GWMWater

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pipingit
for our kids' future

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9 May 2008

Greg Wilson
Chairman
Essential Services Commission
Level 2 35 Spring Street
MELBOURNE VIC 3000

Dear Greg

2008 – 2013 Water Price Review – Draft Decision – GWMWater Submission

Thank you for the opportunity to comment on the Draft Decision that was handed down by the ESC on 28 March 2008.

The Draft Decision provided strong endorsement of the proposed capital and recurrent expenditure program of GWMWater. The most significant adjustments related to the proposed regulatory fess of DHS and the payments to the Environmental Contribution Levy (ECL). GWMWater accepts these adjustments although it should be noted that revised estimates for the ECL have been prepared since the Draft Decision and the most recent estimates have been incorporated into the forward estimates.

The most material change in the Draft Decision to the GWMWater 2008 – 2013 Water Plan was the ESC reset of the Weighted Average Cost of Capital (WACC). GWMWater anticipates being very highly geared as a consequence of the Wimmera Mallee Pipeline Project (WMPP) and the 1% movement has significantly increased the revenue requirement. GWMWater is concerned that some elements of the WACC that apply to GWMWater may not adequately reflect the risk to GWMWater, as the environment remains the most significant beneficiary of the WMPP.

The Updated 2008 - 2013 Water Plan that was lodged in February 2008 was based on a revised funding model to meet the $248 Million WMPP funding gap. The pricing proposals inherent in the Water Plan had been the subject of an affordability assessment of the region. This Water Plan was based on an assessment of affordability of the region but this assessment was not subject to any sensitivity relating to potential movements (unfavourable) in the WACC.

GWMWater further acknowledges that it is the intention of the ESC to recalculate the WACC to reflect the most current market information. This reassessment will then be incorporated the Final Decision and reset the revenue requirement for GWMWater.

A key element of the GWMWater 2008 – 2013 Water Plan was the request for tariff basket inside a revenue cap. This was aimed at providing maximum flexibility to deal with the considerable uncertainty faced by GWMWater. The proposed mix of price control for urban and rural activities further complicates the price setting mechanisms prescribed by the Draft Decision. As such the GWMWater submission has specifically sought a tariff basket for all activities irrespective of whether they are urban or rural.

The Draft Decision also sought more information on the proposed rural tariff and how this interacted with the growth water sales program and the price of bulk water. GWMWater's response to these issues has been addressed by this submission.

We believe the GWMWater submission has addressed the issues raised by the ESC in its Draft Decision as well as any of our own concerns. We do however acknowledge that these are complex issues and in light of this we are seeking the opportunity to formally present to the Commission prior to the Final Decision to ensure that issues that may not be adequately address by this submission can be addressed.

Should you have any queries, these should be directed to Mark Williams, Group Manager Business Services or myself.

Yours sincerely

Jeff Rigby
Managing Director

SUBMISSION TO THE ESC DRAFT DECISION

MAY 2008

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1 EXECUTIVE SUMMARY

GWMWater generally supports the outcomes of the ESC Draft Decision of the 2008 Water Price Review of Regional and Rural Urban Water Plans 2008-2013.

A key element of the GWMWater Water Plan however, was the proposed Tariff Basket within a Revenue Cap. The objective of this was to provide maximum flexibility in developing pricing proposals moving forward that deal with changes in circumstances given the uncertainty that confronts the GWMWater planning horizon. This flexibility is being sought for years 2 to 5 of the Water Plan where more moderate price increases are being proposed. The pricing proposals for Year 1 remain as per the original 2008-2013 Water Plan that was seeking a stepped increase in price.

The ESC proposal to have differing forms of price control for urban and rural activities is inconsistent with the adjustments to the Water Industry Regulatory Order (WIRO) to allow whole of business pricing in this regulatory period. The Wimmera Mallee Pipeline is a combined urban and rural water delivery system that is only differentiated by the service standards being provided. Only irrigation services could be seen as a discreet rural activity moving forward. The accounting processes and the cost information are provided in sufficient detail to identify any potential cost issues at the line of business or activity level.

The only other traditionally rural function is bulk water or headworks but this only reflects past institutional arrangements. The cost sharing principles of headworks operations are common across all consumptive users and will only be differentiated by differing service standards. The WMPP will significantly change the headworks operational model and the effects of this are presently the subject of a consultative process with key stakeholders and the community. These issues lend further weight to the proposed Tariff Basket for all activities of GWMWater.

The funding model and associated price outcomes for the WMPP in the Water Plan were based on the Weighted Average Cost of Capital (WACC) included in the original ESC Guidance Paper. The price outcomes were the subject of a review of regional affordability that was independently assessed. In undertaking this work, no sensitivity was performed on adverse movements in interest rates and the WACC.

GWMWater will be substantially geared to fund its contribution to the WMPP. The revenue requirement accommodated in the Draft Decision is greater than the revenue requirement originally sought by GWMWater due primarily to the higher WACC. There are some elements of the debt margin of the WACC that GWMWater would like to consider in moving forward and this will be communicated through the Corporate Plan.

Pricing proposals to meet the full revenue requirement in Year 2 to 5 will be the subject of further consideration consistent with the tariff basket being sought.

2 INTRODUCTION

GWMWater has been generally satisfied with the Draft Decision as handed down by the Essential Services Commission.

The outcomes of the draft decision support the proposed program of GWMWater both in terms of operating expenditure and capital expenditure. The most significant program for GWMWater over the course of the regulatory period remains the completion of Wimmera Mallee Pipeline Project. The significance of this is not only in its capital cost but also in terms of the impact it has on the operating model and the associated costs.

In its Draft Decision, the Essential Services Commission has requested that it be supplied with additional information. This related specifically to issues that centre on the customer impact of the new rural tariff, the relationship of the new tariff to the sale of bulk water and the possible under recovery from the irrigation sector.

The GWMWater Water Plan is set in a period of considerable uncertainty. The current level of water supply capability is very low and reasonable rainfalls will only assure the extent that water supply capability will return to reasonable levels. The Wimmera Mallee Pipeline will however mitigate against the risk of non-supply by improving the efficiency of the delivery network.

The GWMWater Water Plan was developed to seek maximum flexibility to ensure that this uncertainty could be appropriately managed.

3 FORM OF PRICE CONTROL

The GWMWater Water Plan sought a Revenue Cap underpinned by a tariff basket.

The adjustment that was made to the Water Industry Regulatory Order (WIRO) to differentiate rural and urban activities for the first determination has been reversed. In recognition of this GWMWater did not differentiate urban and rural activities when it lodged its Water Plan.

The Draft Decision presents some difficulty to GWMWater to provide sufficient flexibility in preparing tariffs to meet the overall revenue requirement from the different sectors. The WMPP is a combined urban and rural water supply initiative that will have implications for prices depending upon the ultimate cost to construct and the extent that the underlying demand assumptions for both urban and rural customers are realised. Only the irrigation system will be considered a discreet supply system beyond the WMPP and the Draft Decision has requested that greater information be supplied on how GWMWater intends to deal with potential under recovery from this sector.

The differing basis of price control will reduce GWMWater flexibility to deal with uncertainty over the five year period. As such GWMWater is seeking a tariff basket within a revenue cap as the basis of price control for both urban and rural activities.

4 BULK WATER

The draft decision has requested that GWMWater supply greater detail on bulk water charges.

GWMWater 'commercially ring fences' its bulk water activities in accordance with the principles established by Circular 222 that was issued by the Office of Water Reform in February 1994.

When the Wimmera Mallee bulk entitlement orders were issued in May 2004 these were not supported by any principles of cost allocation. The absence of any cost sharing principles in the bulk entitlement order limited GWMWater ability to deal with cost sharing by different sectors. These issues are compounded by the revised water equation that arises from the implementation of the Wimmera Mallee Pipeline. This revised water equation will also impact on the future operational role of major headworks water storages beyond the WMPP.

The future of these reservoirs is presently the subject of a consultative program with the Wimmera Mallee community. This consultative program is based on hydrologic modelling information that will support the role of the major storages upon completion of the WMPP. As an extension of this process, GWMWater will be participating in the Western Sustainable Water Strategy in 2008 and this will overlay the impact of Climate Change on the operating scenarios.

An integral part of this process is that all existing consumptive users, with the exception of the irrigation sector, will receive an improved security of supply. The value of this improved security needs to be considered in light of the relative cost sharing arrangements that should be included in any adjustments to the Wimmera Mallee Bulk Entitlement Order as a consequence of the WMPP.

Perhaps the most significant issue to consider in this process is the future role of reservoirs in releasing environmental water. Under current government policy, water businesses can only recover the cost of headwork operations from consumptive entitlement holders.

The bulk water costs to be incurred by the irrigation sector have been 'quarantined', as they will not be directly benefit from the WMPP. The relative cost shares of other consumptive users needs to consider the improved security as well as the changed volumes that arise from the conversion of system losses to environmental entitlement and improved security for consumptive water users.

The uncertainty that surrounds bulk water and the ultimate role of GWMWater headworks provides strength to GWMWater request for a tariff basket in a revenue cap to ensure that these issues can be adequately reflected in pricing proposals lodged beyond the first year of the price determination period.

The current price for bulk water ex headwork is $148 per ML under the proposed pricing arrangements. Proposed prices increases for bulk water in 2008/09 are 12% nominal or 9.3% real and based on this GWMWater bulk water price will be $161.76.

Bulk water pricing policies will be influenced by changes in the bulk entitlement as water savings are realised and improvements in the reliability of supply delivered.

5 GROWTH WATER SALES PROGRAM

A key objective of the Wimmera Mallee Pipeline has been the generation of water savings to provide water for new water users.

The 20,000 ML of new water that is generated by the WMPP has a higher security than existing water consumptive water entitlement. In developing the business case for the WMPP, GWMWater has indicated that it intends to sell the entitlement to this growth water.

GWMWater has adopted a reserve price of $2,500 per ML for growth water. This has been used as an internal benchmark for the economic evaluation of GWMWater projects that aim to use this growth water. The $2,500 per ML is well below the cost of winning water savings for the project. A separate paper has been prepared that deals with the issues relating to the valuation of growth water (Attachment 1).

In light of the current supply situation, GWMWater revised its program for the sale of growth water and the timetable for the sale this water is reflected in the Water Plan. The Wimmera Mallee Bulk Entitlement Order was revised in November 2005 to reflect the 2,000 ML of water realised from the advancing of the Cannie Ridge and Patchewollock sections of the WMPP. GWMWater has however developed a policy position that this water be held back until such time as water supply capability improved.

The timetable for sale of growth water has been pitched at a conservative program of when water supply capability may be returned. This is aimed at providing sufficient confidence to potential buyers that purchase of entitlement will be accompanied by some certainty that water can be supplied. This revenue from the sale of growth water is reflected in the Water Plan and the corresponding adjustments made to the Regulatory Asset Base.

Schedule of Savings – Growth Water

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Growth Water Component																				
Growth in WMPP Design	0	0	500	1500	2000	2500	3000	3500	4000	4500	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
Growth ex headworks	0	0	600	1600	2000	2500	3000	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000
Other Growth	0	0	0	0	0	0	0	0	0	0	500	1000	1500	2000	2500	3000	3500	4000	4500	5000

Since the submission of the Water Plan, a more detailed process has been established for the release of growth water. The GWMWater Board recently adopted the detail of the growth water sales process. (Attachment 2).

6 RURAL TARIFF PRINCIPLES

In the week prior to the release of the draft decision by the ESC, GWMWater at the request of the ESC lodged a supplementary paper to provide some more context around the basis of the tariff.

This request was aimed at providing a clearer understanding of the tariff efficiency principles and more particularly how this met the specific requirements of the Water Industry Regulatory Order (WIRO). This explanatory paper was lodged with the ESC on 20 March 2008 and a copy is attached to provide completeness on information supplied (Attachment 3).

A copy of a paper prepared for presentation at the Ozwater conference held in March 2007 provides an overall summary of the processes established to arrive at a new rural tariff. A copy of this paper (Attachment 4) has been included to provide a greater understanding of the basis of the new rural pipeline tariff.

A stock and domestic tariff ready reckoner has since been developed to assist customers assess the impact of the proposed tariff on their water bill. The ready reckoner has been web enabled and has been published on the GWMWater web site.

7 PRICE IMPACTS FOR SUPPLY BY AGREEMENT CUSTOMERS

The price impacts for rural Supply by Agreement customers have been the subject of considerable consultation with Supply by Agreement Customers.

The proposed off peak tariff that allows these customers to continue to receive a supply to an open storage in periods outside peak supply has been designed to minimise the impact of price increases to these customers. The level of concession to be provided reflects GWMWater ability to avoid capital cost based on the WMPP system design principle of peak day demand over a three-month period.

The proposed increases are to be transitioned over a four year period and will be the subject of further consultation with these customers. The proposed tariff basket within the framework of a revenue cap will provide sufficient flexibility for GWMWater to refine these principles over the regulatory period.

8 UNDER RECOVERY OF RURAL IRRIGATION SERVICES

The abandonment of the Renewals Annuity as a basis for developing rural prices has assisted in establishing a closer alignment between the cost of providing irrigation services and the tariffs that have been developed through the Rural Tariff Working Group. The Water Plan has however been underpinned by a continuation of the special drought tariff until such time as supply capability is returned.

As a consequence of the Revenue Cap and the Tariff Basket for rural services that have been allowed as part of the Draft Decision, any potential shortfalls will be considered when lodging tariff proposals each year of the regulatory period. In the event that there remains a shortfall at the end of the regulatory period, GWMWater will consider recovering these costs from future Water Plans.

The Wimmera Irrigation Area has been the subject of considerable study in recent years. There remains some uncertainty about the extent that irrigation will be re-established within the Wimmera Irrigation Area when water supply capability returns. Substantial investment will be required by individual irrigators to re-establish the ability of their properties to receive an irrigation service.

It is envisaged that the issues relating to supply for irrigation will be further considered as part of the development of the Western Sustainable Water Strategy that will be considering water supply and demand options in light of potential reduced supply capability as a consequence of climate change.

9 WEIGHTED AVERAGE COST OF CAPITAL

The shift in the Weighted Average Cost of Capital has substantially increased GWMWater revenue requirement over the regulatory period.

In its Water Plan, GWMWater did not specifically comment on the Weighted Average Cost of Capital or the individual elements that underpin its calculation when applying the Capital Asset Pricing Model. The most significant change in the WACC has been associated with the real risk free rate and the adjustment to the debt premium.

In the draft decision, the ESC has cited the general shift in market conditions for the shift in the real risk free rate. These shifts are acknowledged and it is generally understood that the current status of financial markets have changed since the ESC released its guidance paper.

The ESC Draft Decision has based its assessment of the debt premium on information supplied by Treasury Corporation Victoria (TCV). This debt margin has been calculated based on credit rating information that has been derived for the purposes of calculating the Financial Accommodation Levy (FAL). The original modelling that was undertaken for the WMPP assumed that GWMWater would continue to access debt funds at the risk free rate (excluding FAL).

The WMPP is a project that is aimed at meeting social and environmental objectives for the Wimmera Mallee region that go beyond the requirements of the Statement of Obligations (SOO). The GWMWater contribution to the WMPP is to be substantially funded through debt financing that under current government policy will be subject to FAL.

The GWMWater Water Plan has been strongly underpinned by a concept of affordability. The additional revenue that can be recovered as a consequence of the reset of the WACC needs to be considered in the context of the impact of the affordability of the WMPP and other regulatory obligations required of GWMWater. This concept of affordability was the key to the revised funding model developed for the WMPP. The affordability work that was done did not attempt to apply any sensitivity to changes in interest rates and / or the WACC.

It is acknowledged that the revenue requirement is upper limiting and GWMWater will assess the impacts of the higher WACC on higher prices and regional affordability. It is also acknowledged that the ESC will GWMWater will consider these further and it is envisaged that these issues will be communicated in the development of annual Corporate Plans and detailed pricing proposals throughout the regulatory period.

GWMWater is seeking a stepped increase in prices in the first year of the regulatory period to enhance its capacity to service debt. By proposing a tariff basket within a revenue cap, GWMWater is seeking maximum flexibility to deal with uncertainty.

10 EXPENDITURE ADJUSTMENTS

The ESC draft decision has made some adjustment to the expenditure proposals that have been lodged as part of the Water Plan. These changes have been generally accepted and the specific comments in relation to these adjustments are identified below.

10.1 Environment Contribution Levy

GWMWater acknowledges that the Victorian Government has sought to increase the level of contribution of water businesses based on a recalculation of the Environmental Contribution Levy (ECL).

Since the release of the Draft Decision, further information has been provided to Water businesses by DSE that clarify the basis of the recalculation of the ECL. The GWMWater submission is based on our most recent understanding of the ECL as notified by DSE.

10.2 Department of Human Services Regulatory Fees

GWMWater accepts the proposed amendments to regulatory fees to apply to the regulation of drinking water by DHS.

11 SEWERAGE DEMAND FORECASTS

The sewerage demand forecasts as represented in the Draft Decision do not align with GWMWater Water Plan.

The Draft Decision appears to have double counted non-residential assessments in its calculation of total sewerage assessments. Sewerage assessments are outlined on Page 88 of the Water Plan and summarise the GWMWater sewerage assessments over the course of the regulatory period.

The proposed adjustments do not appear to reflect the increases associated with new town sewerage systems to be commissioned at Lake Bolac, Rupanyup and Great Western over the regulatory period.

12 TRADE WASTE CHARGES

GWMWater's Trade Waste Policy was reviewed in 2003 and the associated charges modified to reflect these and based on GWMWater's best understanding of Long Run Marginal Cost (LRMC).

The proposed price adjustments in this Water Plan have been based on our current understanding of Long Run Marginal Cost.

13 MISCELLANEOUS CHARGES

The miscellaneous services and their associated charges have been reviewed in line with the ESC's desire to have a core set of miscellaneous services.

A revised schedule of core miscellaneous services has been prepared to reflect the ESC's desire to rationalise miscellaneous services and their supporting charges. (Attachment 5)

14 PRICING PROPOSAL

GWMWater is not seeking to adjust pricing proposals for year one of the regulatory period.

The detailed pricing proposals for prescribed services in year one of the regulatory will not be altered. The year one proposals were based on a substantial reset of the price across GWMWater. This has been aimed at increasing GWMWater capacity to meet anticipated debt servicing obligations early in the regulatory period.

Pricing proposals for subsequent years will be the subject of further consideration consistent with the Revenue Cap and Tariff Basket being proposed under this submission.

WMPP Growth Water

April 2008

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1 EXECUTIVE SUMMARY

The objectives of the Wimmera Mallee Pipeline Project have been clearly identified within the Business Case.

The realisation of 20,000 ML of growth water has been clearly identified in the business case as water that is available for new development. Consideration does however need to be given to the extent that this water can be ultimately delivered through the WMPP. Only 5,000 ML of this water can be delivered through the WMPP in peak periods, a further 5,000 ML can be delivered off peak, the remaining 10,000 ML is available ex headworks. For ex headworks water no representation is being made about the extent that this water can be delivered using its existing infrastructure.

In order to win the savings GWMWater is investing on average around $6,550 per ML to win these savings. In the event that the value of on farm works required to facilitate the conversion is included the value of the regional contribution is in excess of $10,000.

In the absence of an active water market, GWMWater needs to determine an appropriate value for growth water. Australian Accounting Standards are based on the principle of fair value but this is underpinned by the existence of an active water market. In the absence of a water market the modern day reproduction costs apply to the valuation process. FRD 109 Intangible Assets issued by the Minister for Finance would apply the principle of cost to determine its value for accounting purposes.

The Victorian Water Plan established a precedent for the cost of other water businesses to win water savings. Melbourne Water has been expected to pay $4,000 per ML toward the cost of winning savings in the Goulburn region.

The GWMWater Board has established a reserve price of $2,500 per ML for the value of growth water. On the basis of the information presented this is at the lower end of established benchmarks and the cost of winning water savings.

GWMWater established the Reserve Price for this growth water when it evaluated supply options for water quality improvements in Nhill. Wannon Water recently sought to secure water from the Grampians System to secure water supply to Hamilton. This was outside the scope of the Business Case but technically available as the ultimate use of water ex headworks was not specified.

GWMWater is in the process of establishing a trading framework for water in the Wimmera Mallee system. In the absence of an active water market, $2,500 ML is a defensible reserve price, which is at the lower end of the cost of winning water savings. This value does align to the peak of prices achieved in the Goulburn and Murray systems for permanent water entitlement when these systems have become as constrained as the Wimmera Mallee system has consistently been for the past five to six years.

2 BACKGROUND

An integral part of the Business Case for the WMPP has been to realise 103,000 ML of water savings. Of the water saved, 83,000 is to be returned to the environment whilst 20,000 ML is to be retained by GWMWater to support opportunities for regional development.

The design principles of the WMPP are such that 5,000 ML of this water will be available as peak demand water in the WMPP. A further 5,000 ML of this water will be available as off peak water in the WMPP (or peak supply with augmentation). The remaining 10,000 ML is assumed to be available ex headworks.

GWMWater's contribution to the WMPP is to be financed from debt that will be repaid by recovery of sales of entitlement, improvements in operational efficiency and / or recovery of water and wastewater charges.

This paper deals specifically with the valuation and approach to selling Growth Water inherent in the WMPP Business Case.

3 BULK ENTITLEMENT

The bulk entitlement is the mechanism that which establishes the entitlement to water.

The Wimmera Mallee Bulk Entitlement Order was established in 2004. The original entitlement established the right to water for five recognised water users;

Wimmera Mallee Water,
Grampians Water,
Coliban Water,
Glenelg Water, and
Flora and Fauna (environment).

The bulk entitlement order was revised in 2006 to formally adjust for water savings created by the Cannie Ridge / Patchewollock sections of the WMPP. The water saved created a new 'product line' in the Bulk Entitlement called the Development Reserve. GWMWater has deliberately held back the sale of this water right to underpin security of supply as the regional water resource is severely depleted.

3.1 Creation of Entitlement

In October 2007, the GWMWater Board adopted a policy relating to access to Growth Water. This policy was developed to ensure that the investment made in the WMPP for growth water was protected in the event that the funding gap was not resolved and the project truncated. In doing so it was assumed that GWMWater's obligation to the environment would need to be honoured as a result the priority of access to growth water established.

3.2 Access to Entitlement

Any access to Growth Water will be contingent upon an appropriate adjustment being made to the Grampians Bulk entitlement order.

The ability to sell domestic and stock entitlement will be deferred until such time as all growth water held by GWMWater is realised in the market. It will also be influenced by the timing of any process to unbundle water and formally assign water right for base allocations in the WMPP.

3.3 Changes to Long Term Supply Yield

Any changes to long term supply yield as a consequence of climate change are yet to be formally considered in the context of the Wimmera Mallee Bulk Entitlement Order.

As a result all volumes as represented in the Bulk Entitlement are based on historical 100 year runoff and system yields.

4 BULK ENTITLEMENT AND VOLUMES ON THE WMPP

As a consequence of making investments over and above that required for current demand and what would be considered necessary under any reasonable demand projections, GWMWater needs to be able to defend its investment beyond what is understood to be current demand principles.

Current rural demand is not clearly understood due to the unique nature of the supply system. Deliveries to farm dams is not measured and there has been no metering beyond the farm dam. To therefore establish a baseline demand the system has been designed around anticipated end use consumption. This is based on expected homestead use, livestock grazing and consumption for boom sprays. In addition to this the specific requirement of large intensive water users have been incorporated into the design.

In establishing the tariff principles for rural services and more specifically the WMPP, GWMWater has assumed that the ultimate transition of the unbundling of water will lead to the creation of a domestic and stock entitlement. Under the proposed tariff structure it has been assumed that the non-homestead component (2.5 kL per hectare) will translate into a water entitlement that will ultimately be transferable. One of the key questions GWMWater has been asked is when can they start to sell this land allowance ie when it will be transferrable. People are already indicating a desire to trade this part (which means they understand the tariff and the longer term benefits to them). A policy position has been established that any vested entitlement will not be tradeable until the growth water sales program is complete.

5 WATER TRADING IN THE WIMMERA MALLEE

GWMWater is generally recognised as being an integral part of the Murray Darling Basin From a water delivery system perspective however, water however is not interchangeable between the Grampians Headworks and the Goulburn/Murray Headworks.

5.1 Water Markets and Trading

Many of the reforms of the water industry have been aimed at establishing market mechanisms to ensure that water can be moved to other uses that may have a higher value.

Water trading has generally only been constrained to the extent that water can move within water delivery systems. As a result of the significant amount of interchangability between the Goulburn and Murray systems, vibrant water markets have been established in Northern Victoria and Southern New South Wales. The efficiency of these markets has been compromised by differences in the jurisdictional framework of the south-eastern states. These relate specifically to mechanisms that are seen to be barriers to entry or exit such as exit fees. In acknowledgement of this the federal government is seeking to have greater involvement in regulating water through the ACCC and the National Water Plan.

The other player in the water market has been the environment and up until recently there has been reluctance for governments to buy water to return to the environment. Environmental water has more typically been sourced by investments in water savings projects such as the WMPP. The projects that have been funded to date have been the lower cost projects and these projects are now becoming more expensive.

In response to the increased cost of winning water savings the Federal Government through the MDBC has started buying water entitlement through direct participation in the water market. This process has been undertaken by way of a public ballot process as opposed to direct participation in any of the established water markets.

5.2 Trading within the Wimmera Mallee System

The Wimmera Mallee system has long been recognised as being constrained and there is no active water market in the WMPP.

The only water market activity has been trades within the WIA which is a low security water product. At this stage there remains no mechanism for trade that allows low reliability irrigation water to be traded into the broader Grampians Wimmera Mallee supply system.

In addition to this a small volume that is held under the previous Wimmera Mallee Water Sale of Savings program. The value of water sold under this program was based on the estimated cost of winning water savings and these estimates predated the formalisation of the WMPP.

As the Wimmera Mallee system is constrained and there is presently no active water market, the only realistic source of water is from the growth savings generated by the WMPP.

5.3 Trading in Other Water Systems

Trading is active in other water systems in the Murray Darling Basin and the underlying sale price will be influenced by a number of different factors with the most significant being the underlying security of the water.

High security water products in other water systems of the Murray Darling Basin have typically traded at around $2,500 at the peak of a supply constraint that would align to the situation the Wimmera Mallee has experienced for the past six years.

6 COST OF WATER SAVINGS WINNING

Many water savings projects have been funded on the basis of the cost of winning water savings.

When the Living Murray concept was established, the Water for Rivers organisations was established. This organisation had a specific charter to fund projects in accordance with the benefits they can deliver in returning water to the environment. These projects were however specifically for the Murray.

6.1 Wimmera Mallee Pipeline

The WMPP has many benefits but those that have a direct benefit to GWMWater are the improved water security, improved water quality and the additional water that is realised for new development.

Of these benefits it is the additional water that provides the most tangible benefit to GWMWater. GWMWater is making an investment of $131 Million for the WMPP. In addition to this the rural community is contributing in excess of $82 Million for on farm infrastructure. On the basis of this investment it is assumed that the value of these benefits is $10,650 per ML. In the event that the on farm contribution is ignored the value of this water is $6,550 per ML. These figures however include the value of all benefits associated with the WMPP.

In order to quantify the benefits of the additional water however, an exercise has been undertaken to quantify the incremental cost of providing the capacity to supply 5,000 ML of growth water. Hydraulic modelling has been undertaken to quantify the reduced cost of providing pipe infrastructure to meet WMPP demands without the growth water.

This concluded that a cost saving of 15% - 20% could be realised by reducing pipeline capacity. On the basis of a $688 Million project this will produce savings in the order of $103 Million to $138 Million. On this basis it could be reasonably assumed that the capital value of growth water is between $5,000 to $7,000 per ML.

6.2 Sugarloaf Interconncetor

The Sugarloaf interconnector is a project that is aiming to secure water for the environment, provide new consumptive water and improved operational efficiency.

The cost to construct the Sugarloaf Interconnector is to be met by Melbourne Water. In addition to this Melbourne Water is expected to contribute toward the cost of winning water savings in the Goulburn system to access the water. This project is referred to as Stage One of the Food Bowl modernisation project.

Stage One of the Food Bowl modernisation project has an estimated capital cost of $1 Billion and will produce 225 GL of water savings. Under the proposal the cost of the project was to be met three ways.

Funding Partner	Water Right GL	Funding Beneficiary	Contribution $M	Cost Per ML ($,000)
Government	75	Environment	6	8,000
Melbourne Water	75	New Water	3	4,000
Goulburn Murray Water	75	New Water	1	1,333

6.3 Supply to Nhill

In order to deliver water quality improvements to Nhill, GWMWater has identified that extending the WMPP to Nhill as being the most appropriate solution.

In conducting the evaluation, the options considered were desalination and disinfection of the groundwater or connecting to the WMPP. As supply to Nhill was not considered to be part of the WMPP Business Case it has been assumed that the water would be sourced from the 10,000 ML ex headworks. In doing so the GWMWater Board established a value of $2,500 per ML as a capital value of water.

The value of $2,500 per ML has been maintained since this decision was made in 2004.

6.4 Supply to Hamilton

The cost of winning water savings is generally higher than direct purchase in active water markets. In the case of the Wimmera Mallee System there presently is no active water market for high reliability water. There may have been the ability to secure water from irrigation entitlement. In its current form it would not have provided Hamilton with any improved security, as this water has been the subject of zero allocation for the past seven years.

In the case of the Wimmera Mallee system the only real access at this point in time is to secure water from winning water savings.

Wannon Water supply to Hamilton was not envisaged as part of the original Business Case. Wannon however can conceptually access the 10,000 ML of water ex headworks that forms an integral part of the Business Case.

7 PRINCIPLES OF WATER ASSET VALUATION

7.1 Australian Accounting Standards

There are three accounting standards that could apply with these being AASB 116 Property Plant & Equipment, AASB5 Assets held for Resale or AASB 128 Intangible Assets.

The asset is being created by construction of the WMPP and therefore the primary value is associated with the infrastructure created and hence the value is attributed to the infrastructure and the principles of AASB116 therefore apply. As the right to the growth GWMWater is not retaining water entitlement it could be argued that AASB5 would apply. As the asset created is a right to the water it can be treated, as an intangible asset and therefore AASB 138 would apply.

From an accounting perspective all three standards are underpinned by the principle of fair value. The only difference being that AASB5 requires that assets held for resale be adjusted by the anticipated cost of disposal.

In recent years, VAGO has taken a direct interest in water accounting. In doing so it has deemed that where water businesses buy additional right to water, and that this water is surplus to meeting reasonably anticipated consumptive requirements, that this right should be treated as an asset. In doing so, VAGO has deemed that the underlying right to water be treated as an intangible asset. AASB 138 is the overarching accounting standard for recognition and treatment of intangible assets whilst the Minister for Finance has issued FRD 109. AASB 138 generally applies the principles of recognition at cost and in revaluation sense recognition at Fair Value. FRD 109 however is more prescriptive and specifically requires recognition at cost.

As this paper is not attempting to resolve the most appropriate accounting treatment it is the principle of determining value that becomes important. Fair Value is therefore the most appropriate method but Fair Value is reliant upon an active water market.

7.2 Regulatory Accounting Code

From a regulatory perspective the principle has been established that any growth water sales shall be deemed contributions for works and that the amounts realised from water sales netted off the Regulatory Asset Base.

7.3 Application of Accounting Standard

In accordance with the relevant accounting standards water must be valued at its Fair Value.

The principles to be applied in calculating the Fair Value of an asset have been well documented in a DSE Guidance Note – 'Fair Value Asset Valuation Methodologies for Victorian Local Governments'.

The principles of Fair Value require an asset to be valued at market value that reflects its highest and best use in an active and liquid market. As there is no active and liquid market in the Wimmera Mallee headworks system alternative provisions of the guidance note needs to be applied.

In the absence of the market when applying all the principles the most appropriate methodology to attribute a value is the current depreciated reproduction cost. By application to the Growth Water ex headworks water product this can be assumed to be the cost that can be attributable to the benefit of winning water savings.

There is presently no active water market in the Wimmera Mallee system and therefore the only reliable value that can be applied is the cost of winning savings. This would be reinforced by the application of FRD 109, which specifically requires the recognition at cost if it were applicable.

7.4 White Paper Issues

The White Paper did not deal with any specific issues relating to valuation. It did however deal specifically with the objectives of unbundling that have the underlying objective of formally assigning a right to water by uncoupling it from the land and having the right formally registered. In doing so it had parallels with the land register and by inference the same principles apply.

In accordance with the parallels with land the same provisions apply relating to the disposal of land. Land disposal requires the establishment of an appropriate 'reserve price' and that any disposal be subject to the achieving the reserve price.

7.5 WMPP Business Case

The WMPP Business Case has been based on an assumption that $2,5000 per ML will be realised from the sale of growth water.

This has been reflected in the GWMWater Water Plan but it remains an objective that GWMWater will achieve a price for this water that reflects its highest and best use in an active water market. The $2,500 per ML simply represents a reserve price that will underpin any sales process established for the growth water.

In light of the currently depleted supply program a conservative timetable has been established for the sale of growth water so as not to mislead the market in terms of the time that it is likely to be able to access water.

8 SUMMARY AND CONCLUSION

On the basis of the above discussion it has been clearly established that:

- The Wimmera Mallee System is one of the most constrained water systems in Victoria.
- The only currently identified new source of water is from savings from the WMPP.
- There is no active and liquid market operating in the Wimmera Mallee water system.
- In the absence of a market for water in the Wimmera Mallee system the cost of winning water savings is the most appropriate mechanism for establishing a value of water entitlement.
- The current reserve price established by GWMWater is below the cost of winning water savings.

The $2,500 per ML is a defensible price and that a sales program should be initiated that aims to achieve this price.

fact sheet

GROWTH WATER SALES

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pipingit
for our kids' future

Water savings generated from the Wimmera Mallee Pipeline Project (WMPP) will make available approximately 20,000 ML of water for regional development and farm diversification opportunities. These savings form what is known as the 'growth water pool'.

Growth water will be available for purchase by existing and new customers as water saving from the WMPP are realised and supply systems are commissioned.

Before purchasing any growth water, existing customers are strongly advised to determine their current and future water requirements. A ready reckoner is provided on the GWMWater website www.gwmwater.org.au to assist. Existing Wimmera Mallee stock and domestic system customers and those with land within the area to be supplied by Wimmera Mallee Pipeline but who are not currently serviced by the channel system (Division 4 properties) will receive a water allocation of 730 kilolitres (kl) per household and 2.5 kl/hectare. The minimum allocation will be 100 kl.

PRODUCTS AVAILABLE
There will be three water products available for purchase from the growth water pool:

1. Peak growth water
2. Off-peak growth water; and
3. Headworks growth water

Peak Growth Water will be available all year around from the pipeline and is subject to the ability of the system to deliver the requested volume. The following volumes of peak growth water are available within each supply system:

Supply System	**ML**
One	752
Two	1,093
Three	1,155
Four	945
Five	573
Six	395
TOTAL	**4,920**

Off-peak Growth Water will be available for supply between May and September **to on farm storages only** for use during peak water demand periods. Supply is subject to the ability of the supply system to deliver the requested volume and the meeting of on-site storage requirements. Applications for off-peak growth water will be assessed on a case-by-case basis. There is a discount in the capacity charge for off-peak growth water due to the operational and capital savings it creates. A total of 5,000 ML of off-peak growth water is available.

Headworks Growth Water will be sourced directly from Rocklands Reservoir, Taylors Lake, Pine Lake or Lake Fyans. The water purchaser must provide their own infrastructure to take delivery of the water, which will be required to meet specified standards. There is a total of 10,000 ML of headworks growth water available.

OPTIONS FOR PURCHASING GROWTH WATER

STAGE 1

Existing rural customers of the Wimmera Mallee stock and domestic system, including those with land currently rated as Division 4, will be given first opportunity to purchase **peak growth water**.

Under Stage 1 customers can purchase a peak growth water allowance or allocation.

Growth Water allowance – can be purchased by paying a discounted price of $1,000 / ML. The allowance is not transferable in the first instance. However, if held for five years the allowance is converted to an allocation, at which time it will be tradeable.

Growth Water allocation - can be purchased by paying an initial capital value of $2,500/ML with full ownership and trading rights when the Wimmera Mallee Pipeline is completed.

Purchase will be made through an Expression of Interest (EoI) process. Existing customers may purchase up to a maximum of an additional 2.5 kL/ha of growth water, but not less than 0.5ML per property. There will be an eight-week period for submissions of EoI. Each EoI requires a $100 deposit. The minimum volume that can be purchased is 0.5ML. Following the submission period, EoIs will be assessed for the ability of the system to deliver the water. Where volumes sought are greater than the amount of growth water available on that system (refer above) or the systems capacity to deliver, volumes will be proportionally reduced, but to not less than 0.5 ML per property.

STAGE 2

Existing and new customers will be able to purchase the balance of the peak growth water, off -peak growth water and/or headworks growth water through a tender process. The floor price for growth water will be $2,500 per ML and include full ownership and trading rights (when available). The opportunity to tender will be provided through an EoI.

There will be an eight-week period for submissions of EoI. Each EOI requires a $100 deposit. The minimum volume that can be purchased is 0.5ML.

The purchase of peak and/or off peak growth water will be dependent upon the system capacity to delivery, or the augmentation of the delivery system by the purchaser. Any supply or storage infrastructure provided by the purchaser must comply with GWMWater requirements, prior to supply of the water.

Applications for the intensive use of water on land (more than 5kL/ha) e.g. horticulture, will require the development of an intensive water use proposal and will be assessed on a case-by-case basis. Guidelines for the development of proposals are available on the GWMWater website or by contacting GWMWater on 1300 659 961.

WATER CHARGES

Capacity and volumetric charges will apply to all water delivered via a GWMWater pipeline system. Please refer to the Pipeline Tariff Products Fact Sheet for further details.

Further information can be obtained from the GWMWater website www.gwmwater.org.au or by contacting 1300 659 961.

FREQUENTLY ASKED QUESTIONS

How much growth water will I need?

In the majority of cases the allowance of 2.5 kL/hectare and 730kL for a household will be sufficient for a standard cropping and grazing enterprise. In some cases however intensive users or existing customers wanting to expand production will require more than the initial allowance. A ready reckoner is provided on the GWMWater website www.gwmwater.org.au to assist in determining water requirements.

Will the pipeline be able to deliver the volume I need?

Yes, in the majority of cases. The original design process attempted to identify existing and potential large intensive water users across the distribution network through consultation, council planning and previous land use approvals.

When will the sale of growth water occur?

The sale of growth water will be undertaken as water savings are realised and each supply system of the WMPP is completed. GWMWater will conduct an extensive media campaign highlighting the commencement date.

If my consumption is lower than expected can I trade my growth water allowance within five years?

No, you cannot trade your growth water allowance until you have held it for five years and it is then converted into an allocation. Any unused portion of a purchased growth water allowance can be returned to GWMWater at any time. There will be no refund for any handback of growth water allowance. Trading of growth water allocations will not be possible until completion of the Wimmera Mallee Pipeline.

Can I sell a growth water allocation back to GWMWater?

GWMWater is not currently participating as a buyer in the water market.

Is my deposit refundable if I don't get the allowance/allocation?

If you do not get your growth water allowance/allocation due to system constraints, your deposit will be refunded. In all other cases the deposit is non refundable. It will, however, be deducted off the purchase price of the water if you get your allowance/allocation.

Water Allowance/Allocation Calculation

Same format as ready reckoner

Development of the New Rural Pipeline Tariff

The Process Followed

GWMWater has undertaken extensive community consultation over the past two years in the development of a rural pipeline tariff. A Rural Tariff Working Group, with representation from domestic and stock customers, was formed with GWMWater Board Director representation. A total of nine meetings were held with recommendations made and advice provided to the Board on community needs and expectations. The Working Group members also reported back to their respective community consultative committees on progress to ensure each committees' input and feedback was captured. The ESC attended some of these consultative meetings and witnessed some of these Tariff Working Group reports first hand.

Key parts of the Working Group brief included:

- Following the design principles of the Wimmera Mallee Pipeline Project Business Case;
- Satisfying pricing principles of the WIRO;
- Capturing and honouring previous commitments to the community on Pipeline Project deliverables;
- Addressing previous inequities and inconsistencies in the existing tariff arrangements;
- Developing a tariff that can be used in the Northern Mallee in preparation for water trading; and
- Providing a clear and well-defined basis for waters right for rural water users.

8.5 PROPERTY RIGHTS & WATER TRADING

It is proposed to allocate the rural sector allocation as a formal property right held by the individual landholder. A measure of this will be tied to the land to ensure that water supplies are guaranteed and available if the property is sold. Otherwise, the allocation will be tradeable within the bounds of the capacity of the system to deliver the water. This approach will provide individual landholders with a clearly defined property right with a market value as an outcome from the pipelining project.

This approach has been discussed by a meeting of Wimmera Mallee Water's customer groups and its detailed implementation will be subject to broad consultation.

Landholders will get a property right over their water

Key Customer Requests

The key customer request in this new tariff design was a movement away from the fixed area charge applied in both Wimmera and Northern Mallee and greater cost reflectivity in the fixed charge with the ability to manage it if possible. It was the strongest feedback we received from the community on any new tariff design.

Difference in Optimal Rural Distribution Systems to Urban Reticulation Systems

Urban water supply systems are designed to provide a rate of supply to customers that directly match the instantaneous demand at any point in time, with the possible exception of fire services. In certain industrial situations, a non-residential user may supplement the fire service capability drawn from the reticulated supply with a secondary on-site source of water, to ensure a reliable supply can be consistently maintained in the event of a fire outbreak at the premises.

The capacity provided to an urban system user is primarily controlled, and hence 'regulated', through the size of the service pipe connected to reticulation pipeline, and the capacity is usually specified in terms of the diameter of the service pipe. Where the water corporation then seeks to apply a form of capacity charge to an urban user, it is prescribed in a manner that directly relates to the size of the service pipe.

Piped rural water supply systems, and in particular the Wimmera Mallee Pipeline (WMP) and Northern Mallee Pipeline (NMP) systems, have been designed on a different set of principles, with the objective of achieving the lowest economic design cost.

Unlike piped urban systems, piped rural systems do not provide a direct match between the rate of supply and instantaneous demand. The piped rural system delivers the peak daily volume to the rural user typically over a 24 hour period. Balancing storage (generally in the form of tanks) is employed on each service connection to balance the 'peak daily average' rate of supply with the 'peak daily instantaneous' rate of demand during the periods of high level consumption within the day. In simple terms, on a very hot summer day, the storage tanks will be drawn down at a rate that matches demand, and be progressively 'topped up' overnight when demand eases.

On the WMP and NMP systems, rural customers are required to install sufficient storage on each service connection to enable supply to be maintained over peak periods, and GWMWater recommends that tanks be installed which provide a volume equivalent to at least three days peak consumption. This is also a contingency measure in the event that there is an extended interruption to supply on the rural pipeline network.

Other than in some exceptional cases, each service connection to a rural pipeline system is based on a standard service size that, in the case of the WMP and NMP systems, is 20 mm diameter.

Therefore, unlike piped urban systems, capacity in rural supply systems is not regulated by the size of the service of the service pipe. For rural systems, capacity is more reflective of a volumetric measure that is delivered through the pipeline system over a specified time to the points of consumption, rather than a maximum rate of extraction from the pipeline system at the point of connection to the system.

Long Run Marginal Cost of Pipeline System

One of the first considerations was the Long Run Marginal Cost (LRMC) of the WMP. As it is a new delivery system, and until all the growth water is committed through a sales process, there is significant capacity within the design. With no expected augmentation for a significant amount of time, the LRMC will be closer to the Short Run Marginal Cost (SRMC).

Until the completion of the WMP, and with some stages remaining in the final design stage, an estimate of the SRMC was difficult. The key cost is electricity and pumping, with much of the previous channel operating costs such as labour, channel clearing, etc. being equivalently replaced by electricity and pumping costs in the new piped system. So the old, gravity-operated channel delivery system with a small SRMC and significant fixed costs is moving to a supply system with significant variable costs of a comparable magnitude.

Modelling of pending electricity costs suggests GWMWater will become one of the largest electricity consuming water corporations in the State. It is expected the SRMC of the WMP will reflect this and ultimately the variable rate of the rural pipeline tariff. If you consider the variable rate of the NMP (currently at 66 cents per kilolitre), it was decided to match this rate as an estimate of the LRMC until greater cost differentials are identified when the pipeline system is commissioned during the next regulatory period.

Impact on Growth Water Sales on Affordability

One key funding principle of the pipeline was the sale of growth water to provide supplementary capital funding and hence underpin the economic viability of the project. A total of 20,000ML of growth water will be made available for sale with half of that water, 10,000ML to be purchased and delivered through the pipeline system. Of this 10,000ML, only 5,000ML can be delivered generally under normal supply arrangements, with the other 5,000ML only deliverable in the winter off-peak season.

The affordability of the whole project is dependant on the sale of this growth water. The X factor varies from 4.7% with no forecast growth water sales in the next regulatory period to 1% if only half the water is sold. The tariff design is critical in supporting the sales process and ultimately reducing the price burden on customers.

A standard tariff similar to urban non-residential customers was considered but it did not provide the necessary means for recognising water entitlement or facilitate trade. Also, it did not satisfy the customers' request of greater cost reflectivity in the fixed side of the tariff.

Peak and Off-Peak Charges

A value proposition for off-peak water needed to be developed that differentiated it from the peak water supplied under normal arrangements, and also promoted the sale of growth water whilst still remaining cost reflective. Analysis was done of a selection of our highest consumption intensive users and the savings if their consumptions were met through off-peak supply. Engineering consultants, Tonkin Consulting, conducted the analysis looking at Supply Systems 3 and 4 with subsequent analysis on pumping costs conducted internally by GWMWater. The key findings were:

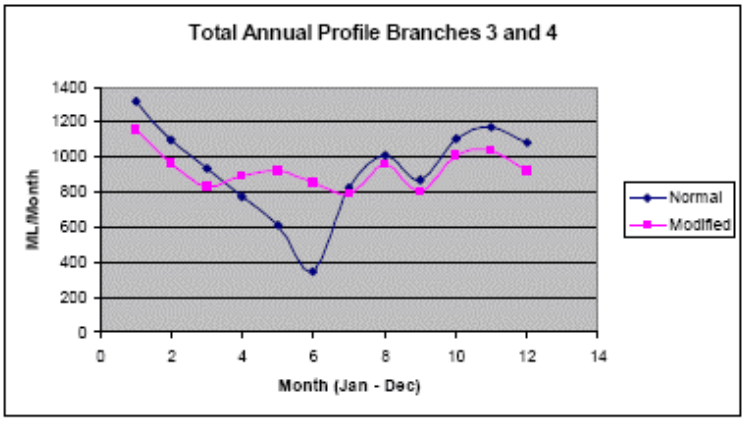


Figure 1: Annual Profile at Taylor's Lake (East) Pump Station (PS 7041)

- Additional capital expenditure savings in pipeline through pipeline downsizing of $7.2 million
- Approximately $0.2 million increase in pumping costs due to greater pumping in the peak seasonal electricity tariff.

The result was a $390 per ML saving in capacity share cost and a non-material change to the SRMC and volumetric rate.

For customers to draw down off-peak they need additional off-peak storage infrastructure. This is an additional cost burden for these customers in the form of privately financed on-farm works and this results in a transfer of capital savings from GWMWater to our off-peak customers. This is consistent with efficient design principles of a large rural reticulation system of point of supply storages being the most efficient and cost effective. For off-peak customers these storages will generally be larger and more expensive.

A key principle of this off-peak capital transfer from GWMWater to our off-peak customers is that it is realised within the design stage of the pipeline. It is a fixed cost transfer in the design stage that can be passed on as a fixed cost saving to customers committed to consumption in those non-seasonal peaks. It is hoped these peak cost savings make the sale of off-peak growth water attractive which is a fundamental part of the WMPP business case.

The variable rate would still always follow the principles of LRMC and reflect capacity and future augmentation or additional pumping costs within the system. This is expected in the future to result in the variable rate also differentiating peak from off-peak as the existing LRMC moves away from the shorter run costs that it

currently reflects. This should make off-peak water even more attractive for larger water consumers and assist in the sale of off-peak water.

New Pipeline Tariff and the WIRO

Within the Water Plan, businesses need to clearly articulate how proposed tariff structures meet regulatory requirements including the WIRO and Government White Paper.

These principles have been summarized into assessment criteria as shown below:

1. Cost Reflective Test	
1.1 Provides Cost Reflective Signals	Reflects the underlying cost of providing the service
1.2 Promotes Dynamic Efficiency	Provides non residentials appropriate incentives to invest, innovate and improve quality, range and cost of service
1.3 Promotes Productive Efficiency	Provides the appropriate incentives for firms to produce at least cost
1.4 Promotes Allocative Efficiency	Firms employ resources to produce goods and services that provide the maximum benefit to society
1.5 Cost/Benefit Test	The benefits of implementing the tariff outweight the cost of implementation
2. Customer Interest Test	
2.1 Reduced/Transparent/No Cross Subsidies	Cross subsidies are fully transparent and minimised where possible
2.2 Considers Vulnerable Customers	Considers the interests of vulnerable customers
2.3 Provides No Unfair Burdens	Should not unfairly burden specific water users
2.4 Provides Customer Choice	Provides choice to change customer behaviour
3. Sustainability Test	
3.1 Financial Sustainability	Supports long term financial sustainability
3.2 Promotes Efficient Water Use	Customers are encouraged to better use water resources
3.3 Captures Environmental Costs	Reflects the resource scarcity and costs of environmental impacts associated with water services provision
4. Simplicity Test	
4.1 Administrative Efficiency	Should not be excessively costly or cumbersome to administer
4.2 Ease of Communication/Understanding	Should be easy to communicate to customers and understand

Cost Reflective Test

Cost reflectivity has been a key part of the new rural tariff design with the opportunity to become even more cost reflective as the pipeline system is completed and greater understanding of operating and final capital costs are understood.

Fixed Tariff Component

- The Capacity Charge is a key part of the cost reflective tariff, where users utilizing a greater share in the system make a greater contribution towards the system. This was seen as a much fairer way by our customer groups of allocating the significant fixed costs across the system than an area charge or a standard tapping/service charge. Similar to the approach of charging a meter size multiplier in an urban system, the concept sends a signal to optimize your expected peak capacity drawdown. Charging a meter size multiplier was not possible in the WMP as the efficient engineering design requires that customers receive a relatively standard rate of supply via a 20mm service to optimize capital costs and energy costs. Large volumes would then be drawn down over a longer period and stored to achieve the

desired volumes. A better capacity signal would have been linking charges to peak day consumptions but smart metering for the water industry is not sufficiently advanced for this type of approach. The use of seasonal off-peak capacity was a way to send this additional peak and off-peak signal and also assisted in the sale of the off-peak growth water.

Volumetric Tariff

- The volumetric rate of NMP is the best estimate of the LRMC of the new WMP system until it is commissioned and greater cost understanding is achieved.
- The excess volumetric rate has been based on the cost of short-term access to unused capacity and the unallocated growth water volume within the pipeline system.

Customer Interest Test

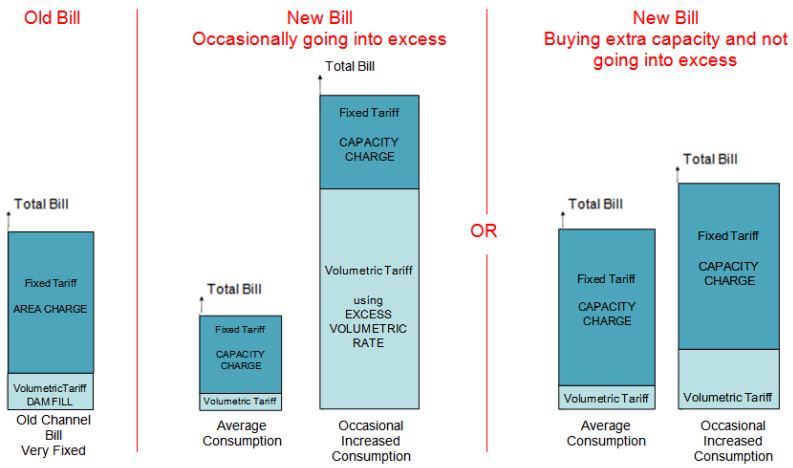
The new tariff supports the existing design of the pipeline, which is an optimised design to minimise the overall capital cost impact on customers.

The new tariff supports and promotes the sale of growth water and water trading. This sale of water has a significant impact on existing customers price path and ultimately affordability.

It also provides customers with significant choice, as it is a movement away from a fixed area charge to a user pays approach with additional opportunities to optimise their water bills through the purchase (acquisition) or sale (disposal) of growth water.

For example, a customer with large catchment dam capability and expecting only occasional WMP usage could use the WMP as insurance in years that his catchment dams have low yields.
If, for example, they were only drawing on the pipeline once every six years then this farmer would be better off occasionally incurring excess water charges without purchasing additional capacity in the system. The situation depends on the expected frequency they may be going into the excess regime.

The greater the frequency of consumption in the excess volumetric rate, the more likely that optimisation of the water bill will require additional capacity through the purchase of growth water.



For large intensive customers the tariff will be more cost reflective than the past and ensures there is minimal cross-subsidy in place. All intensive water users and old Supply by Agreement customers are being transitioned to the new tariff over a three year period to ensure any adverse impact is minimised. Combined with the opportunity of an off-peak product for these customers it is considered efficient, staged and equitable.

As a part of the Pipeline Project, Recreation Water is to receive a cross-subsidy as this was a key part of the original community consultation undertaken for the WMP.

Simplicity Test

Any new tariff for a customer base that has never been accustomed to user pays will require greater explanation. Added to this, most customers find estimating their water consumption complex.

The water corporation previously conducted information sessions on the tariff that were poorly attended. Greater interest in the tariff is now occurring as customers are approaching connection to the first and second stages of the WMP system.

GWMWater is now receiving questions on the tariff and these questions are helping in the communication strategy of the tariff, and we continue to develop the terminology used with customers to make certain aspects of the explanation of the tariff simpler and more obvious.

Sustainability Test

The rural pipeline tariff supports the sale of growth water, which is a key funding component of the original WMP Business Case. Without the sale of growth water, and the capital funding that it generates, the expected impact on the water corporation's financial viability indicators is significant.

The tariff promotes efficient use of water as it promotes water trading and thereby uses the market to:

- value the resource appropriately
- use water more efficiently; and
- direct water to its most productive use.

O7295

Water Pricing Reform in Western Victoria

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INTRODUCTION

In 1992, the McDonald Inquiry gave rise to a new rural water pricing regime for Wimmera Mallee Water.

The new pricing regime arising from McDonnell gave way to a form of 'two part tariff'. The volumetric component of the tariff was based on a dam fill charge whilst the fixed charge being represented by a hectare charge. The hectare charge represented approximately 85% of the total revenue generated.

In the ensuing period the structure of rural tariffs remained intact with the exception of customers that were converted to the Northern Mallee Pipeline. The volumetric component of the tariff for these customers was based on meter water supply delivered but the hectare charge was retained.

On 1 July 2004 Grampians Wimmera Mallee Water (GWMWater) was formed from an amalgamation of the former Grampians Region Water Authority (GRWA) and Wimmera Mallee Water Authority (WMW).

The amalgamation was the consequence of a policy initiative identified in the Victorian Government White Paper 'Securing Our Water Future Together – Our Water, Our Future.' The proposed Wimmera Mallee Pipeline Project (WMPP) impacts on much of this infrastructure and the White Paper acknowledged the importance of having a single Authority to implement this large regional water supply project.

The amalgamation also coincided with the introduction of significant water reform including the introduction of independent economic regulation of the Victorian Water Industry by the Essential Services Commission. The White Paper also articulated a number of other key policy and water reform issues that had implications for pricing. These include:

- Reaffirming the principles of full cost recovery.
- Reaffirming the bulk water allocation process.
- The introduction of permanent water savings.
- Improved water quality outcomes.
- Improved environmental sustainability.
- The removal of the 4% rate of return in pricing.
- The establishment of water savings targets.
- Improving the efficiency of rural distribution systems.
- The unbundling of water into water right.
- The introduction of water trading.
- The introduction of tariffs that promote the efficient use of water.
- The establishment of a zero regulatory asset base for rural water services.

At the same time as the merger and the release of the White Paper, the continuing drought started exposing some of the anomalies of the hectare charge as water resources in the

region started to dwindle. Reduced water allocations meant that fixed charges started making up a proportionately greater component of the total water bill. Domestic and Stock Pipeline customers that had a more reliable water supply were basically paying the same water bill as Domestic and Stock Channel customers that were being substantially restricted.

PRICING REVIEW

In light of these issues, pricing was identified as one of the most important issues to resolve in the newly formed GWMWater.

A study was commissioned using the services of Marsden Jacob and Associates (MJA) to consider the issues faced by GWMWater in establishing a basis for pricing and tariff design moving forward.

The Marsden Jacob Pricing Review highlighted a number of issues relating to water pricing and tariff design. The most significant of these issues being the inequity of the hectare charge. MJA also considered that the hectare charge was inconsistent with the efficient pricing principles of the Water Industry Regulatory Order (WIRO). More specifically it said the following about rural pricing and tariff design.

Rural Pricing

‘In effect, the pricing arrangements for rural (and delivered bulk water) services discriminate in favour of Irrigation customers (by limiting exposure to total aggregated costs for headworks and channel assets) and Rural SBA customers (who almost universally pay a far lower portion of costs through (relatively smaller) Area Charges).

Current pricing for rural (and bulk water) services also includes significant discounts for some (but not all) large SBA customers and some community supplies (for example to recreational lakes).

MJA is not aware of any formal policies that define how these discounts were established. Nor is it clear that the discounts reflect lower costs of providing these services.

As noted above, the ESC has explicitly determined that pricing for large customers must be generally consistent with Pricing Principles that apply to tariff pricing. However, the ESC has also specified pricing principles that are to apply where the nature of the service provided to a particular customer (including, in the case of trade waste customers, the volume or load of waste treated) is unique.

It is clear that the ESC’s pricing principles allow for price discrimination to occur by specifying that the total revenue received from each customer must be between the avoided and stand alone cost.

However, MJA also notes that where price discounts (or other forms of price discrimination) apply, the ESC requires that adversely affected customers be effectively consulted (i.e. provided with information that enables them to readily understand the prices charged) and their explicit endorsement for application of the price discount obtained.

Accordingly, MJA has recommended that GWMWater specifically develop a pricing policy and cost allocation and pricing methodologies that can be consistently applied to all customers.'[1]

Tariff Design

'GWMWater employs a range of significantly different tariff designs for services that have similar attributes, particularly in the case of water services. While each of these designs has a rational basis linked to particular assets or methods of operation, the new regulatory arrangements allow GWMWater to review the existing designs.

Advent of the WMP will allow water deliveries to be measured for virtually all Rural customers, and there will be greater consistency in service attributes between D&S, Rural SBA and Urban customers. This may allow GWMWater to move towards similar tariff designs for all customers by including a significant "user pays" component through application of volumetric charges in a manner that does not constitute an unacceptable financial viability risk, particularly if an "entitlement trading" scheme is implemented for all rural customers.

In particular, MJA has recommended that GWMWater consider introduction of a single tariff design and pricing regime that could be applied to all pipeline-supplied rural customers. The design of this tariff could be structured so that it could be compared to Urban water service tariffs, with price levels reflecting recovery of costs associated with shared and dedicated assets required to service each customer segment.'[2]

RURAL TARIFF WORKING GROUP

In order to consider and implement the observations and recommendations of the MJA Pricing Review in relation to rural pricing and tariff design, a Rural Tariff Working Group (RTWG) was formed. The RTWG has been chaired by Board Member, Chris Hewitt and has had representation from the three Domestic and Stock Customer Consultative Committees, Irrigation Customer Committee and rural based industrial customers.

The RTWG in its deliberations considered a number of different tariff options. One of the biggest challenges however was to consider the tariff in the context of the design of the WMPP. The overarching consideration that the tariff meets the following criteria:

- Fair and equitable cost sharing;
- Assisting customers in deriving the highest value from water delivered;
- Encouraging efficient water use;
- Maintaining a reliable level of water revenue to cover fixed costs;
- Revenue neutrality (in establishing tariff principles);
- Simplicity; and
- Providing the potential for future water trading.

This tariff has been developed based on community and working group feedback and follows the design principles for rural uses in the Wimmera Mallee Pipeline as represented in the business case:

- 2,014ML per annum for rural household domestic demand;

[1] p. ES xiii 'Water and Wastewater Pricing Review – Final report' GWMWater Pricing Review, Marsden Jacob Associates August 2005.
[2] Ibid p ES ix

- 5,123ML per annum for livestock demand;
- 1,707ML per annum for existing intensive industry; and,
- 5,000ML per annum for future growth.

These figures represent estimates of rural consumption in the WMPP based on assumptions about stocking rates and homestead consumption.

Proposed Rural Tariff

Through the consultative processes of the RTWG a three part tariff was considered with this charge representing an Access (Capacity) Fee, Service (Meter / Tapping Fee) and a Volumetric Fee.

Table 1 - Rural Tariff Structural Changes

	Channel Tariff	Pipeline Tariff
Access Fee	Area Charge →	Meter (Service) Charge
	→	Capacity Charge
Volumetric Fee	Damfill Charge →	Rising Block Tariff Excess Water Charge

An integral part of the proposed tariff was the possibility of ultimately transitioning to a full entitlement consistent with the unbundling policy framework established by the White Paper. Under this framework it is envisaged that individual customers would be vested with an individual allocation of water that would also reflect a share in the capacity of the pipeline. As water demands were not understood it was proposed that the structure of the volumetric charge be used as the basis to effectively establish the volumes to be allocated.

Access Fee

The access fee was unbundled to two components of capacity and a meter charge.

The meter charge was established as the basis for rationalising tappings on the pipeline. The Northern Mallee Pipeline was established without such a charge and as a consequence multiple tapping points encouraged. A meter charge was subsequently introduced on the Northern Mallee Pipeline and this was unpopular as a result.

The meter charge was then differentiated between the primary and secondary tapping. The primary tapping was associated with the homestead (domestic tapping) whilst the secondary and subsequent tapping were as associated with the agricultural (stock tapping).

The capacity charge was based on the design principles inherent in the pipeline design. The capacity charge reflects how much capacity in the pipeline system the customer must contribute based on their allocated water allowance. Unlike the business case, which has different capacity allowances for different parts of the system, for initial fairness and simplicity the capacity allowance has been averaged across the complete customer base at 2.5kL per hectare.

This notional pipeline allocation of 2.5kL/hectare is a significant reduction from the 6kL/hectare under a channel system (1.5ML per 250 hectares). Unlike the channel system, it provides security and reliability of the water resource provided. The previous 6kL/hectare also included significant on farm losses that will be recovered under a piped

system. These reduced water losses are being returned to the environment as a part of the Government financing contribution.

Volumetric Fee

The volumetric fee was structured as a mechanism to provide some capability to mange demand in the system in the absence of a formal allocation of water.

As the underlying consumption was not well understood at an individual property level, the stepping of the charge was seen as a way of rationing demand. The initial step was seen as being a relatively modest increase to start sending an appropriate signal to restrain consumption of water. The excess step reflected the encroachment into growth water that was available in the system and seen as a way of recovering its value in the absence of a formal sale of this water.

The steps in the volumetric rates would be based on the customer's water allocation. Any consumption within the customer's water allocation is counted as the first step and charged at 66 cents per kL which is equivalent of the Northern Mallee Pipeline volumetric rate. Any consumption outside this allocated allowance is considered in the next volumetric step or the excess rate.

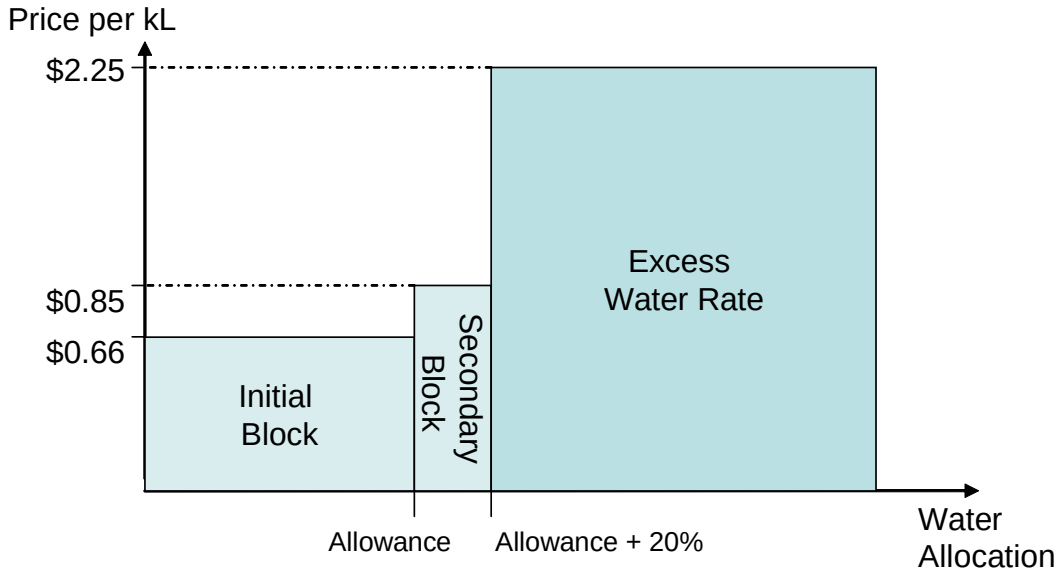

Figure 1 - Proposed Steps in Volumetric Charge

Under the proposed structure it is envisaged that as customers obtain a better understanding of their consumption patterns there would be a 'narrowing' of the secondary block and a steepening of the excess water rate.

This framework is aimed at providing confidence in the underlying water needs assuming that the transition to a formal water allocation was achieved in accordance with the desire to unbundle the water and associated capacity right.

Rural Intensive Water Customers

In addition to Stock and Domestic customers, there are a number of animal intensive industries that are large users of water. The MJA Report concluded that under channel supply arrangements, these customers were the most likely to receive a discount and it was unclear whether this reflected the cost of supply.

The nature of the operations of these industries is such that it may well suit these industries to continue to receive water into open water bodies. This would enable water to be taken in ‘off peak’ seasonal periods and therefore optimising the design of the pipeline season.

These customers would be offered an ‘off peak rate’ for water taken in the ‘off peak season’. This would offset the potential price increases for supplied under the proposed tariff structure.

Recreational Lakes and Recreational Water Users

A key outcome of the consultative processes of the MJA Pricing Review was overwhelming support for discounted or subsidised recreational water. There are however two categories of recreational water, water supplied to recreational lakes and water supplied to community and sporting groups for recreational purposes.

The existing channel network also provided a capability to supply recreational water lakes. The WMPP was designed with 3,000 ML of ‘off peak’ capacity to supply ‘top up’ water for these recreational lakes. It has generally been agreed that there should be some form of ‘co-payment’ for water supplied to these lakes. The ultimate pricing for this water is still under consideration subject to a better understanding of the costs of suppling this water.

Water supply to sporting reserves such as football grounds and bowling greens etc. is also a significant issue for the region. Once again a form of discounting is supported but the quantum of this is still to be considered. Participation in sport underpins much of the social fabric of the region and the pricing policies are being designed to reflect this.

In the case of both recreational water lakes and water supplied to recreational sporting groups, this water would carry a lower security in terms of both water access and access to the pipeline.

SUMMARY

The WMPP is effectively reengineering the whole rural water supply system and will secure the water supply of the region. This is coinciding with a period of significant policy reform in the water industry.

GWMWater is using this as an opportunity to ensure that these changes are supported with pricing policies that will enhance the economic potential and social amenity of the region. The proposed structural changes to pricing and tariff design have been developed in consultation with customers to ensure that they reflect objectives of the WMPP, the values of the region as well as the efficient pricing regime of the regulatory framework.

The proposed pricing principles and tariff design will be incorporated into the GWMWater Water Plan that is to be lodged with the ESC on 1 September 2007. These will be further considered in the context of the efficient price outcomes to be determined by the ESC.

BIBLIOGRAPHY

‘Water and Wastewater Pricing Review – Final report’ GWMWater Pricing Review, Marsden Jacob Associates August 2005.

‘Securing Our Water Future Together – Our Water Our Future’ – Victorian Government White Paper, Victorian Government Department of Sustainability and Environment

GWMWater DRAFT

2008/09 MISCELLANEOUS & OTHER CHARGES

DETAILS	AMOUNT $	CHARGE UNITS	COMMENTS
Fire Service (per service)	$313.20		Availability charge for connection to service
Standpipe Charge (per service)	$313.20		Availability charge for connection to service
Standpipe Volumetric Charge (per kl)	$1.50		Cost of water by volume
Charge Unit:	$8.90	1	Charge Unit value by resolution of the Board
Connection Charges			
Water – Tapping/Connection Charge (tapping size 20mm)#	$258.10	29	Processing application and/or completing the work of exposing the water main for the tapping or plugging of a connection
Wastewater Connection Charges			
Residential	$89.00	10	Processing application and/or completing the work of cutting into the sewer for the purpose of a house connection
Commercial & Small Industrial	$133.50	15	Processing application and/or completing the work of cutting into the sewer for the purpose of a commercial connection
Large Industrial	$267.00	30	Processing application and/or completing the work of cutting into the sewer for the purpose of an industrial connection

Special Meter Reading			
Urban	$26.70	3	The fee payable for any requested meter reading in addition to the Corporation's normal meter reading program
Pipeline/Rural/Outside Urban District	$53.40	6	The fee payable for any requested meter reading in addition to the Corporation's normal meter reading program
Disconnection/Reconnection of Water Supply	$62.30	7	The fee payable any alteration, modification or substitution to the water supply connection
# Higher Charge for Larger Tappings			
Minor Trade Waste			
Service Charge – Category 1	$87.00		Availability charge for connection to service
Service Charge – Category 2	$87.00		Availability charge for connection to service
Information Statements (S158)			
Application Fee	$44.50	5	Fee for processing formal statement indicating status of any matter Corporation deems relevant to properties – within 5 days turnaround
Application Fee - Priority	$89.00	10	Fee for processing formal statement indicating status of any matter Corporation deems relevant to properties – within 24 hours turnaround
Bore Construction Licence and Bore Alteration Licence Fees			
Application for a licence to construct or alter a bore (s67)	$356.00	40	Fee for processing licence