Our Ref: DOC/13/12308

2 May 2013

Marcus Crudden
Acting Director, Water
Essential Services Commission
Level 37, 2 Lonsdale Street
Melbourne 3000

Dear Marcus,

RE: 2013-18 Water Price Review Draft Decision

East Gippsland Water appreciates the opportunity to provide this response to the Draft Decision (Volume II, March 2013) and supporting documents to assist the Essential Services Commission in arriving at the final price decision.

It is pleasing to note that the Commission proposes to endorse the majority of the proposals in East Gippsland Water's Water Plan for the period. The Corporation notes that the Commission is seeking further information and clarification of several issues before making its final decision. This response addresses the issues raised in addition to seeking reconsideration of a small number of aspects of the Draft Decision. Issues have been number referenced back to the Draft Decision Volume II.

3. Service Standards

It is noted that the Commission proposes to endorse the service standards proposed by the Corporation.

4. Guaranteed service levels scheme

It is noted that the Commission proposes to endorse the guaranteed service levels proposed by the Corporation.

5. Revenue Requirement

The revenue requirement will be subject to adjustments included in this response. The proposed revenue requirement is included in the template.

133 Macleod Street, PO Box 52, Bairnsdale Victoria 3875
T 03 5150 4444 **F** (03) 5150 4477
E egw@egwater.vic.gov.au **W** www.egwater.vic.gov.au

6. Rolled Forward RAB

Adjustments in this response have resulted in a closing RAB shown in the following table:

	2013/14	2014/15	2015/16	2016/17	2017/18
Closing RAB $M	125.46	131.81	133.21	132.65	133.56

7. Weighted average cost of capital

Changes in assumptions of the factors that determine the post-tax WACC from 5.8 to 4.7 has reduced prices and increased cost of finance risk for the Corporation.

8. Operating Expenditure

The Corporation feels that the recommendation to reduce the Special Operations and Maintenance allowance by $248k in aggregate for 2016/17 and 2017/18 is not justified and is seeking the reinstatement of this allocation to reflect business as usual expenditure over the full five years of the water plan.

Deloitte endorsed the position presented by East Gippsland Water in its submission to the Commission dated 25 January 2013 in relation to Special Operations and Maintenance; that is that the business as usual expenditure should be on average $701k per annum. Only the first three years included this allocation with a reduced budgetary allocation for the final two years of the water plan totalling $248K.

The recommended reduction represents a direct cut to business as usual expenditure and will hamper the Corporation in maintaining levels of service and the efficient operation of the business. The proposed reduction to $701k average per annum from the originally submitted $750K for 2013/14, 2014/15 and 2015/16 already results in the deferral of planned projects in those years and the subsequent reductions will contribute unsustainable compounding deferrals in future years.

The business as usual productivity test passes the hurdle with the $248k included in the template and East Gippsland Water seeks its inclusion in the final price decision.

The proposal to allow only zero real increase in salaries, materials and service prices is noted.

9. Capital Expenditure

East Gippsland Water notes and accepts the proposed amendment to our submission where the De-Sludging project capital budget is reduced from $2.95M to $2.83M. We also note the proposed deferral of the Wy Yung Storage project to Water Plan 4, but note that Deloitte agreed that it is prudent to undertake the planning aspects of the project in Water Plan 3. Inclusion of funds for the planning and design phase appears to have been overlooked in Table 5-11 of the Deloitte report and East Gippsland Water seeks the reinstatement of $0.21M in year 5.

East Gippsland Water has proposed the inclusion of the recently identified project to replace a section of the main supply pipeline under the Mitchell River at the Lind Bridge in Bairnsdale. This urgent project, which has commenced with contracts awarded, was accepted in the Deloitte final report (section 5.13), but appears to have been an oversight in the draft decision. We request that the $3.2M project be included.

The total WP3 capital budget allocation should therefore be increased from the $44.84M recommended in the draft decision, to $48.25M. This is an increase of $0.21M (Wy Yung Storage planning) + $3.2M (Lind Bridge project).

10. Demand Forecast

Water residential customer connections

East Gippsland Water accepts the forecast for growth in residential and non-residential customer water connections.

Sewerage customer connections

East Gippsland Water accepts the forecast for growth in residential customer connections.

East Gippsland Water does not accept the forecast growth in non-residential connections. It appears that the household growth in ViF 2012 used to determine residential growth has been inadvertently used to forecast non-residential growth. The non-residential Sewerage Service Fee forecast has been adjusted to reflect the growth rate proposed by Frontier Economics of 1.1% per annum.

Details	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Original Submission	0	4,658	4,818	4,885	4,953	5,023
Sewerage Service Fee Non Residential (EQT) Frontier revised using residential household growth 1.7%	4,833	4,915	4,999	5,084	5,170	5,263
EGW Revised Forecast using 1.1% non-domestic growth		4,886	4,940	4,994	5,049	5,105
Adjustment		-29	-59	-89	-121	-158
Total number (Res & Non Res) sewerage connections draft decision Vol II		21,667	22,036	22,410	22,791	23,201
Revised total number of sewerage connections		21,638	21,977	22,321	22,670	23,043

Water Consumption Demand Forecast

The proposal to endorse the non-residential demand forecast is noted.

The Corporation considers the proposed adjusted residential demand forecast of 150kL per annum to be excessive and has undertaken further investigative work taking into account the most recent demand data for 2012/13. The summary report in Attachment 1 details the investigations and conclusion that the average residential demand is 145kL per annum having regard to recent historic demand patterns and the long term climatic sequence. Further, this conclusion is still considered to be conservatively high as the

multi-variate regression modelling undertaken does not effectively take into account the range of permanent water conservation measures that continue to be implemented by customers of East Gippsland Water.

Forecasting for average conditions during Water Plan 3, a residential demand of 145 kL per connection and taking into account the endorsed non-residential demand forecast, the following table summarises the expected total demand.

Details	2013/14	2014/15	2015/16	2016/17	2017/18
Residential Connections	19,489	19,820	20,157	20,499	20,848
Residential Demand (ML)	2,826	2,875	2,923	2,973	3,026
Non-Residential Demand (ML)*	1,626	1,644	1,662	1,680	1,699
Total Annual Demand (ML)	4,452	4,519	4,585	4,653	4,725

Trade waste charges

Trade waste charges are separated into either minor or major trade waste customers depending on the requirement to collect and treat their wastewater.

Minor Trade Waste customers are generally smaller customers with requirements for a grease trap. They are charged a trade waste facility charge. This is a management fee to cover site inspections, compliance audit monitoring, administration and reviewing trade waste agreements.

The 2011/12 base year number of trade waste connections used by Frontier is incorrect and this has been adjusted to the actual number of trade waste customers (377). The 2012/13 year to date connections shows a zero growth rate for minor trade waste connections. However East Gippsland Water has applied the growth rate for minor trade waste connections aligned with non-residential growth of 1.1% per annum. Details of the revised minor trade waste connection numbers are shown in the table below:

Details	2011/12	2013/14	2014/15	2015/16	2016/17	2017/18
Original Submission	377	382	382	382	382	382
Frontier Economics	404	408	412	416	420	425
Non Domestic Customers at 1.1% growth*		385	390	394	398	403
EGW Revised Forecast*	377	385	390	394	398	403

11. Form of Price Control

It is noted that the Commission proposes to endorse the use of price caps for the first year and tariff basket as the form of price control for the 5 year water plan.

12. Retail Water Tariff Structure

It is noted that the Commission proposes to endorse the retail water tariff structure; although East Gippsland Water is seeking the adjustment of tariffs as documented in this response.

13. Retail Sewerage Tariff Structure

It is noted that the Commission proposes to endorse the retail wastewater tariff structure; although East Gippsland Water is seeking the adjustment of tariffs as documented in this response.

14. Trade waste charges Major Trade Waste Customers

Non-residential customers that impose large wastewater loads in both volumetric and quality terms are considered major trade waste customers. East Gippsland Water services five customers in this category. The major trade waste charge is in addition to the volumetric EQT charge and is determined having regard to quality considerations, based upon the risk rating to cover, transport, treatment and recycling of trade waste as well as management of its environmental impact.

Quality considerations are based on the organic content (measured as chemical oxygen demand) and the concentration of suspended solids.

The quality loads attributable to major trade waste have been estimated for the water plan period.

Year	COD (kg)	Solid (kg)
2013/14	99,356	22,922
2014/15	102,315	23,865
2015/16	105,645	24,916
2016/17	109,385	26,088
2017/18	113,578	27,396

Major Trade waste charges

Quality

Chemical Oxygen Demand (COD) >230mg/L = $.959 per kilogram

Suspended Solids (SS) >58 mg/L = $.121 per kilogram

Monitoring

$1206.40 per test.

15. Recycled Water

East Gippsland Water encourages sales of reuse water. Third party irrigators in Paynesville, Lakes Entrance and Orbost have entered into agreements to reuse water but demand is variable. Demand is dependent of a range of factors including weather and

general primary production market conditions. The last 3 years average and a conservatively high growth rate of 2% has been used to determine reuse water demand (sales) for Water Plan 3. Forecast sales are shown in the table below:

District	Historic Sales ML				Forecast Sales ML				
	09/10	10/11	11/12	Average	13/14	14/15	15/16	16/17	17/18
Paynesville	217	235	106	186	190	194	197	201	205
Lakes Entrance	151	69	101	107	109	112	114	116	118
Orbost	32	29	5	22	48	49	50	51	52
Total Sold ML	**400**	**333**	**212**	**315**	**347**	**354**	**361**	**368**	**375**

Charges for reuse water sales will be subject to market demand. Water Plan 2 charges ranged from $35 to $40, median $35 with an average of $36 per ML. Similarly charges for WP3 will range from $35 to $65 and will be variable subject to market demand. Charges applied are less than the cost to manage sustainable water reuse. An average charge of $36 per ML has been used to determine revenue for WP3.

16. New Customer Contributions (NCCs)

East Gippsland Water has addressed the points raised by the Commission in relation to NCCs as outlined below:

(a) East Gippsland Water has considered and assessed options for improving the cost reflectivity of our proposal and more location specific standard NCC charges. In doing this the Corporation modelled standard NCC charges for the following representative locations:

- Water Supply Services - Mitchell System, Orbost and Mallacoota
- Sewerage Services – Bairnsdale, Orbost, Bemm River and Mallacoota

With the modelling adjustments applied and removal of the tax component, as directed by the Commission, there is no material difference in the calculated standard NCC charge. The calculated charges are $0 for both water and sewerage irrespective of a postage stamp or geographic locations approach.

(b) East Gippsland Water confirms that the NCC charges have been calculated in accordance with the core pricing principles, as set out by the Commission. This is documented in the Corporation's proposed Standard Operating Procedure (SOP167) for New Customer Contributions.

(c) East Gippsland Water has prepared maps showing township boundaries and areas of known development for which planned growth assets have been identified and within which a standard NCC will generally apply. Example maps for Bairnsdale, Paynesville and Lakes Entrance are attached. The maps are indicative only and an assessment of eligibility against the relevant criteria will still apply.

(d) East Gippsland Water's Standard Operating Procedure (SOP167) for New Customer Contributions details the eligibility criteria to which a negotiated NCC will apply, in accordance with the pricing principles. An extract from SOP167 is provided below, and a full copy of this procedural document can be provided upon request.

"A Negotiated NCC applies where EGW considers that unplanned growth assets are required, or planned growth assets brought forward (for example, to service an out-of-sequence development), to adequately service a connection application over and beyond that for a Standard NCC.

EGW is committed to negotiating fair and reasonable outcomes in good faith with the Connection Applicant to determine the price, terms and conditions for the services to be provided. EGW's Negotiating Framework forms the basis for negotiation of NCC over and above the Standard NCC.
Where a negotiated NCC is determined by EGW to be applicable in a particular circumstance, EGW will:

1. *Review the circumstances applying and determine the applicable EQT being serviced by the proposed connection.*
2. *Determine the avoidable costs of the proposed connection – that is, EGW will estimate the cost that would be avoided if EGW did not provide services to that connection.*
3. *Determine the standalone cost of servicing the proposed connection – that is, the least cost technically efficient servicing solution, or a new independent servicing solution.*
4. *The incremental cost and benefits to EGW arising from the connection will be greater than the avoidable cost of that connection and less than the standalone cost of that connection. The incremental net cost to EGW will be apportioned according to the EQT assessment."*

(e & f) East Gippsland Water, through VicWater, has consulted with other water businesses to develop a best practice negotiating framework, which is based on the pro-forma document, as contained in the Essential Services Commission 2012, Guidance Paper – New Customer Contributions, August 2012. A draft document has been prepared and East Gippsland Water commits to adopting the industry-developed negotiating framework which will be refined over the water plan period, as appropriate. With respect to developing a common industry timeframe to estimate capital cost, discussion has been facilitated by VicWater and in consultation with the Commission, it has been agreed that timeframes may differ across the water businesses.

(g) East Gippsland Water has consulted with stakeholders and will continue to do so. The feedback to date is that a uniform Standard NCC across the Corporation's region is generally preferred.

(h) East Gippsland Water has adjusted the calculations of standard New Customer Contributions (NCC) for water and sewerage incorporating amendments to expenditure (capex and opex), demand and tax rates (generally described elsewhere in this response). For modelling purposes the gifted asset values have been assumed to be constant across all years of the regulatory period.

The revised standard NCC charges of $0 for water and $0 for wastewater reduces the annual revenue from $350K to $0. This equates to a reallocation of revenue of $1750K for the WP3 period to customers through tariffs.

Further information and copies of East Gippsland Water's New Customer Contributions procedures can be provided on request.

17. Miscellaneous charges

Core miscellaneous charges were included in Table 26 page 79 of the Corporation's Water Plan. East Gippsland Water offers owners and developers an engineering, planning, design and project management service to administer development of water/wastewater infrastructure. Owners and developers have the option of receiving this service from the Corporation or from a private provider. The service is for assets that are subsequently gifted to the Corporation and are not treated as growth assets. It is proposed that the Owner-Financed Works Administration/Supervision Fee be applied to all Owner-Financed Works, including Developer works from 1 July 2013 as follows:

Total project cost (Owner Financed)	**≤ $ 5,000**	**$5,001 to 50,000**	**$50,001 to 100,000**	**≥$100,000**
Minimum Administration Fee	$ 350	$ 900 or 6% whichever greater	$ 3,500 or 5% whichever greater	$ 5,500 or 4% whichever greater

18. Reopening Prices

East Gippsland Water notes the Commission proposes to approve an uncertain and unforeseen events mechanism for reopening of price determinations.

19. Other BAU Productivity Test

Attachment 2 details the results of the productivity hurdle assessment using the Commission template.

The template version used by the Commission for the draft Price Review incorrectly used the customer connections forecast for Water Plan 2 for the 2011/12 base year instead of the actual connections total. Consequently the 0.92% growth rate calculated for the productivity hurdle is incorrect. East Gippsland Water has substituted the actual connections base into the template, which has adjusted the hurdle growth rate to 1.632%. Table2 1 and 2 in Attachment 2 show the correct customer connection growth amounts to be used in WP3. These were calculated by taking the 2011/12 actual customer connection numbers and applying the residential and non-residential growth rates recommended in the final Frontier Economics report.

East Gippsland Water has made further adjustments to data in the template to recognise additional prudent and efficient new initiative costs as follows:

- A demand forecast of 145kL per connection will result in additional power and chemical expenditure compared to the demand assumed by Deloitte of 141 kL per connection. The additional cost has been estimated at $26k per annum.
- Prior to 2012/13 non-business hours telephone communications were monitored by the standby officer. The single telephone line, patchy mobile telephone reception throughout the region and inability to respond to the telephone whilst undertaking maintenance activities was identified by customers as a significant servicing shortfall. In 2012/13 East Gippsland Water contracted to South East Water to provide customer call centre services during non-business hours at an additional cost of $20k per annum. This new expenditure has resulted in a significant improvement to customer service and addressed the issue.

As detailed in this response, an aggregate $248k has also been reinstated to the Special Operations and Maintenance budget for Years four and five of the period.

Table 4 of Attachment 2 demonstrates that with the corrected growth rate and the proposed adjustments for prudent and efficient new initiative costs and Special Operations and Maintenance, the Corporation's Water Plan 3 passes the productivity hurdle.

East Gippsland Water is pleased to have this opportunity to respond to the Commission's draft review and provide further information in support of our Water Plan. Further clarifying information and spreadsheets used for preparing the response can be made available as requested.

Yours faithfully

Bruce Hammond
MANAGING DIRECTOR

Enc.

Attachment 1

EAST GIPPSLAND WATER RESIDENTIAL DEMAND FORECAST

1.0 METHOD

A multi-variate linear regression model has been developed to forecast residential demand per connection incorporating mean monthly temperature and monthly rainfall as independent variables. Seasonal variables based on the primary independent variable have been incorporated for the months of February through to December, with January adopted as the base month.

Due to dataset limitations for the entire serviced area, the model has been developed for the Mitchell River System, which services over 80% of East Gippsland Water's customer base in the townships of Bairnsdale, Lindenow, Paynesville, Bruthen, Sarsfield, Nicholson, Johnsonville, Swan Reach, Metung, Lakes Entrance, Lake Tyers Beach and Nowa Nowa. The model is expected to be representative of demand for the entire region, given the dominance of the Mitchell River System.

A number of model variants were tested, including:

- Temperature as the primary independent variable
- Rainfall as the primary independent variable (actual and stepped function)
- Estimation of the monthly variation in residential demand assuming constant non-residential demand for each month
- Estimation of the monthly variation in residential demand assuming non-residential demand varies proportionally to bulk water supplied

The adopted model takes the form:

$Y = X1 + X2T + X3R + aX4T + bX5T + c\ X6T + \ldots\ldots + kX13T$

Where:

Y = forecast monthly demand (kL/connection)

T = mean monthly temperature

R = stepped rainfall

X1 – X13 = model coefficients

a – k = a seasonal switch equal to 0 in most instances and 1 for the applicable month between February and December

2.0 HISTORIC DEMAND DATASET

The historic residential demand data used for model derivation was based on:

- Bulk water supplied between December 2009 and March 2013 inclusive (monthly).
- Deduction of non-revenue water
- Deduction of non-residential water supplied
- The residual was divided by the known residential connections (year-end) to derive the monthly demand

As the bulk meter readings were not generally collected on the same day of the month, the monthly volumes were estimated through an aggregation process of pro-rata carryover volumes at month start and end. This method was adopted as it results in relatively minor error in the monthly estimate and sums to the actual volume supplied in the long run.

Producing a longer dataset was problematic as prior to December 2009, the Toorloo Reservoir was in service and storage content was not reliably recorded on a monthly basis. As a balancing storage and being over 300 ML capacity, the storage significantly distorts the relationship between bulk supply and actual demand, resulting in the dataset prior to December 2009 being unrepresentative. The dataset adopted resulted in 26 degrees of freedom.

3.0 TEMPERATURE AND RAINFALL DATASETS

The temperature dataset adopted for modelling and derivation of monthly averages for demand forecasting was the Bairnsdale Airport. A continuous record from August 1984 to March 2013 is available with only one gap (September 2000). This gap was infilled based on a simple linear regression model established between Bairnsdale Airport and Mt Nowa Nowa for the purpose of establishing the long term monthly average maximum temperature.

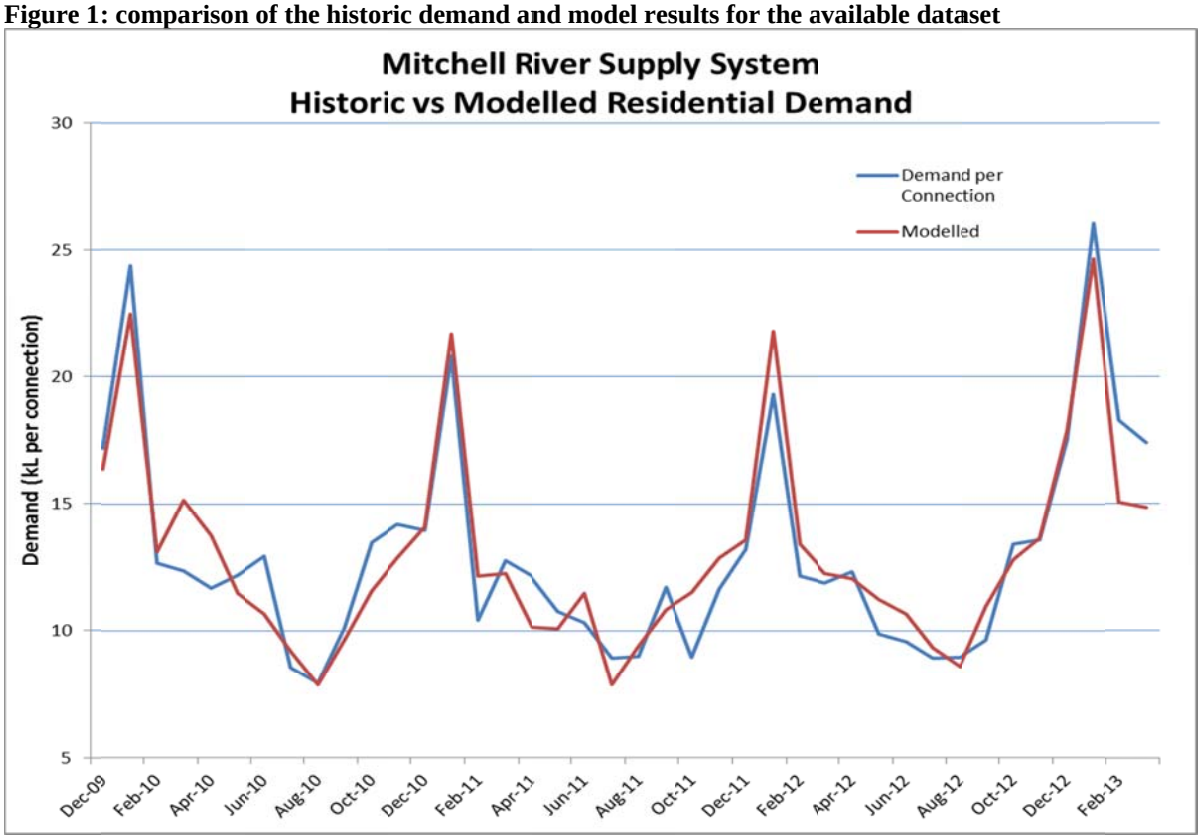
The rainfall dataset adopted for modelling and derivation of monthly averages for demand forecasting was the Bairnsdale Airport. A continuous record from August 1984 to March 2013 is available with only one gap (September 2000). This gap was infilled based on a simple linear regression model established between Bairnsdale Airport and Mt Nowa Nowa for the purpose of establishing the long term monthly average rainfall. Stepped rainfall was estimated in the first instance having regard to evaporation and refined through regression analysis trials. As expected, stepped rainfall produced a model with a better fit than the actual rainfall record as excessive rainfall beyond a level commensurate with the season has little influence on discretionary demand.

4.0 ASSESSMENT OF RESULTS

The model adopted for forecasting achieved the best fit with the historic demand dataset, both in terms of the "r squared" result of 0.88, the "student t" result for the temperature and rainfall variables and the signs (negative in all cases) for the seasonal coefficients. The adopted model uses mean monthly temperature as the primary independent variable and stepped rainfall as the secondary independent variable, with non-residential demand assumed to be constant throughout the year.

As January was set as the base seasonal month and the seasonal parameters were based on temperature, it was expected that the seasonal coefficients would all have a negative sign for a well fitted model. The "student t" and "F test" results suggest that there is a significant relationship between demand, the two independent variables and the model as a whole respectively. The "r squared" result of 0.88 suggests that the model accounts for 88% of the variation in demand per residential connection for the dataset used. The residual variation is most probably explained by factors such as seasonal tourism populations and the recent influences of blue green algae blooms in the Gippsland Lakes, floods and bushfires.

Figure 1: comparison of the historic demand and model results for the available dataset



From the model results and the historic data trend, non-discretionary (typically in-house) demand is in the order of 110 kL (75%) of a total average 145 kL per connection per annum. The variation in seasonal demand can be largely attributed to discretionary demand between the months of November to April inclusive. In addition, the model suggests that the temperature is the dominant variable, which influences 180 kL of the annual demand, with average rainfall reducing this quantum by 35kL.

As a secondary check of the results, the demand experienced between October to April for the years 2008/09 to 2011/12 were compared with the ratio of temperature and rainfall experienced and long term average temperature and rainfall. Table III compares the ratios of rainfall and temperature experienced for the period 2009/10 to 2011/12 with the long term averages, and compares it to the demand experienced per residential connection for the same period. Note that a temperature ratio greater than one indicates that the temperature for the period was above average and a rainfall ratio greater than one indicates that rainfall was above average for the period. In view of the dominance of temperature, the demand expectation gives a greater weighting to the temperature ratio.

Table III

Average	2009/10	2010/11	2011/12
Temperature ratio	1.08	0.99	1.00
Rainfall ratio	0.82	1.14	1.26
Demand ratio	1.12	1.00	0.95
Temperature above average	Well above average	Below average	Average
Rainfall above average	Well below average	Well above average	Well above average
Demand expectation	Well above average	Average	Below average
Recorded Demand (kL p.a.)	167	145	138

From the above analysis, it is concluded that average annual residential demand is around 145 kL per connection, which is consistent with the model output.

This result is considered conservatively high, having regard to the ongoing community commitment to water conservation. By way of example, East Gippsland Water has been directly involved in the following over the five years to 2011/12:

- Showerhead exchange: 2709
- Large tank (>2000L) rebates: 86
- Small tank (<2000L) rebates: 134
- Grey water systems: 5

These are significant statistics in the context of the residential customer base of approximately 19,000 connections and particularly influential when considering that non-discretionary demand represents 75% of average annual. It is not surprising therefore that East Gippsland Water has observed a declining demand trend over the five years. As the model is based on the average of this trend, the true average demand is probably less than 145 kL per connection. Despite this observation, East Gippsland Water proposes to conservatively base its demand forecast on 145 kL per connection.

5.0 RESIDENTIAL DEMAND FORECAST

The derived model was used to forecast residential demand per connection for the Water Plan 3 period. For the purpose of the forecast:

- The long term average rainfall and temperature was adopted
- Residential connection growth from the 2011/12 base is expected to be 1.7% per annum until 2016/17 and 1.8% in 2017/18 in accordance with ViF 2012 and the recommendation by Frontier Economics.

Table I summarises the seasonal distribution of demand per residential connection, while Table II details the total annual demand including non-residential demand.

Table I – seasonal average demand per residential connection

Month	kL/connection
Jan	20.2
Feb	13.6
Mar	13.9
Apr	10.7
May	11.4
Jun	11.3
Jul	8.0
Aug	8.7
Sep	10.1
Oct	11.4
Nov	12.0
Dec	14.2
Total Annual	145.4

Table II – Forecast Annual Water Demand for East Gippsland Water

	2013/14	2014/15	2015/16	2016/17	2017/18
Residential Connections	19489	19820	20157	20499	20848
Residential Demand (ML)	2826	2875	2923	2973	3026
Non-Residential Demand (ML)*	1626	1644	1662	1680	1699
Total Annual Demand (ML)	4452	4519	4585	4653	4725

* Refer to East Gippsland Water Plan and confirmed by Frontier Economics

Attachment 2

Productivity Hurdle Summary Tables

Table 1:

Connection Numbers based on 2011/12 data and applying ESC/Frontier Economics forecast

1.7% growth for resi from 2011/12 through to 2016/17 & 1.8% for 2017/18. 1.1% growth for Non Residential customers

	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
20mm	20,538	20,873	21,214	21,561	21,913	22,271	22,655
25mm	395	400	405	410	415	420	426
32mm	176	178	180	182	184	186	188
40mm	91	92	93	94	95	96	97
50mm	75	76	77	78	79	80	81
75mm	4	4	4	4	4	4	4
80mm	14	14	14	14	14	14	14
100mm	19	19	19	19	19	19	19
Multi	427	434	441	448	456	464	472
Total	21,739	22,090	22,447	22,810	23,179	23,554	23,956

Table 2:

Productivity Calculation - Using Connection Numbers as per Connection Cal's from Base Year

	2011/12	2017/18		7 year average
Water Service Fee - 20mm	20,538	22,655		
Water Service Fee - 25mm	395	426		
Water Service Fee - 32mm	176	188		
Water Service Fee - 40mm	91	97		
Water Service Fee - 50mm	75	81		
Water Service Fee - 75mm	4	4		
Water Serivce Fee - 80mm	14	14		
Water Service Fee - 100mm	19	19		
Multi-Service Fee	427	472		
	21,739	23,956		1.632%

Table 3:

EGW Final Response

The ESC has allowed an increase of $20K per year for electricity for the increase in demand from 138kL to 141kL
EGW response is to seek the residential consumption to be 145kL (150kL in draft determination)
- with the increased water supplied EGW seeks an additional $26K per year in additional demand costs.
- EGW will deliver a shared service call centre with South East Water in Year 1 of the Water Plan. Additional costs of $20K per year.
- this should be included un the prudent and efficient new expenditure tables.

The tables below restate the prudent and efficient costs and the final PH calcualtion based on:
- new connection numbers
- inclusion of additional $7K for superannuation in base year. $1.469M x 1.0158% = $1.493M.
- new growth rate of 1.632% as per EGW calculation
- inclusion of $248K total in years 4 & 5 for SO&M

Table 4.12 - Prudent and efficient new initiatives and obligations above the 2011/12 baseline ($m, 01/01/2013) - EGW RESPONSE

Operating expenditure item	Actual	Water Plan Forecast					Total
	2011-12	2013-14	2014-15	2015-16	2016-17	2017-18	WP3
Electricity		0.250	0.300	0.331	0.362	0.362	1.605
Intelligent Water Networks		0.020	0.020	0.020	0.020	0.020	0.100
Defined Benfits Superannuation		0.145	0.141	0.137	0.133	0.130	0.686
Opex from new Capex		0.200	0.200	0.200	0.200	0.200	1.000
Shared Service - Call Centre		0.020	0.020	0.020	0.020	0.020	0.100
Desludging		0.000	0.171	0.172	0.172	0.150	0.665
BaU baseline forecast		**0.635**	**0.852**	**0.880**	**0.907**	**0.882**	**4.156**

EGW adjusted productivity hurdle calculation - EGW RESPONSE

Operating expenditure item	Actual	Water Plan Forecast					Total WP3
	2011-12	2013-14	2014-15	2015-16	2016-17	2017-18	
Recommended operating expenditure		15.641	15.878	16.271	16.326	16.527	80.643
Less prudent and efficient new iniatives expenditure		0.635	0.852	0.880	0.907	0.882	4.156
Recommneded BAU expenditure		**15.006**	**15.026**	**15.391**	**15.419**	**15.645**	**76.487**
Adjusted BAU target	14.916	15.105	15.201	15.297	15.393	15.491	76.486
Amount above BAU target		-0.099	-0.175	0.094	0.026	0.154	0.001