a local operator rather than a recorded message. Many other utilities use an automated answering machine to achieve higher call rates. This is acceptable result without resulting to automated answering systems.
Restricting the water supply of, or taking legal action against, a residential customer prior to taking reasonable endeavours (as defined by the Essential Services Commission) to contact the customer and provide information about help that is available if the customer is experiencing difficulties paying. #	0	0	0	0	0	0	0	A GSL rebate is proposed for \$300 where GWMWater restricts the water supply of, or taking legal action against, a residential customer prior to taking reasonable endeavours (as defined by the Essential Services Commission) to contact the customer and provide information about help that is available if the customer is experiencing difficulties paying.

Minimum Flow Rate (Urban)								
Service Standard (litres per minute)	Existing target	5 Year GWMWater Performance (Average)	Proposed Target					Requirements needed to meet proposed target
			13/14	14/15	15/16	16/17	17/18	
Minimum flow rate for urban customers 20mm tapping	10	Pressure is not routinely monitored	10	10	10	10	10	GWMWater don't have a program for measuring minimum flow rate. A total of 20 pressure complaints have been received in three years indicating pressure is not a systemic problem. GWMWater offer a lower minimum flow rate compared to a number of other Corporations.
Minimum flow rate for urban customers 25mm tapping	25		25	25	25	25	25	
Minimum flow rate for urban customers 32mm tapping	40		40	40	40	40	40	
Minimum flow rate for urban customers 40mm tapping	60		60	60	60	60	60	
Minimum flow rate for urban customers 50mm tapping	100		100	100	100	100	100	

# - A Guaranteed Service Level has been proposed for these indicators.

### Appendix 3 – Capital Expenditure 2013–2018

		2013/14	2014/15	2015/16	2016/17	2017/18
		(\$'000)	(\$'000)	(\$'000)	(\$'000)	(\$'000)
<b>Water</b>						
Renewal of existing infrastructure	Water Main Renewals	1,000	1,000	1,900	1,400	1,800
	Water Treatment Plant Major Infrastructure Asset Renewals	250	250	250	250	250
	Domestic Water Meter Replacements	210	220	230	230	230
	Bulk Water Meter Replacements	25	0	0	25	0
	Water Bore Renewals	85	50	50	50	50
	Water Pump Station Asset Renewals	120	120	120	175	175
	Water Storage Tank Renewals	150	150	150	80	80
Compliance	Water Major OH&S Upgrades	50	50	50	50	50
Improvement in Service	Mt Zero WTP Upgrades	100	0	0	0	0
	WTP Upgrades and Modernisation	100	100	100	100	100
	Quambatook Water Quality Improvement	340	0	0	0	0
	Treated Water Supply - Donald	900	3,000	0	0	0
	Minyip Drinking Water Supply	1,000	1,700	0	0	0
	Rupanyup Drinking Water Supply	1,000	1,700	0	0	0
	Australian Drinking Water Guidelines Compliance	0	96	0	0	0
	POU POE General	0	0	100	100	0
	POU POE Jung	300	0	0	0	0
	Water Quality Upgrade - Brim	0	0	0	400	0
	Water Quality Upgrade - Lalbert	0	0	0	0	400
	Water Quality Upgrade - Beulah	0	400	0	0	0
	Water Quality Upgrade - Woomelang	0	0	400	0	0
	Water Treatment - Sea Lake	0	0	0	0	2,500
	Water Supply System Upgrades	50	230	50	50	50
	Rainbow West Rural Extension	0	0	0	0	0
Horsham Morson PS Works for High Pressure Spine	490	0	0	0	0	



Description		2013/14 (\$'000)	2014/15 (\$'000)	2015/16 (\$'000)	2016/17 (\$'000)	2017/18 (\$'000)
<b>Water</b>						
Growth	Quambatook Nth Rural Extension	0	7	1	0	0
	Water Supply - Landsborough Valley Scheme	0	0	0	4	0
	Water Developer Works Planning & Supervision	25	25	25	30	30
	Water Cont to Developer Works	25	25	25	25	25
<b>Wastewater</b>						
Renewal of existing infrastructure	Sewer Main Renewals	1,400	1,950	450	500	500
	Waste Water Treatment Plant Major Infr Asset Renewals	50	850	50	50	50
	Sewer Pump Station Asset Renewals	113	113	113	120	125
	Sewer Stack Renewals	20	20	20	20	30
Compliance	Wastewater Treatment Facility Upgrades	150	150	150	160	170
	Upgrade WWTP & Reuse System - Dimboola	0	0	1,482	0	0
	Upgrade WWTP & Reuse System - Donald	0	0	2,725	0	0
	Horsham WWTP Rebuild	0	0	300	0	0
	Sewerage Scheme - Rupanyup	3,700	0	0	0	0
	New Reuse Schemes	0	0	0	100	0
Growth	Sewer Main Augmentation	830	120	620	330	0
	WWater Developer Works Planning & Supervision	25	25	25	25	25
	WWater Cont to Developer Works	25	25	25	25	25

Description		2013/14 (\$'000)	2014/15 (\$'000)	2015/16 (\$'000)	2016/17 (\$'000)	2017/18 (\$'000)
<b>Domestic &amp; Stock</b>						
Renewal of existing infrastructure	D&S Meter Replacements	50	50	50	50	130
Compliance	WMP Fire Plugs	1,240	0	0	0	0
	Channel Decommissioning	1,000	1,000	1,000	0	0
Improvement in Service	WMP Biofilm Management	300	0	200	200	200
	Intelligent rural pipeline networks (Back to Base Metering )	6,466	0	0	0	0
	SS1 Supply to Wetlands	10	0	0	0	0
	SS2 Supply to Wetlands	30	0	0	0	0
	SS3 Supply to Wetlands	80	0	0	0	0
	SS4 Supply to Wetlands	80	0	0	0	0
	Walepeup West Bore System Upgrades	120	0	0	0	0
Growth	Belfield Multi - Level offtake	0	1,500	0	0	0
	Taylor's Lake Booster Pump station	0	0	0	0	1,800
	WMP Augmentation	4,600	0	0	0	0
<b>Irrigation</b>						
Compliance	Irrigation Network Decommissioning	2,376	2,376	0	0	0
<b>Diversions</b>						
Compliance	Surface Water Diversion Metering	50	50	50	50	25
<b>Groundwater</b>						
Renewal of existing infrastructure	Groundwater Management Plans	15	0	100	0	40
Compliance	Groundwater Meter Replace Program	0	567	567	0	0
Improvement in Service	Groundwater Monitoring Bores	50	50	50	50	20

Description		2013/14 (\$'000)	2014/15 (\$'000)	2015/16 (\$'000)	2016/17 (\$'000)	2017/18 (\$'000)
<b>Headworks</b>						
Renewal of existing infrastructure	Dam Safety Reviews	75	50	50	50	50
	Headworks Structure Renewals	150	150	150	100	100
Compliance	Dam Safety Works	50	150	250	250	250
	Lake Lonsdale Design Review & Works	0	0	1,200	0	0
Improvement in Service	BoM Weather Monitoring Stations	0	0	0	0	0
<b>Corporate</b>						
Renewal of existing infrastructure	Computer Software	248	67	76	55	96
	Computer Hardware	75	270	347	133	530
	Motor Vehicle Purchases	1,943	2,059	1,786	2,254	1,664
	Plant & Equipment	347	568	303	310	357
	Office Fit-out & Redevelopment	0	40	80	80	0
	Communications Equipment	30	30	30	30	30
Improvement in Service	Mapping & GIS	0	0	0	220	0
	SCADA Development	90	70	50	50	50
	Kalkee Road Office Refurbishment	250	439	0	0	0
	Physical Security of Critical Infrastructure	20	20	20	10	10
<b>Total Capital Expenditure</b>		<b>31,334</b>	<b>20,277</b>	<b>15,771</b>	<b>8,191</b>	<b>12,017</b>

## Appendix 4 - Major Capital Projects

### Project 1: Intelligent Rural Water Networks (Back to Base metering)

**Driver/s:** Improvement in Service

**Expected outcomes:**

Improved customer communication, efficiency and operation of the rural water network using intelligent metering.

**Description:**

The project will address the following problems currently being experienced with existing processes:

- a) delays in receiving meter reading information
- b) inefficient / costly meter reads and special meter reads
- c) slow internal processes
- d) requires all meter reads to be complete before issuing rural account
- e) insufficient data to support the operation of the rural water network
- f) excessive time and travel required to read meters.

In addressing these issues the following benefits are expected to be realised:

- a) lower recurrent meter reading costs
- b) improved cash flow
- c) greater staff efficiency
- d) trend analysis
- e) off peak usage
- f) leak detection
- g) OH&S issues reduced
- h) remote customer meter reading
- i) increased level of customer service
- j) improved timeliness and accuracy of meter reading information
- k) availability of reading data to support water trading
- l) reduced corporate footprint.

**Expected Delivery Date:** June 2014

**Projected Costs in Water Plan 3 (\$'000):**

2013/14	2014/15	2015/16	2016/17	2017/18	Total
6,466	0	0	0	0	6,466

## Project 2: Irrigation Network Decommissioning

**Driver/s:** Compliance

**Expected outcomes:**

Removal of all channels, structures and associated infrastructure comprising the Wimmera Irrigation System.

**Description:**

GWMWater is in the process of negotiating to sell the Wimmera Irrigation System (WIS) water entitlement to the Commonwealth Government. An integral part of the sale proposal is the attendant decommissioning of the WIS.

Decommissioning of the WIS includes:

- Infilling all irrigation channels to restore the land to a natural state
- Removing all channel structures, such as regulators and culverts
- Removing all metering points and meters
- Restoring the Quantong Reservoir to a more natural condition.

The works involves the following:

Item	Quantity
Channel infilling	164 km
Structure removal	586 no.
Meter outlet removal	368 no.
Storage rehabilitation	1 no.

**Expected Delivery Date:** December 2013

**Projected Costs in Water Plan 3 (\$'000):**

2013/14	2014/15	2015/16	2016/17	2017/18	Total
2,376	2,376	0	0	0	4,752

**Project 3: WMP Augmentation****Driver/s:** Growth**Expected Outcomes:**

Infrastructure in place to deliver purchased growth water.

**Description:**

In November 2011 Donald Mineral Sands purchased nearly 7 GL of headworks growth water. The water is required to be delivered to their mine site at Banyena.

GWMWater has investigated several pipeline options to supply water to the mine site, on the basis that the money will be recovered through tariffing arrangements.

The proposal adopted for the purposes of the Water Plan is to construct two pipelines to supply the mine site from within the Wimmera Mallee Pipeline system. A total of 21 kilometres of 300 mm-diameter pipe will be required. The pipelines have the capacity to supply 2700 ML/a, which is sufficient for the mine's first stage requirements.

**Expected Delivery Date:** June 2014**Projected Costs in Water Plan 3 (\$'000):**

2013/14	2014/15	2015/16	2016/17	2017/18	Total
4,600	0	0	0	0	4,600

**Project 4: Treated Water Supply - Donald****Driver/s:** Improvement in Service**Expected Outcomes:**

Drinking water supply to Donald.

**Description:**

Prior to March 2012 Donald received a drinking water supply. The water supply was unfiltered, with the only form of treatment being disinfection.

The water supplied to customers did not always comply with the Safe Drinking Water Regulations. The water periodically failed to meet disinfection by-product criteria and occasionally also failed to meet turbidity requirements.

This problem was alleviated after the completion of the Wimmera Mallee Pipeline. Following the floods in January 2011 the quality of the source water deteriorated markedly. Once again, the Donald water supply consistently failed to meet turbidity, colour and disinfection by-product parameters. In March 2012 the water supply was declared to be a regulated supply under section 6 of the Safe Drinking Water Act.

The current proposal is to upgrade the water supply to drinking water standard, either by the construction of a stand-alone water treatment plant in Donald, or through the provision of treated water via a pipeline from St Arnaud.

**Expected Delivery Date:** June 2015**Projected Costs in Water Plan 3 (\$'000):**

2013/14	2014/15	2015/16	2016/17	2017/18	Total
900	3,000	0	0	0	3,900



## Project 5: Sewerage Scheme - Rupanyup

**Driver/s:** Compliance

**Expected Outcomes:**

A wastewater collection and treatment system at Rupanyup.

**Description:**

Rupanyup has been identified as a priority town to receive a new sewerage scheme through the Country Towns Water Supply and Sewerage Program. This is due to the inadequacy of the current septic tank installations. Many blocks have been identified as having insufficient area to allow for on-site disposal, given the prevailing soil types.

The proposal is to construct a pressure sewer scheme, similar to the one recently and successfully constructed at Lake Bolac.

A pressure sewer system involves the installation of small pump wells on each property, which discharge to a network of small diameter pressure mains. These in turn convey the wastewater to a treatment plant outside of town. The treatment plant will be a lagoon-based system, utilising reeds and other aquatic plants to remove nutrients and treat the wastewater.

**Expected Delivery Date:** June 2014

**Projected Costs in Water Plan 3 (\$'000):**

2013/14	2014/15	2015/16	2016/17	2017/18	Total
3,700	0	0	0	0	3,700

## Project 6: Upgrade WWTP & Reuse System - Donald

**Driver/s:** Compliance

**Expected outcomes:**

Treated effluent meets EPA licence requirements and an effective reuse system is in place.

**Description:**

The Donald WWTP project addresses issues highlighted by previous studies and by EPA audit reports, viz.

1. The effluent is not meeting EPA licence requirements regarding BOD<sub>5</sub>, *e.coli* and nutrients.
2. The reclaimed water is not suitable for sustainable reuse.
3. Excessive irrigation is causing pooling of effluent and there are odour issues in the irrigation area.

The site does not have a polishing pond or winter storage. The original design of the plant included provision for a third lagoon that would have acted as a polishing pond as well as wet weather storage.

A complementary project is included in the Water Plan, for the renewal of some of the sewer system. Most of the sewer network in Donald is over 50 years old and over 6 kilometres is located below the water table, with high levels of groundwater infiltration. Groundwater in Donald is highly saline with an EC of up to 45,000 µS/cm. The groundwater infiltration is estimated to make up about half of the total flow to the WWTP and 80% of the salt loading.

**Expected Delivery Date:** June 2016

**Projected Costs in Water Plan 3 (\$'000):**

2013/14	2014/15	2015/16	2016/17	2017/18	Total
0	0	2,725	0	0	2,725

## Project 7: Water Treatment - Sea Lake

**Driver/s:** Improvement in Service

**Expected outcomes:**

The drinking water supply to Sea Lake consistently meets drinking water standards.

**Description:**

Sea Lake presently receives a drinking water supply. The water supplied to customers doesn't always comply with the Safe Drinking Water Regulations. In particular the water periodically fails to meet turbidity requirements. This is attributable to the supply arrangements.

Sea Lake's water supply is taken directly from the Murray River. The water receives no form of treatment other than disinfection immediately prior to reticulation.

The water generally fails to meet drinking water standards whenever there is a significant flow in the Murray, whether the flow arises from natural events or from environmental releases. The water supply is expected to be declared as a regulated water supply in the foreseeable future.

The current proposal is to construct a stand-alone water treatment plant in Sea Lake.

**Expected Delivery Date:** June 2018

**Projected Costs in Water Plan 3 (\$'000):**

2013/14	2014/15	2015/16	2016/17	2017/18	Total
0	0	0	0	2,500	2,500

## Project 8: Wycheproof Treated Water Supply

**Driver/s:** Improvement in Service

**Expected outcomes:**

Drinking water supply to Wycheproof.

**Description:**

Prior to March 2012 Wycheproof received a drinking water supply. The water supply was unfiltered, with the only form of treatment being disinfection.

The water supplied to customers has not always comply with the Safe Drinking Water Regulations. The water periodically failed to meet disinfection by-product criteria and occasionally also failed to meet turbidity requirements. Salinity levels were also high during the drought.

This problem was alleviated after the completion of the Wimmera Mallee Pipeline. Following the floods in January 2011 the quality of the source water deteriorated markedly. The Wycheproof water supply subsequently failed to meet turbidity, colour and disinfection by-product parameters. With no immediate remedy in sight, the water supply was declared to be a regulated supply under section 6 of the Safe Drinking Water Act in March 2012.

The current proposal is to upgrade the water supply to drinking water standard, through the provision of treated water via a pipeline from Charlton water treatment plant.

**Expected Delivery Date:** June 2014

**Projected Costs in Water Plan 3 (\$'000):**

2013/14	2014/15	2015/16	2016/17	2017/18	Total
2,200	0	0	0	0	2,200

**Project 9: Taylors Lake Booster Pump Station****Driver/s:** Growth**Expected Outcomes:**

Capacity to deliver expected growth in demand within the Wimmera Mallee Pipeline.

**Description:**

The hydraulic design of the WMP system is based on supplying the ultimate design capacity, which may not occur for some years into the future.

During the construction phase of the Wimmera Mallee Pipeline (WMP) it was recognised that some of the works, particularly pump stations and storages, were not required until the demand reached a certain level.

GWMWater subsequently adopted a staged implementation strategy by deferring some pump station and storage facilities thereby reducing upfront project capital and operating costs.

Independent assessment indicated that some of the deferred works will need to be built when the demand grows to about 40% of the ultimate design flow. Additional deferred works items will be required as the demand increases through 60% and 80% of the ultimate design flow.

One of these deferred works was additional pumping at the Taylors Lake Pump Station. This work is required to supply Supply Systems 1 & 2 when the total demand reaches 70% of the design flow. Based on an analysis within the Water Supply-Demand Strategy this will occur around 2018.

**Expected Delivery Date:** June 2018**Projected Costs in Water Plan 3 (\$'000):**

2013/14	2014/15	2015/16	2016/17	2017/18	Total
0	0	0	0	1,800	1,800

## Project 10: Minyip Drinking Water Supply

**Driver/s:** Improvement in Service

**Expected Outcomes:**

Drinking water supply to Minyip.

**Description:**

Prior to March 2012 Minyip received a drinking water supply. The water supply was unfiltered, with the only form of treatment being disinfection.

The water supplied to customers did not always comply with the Safe Drinking Water Regulations. The water periodically failed to meet disinfection by-product criteria and occasionally also failed to meet turbidity requirements.

This problem was alleviated after the completion of the Wimmera Mallee Pipeline. Following the floods in January 2011 the quality of the source water deteriorated markedly. The Minyip water supply failed turbidity, colour and disinfection by-product parameters. In March 2012 the water supply was declared to be a regulated supply under section 6 of the Safe Drinking Water Act.

The current proposal is to upgrade the water supply to drinking water standard, through the provision of treated water via a pipeline from Murtoa.

**Expected Delivery Date:** June 2015

**Projected Costs in Water Plan 3 (\$'000):**

2013/14	2014/15	2015/16	2016/17	2017/18	Total
611	1,039	0	0	0	1,650

## Project 11: Belfield Multi-Level Off-take

**Driver/s:** Growth

**Expected Outcomes:**

The ability to selectively withdraw the best quality water from storage.

**Description:**

Bellfield Dam and its associated outlet structure was originally built in the 1960s. The main purpose of the dam was to deliver water into the channel system for subsequent delivery to farm dams and town storages across the region.

A single draw-off point was provided, at the base of the tower. This was reasonable at the time, owing to the subsequent aeration received in transit and the pickup of nutrients and other debris. The quality of the water delivered was not significantly impacted by the quality of the water that left the dam.

This problem has been recognised for years. It came to the fore following the January 2011 floods. During this event the water quality within Lake Bellfield deteriorated markedly and temporary pumps had to be set up on the bank to allow water to be drawn from the surface.

The proposal is to construct an ancillary off-take structure which allows for water to be drawn from selective heights. This will allow the best quality water to be withdrawn.

**Expected Delivery Date:** June 2015

**Projected Costs in Water Plan 3 (\$'000):**

2013/14	2014/15	2015/16	2016/17	2017/18	Total
0	1,500	0	0	0	1,500



## Project 12: Upgrade WWTP & Reuse System - Dimboola

**Driver/s:** Compliance

**Expected Outcomes:**

Treated effluent meets EPA licence requirements and an effective reuse system is in place.

**Description:**

Dimboola WWTP is becoming degraded through age. Reclaimed water was being used for local flood irrigation of approximately 6 Ha of permanent pasture and 1 Ha of tree lots. EPA Victoria has alleged that the use of the effluent for irrigation breaches licence conditions because of inadequacy in treatment and leeching of effluent from the site.

Inadequacies in the treatment plant and reuse system have been highlighted in various reports over the past several years. These inadequacies include:

- (a) The capacity and condition of wet weather storage is inadequate.
- (b) Soil at the irrigation site is sandy, resulting in infiltration to groundwater. EPA has advised on more than one occasion that preventing leaching is a licence condition for the WWTP.
- (c) The reclaimed water quality (Class D) does not meet EPA requirements for use on pasture for livestock intended for human consumption.
- (d) The extent of irrigation area (7 Ha) is insufficient considering the quantity (80 to 100 ML/year) of reclaimed water being produced.

There is scope to defer the work on the reuse system until the plant upgrade is complete and further work is done to investigate potential end users. Hence the reuse system has been pushed into Water Plan 4.

**Expected Delivery Date:** June 2016

**Projected Costs in Water Plan 3 (\$'000):**

2013/14	2014/15	2015/16	2016/17	2017/18	Total
0	0	1,482	0	0	1,482

### Project 13: Rupanyup Drinking Water Supply

**Driver/s:** Improvement in Service

**Expected Outcomes:**

Drinking water supply to Rupanyup.

**Description:**

Prior to March 2012 Rupanyup received a drinking water supply. The water supply was unfiltered, with the only form of treatment being disinfection.

The water supplied to customers did not always comply with the Safe Drinking Water Regulations. The water periodically failed to meet disinfection by-product criteria and occasionally also failed to meet turbidity requirements.

This problem was alleviated after the completion of the Wimmera Mallee Pipeline. Following the floods in January 2011 the quality of the source water deteriorated markedly. The Rupanyup water supply failed turbidity, colour and disinfection by-product parameters. In March 2012 the water supply was declared to be a regulated supply under section 6 of the Safe Drinking Water Act.

The current proposal is to upgrade the water supply to drinking water standard, through the provision of treated water via a pipeline from Murtoa.

**Expected Delivery Date:** June 2015

**Projected Costs in Water Plan 3 (\$'000):**

2013/14	2014/15	2015/16	2016/17	2017/18	Total
444	756	0	0	0	1,200

**Appendix 5 - Urban Water Tariffs**

Tariff Category	2012/13 (\$)	2013/14 (%)	2014/15 (%)	2015/16 (%)	2016/17 (%)	2017/18 (%)	2017/18 (\$)
<b>Potable</b>							
Non-Residential	\$414.48	3.0%	2.4%	2.4%	2.4%	2.4%	\$469.39
Residential	\$414.48	3.0%	2.4%	2.4%	2.4%	2.4%	\$469.39
Volumetric (kL)	\$1.5444	3.0%	2.4%	2.4%	2.4%	2.4%	\$1.7490
<b>Non-potable groundwater</b>							
Non-Residential	\$364.74	3.0%	2.4%	2.4%	2.4%	2.4%	\$413.06
Residential	\$364.74	3.0%	2.4%	2.4%	2.4%	2.4%	\$413.06
Volumetric (kL)	\$0.8650	3.0%	2.4%	2.4%	2.4%	2.4%	\$0.9797
<b>Eastern Grampians</b>							
Non-Residential	\$366.84	3.0%	2.4%	2.4%	2.4%	2.4%	\$415.46
Residential	\$366.84	3.0%	2.4%	2.4%	2.4%	2.4%	\$415.46
Volumetric (kL)	\$1.1377	3.0%	2.4%	2.4%	2.4%	2.4%	\$1.2884
<b>Non-potable pipeline</b>							
Non-Residential	\$366.84	3.0%	2.4%	2.4%	2.4%	2.4%	\$415.46
Residential	\$366.84	3.0%	2.4%	2.4%	2.4%	2.4%	\$415.46
Volumetric (kL)	\$1.4055	3.0%	2.4%	2.4%	2.4%	2.4%	\$1.5917
<b>Drinking Water Supply (Disinfected only)/Partially Treated</b>							
Non-Residential	\$392.59	3.0%	2.4%	2.4%	2.4%	2.4%	\$444.61
Residential	\$392.59	3.0%	2.4%	2.4%	2.4%	2.4%	\$444.61
Volumetric (kL)	\$1.4723	3.0%	2.4%	2.4%	2.4%	2.4%	\$1.6675
<b>Urban Water (All towns)</b>							
Concessional	\$272.33	3.0%	2.4%	2.4%	2.4%	2.4%	\$308.41
Vacant Land	\$190.87	3.0%	2.4%	2.4%	2.4%	2.4%	\$216.17
<b>Fire Service</b>							
Fire Service	\$418.49	3.0%	2.4%	2.4%	2.4%	2.4%	\$473.93
<b>Sewerage</b>							
Concessional	\$259.04	3.0%	2.4%	2.4%	2.4%	2.4%	\$293.36
Residential/ Non-Residential	\$433.27	3.0%	2.4%	2.4%	2.4%	2.4%	\$490.68
Vacant Land	\$199.28	3.0%	2.4%	2.4%	2.4%	2.4%	\$225.69
Volumetric	\$0.6717	(33.3%)	(50.0%)	(100.0%)	0.0%	0.0%	\$0
Minor Trade Waste	\$146.12	100.0%	2.4%	2.4%	2.4%	2.4%	\$306.37

## Appendix 6 - Rural Tariffs

Real, 1/1/13									
Tariff Categories	Unit	2012/13 (\$)	2013/14 (%)	2014/15 (%)	2015/16 (%)	2016/17 (%)	2017/18 (%)	2017/18 (\$)	
<b>D&amp;S Channels</b>									
Channel diversion	Cust	\$109.23	2.5%	1.5%	1.5%	1.5%	1.5%	\$118.76	
<b>Walpeup Bores</b>									
<b>Walpeup West Bores</b>									
Area Charge - Division 2	Hectares	\$2.41	2.5%	1.5%	1.5%	1.5%	1.5%	\$2.63	
Area Charge - Division 2 Special	Hectares	\$0.70	2.5%	1.5%	1.5%	1.5%	1.5%	\$0.76	
Area Charge - Division 3	Hectares	\$1.20	2.5%	1.5%	1.5%	1.5%	1.5%	\$1.31	
Area Charge - Division 3 Special	Hectares	\$0.34	2.5%	1.5%	1.5%	1.5%	1.5%	\$0.39	
Minimum Area Charge	Cust	\$453.93	2.5%	1.5%	1.5%	1.5%	1.5%	\$493.66	
<b>Rural Pipeline</b>									
<b>Domestic and Stock</b>									
Capacity charge	kL	\$0.7922	2.5%	1.5%	1.5%	1.5%	1.5%	\$0.8615	
Excess	kL	\$3.40	2.5%	1.5%	1.5%	1.5%	1.5%	\$3.70	
Minimum Charge	Cust	\$79.22	2.5%	1.5%	1.5%	1.5%	1.5%	\$86.15	
Usage charge	kL	\$0.9104	2.5%	1.5%	1.5%	1.5%	1.5%	\$0.9902	
<b>Off Season</b>									
Off peak commercial capacity charge	kL	\$0.2164	10.0%	10.0%	1.5%	1.5%	1.5%	\$0.2800	
Usage charge	kL	\$0.9104	-5.0%	-5.0%	1.5%	1.5%	1.5%	\$0.9902	
<b>Primary</b>									
Meter	Cust	\$278.00	2.5%	1.5%	1.5%	1.5%	1.5%	\$302.34	
<b>Standard</b>									
Meter	Cust	\$138.99	2.5%	1.5%	1.5%	1.5%	1.5%	\$151.15	

Tariff Categories	Unit	2012/13 (\$)	2013/14 (%)	2014/15 (%)	2015/16 (%)	2016/17 (%)	2017/18 (%)	2017/18 (\$)
<b>Diversions</b>								
Storages/weirs - 12 month licence								
Additional unit	Cust	\$53.98	2.5%	1.5%	1.5%	1.5%	1.5%	\$58.68
Guest houses, motels, etc	Cust	\$161.94	2.5%	1.5%	1.5%	1.5%	1.5%	\$176.06
Single unit, farm use	Cust	\$107.98	2.5%	1.5%	1.5%	1.5%	1.5%	\$117.39
Streams/lakes - 12 month licence								
Additional unit	Cust	\$80.96	2.5%	1.5%	1.5%	1.5%	1.5%	\$88.01
Guest houses, motels, etc	Cust	\$242.91	2.5%	1.5%	1.5%	1.5%	1.5%	\$264.09
Single unit, farm use	Cust	\$161.93	2.5%	1.5%	1.5%	1.5%	1.5%	\$176.05
Wimmera								
Regulated streams, weir pools and storages	ML	\$16.71	2.5%	1.5%	1.5%	1.5%	1.5%	\$18.17
Regulated streams, weir pools and storages min charge	Cust	\$250.65	2.5%	1.5%	1.5%	1.5%	1.5%	\$272.56
Unregulated waterways - off stream storages	ML	\$3.92	2.5%	1.5%	1.5%	1.5%	1.5%	\$4.26
Unregulated waterways - off stream storages min charge	Cust	\$58.80	2.5%	1.5%	1.5%	1.5%	1.5%	\$63.99
Unregulated waterways - on stream storages	ML	\$7.92	2.5%	1.5%	1.5%	1.5%	1.5%	\$8.62
Unregulated waterways - on stream storages min charge	Cust	\$118.80	2.5%	1.5%	1.5%	1.5%	1.5%	\$129.19
<b>Groundwater</b>								
Murrayville WSPA	Volumetric	\$9.48	-9.8%	-9.8%	-9.9%	1.5%	1.5%	\$7.15
West Wimmera GMA	Volumetric	\$4.08	19.4%	19.4%	19.4%	1.5%	1.5%	\$7.15
Other areas (ML)	Volumetric	\$4.08	19.4%	19.4%	19.4%	1.5%	1.5%	\$7.15
All	Licence Fee	\$105.60	14.7%	14.7%	14.7%	1.5%	1.5%	\$164.16
<b>Headworks</b>								
Capacity charge	kL	\$0.1101	2.5%	2.4%	2.4%	2.4%	2.4%	\$0.3113
Usage charge	kL	\$0.1101	2.5%	2.4%	2.4%	2.4%	2.4%	\$0.3113

## **Appendix 7 – Community Engagement Undertaken**

### **15 February 2011 – *Grampians Customer Committee Meeting***

Discussion papers presented on proposed introduction of guaranteed service levels and GWMWater’s pricing proposal 2011/12 to 2012/13.

### **17 February 2011 – *Mallee Customer Committee Meeting***

Discussion papers presented on proposed introduction of guaranteed service levels and GWMWater’s pricing proposal 2011/12 to 2012/13.

### **22 February 2011 – *Wimmera Customer Committee Meeting***

Discussion papers presented on proposed introduction of guaranteed service levels and GWMWater’s pricing proposal 2011/12 to 2012/13.

### **22 July 2011 – *Customer Committee Summit***

The 2013-18 Water Plan was a main focus of the summit. There was a presentation on the expectations of the ESC and issues for GWMWater. Committee members broke into workshop groups to discuss and provide feedback on water supplied to recreation lakes and sporting clubs, revenue from fixed and variable charges and pricing for different water quality/treatment levels.

### **October to December 2012 – *Tapping In – customer newsletter issued with accounts***

Article advising that internal activities for the development of our next water plan are underway, what it will include and detail and timeframes for its development and approval.

### **18 October 2011 – *Grampians Customer Committee Meeting***

Discussion paper was issued seeking feedback on any specific issues they believe need to be considered in the development of Water Plan 3. A discussion paper was also issued seeking feedback on regional water quality options and associated cost implications for all customers.

### **20 October 2011 – *Mallee Customer Committee Meeting***

Discussion paper was issued seeking feedback on any specific issues they believe need to be considered in the development of Water Plan 3. A discussion paper was also issued seeking feedback on regional water quality options and associated cost implications for all customers.

### **25 October 2011 – *Wimmera Customer Committee Meeting***

Discussion paper was issued seeking feedback on any specific issues they believe need to be considered in the development of Water Plan 3. A discussion paper was also issued seeking feedback on regional water quality options and associated cost implications for all customers.

**25 October 2011 – Pricing and Tariff Working Group Meeting**

Agenda items for this meeting included 2011-13 tariff and pricing submission, review of the statement of obligations, ESC regulatory framework, review framework and service standards, ESC tariff issues paper and the 2013 -18 Water Plan timetable.

**14 February 2012 – Grampians Customer Committee Meeting**

The 2013-2018 Water Plan was a main discussion paper. Four draft discussion papers: Guaranteed Service Levels – urban customers, Security of Water Supply – Murray and Grampians systems, Recreational Lakes Charges and General Levels of Service – urban water quality, were discussed to seek feedback prior to release for public comment. Offsetting greenhouse gas emissions was also a key discussion papers at the meeting.

**16 February 2012 – Mallee Customer Committee Meeting**

The 2013-2018 Water Plan was a main discussion paper. Four draft discussion papers: Guaranteed Service Levels – urban customers, Security of Water Supply – Murray and Grampians systems, Recreational Lakes Charges and General Levels of Service – urban water quality, were discussed to seek feedback prior to release for public comment. Offsetting greenhouse gas emissions was also a key discussion papers at the meeting.

**21 February 2012 – Wimmera Customer Committee Meeting**

The 2013-2018 Water Plan was a main discussion paper. Four draft discussion papers: Guaranteed Service Levels – urban customers, Security of Water Supply – Murray and Grampians systems, Recreational Lakes Charges and General Levels of Service – urban water quality, were discussed to seek feedback prior to release for public comment. Offsetting greenhouse gas emissions was also a key discussion papers at the meeting.

**21 February 2012 – Pricing and Tariff Working Group Meeting**

The water plan was the main focus for this meeting with specific discussion around GWMWaters 2013 Water Price Review, the Wimmera Irrigator led sale proposal, review of the statement of obligations, water supply demand strategy, water trading and growth water sales, proposed capital works and review of discussion papers for public comment.

**19 March 2012 – Dimboola Lions Club Meeting**

Manager Communications presented our water plan consultation program and key items where feedback is being sought.

**22 March 2012 – West Wimmera Groundwater Management Area Implementation Committee Meeting**

A presentation was given on the 2013-18 Water Plan identifies revenue and service commitments for next five years. The proposed recreational lake levy was also discussed.

**27 March 2012 – Regional Recreation Water Users Group Meeting**

The meeting discussed the draft 2013-18 Water Plan and specifically the proposed recreation levy and dam safety works required and Lake Fyans and Lake Lonsdale.

**April to June 2012 - Tapping In - customer newsletter issued with accounts**

Front page article outlining our pricing path for the next five years.

**4 April 2012 - GWMWater Board Meeting - Open to Public**

This meeting was advertised as open to the public. Agenda items included the 2013-18 Water Plan, capital works program, groundwater pricing, proposed core service standard targets for the 2013-2018 Water Plan, recreation water and sporting clubs and review of customer committee feedback.

**24 April 2012 - Pricing and Tariff Working Group Meeting**

Again the water plan was the focus of this meeting with specific discussion around Water Plan 2 reconciliation, operating expenditure and proposal for productivity improvements, service standards, capital program, groundwater pricing and full cost recovery, pricing for off season water and water for recreational and sporting clubs.

**1 May 2012 - Press release**

Press release 'Water Plan discussion papers released' issued to all regional media.

**1 May 2012 - GWMWater website updated**

Four discussion papers: Security of supply, Guaranteed service levels, General level of service - water quality and Carbon mitigation and offsetting greenhouse gas emissions were uploaded on website seeking public comment as well as press release. 340 website hits recorded on these documents.

**12 June 2012 - Grampians Customer Committee Biennial General Meeting**

Meeting was advertised as open to the public with the 2013-18 Water Plan listed under general business. A presentation on the water plan was prepared, however no public members attended.

**12 June 2012 - Horsham Rural City Council**

Managing Director and Board Chairman attended council meeting to discuss water plan and specifically the proposed recreation water contribution.

**12 June 2012 - Grampians Customer Committee Meeting**

The 2013-2018 Water Plan was a main discussion paper seeking feedback. A presentation was also given outlining the key aspect of the water plan.

**13 June 2012 - Wimmera Customer Committee Biennial General Meeting**

Meeting was advertised as open to the public with the 2013-18 Water Plan listed under general business. A presentation on the water plan was prepared, however no public members attended.



**13 June 2012 - Wimmera Customer Committee Meeting**

The 2013-2018 Water Plan was a main discussion paper seeking feedback. A presentation was also given outlining the key aspect of the water plan.

**13 June 2012 - Mallee Customer Committee Biennial General Meeting**

Meeting was advertised as open to the public with the 2013-18 Water Plan listed under general business. A presentation on the water plan was prepared, however no public members attended.

**13 June 2012 - Mallee Customer Committee Meeting**

The 2013-2018 Water Plan was a main discussion paper seeking feedback. A presentation was also given outlining keys aspect of the water plan.

**14 June 2012 - General Meeting of All Wimmera Irrigators**

General meeting attended by 130 irrigators discussed the Commonwealths buyout proposal. The outcome of the irrigator led sale will have a direct impact on the final water plan.

**29 June 2012 - North West Municipalities Association Meeting**

Managing Director and Board Chairman attended meeting to provide presentation on the draft 2013-18 Water Plan.

**June/July 2012 - Press releases**

Various press releases were issued regarding the irrigator led sale proposal to the commonwealth.

**July to September 2012 - Tapping In - customer newsletter issued with accounts**

Front page article mentioning the development of the Water Plan is underway and customers encouraged to be involved in our engagement programs.

**2 July 2012 - Press release and radio interview**

Press release 'Water Plan released for public comment' issued to all regional media. Interview recorded with ABC radio.

**2 July 2012 - GWMWater website updated**

Website updated announcing the release of the draft 2013-18 Water Plan for public comment. Copy of media release and draft water plan uploaded.

**2 July 2012 - Mail out to customer committee members**

A copy of the publicly released draft water plan, press statement and recreation water contribution discussion paper was posted to customer committee members encouraging review and comment.

**3 July 2012 – Victorian Farmers Federation District Council**

Contact made with the secretary of the VFF District Council to request a presentation at their next meeting regarding our water plan. It was advised that no meetings were being held during our consultation timeframe. Next meeting scheduled for November.

**3 July 2012 – GWMWater website updated**

Four discussion papers supporting the draft water plan were uploaded.

**5 July 2012 – Birchip Cropping Group Expo**

The focus of our stand was on water trading and growth water sales, with copies of our draft water plan and discussion papers were displayed and available for review.

**9 July 2012 – Buloke Shire Council Meeting**

Managing Director and Deputy Chairman attended council meeting to discuss water plan and specifically the proposed recreation water contribution.

**9 July 2012 – Mail out to new customer committee members**

A copy of the publicly released draft water plan, press release and supporting discussion papers was posted to our newly appointed customer committee members encouraging review and comment.

**11 July 2012 – Yarriambiack Shire Council Meeting**

Managing Director attended council meeting to discuss water plan and specifically the proposed recreation water contribution.

**12 July 2012 – Press release**

Press release 'Information session for water plan' issued to all regional media, including small community newsletters advising of the upcoming community information sessions being held in August 2012. Press releases uploaded onto website.

**18 July 2012 – Hindmarsh Shire Council Meeting**

Managing Director attended council meeting to discuss water plan and specifically the proposed recreation water contribution.

**18 July 2012 – West Wimmera Groundwater Management Area Implementation Committee Meeting**

Ground water pricing was a main agenda paper seeking feedback from the committee.

**23 July 2012 – Media adverts and website updated**

In the week commencing 23 July 2012 adverts appeared in major regional papers and website announcement to be uploaded. The ABC radio also gave regular announcements of the upcoming information sessions over a two week period.

**1 and 2 August 2012 – Mallee Machinery Field Days**

The focus of our stand was on water trading and growth water sales, with copies of our draft water plan and discussion papers on display for review.

**2 August 2012 – Community Information Sessions**

Community information sessions held in Nhill and Great Western outlining the draft 2013-18 Water Plan and seeking feedback to assist in the development of the final water plan.

**2 August 2012 – West Wimmera Shire Council**

Managing Director met with councillors to discuss water plan and specifically the proposed recreation water contribution.

**6 August 2012 – Pricing and Tariff Working Group Meeting**

Meeting held to further review the draft 2013-18 Water Plan and discussion papers as well as a review of the assumptions made within the plan.

**7 August 2012 – Community Information Sessions**

Community information sessions held in Horsham and Hopetoun outlining the draft 2013-18 Water Plan and seeking feedback to assist in the development of the final water plan.

**15 August 2012 – Ararat Rural City Council**

Managing Director and Chairman attended council meeting to discuss water plan and specifically the proposed recreation water contribution.

**23 August 2012 – Northern Grampians Shire Council**

Managing Director attended council meeting to discuss water plan and specifically the proposed recreation water contribution.

## Appendix 8 – Recreation Contribution Charge

### discussion paper



#### Recreation Water Contribution June 2012

GWMWater is seeking to refine its pricing policy for recreation water as part of the development of its 2013-2018 Water Plan and is considering the introduction of a Recreation Water Contribution to recover some of the costs associated with supplying water to sporting and service clubs and nominated recreation lakes and weirs across the region.

The proposed Recreation Water Contribution is \$16.00 per customer with an \$8.00 discount applied to concession card holders. A customer is defined as each primary rural household meter and urban water connection.

If applied, GWMWater would raise \$400,000 from the introduction of the contribution which would allow:

- > the cost of water delivered to recreational lakes and weirs via the Wimmera Mallee Pipeline to be further reduced from the current discounted price of \$48 to \$20 per megalitre.
- > rural recreational and sporting clubs to collectively save \$26,000 per annum through volumetric rate discounts.
- > urban recreational and sporting clubs to collectively save \$88,000 per annum through volumetric rate discounts.

The proposed contribution has been the topic of significant discussion with our customer committees who support the release of this discussion paper for comment.

#### BACKGROUND

A specific objective of the Wimmera Mallee Pipeline Project was to provide greater certainty for the provision of recreation water in the region.

The following recreation lakes/weir pools that previously received supply from the channel system now receive an annual 'top up' supply from the Wimmera Mallee Pipeline:

Name	Management Authority
Warracknabeal Weir Pool	Yarriambiack Shire Council
Marma Lake	Yarriambiack Shire Council
Brim Weir Pool	Yarriambiack Shire Council
Beulah Weir Pool	Yarriambiack Shire Council
Lake Lascelles	Yarriambiack Shire Council
Watchem Lake	Buloke Shire Council
Tchum Lake	Buloke Shire Council
Donald Park Lake	Buloke Shire Council
Wooroonook Lake	Buloke Shire Council
Green Lake (near Sea Lake)	Buloke Shire Council

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Fax: 03 5381 9881  
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Website: [www.gwmwater.org.au](http://www.gwmwater.org.au)

*Certified to best practice standards  
ISO 9001 / 14001 and AS/NZS 4801*



### Recreation Lakes and Weirs

Under GWMWater's 2011-13 Pricing Proposal, the current discounted volumetric rate for water supplied to recreation lakes is \$48.47 per ML, to be escalated on the same basis as domestic and stock price increases (2.5% per annum).

The cost of providing the 3,000 ML available to supply the nominated lakes and weirs each year (subject to resource availability) is made up of headworks storage and delivery costs. Water is generally delivered in low demand periods (May to September) to reduce operational costs.

The total annual cost to GWMWater of providing this service is \$358,000 which includes headworks storage and delivery costs and the maintenance of recreational facilities at headworks reservoirs.

The proposed contribution would be used to subsidise the already discounted volumetric rate for water supplied to the nominated lakes and weirs from \$48 ML to \$20 ML. The \$20 ML for water delivered would be charged directly to the Council or Committee of Management of the relevant lake or water body.

GWMWater believes that the discounted volumetric charge would ensure affordability for these organisations while still sending a price signal to promote the efficient use of the water resource.

### Recreational and sporting clubs

The possible introduction of the contribution has also been driven by feedback received on the sustainability of smaller rural sporting and service clubs from GWMWater's customer committees and the broader community. The proposed contribution would offset the cost of providing a discounted volume charge to 162 urban and 34 rural sporting and service clubs within the region, including recreation reserves and tennis, football, golf, racing, motor sports, bowling, shooting, boat and skiing, fishing, rowing, netball, hockey, softball, swimming, croquet, athletic, cycling, aero and gymnastic clubs

It is proposed that clubs serviced by the rural pipeline only attract the primary meter charge and discounted volumetric rate. No capacity charge would be applied, with the water allowances to supply these customers remaining with GWMWater. Only customers holding a tradeable water allowance would pay the capacity charge.

This approach is consistent with similar urban customers, where sporting and service clubs attract a concessional charge for a 20 mm service irrespective of the size of the water service. These customers pay the relevant volumetric rate for that town, with a 15% discount available for 'night watering'. This discount would remain in addition to the following volumetric rate discounts:

- > consumption up to 5 ML per annum - 40% discounted volumetric rate
- > consumption between 5 to 10 ML - 25% discounted volumetric rate
- > consumption greater than 10 ML would be charged at the full volumetric rate

Urban sporting clubs also receive a \$260 per annum subsidy through a State Revenue Office rebate. Rural sporting clubs are now eligible for this rebate if connected to a pipeline network.

### Feedback sought

GWMWater is now seeking feedback from customers and other key stakeholders on the introduction of the proposed Recreation Water Contribution.

All submissions must be received by **Friday, 10 August 2012** in writing at the office of GWMWater by:

**Mail** PO Box 481, Horsham Vic 3402

**Email** [info@gwmwater.org.au](mailto:info@gwmwater.org.au)

**Fax** 03 5381 9881

For more information on recreational water contribution, please contact our Customer Contact Centre on 1300 659 961 during business hours.

25 June 2012