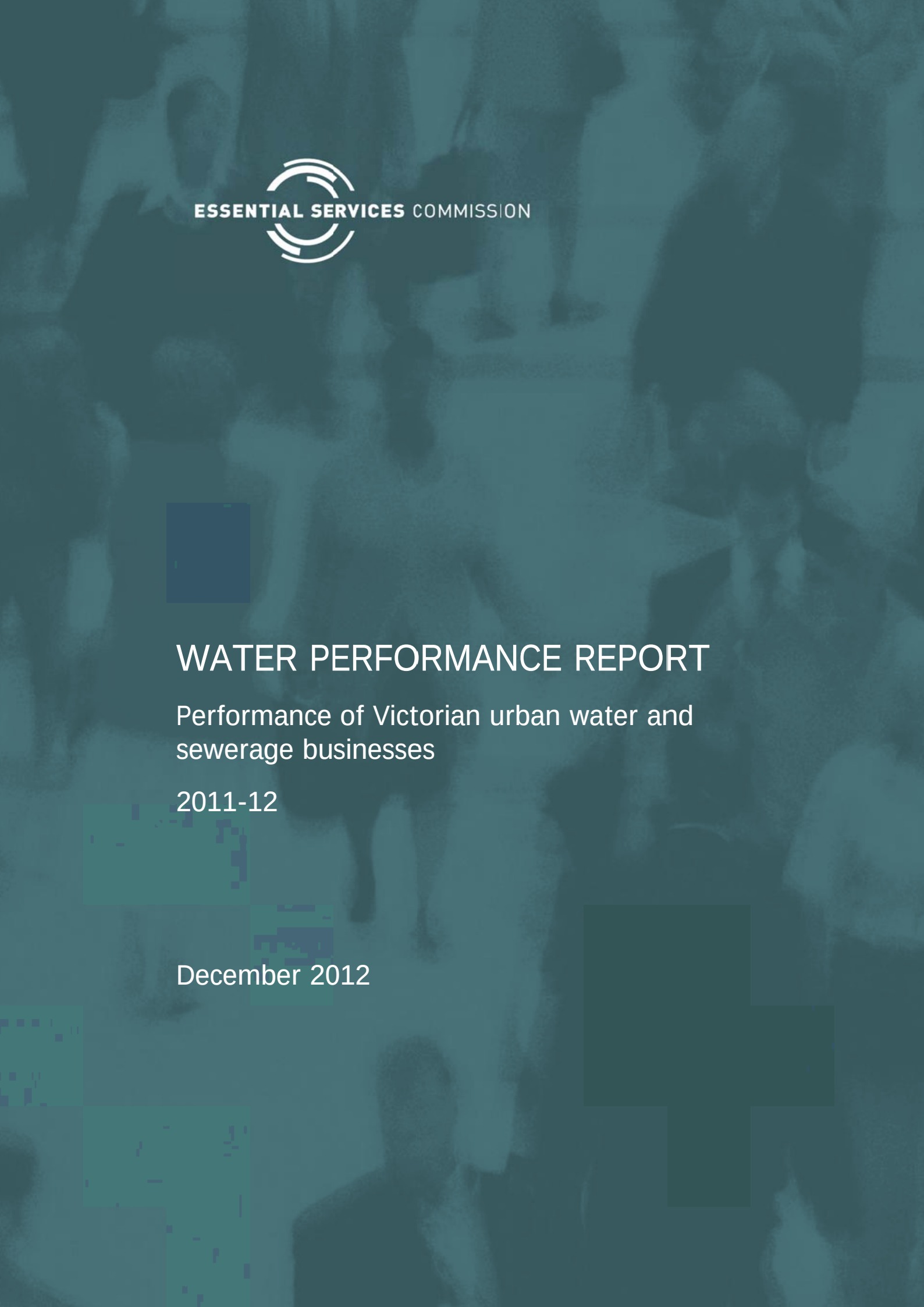

WATER PERFORMANCE REPORT

Performance of Victorian urban water and sewerage businesses

2011-12

December 2012

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ESSENTIAL SERVICES COMMISSION

WATER PERFORMANCE REPORT

PERFORMANCE OF VICTORIAN URBAN WATER AND SEWERAGE BUSINESSES

2011-12

December 2012

PERFORMANCE OVERVIEW 2011-12

In 2011-12 Victorian water businesses recovered from years of drought followed by the extreme rainfall and flooding of 2010-11. Generally, the performance outcomes for 2011-12 show that customers continue to receive a relatively high level of service with most businesses maintaining or improving services.

While restrictions of customers' water supply and legal actions increased, there were more customers on payment plans and 50 per cent more hardship grants.

There was a low rate of completion in 2011-12 for major projects, with only 15 of 52 scheduled projects completed. The businesses' ability to complete major projects in the timelines proposed in their Water Plans will be an area of focus for our assessment of capital expenditure plans for Water Plan 3.

HOUSEHOLD CONSUMPTION

Weighted average annual household water consumption across Victoria rose 5 per cent from 143 kilolitres in 2010-11 to 150 kilolitres in 2011-12, a bounce back from the previous year's historic low. Almost all water businesses reported higher consumption, related to easing water restrictions and fewer extreme rain events. The largest increases were experienced in the northern regions that were most affected by floods and rainfall in 2010-11.

Water use rose by 5 per cent

HOUSEHOLD BILLS

Average annual household bills were higher in 2011-12 than in 2010-11 for all water businesses. The average household bills for owner-occupiers ranged from $759 to $1185 across the 16 water businesses.

By contrast, average annual household bills for tenants, who are not billed fixed charges, ranged from $104 to $468 in 2011-12.

DEALING WITH HARDSHIP

Household bills increased and debt management activities increased

The rate of domestic instalment plans for customers in difficulty increased for 13 of the 16 water businesses and the overall rate across all water businesses increased from 5.5 per 100 customers in 2010-11 to 5.9 in 2011-12.

There was a 15 per cent increase in the number of domestic customers who had their water supply restricted for nonpayment in 2011-12, increasing to a total of 2381 from 2068 in 2010-11. This included more customers on concession (up from 359 to 370). Nondomestic customers recorded a rise of almost 73 per cent, increasing to 64 customers from 37 in 2010-11.

Legal actions against domestic customers increased slightly from 661 in 2010-11 to 668 in 2011-12.The average debt level before initiating legal proceedings increased slightly to $2292 from $2033 in 2010-11, and is well above the minimum of $200 specified in our Customer Service Code.

These increases in water supply restrictions and legal actions reflected flood affected water businesses resuming debt management activities after suspending them during 2010-11.

Water businesses approved a total of 18 431 hardship grants in 2011-12, up more than 50 per cent from 12 141 grants in the previous year.

CUSTOMER COMPLAINTS

In 2011-12 the Energy and Water Ombudsman (Victoria) (EWOV) received 2008 complaints and 69 enquiries about metropolitan and regional urban water businesses, compared with 1731 complaints and 197 enquiries in 2010-11.

Water businesses reported 16 235 complaints, representing a 20 per cent increase from 2010-11. This equates to a rate of 0.67 complaints per 100 customers across the state. The increase was driven mainly by billing complaints from metropolitan Melbourne customers attributed to price rises and desalination payment issues.

NETWORK RELIABILITY

Water system reliability was maintained and sewerage system reliability improved

Overall water supply reliability, measured by average customer minutes off supply, remained fairly steady, increasing from 29 minutes in 2010-11 to 30 minutes in 2011-12.

The rate of interruptions to water supply remained steady at 36 per 100 kilometres of water main in 2011-12.

The rate of sewer blockages improved, falling from 25 blockages per 100 kilometres of sewer main in 2010-11 to 18 in 2011-12. The metropolitan water businesses improved significantly, particularly Yarra Valley Water.

The rate of sewer spills also improved, down from 13 per 100 kilometres of sewer main in 2010-11 to 9 in 2011-12.

WATER QUALITY

Compliance with water quality standards remained high

Fourteen of the 16 urban water businesses delivered water to customers that met E. coli requirements set out in the Safe Drinking Water Regulations 2005. Gippsland Water and Wannon Water each recorded a minor noncompliance in one of their smaller towns.

All urban water businesses, except GWMWater, delivered water that met the turbidity requirements set out in the Safe Drinking Water Regulations. However, GWMWater's performance improved in 2011-12 as the impact of the 2011 floods was reduced. It met turbidity requirements in 23 of 26 drinking water supply zones, with 2 per cent of customers affected compared with 11 per cent of customers in 2010-11.

Water quality complaints rose slightly from a rate of 0.26 complaints per 100 customers in 2010-11 to 0.27 in 2011-12.

ENVIRONMENTAL PERFORMANCE

Demand for recycled water increased slightly

The total volume of sewage treated in Victoria in 2011-12 was 483 600 megalitres. This was a 3 per cent decrease from the 2010-11 volume of 497 000 megalitres.

The proportion of total effluent produced in Victoria that was reused increased from 15 per cent in 2010-11 to 19 per cent in 2011-12. Part of this reflected the 5 per cent reduction in total effluent produced. Total effluent reuse increased to 89 300 megalitres compared with 75 000 megalitres in 2010-11. However, this was still well below the 115 100 megalitres reused in 2009-10, at the peak of the drought.

Victorian urban water businesses reported 789 100 tonnes of total net carbon dioxide equivalent (CO2-e) emissions in 2011-12. This was less than 1 per cent higher than the 782 400 tonnes reported in 2010-11.

MAJOR PROJECTS

15 major projects completed in 2011-12

Water businesses identified 52 major projects to be completed in 2011-12; these were either initially scheduled for completion in 2011-12 in the last price review, or delayed from previous years. Fifteen of these projects were completed in 2011-12. Of the remaining 37 projects, 25 were delayed (commenced but not completed), seven were deferred to Water Plan 3 or beyond (not yet started), and five were cancelled because needs and priorities changed.

We will be looking closely at each business's track record for completing major projects on schedule. This will be an important consideration in assessing capital expenditure programs and timing for the next regulatory period.

THIS REPORT

This is the eighth annual report published by the Commission on the performance of all the Victorian water businesses that provide water, sewerage and related services to urban customers. The report incorporates data provided and independently verified for the 13 regional water businesses, three metropolitan retailers and Melbourne Water for the 12 months to June 2012.

The 2011-12 performance report comprises a suite of performance reporting documents that seek to provide reliable and consistent information. This can be used to inform community discussion, identify shifts in performance outcomes, and stimulate 'competition by comparison' between the water businesses. The report provides time series data in graphical form for many key indicators to make it easy to identify performance trends for each business, as well as to compare performance across the industry as a whole.

Where statewide averages are discussed, a weighted average is calculated where appropriate to reflect the size of the various water businesses and their relative contribution to the overall average.

The report and associated release includes a detailed performance report, a summary for each business, an industry summary, and data spreadsheets with all reported information for those who wish to interrogate the data further. These documents are all available on our website at www.esc.vic.gov.au

CONTENTS

1 WHY WE DO THIS

1.1 THE COMMISSION'S ROLE

The Essential Services Commission (the Commission) is the economic regulator of the Victorian water sector. One of its regulatory functions is to monitor and report publicly on the performance of Victorian water businesses.

Monitoring and reporting is important because it provides reliable and consistent information that can be used to:

- inform customers about the performance of their water business
- identify base line performance and provide incentives for water businesses to improve their own performance over time
- allow for comparisons between water businesses and thereby facilitate competition by comparison, which can encourage water businesses to further improve their performance relative to others
- inform the decision making processes of regulated water businesses, regulatory agencies and Government.

This is the Commission's eighth annual report on the performance of all Victorian urban water businesses, which commenced for the 2004-05 period. Performance reporting between 1995 and 2004 was done for the three metropolitan water retailers only.

The Commission is required to monitor and publicly report on the water sector

Performance reports assess the performance of:

- the three metropolitan retailers - City West Water, South East Water and Yarra Valley Water
- the 13 regional urban businesses - Barwon Water, Central Highlands Water, Coliban Water, East Gippsland Water, Gippsland Water, Goulburn Valley Water, Grampians Wimmera Mallee Water (GWMWater), Lower Murray Water, North East Water, South Gippsland Water, Wannon Water, Western Water and Westernport Water
- Melbourne Water - the supplier of bulk water and sewerage services to the metropolitan retailers (and a number of regional water businesses).

This report covers the businesses' performance over the 2011-12 financial year across key performance indicators that were developed in consultation with the businesses and a range of other stakeholders. The data provided by the businesses was independently audited to provide assurance it is accurate and reliable. Water businesses were invited to comment on various aspects of their performance, and these comments are incorporated into the report.

1.2 THE SCOPE OF THIS REPORT

This report focuses on indicators in a number of key performance areas for urban water businesses including:

- usage, price trends and payment management - including the size of household bills, consumption levels, and managing nonpayment of bills and customers facing hardship
- customer responsiveness and service - including customer complaints and call centre performance
- network reliability - including the reliability, responsiveness to faults and interruptions around water and sewer systems
- water quality - including drinking water quality and associated complaints
- conservation and the environment - including levels of effluent and biosolids reuse and recycling, and greenhouse gas emissions
- historical performance - including comparisons for all indicators and businesses with previous years' data

- major project status - summary report on the status of those major projects scheduled for completion this year.

This report does not include information on the rural water businesses that supply irrigation, drainage, diversion, storage operator and bulk water services. The Commission has a separate set of performance indicators and a national reporting framework applies to these businesses.

This report does not address the return of desalination plant payments collected from Melbourne metropolitan customers in 2011-12. For further information refer to our website at www.esc.vic.gov.au

1.3 THE COMMISSION'S ROLE IN REGULATING SERVICE STANDARDS

The Commission is responsible for regulating service standards and conditions of supply. In the urban sector, the framework comprises:

- A Customer Service Code (the Code) that imposes a consistent overarching framework for delivering services to both metropolitan and regional urban customers. The Code sets out service obligations for key matters including connection and service provision, charges, handling of complaints and disputes, billing, payment of bills, collection of outstanding bills, actions for non-payment including restriction of supply or disconnection, quality of supply, reliability of supply, meters, works and maintenance, and information and administrative arrangements for guaranteed service levels. The Code is available on our website at www.esc.vic.gov.au

The Customer Service Code is published on our website

- A separate Trade Waste Customer Service Code commenced 1 January 2012, and establishes consistent trade waste management requirements for water businesses across Victoria.
- Flexibility for the businesses to propose their own service levels or targets, rather than having to meet a consistent performance standard across businesses. This flexibility recognises the different operating environments faced by each business and allows customers to express their preferences about the level of service for which they are prepared to pay. These service targets provide an important reference point for monitoring performance over the regulatory period.

- A requirement each business maintain a Customer Charter that informs customers about its services, the respective rights and responsibilities of the business and its customers, and the service standards the business proposes to deliver over the regulatory period.

The Commission monitors and enforces compliance with obligations set out in the Customer Service Code. It does this by auditing compliance with the regulatory obligations, and by responding to and following up on issues or concerns raised by customers or other stakeholders about compliance matters.

The Commission is not responsible for regulating or driving performance in the areas of water conservation, the environment and water quality. The EPA is responsible for regulating environmental standards. The Department of Sustainability and the Environment is responsible for water conservation measures, and the Department of Health is responsible for drinking water quality standards.

1.4 WHERE WE SOURCE THE INFORMATION FROM

We undertake regulatory audits to ensure the integrity of the reported performance data

This report is based on two principal sources of information:

- performance data reported by the businesses against key performance indicators specified by the Commission, and comments provided by the businesses explaining their performance
- the findings of regulatory audits on the reliability of the performance indicator data reported by the businesses.

2 OVERVIEW OF THE WATER INDUSTRY

The Victorian water businesses are diverse in terms of size, the services they provide and the environments in which they operate.

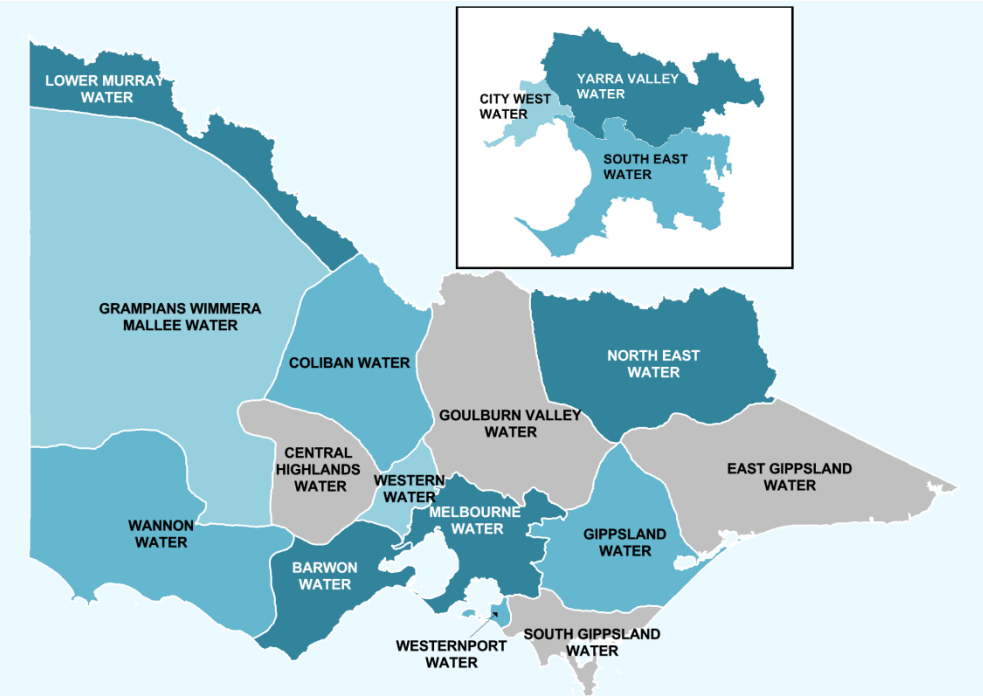
Victoria's 16 urban water businesses serviced 2.4 million customers using 44 700 km of water mains and 35 800 km of sewer main.

The three key components of the water sector the Commission regulates are:

- the metropolitan water sector comprising Melbourne Water, City West Water, South East Water and Yarra Valley Water
- the regional urban water sector comprising Barwon Water, Central Highlands Water, Coliban Water, East Gippsland Water, Goulburn Valley Water, Gippsland Water, Grampians Wimmera Mallee Water (GWMWater), Lower Murray Water, North East Water, South Gippsland Water, Wannon Water, Western Water, Westernport Water
- the rural water sector comprising Goulburn Murray Water and Southern Rural Water. GWMWater and Lower Murray Water provide rural water services in addition to urban water services.

A map of the Victorian water sector is provided in figure 2.1.

FIGURE 2.1 VICTORIAN WATER BUSINESSES 2011-12



2.1 METROPOLITAN BUSINESSES

In the metropolitan area, Melbourne Water provides wholesale services to the three metropolitan retailers. These services include:

- harvesting, storing and treating raw water supplies
- transmitting bulk water supplies
- operating the bulk sewerage service and treating the majority of sewage
- managing rivers and creeks and major drainage systems in the Port Phillip and Westernport regions (municipal councils provide local drainage services).

The three metropolitan retailers supply water and sewerage services to over 1.7 million customers. This represents over 70 per cent of the state's population and accounts for around 10 per cent of total water use in Victoria. Their functions include:

- Distributing and supplying water to customers and operating the sewerage network from customer premises through to the trunk sewer network. The retail businesses also operate some small sewage treatment plants from which they may also provide recycled water.
- Providing a range of retail functions, including meter reading, customer billing, handling call centre enquiries, and handling complaints. The retailers also bill metropolitan customers for drainage services on behalf of Melbourne Water and parks charges on behalf of the Minister for Water.
- Providing trade waste services to commercial and industrial customers.

Each retailer services a specific geographic area and (unlike the gas or electricity industries) does not compete directly with other retailers for customers.

TABLE 2.1 METROPOLITAN WATER BUSINESSES — OVERVIEW

	Water customers (no.)	Sewerage Customers (no.)	Length of water main (km)	Length of sewer main (km)
City West	379 086	375 643	4 561	4 044
South East	669 953	637 211	8 951	8 570
Yarra Valley	713 188	666 721	9 670	9 133
Melbourne Water	na	na	1 276	343

2.2 REGIONAL BUSINESSES

Regional urban water businesses operate within geographically defined areas providing services to regional cities and towns throughout Victoria. Their customer base is smaller than that of the metropolitan retailers and their customers are generally dispersed across broader geographical regions. Water use in regional urban areas accounts for about 9 per cent of total water use in Victoria.

Unlike the metropolitan sector, these businesses are generally vertically integrated, providing wholesale, distribution and retail services for both water and sewerage.

TABLE 2.2 REGIONAL WATER BUSINESSES — OVERVIEW

	Water customers (no.)	Sewerage customers (no.)	Length of water main (km)	Length of sewer main (km)
Barwon	139 927	125 805	3 722	2 378
Central Highlands	62 763	52 714	2 417	1 272
Coliban	68 045	59 681	2 148	1 809
East Gippsland	21 890	18 328	907	631
Gippsland	64 361	55 417	2 071	1 577
Goulburn Valley	54 666	47 908	1 792	1 226
GWMWater	31 205	25 084	1 049	649
Lower Murray	31 980	27 617	902	656
North East	46 845	41 249	1 654	1 101
South Gippsland	19 022	16 232	692	419
Wannon	41 236	34 690	1 877	882
Western	54 073	48 138	1 855	1 149
Westernport	15 358	13 953	453	339

3 USAGE, PRICE TRENDS AND PAYMENT MANAGEMENT

3.1 BACKGROUND

Affordability of water, sewerage and other related services is a key issue for customers. This affordability is influenced by:

- the size of a customer's bill, which is determined by both price and a customer's level of consumption
- the suitability of the payment options available
- the availability and effectiveness of assistance offered by the businesses to customers experiencing payment difficulties (including financial assistance and payment plans, hardship policy initiatives and advice on reducing water use)
- the availability of concessions or emergency financial relief from the Victorian Government.

The Commission approves prices for urban water and sewerage, rural water and other prescribed services. In June 2008 the Commission approved prices for regional and rural businesses for a five-year regulatory period (from 2008-09 to 2012-13), and metropolitan prices for 2008-09 for the three metropolitan retailers and Melbourne Water. In June 2009 the Commission approved prices for the remaining four years of the regulatory period (from 2009-10 to 2012-13) for the metropolitan water businesses.

The Commission does not determine the level of concessions or emergency relief (for example, through the Utility Relief Grants Scheme (URGS)) available to customers. These support mechanisms are provided by the Victorian Government and administered through the Department of Human Services (DHS).

The Commission's Customer Service Code (the Code) includes specified standards and conditions for payments, collections and actions for nonpayment, with which the Victorian urban water businesses must comply.

This section reports the:

- impact of price changes on households between 1 July 2011 and 30 June 2012
- typical household bills for owner occupiers and tenants (showing relative fixed and variable components)
- number of customers on instalment payment plans
- number of customers receiving government assistance through concession payments and the URGS
- number of restrictions of supply and legal actions for nonpayment and the average debt levels at the time such action is taken
- number of hardship grants applied for and awarded by water businesses.

3.2 PRICE IMPACTS ON HOUSEHOLD CUSTOMERS

Prices and tariff structures for water and sewerage differ between businesses. All businesses have a fixed fee and a usage based charge for water. Only the metropolitan retail businesses have a usage based charge for residential sewerage. Usage based charges provide households with the capacity to influence their total bill by reducing water consumption.

A number of businesses use an ‘inclining block’ tariff structure for water, where the usage price rises with the level of consumption, to provide additional incentives for customers to reduce their discretionary water use. City West Water, South East Water, Yarra Valley Water, Central Highlands Water, Coliban Water, Lower Murray Water, Wannon Water, Western Water and Westernport Water used an inclining block tariff structure in 2011-12. The other seven urban water service providers have a single tier water usage charge.

Maximum prices are predetermined through their approved Water Plans for the current five-year regulatory period, 2008-09 to 2012-13. Each year, the Commission reviews the proposed price increases to ensure they still comply with the price determination for each business, and approves the annual increment including the consumer price index (CPI) component. Annual price increases for a particular business may vary from year to year across the regulatory period; hence the relative increases for various businesses may differ each year. Some businesses had larger increases built in at the beginning of the regulatory period, while others had relatively small increases early on with larger increases later.

3.3 AVERAGE ANNUAL HOUSEHOLD CONSUMPTION

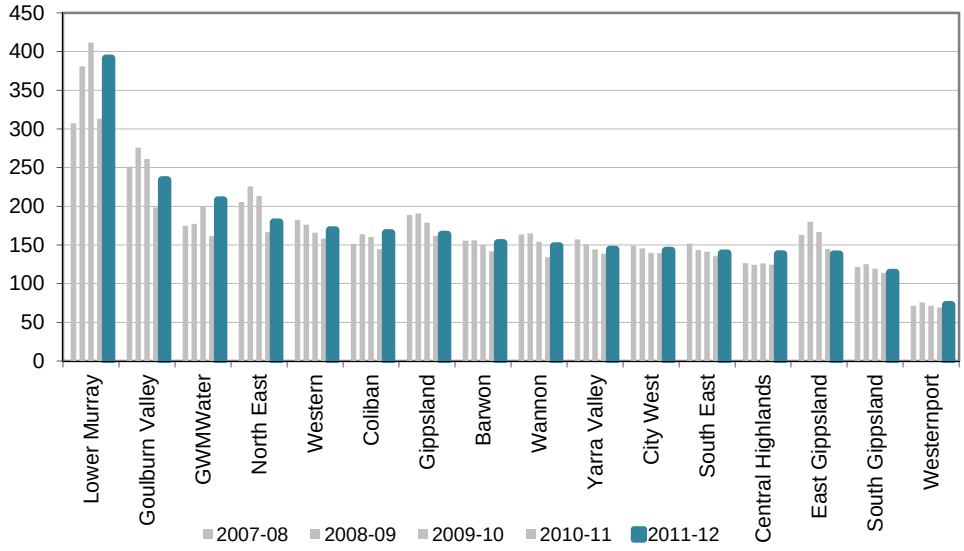
A greater emphasis on usage based charges means trends in consumption are increasingly important in calculating average bills and assessing affordability. Consumption patterns differ throughout the state for a number of reasons including climate, demographics, housing mix and water restrictions.

Weighted average annual household consumption across Victoria rose to 150 kilolitres in 2011-12. This reverses the trend of declining consumption between 2006-07 and 2010-11 (which bottomed at 143 kilolitres in 2010-11). Consumption fell over this time due to water restrictions affecting much of the population and a strong conservation message. There were fewer extreme rain events and water restrictions eased further in 2011-12.

Generally, average household consumption remained higher in regional Victoria (174 kilolitres per household, up from 157 kilolitres in 2010-11), than in metropolitan Melbourne where average household consumption was 142 kilolitres (up from 138 kilolitres). Average household consumption ranged from 72 kilolitres for Westernport Water's region (which has a large seasonal population) to 391 kilolitres in Lower Murray Water's region in the state's north west, traditionally the highest consumption in the state (figure 3.1). Average consumption in Melbourne was mostly consistent across the three metropolitan businesses, with 144 kilolitres for Yarra Valley Water, 143 kilolitres for City West Water, and 139 kilolitres for South East Water.

All water businesses, except East Gippsland Water, observed an increase in average household consumption in 2011-12. Lower Murray Water and GWMWater saw the largest increases in average household consumption (25 per cent for Lower Murray Water and 29 per cent for GWMWater), followed by Goulburn Valley Water (18 per cent) and Coliban Water (14 per cent). These regions recorded easing water restrictions and less rainfall than in 2010-11. East Gippsland Water and South Gippsland Water, the only two businesses with reduced water consumption, experienced continued high rainfall and reduced seasonal visitation.

FIGURE 3.1 AVERAGE ANNUAL HOUSEHOLD CONSUMPTION
(Kilolitres per household)



3.4 AVERAGE HOUSEHOLD BILLS

Differences in calculated bills can be attributed to a number of factors: the cost to service different regions, sources of water, historical decisions about tariff structures, and of course, the average volume of water used.

Customers serviced by businesses with a higher variable water component are able to exercise greater control over their bills. Coliban Water has the highest proportion of water charges collected through variable charges of the regional urban water businesses. Its proportion of variable water charges began at 49 per cent in 2007-08 and will rise to 76 per cent by the end of the regulatory period in 2012-13. For metropolitan businesses, South East Water has the greatest water variable charge proportion, rising from 72 per cent in 2007-08 to 76 per cent by the end of the regulatory period.

The average household bills for water and sewerage services for owner occupiers shown in figure 3.2 were calculated using the average consumption for each business (shown in figure 3.1).They include both the fixed and variable water and sewerage charges. Metropolitan customers also pay drainage charges on behalf of Melbourne Water, and parks charges on behalf of the Minister for Water, which are not included in our typical household bill estimates. For regional businesses with multiple pricing zones, the prices in the largest town were used to calculate the average household bill for the business.

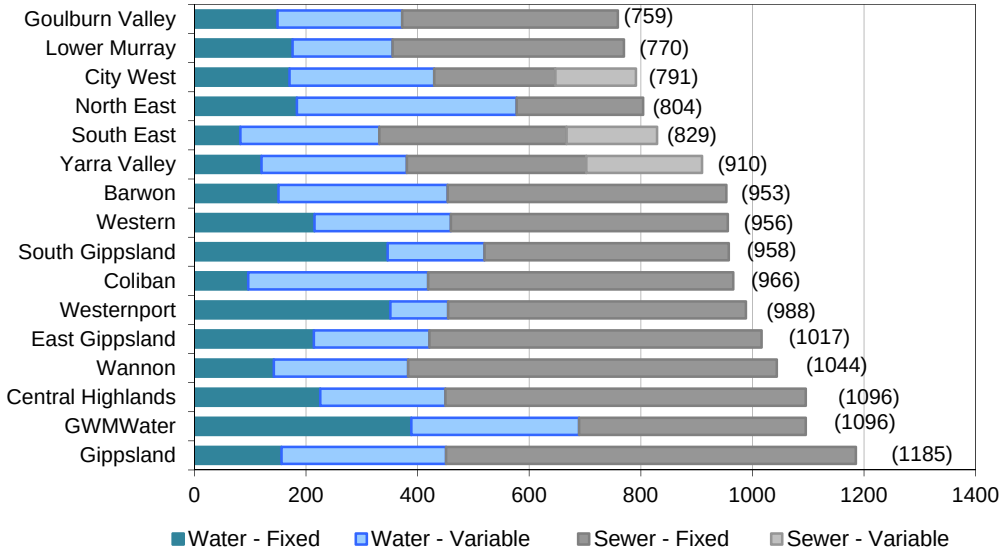
The average household bills for Melbourne metropolitan customers include the desalination plant payments that were not required due to its delayed completion. The return of these payments to customers will be reflected in the 2012-13 average household bills. For further information refer to our website at www.esc.vic.gov.au

Statewide weighted average household bills increased by $115 (or 15 per cent) from $770 in 2010-11 to $885 in 2011-12. The average household bill across businesses ranged from $759 to $1185:

- The lowest average water bills were reported by Goulburn Valley Water ($759), Lower Murray Water ($770) and City West Water ($793).
- As in 2010-11, the highest average water bills were for Gippsland Water ($1185), GWMWater and Central Highlands Water (both $1096).

- Of the metropolitan businesses, City West Water and South East Water remained below the industry average, while Yarra Valley Water ($910) did not. However, these businesses implemented some of the largest increases in average household bills from 2010-11; average household bills from Yarra Valley Water, South East Water and City West Water increased by $147, $107 and $104 respectively. These price increases are in line with the approved price increases outlined in each business's price determination for the 2009 Metropolitan Melbourne Water Price Review.
- GWMWater also recorded a large increase ($148) in average household bills between 2010-11 and 2011-12. This increase is driven by both its increase in average household consumption and approved price increase.
- South Gippsland Water recorded the lowest increase in average household bills, from $906 in 2010-11 to $958 in 2011-12.

FIGURE 3.2 AVERAGE HOUSEHOLD BILLS 2011-12
($, nominal)



Note: Where businesses have multiple pricing zones, the average household bill was calculated using the prices in the largest town. The average household bill for GWMWater was based on bills in Horsham; South Gippsland Water's on Inverloch and Wonthaggi; Central Highlands Water's on Ballarat; Wannon Water's on Warrnambool; North East Water's on Wodonga; East Gippsland Water's on Bairnsdale and Coliban Water's on Bendigo.

Historical average household bills for owner occupiers are presented in table 3.1. All businesses' average household bills increased steadily over the current regulatory period.

TABLE 3.1 OWNER OCCUPIERS — AVERAGE HOUSEHOLD BILLS
($, nominal)

	2008-09	2009-10	2010-11	2011-12
City West	527	597	687	791
South East	520	619	722	829
Yarra Valley	553	649	763	910
Barwon	692	778	843	953
Central Highlands	881	951	1 007	1 096
Coliban	662	778	877	966
East Gippsland	805	878	932	1 017
Gippsland	847	1 049	1 098	1 185
Goulburn Valley	600	654	662	759
GWMWater	852	941	947	1 096
Lower Murray	658	719	691	770
North East	623	717	735	804
South Gippsland	824	868	906	958
Wannon	743	830	902	1 044
Western	759	812	865	956
Westernport	816	883	929	988

Note: Average household bills are in that year's dollars, and calculated using that year's average consumption levels.

Tenants do not pay service or fixed charges and are only responsible for the usage, or variable, component of the bill. Melbourne tenants pay the sewer variable charges as well as the water variable charges. Tenants' average household bills ranged from $104 (Westernport Water) to $468 (Yarra Valley Water) in 2011-12 (shown in table 3.2). On average, all water businesses increased their average household bills for tenants. These price increases are in line with the approved price increases outlined in each business's price determination for the 2008 Water Price Review and 2009 Metropolitan Melbourne Water Price Review.

TABLE 3.2 TENANTS — AVERAGE HOUSEHOLD BILLS
($, nominal)

	2008-09	2009-10	2010-11	2011-12
City West	267	298	347	404
South East	270	316	357	411
Yarra Valley	293	332	380	468
Barwon	223	244	255	303
Central Highlands	165	180	190	224
Coliban	172	218	270	323
East Gippsland	205	209	198	207
Gippsland	237	279	271	295
Goulburn Valley	185	196	168	223
GWMWater	215	259	215	301
Lower Murray	136	164	120	179
North East	256	333	338	394
South Gippsland	142	151	158	174
Wannon	190	200	192	241
Western	185	194	204	244
Westernport	90	91	93	104

Note: Average household bills are in that year's dollars, and calculated using that year's average consumption levels.

There is a bill estimator available to consumers on our website at www.esc.vic.gov.au

3.5 PAYMENT DIFFICULTIES

The urban water businesses must assist customers who have payment difficulties on a case by case basis by:

- providing alternative payment arrangements in accordance with a customer's capacity to pay, including offering a range of payment options (such as flexible payment plans) or redirecting the bill to another person to pay
- offering to extend the due date for some or all of an amount owed
- appropriately referring customers to government funded assistance programs (including the URGS) or to an independent financial counsellor
- observing minimum periods of notice before applying supply restrictions or pursuing legal action to recover outstanding debts

- not restricting water supply of a customer or pursuing legal action before first taking additional steps to secure payment, including making a reasonable attempt to contact the person, offering a payment arrangement and resolving any dispute over the outstanding amount.

The Commission extended the hardship related guaranteed service level (GSL) scheme to all 16 urban retail water businesses from 1 July 2012. It gives businesses another incentive to try contacting a customer before initiating legal action or restricting water services in response to nonpayment. Please see the Commission's website for more information about the hardship GSL.

The overall rate of water supply restrictions fell substantially in 2010-11 before increasing slightly in 2011-12. Gippsland Water more than halved its number of supply restrictions from 2010-11, and Westernport Water also reported a large decrease. Rates of legal action commenced remained fairly steady.

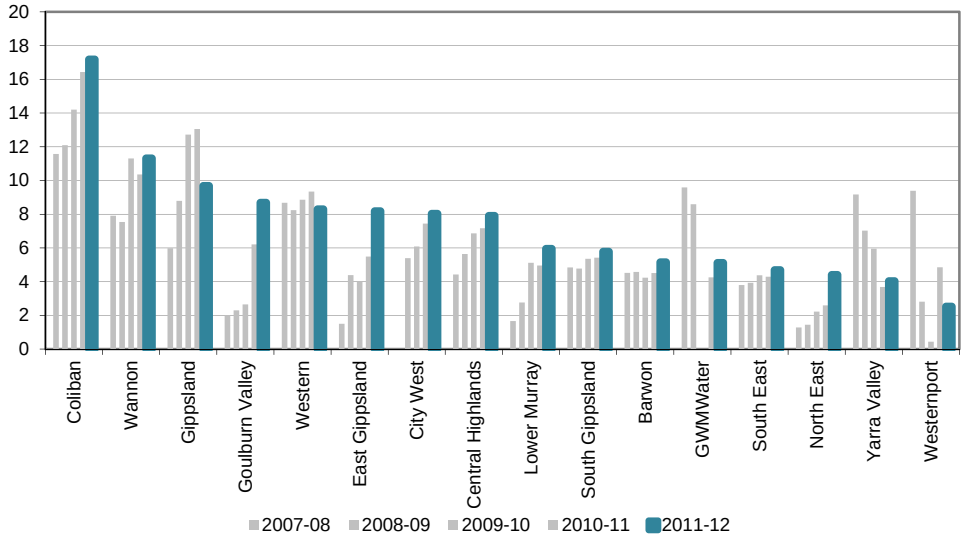
CUSTOMERS WITH INSTALMENT PLANS

Instalment plans help to address affordability issues by providing customers experiencing financial difficulties the flexibility to manage their bill payments. An increase in the number of instalment plans being used by customers could mean:

- an increase in the number of customers experiencing hardship
- the businesses are using the instalment plans more frequently or instead of other methods to assist customers having financial difficulties.

In 2011-12 the use of instalment plans for domestic customers ranged from 2.5 per 100 customers for Westernport Water to 17.2 per 100 customers for Coliban Water (figure 3.3). Coliban Water commented it is proud of its continued work to encourage customers to use instalment plans, which means it incurs lower debt collection expenditure. Most water businesses reported increasing rates of instalment plans over the last five years. The overall rate of domestic instalment plans increased from 5.5 per 100 customers in 2010-11 to 5.9 in 2011-12.

FIGURE 3.3 DOMESTIC CUSTOMERS WITH INSTALMENT PLANS
(per 100 customers)



Note: GWMWater changed its billing system during 2009-10 and was unable to report on many of the indicators throughout this section of the report for that year.

The range of nondomestic customers using instalment plans was smaller across all businesses than for domestic customers. However, some water businesses reported significant increases in nondomestic customers using instalment plans from previous years, which may reflect a greater focus by these businesses on managing hardship. As with previous years, Coliban Water and Wannon Water's use of instalment plans (9.0 and 5.6 per 100 customers respectively) was notably higher than other water businesses. Instalment plans are Coliban Water's preferred method for managing payment hardship for both domestic and nondomestic customers. Its high use of instalment plans resulted in a corresponding reduction in the number of supply restrictions. Wannon Water used instalment plans to provide flexibility to nondomestic customers to pay their account. It aims to ensure customers pay their account in full before the next quarterly account is issued. GWMWater has not had any nondomestic customers using instalment plans since 2008-09.

UTILITY RELIEF GRANTS SCHEME

The DHS administers the Utility Relief Grants Scheme (URGS), which provides one off financial contributions towards a bill of a customer experiencing payment difficulties. The URGS payment is generally used for a short term financial crisis. It is different from the hardship programs provided by the water businesses to customers who experience ongoing financial hardship (see section 3.7).

The number of URGS grants increased by almost 29 per cent from 2927 in 2010-11 to 3763 in 2011-12 (table 3.3), with the rate of grants increasing from 1.4 per 1000 customers in 2010-11 to 1.7 in 2011-12. This is more than double the rate of 0.8 per 1000 customers in 2008-09, only three years ago.

Gippsland Water, Central Highlands Water, Western Water and Wannon Water had the highest rates of URGS uptake for the period with 4.6, 4.4, 3.9 and 3.8 per 1000 customers respectively. Gippsland Water also had the highest average household bill for owner occupiers. Conversely, Lower Murray Water, which had the lowest average household bill, had the lowest rate of URGS uptake in 2011-12. Yarra Valley Water had the highest number of customers given grants, with a total of $450 759 paid between the 1185 customers. This is an increase of 25 per cent in the number of grants approved since 2010-11 (949 grants).

The average grant amount in 2011-12 was $384, up $8 from 2010-11. The average value of grants ranged from $274 for Goulburn Valley Water to $456 for GWMWater.

TABLE 3.3 AVERAGE AMOUNT OF UTILITY RELIEF GRANTS 2011-12
($ 2011-12)

	Approved	Grants paid ($)	Average amount grant paid ($)	Grants per 1000 customers
City West	443	175 938	397	1.3
South East	691	259 951	376	1.1
Yarra Valley	1 185	450 759	380	1.8
Barwon	165	58 857	357	1.3
Central Highlands	254	101 718	400	4.4
Coliban	96	34 054	355	1.6
East Gippsland	19	7 627	401	1.0
Gippsland	267	108 073	405	4.6
Goulburn Valley	94	25 754	274	1.9
GWMWater	47	21 449	456	1.8
Lower Murray	18	5 731	318	0.6
North East	102	37 627	369	2.4
South Gippsland	25	9 672	387	1.6
Wannon	134	51 629	385	3.8
Western	197	85 947	436	3.9
Westernport	26	9 916	381	1.8
TOTAL	**3 763**	**1 444 702**	**384**	**2.2**

Source: Department of Human Services.

CONCESSIONS

The Victorian Government provides concessions to assist low income households with water and sewerage bills at their principal place of residence.

In 2011-12 the Government contributed a total of $144 million in concession payments toward water bills (table 3.4). This was an increase of $9 million compared with 2010-11.

TABLE 3.4 CONCESSION PAYMENTS
($, nominal)

Water business	Payments 2010-11	Payments 2011-12
City West	19 150 663	19 154 570
South East	36 337 397	38 540 852
Yarra Valley	39 474 516	44 551 789
Barwon	7 890 303	8 428 447
Central Highlands	4 432 683	4 159 788
Coliban	4 347 542	4 484 686
East Gippsland	1 259 676	1 623 532
Gippsland	4 346 086	4 399 857
Goulburn Valley	3 576 708	3 471 339
GWMWater	2 736 682	2 555 455
Lower Murray	1 703 978	1 879 700
North East	3 111 105	3 216 001
South Gippsland	1 108 090	1 219 143
Wannon	2 468 638	2 609 817
Western	2 564 772	3 298 112
Westernport	546 609	601 510
TOTAL	**135 055 449**	**144 194 598**

Source: Department of Human Services.

3.6 SUPPLY RESTRICTIONS AND LEGAL ACTIONS

The Customer Service Code, which took effect on 1 July 2005, requires all urban water businesses to assist customers facing payment difficulties on a case by case basis. It also requires water businesses take steps before restricting supply. A revised code, released in October 2010, increased the minimum outstanding payment amount at which businesses could initiate supply restriction or legal action to $200.

Most businesses apply water supply restrictions or take legal action only after all possible assistance has been provided to customers, and where the level of outstanding debt is high and the cost of recovering that debt is less than the debt itself.

WATER SUPPLY RESTRICTIONS APPLIED FOR NONPAYMENT OF BILL

Water businesses reported on:

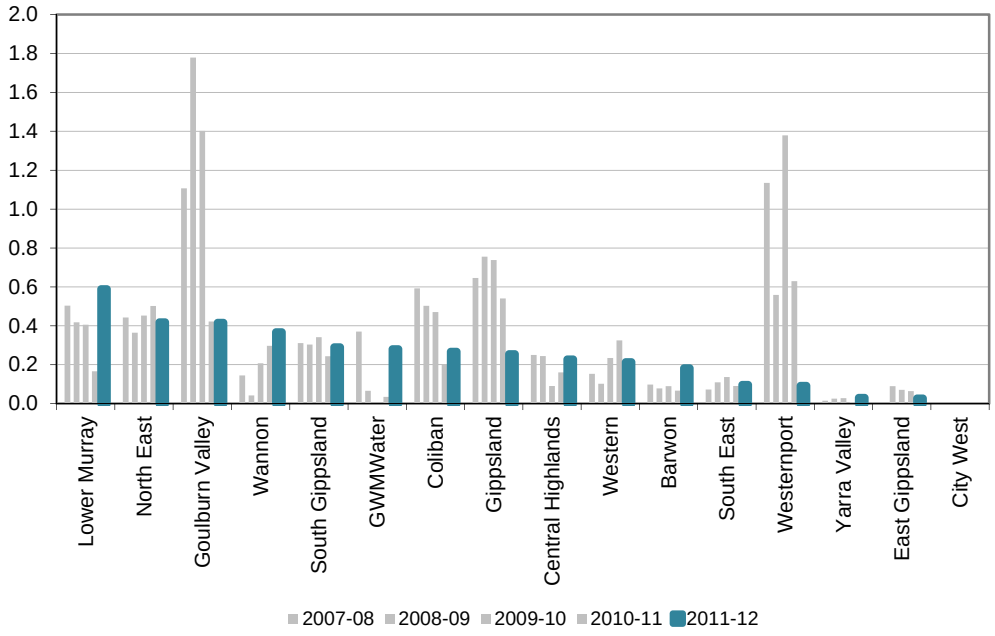
- the number of customers restricted for nonpayment of their water bills
- restrictions data disaggregated by concession/nonconcession for domestic customers
- the average level of outstanding debt for which supply restrictions were applied.

In 2011-12, 2381 domestic customers (including 370 domestic customers on concession) and 64 nondomestic customers had their water supply restricted for nonpayment of water bills. This was an increase from 2010-11, with 313 more domestic customers having their water supply restricted. The number of nondomestic customers whose water supply was restricted almost doubled (from 37 in 2010-11).

Lower Murray Water had the highest proportion of domestic water supply restrictions of any business, with 0.59 per 100 domestic customers (figure 3.4). This is a significant increase from 0.17 for 2010-11. Lower Murray Water suspended recovery action against customers following the 2010-11 floods, lowering the result for that year. The higher rate in 2011-12 reflects Lower Murray Water recommencing recovery action. GWMWater significantly increased its number of supply restrictions (from 9 in 2010-11 to 74 in 2011-12) in a targeted strategy to reduce debt. Yarra Valley Water increased its number of restricted customers from 53 restrictions in 2010-11 to 203 in 2011-12. Yarra Valley Water commented it increased its debt collection activities and identified a higher number of customers who were unwilling to pay their bills but who were not in financial hardship. Goulburn Valley Water had the highest proportion of nondomestic water supply restrictions of any business, with 0.42 per 100 nondomestic customers.

Westernport Water's number of domestic customers who had their water supply restricted for nonpayment of water bills fell to 0.9 per 100 domestic customers in 2011-12, the largest reduction of all businesses for 2011-12. City West Water did not restrict any domestic customers for nonpayment in 2011-12, continuing the trend of previous years.

FIGURE 3.4 DOMESTIC SUPPLY RESTRICTIONS FOR NONPAYMENT OF BILLS
(per 100 customers)



In 2011-12 the average debt levels when supply was restricted were similar to those in 2010-11 for most water businesses. They ranged from $360 for Barwon Water to $1833 for Yarra Valley Water.

RESTRICTION DURATION (DOMESTIC)

Water businesses must identify how long customers who are restricted for nonpayment remain on supply restrictions. Specifically, they must report the number of domestic customers whose water supply is restored within three days of being restricted, as well as the number of domestic customers with restrictions still in place after 14 days. A high proportion of customers on supply restrictions for long periods of time may suggest the restriction policy is poorly targeted, with customers unable to pay their bill rather than being unwilling to do so. Supply restrictions may also be less effective in rural areas where people have access to alternative water supplies such as water tanks and dams.

Most businesses reported a range of 23 per cent to 100 per cent of restricted customers had their water supply restored within three days. The proportion of supply restrictions not restored within 14 days generally ranged from 0 per cent (East Gippsland Water) to 62 per cent (Westernport Water).

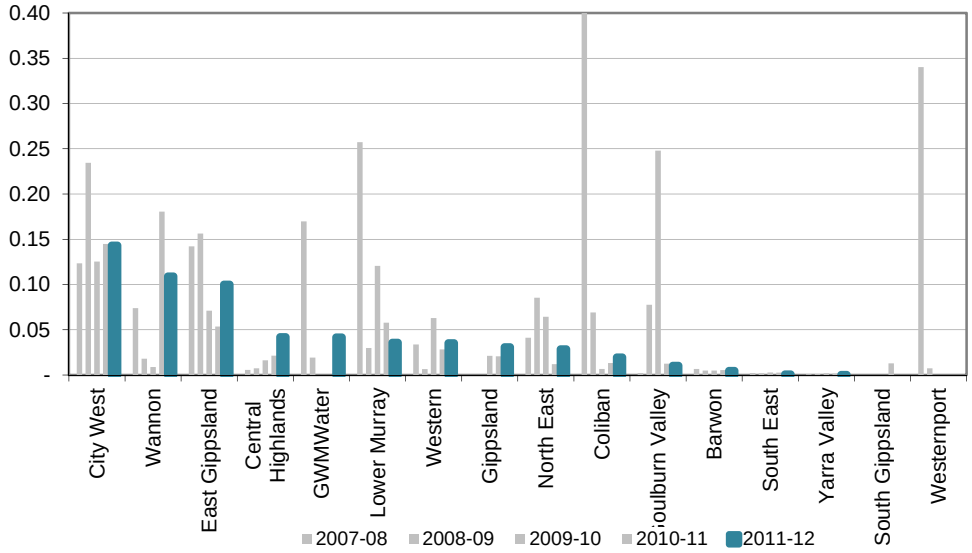
Westernport Water has an unusual situation because a large number of seasonal nonpermanent residents do not require water supply year round. These customers do not seem to mind having a restriction applied and have them removed when they return to the property and pay their outstanding bills. This consistently gives Westernport Water one of the lowest restoration rates.

LEGAL ACTIONS FOR NON PAYMENT OF BILLS

Overall, legal action was taken against 817 customers across Victoria in 2011-12 for nonpayment of water bills — 46 customers more than the previous year. Legal action was taken against 668 domestic customers (564 nonconcession customers and 88 concession customers) and 149 nondomestic customers.

Overall, there were very few (between 0.00 and 0.14 per 100 customers) or no instances of water businesses taking legal action for nonpayment of bills for domestic customers. East Gippsland Water recorded a large increase in the rate of legal action for nonpayment of bills for its domestic customers, however the rate increased from a small base of 0.05 per 100 customers in 2010-11 to 0.10 per 100 customers in 2011-12. At the same time, East Gippsland Water's rate for legal action for nonpayment of bills for nondomestic customers fell significantly from 0.81 per 100 customers in 2010-11 to 0.14 per 100 customers in 2011-12. Wannon Water recorded an overall decrease in legal action for nonpayment of bills for domestic customers from 0.18 per 100 customers in 2010-11 to 0.11 per 100 customers in 2011-12. South Gippsland Water reported no legal actions for nonpayment of bills for domestic customers.

FIGURE 3.5 DOMESTIC LEGAL ACTIONS
(per 100 customers)



Note: Westernport Water did not take legal action this financial year due to changing service providers undertaking legal actions.

The average debt at the time of legal action was substantially higher than the $200 minimum specified in our Customer Service Code and ranged from $637 for Lower Murray Water to $7417 for GWMWater. GWMWater's legal action was taken against only three customers, one of which had debt against nine properties.

3.7 HARDSHIP GRANTS (DOMESTIC)

The Customer Service Code requires all water businesses serving urban customers to have policies in place to assist domestic customers in hardship. At a minimum, the hardship policies must:

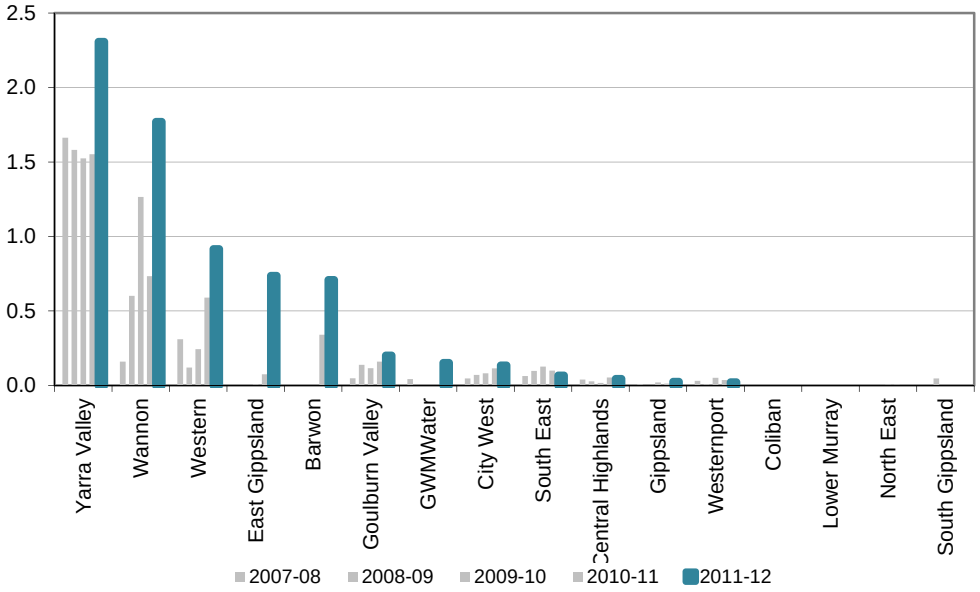
- exempt customers in hardship from supply restriction, legal action and additional debt recovery costs while payments are made to the business according to an agreed flexible payment plan or other payment schedule
- offer information about the water business's dispute resolution policy and the Energy and Water Ombudsman (Victoria) or other relevant dispute resolution forum.

Water businesses approved 18 431 hardship grants in 2011-12, up from 12 141 in the previous year. Yarra Valley Water again had the most extensive hardship grant scheme, accounting for 83 per cent of the total number of grants approved or 15 251 grants approved at an average value of $97 (figure 3.6). Yarra Valley Water noted a large proportion of customers experiencing financial difficulty are on the ‘arrange & save’ program. This program provides credits and writeoffs to the account (which are counted as a grant) when customers make their payments in full and on time over a period of time. Coliban Water, GWMWater, Lower Murray Water and South Gippsland Water did not provide any hardship grants to customers. Coliban Water and Lower Murray Water have not done so since 2007-08.

Some businesses saw a notable increase in hardship grants approved in 2011-12. Barwon Water recorded a significant increase in the number of hardship grants approved from no grants in 2009-10 to 428 grants in 2010-11 and 909 grants in 2011-12. This reflected Barwon Water's continued focus on better identifying and providing additional assistance to customers experiencing hardship, and that cost of living pressures were increasing the numbers of customers experiencing hardship. East Gippsland Water did not grant any hardship grants until 2009-10, when it approved one. By contrast, it approved 24 hardship grants in 2010-11 and 140 grants in 2011-12. East Gippsland Water commented it has been actively promoting its 'save and pay' program. This increased the number of customers on payment plans, the number of customers in hardship arrangements, and the amount paid in hardship grants.

Overall, the number of hardship grants approved rose in 2011-12, but Central Highlands Water, Westernport Water and North East Water recorded small decreases in grant approvals (decreases of five grants, two grants and two grants respectively).

FIGURE 3.6 HARDSHIP GRANTS APPROVED
(per 100 customers)

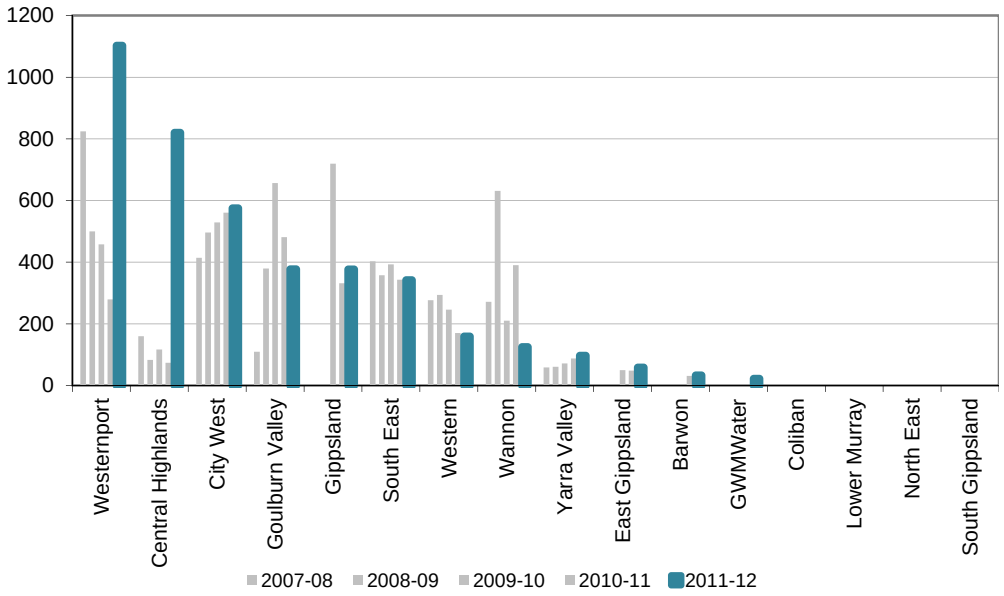


The average value of hardship grants ranged from $22 to $1102 in 2011-12 with an overall average of $116. Westernport Water reported the highest average value of hardship grants, although it only approved three grants (figure 3.7).

Wannon Water reported the largest decrease in the value of hardship grants, from $390 in 2010-11 to $125 in 2011-12 (a decrease of $266). However, it approved 365 more hardship grants than in the previous year, which meant it approved a higher number of grants at a lower average amount. The average value of Goulburn Valley Water's hardship grants fell $104, down from $481 in 2010-11 to $377 in 2011-12. Goulburn Valley Water commented the actual number of applications for hardship grants rose over the period because customers were better informed. However, the average value of individual grants applied for was lower than the previous year.

Central Highlands Water had the largest percentage increase in the average value of hardship grants approved (1013 per cent). Central Highlands Water advised this was caused by waiving interest accrued on a long-standing customer account, and introducing a plumbing repair program to assist customers under financial hardship with the costs of repairing leaks.

FIGURE 3.7 AVERAGE VALUE OF HARDSHIP GRANTS
($, nominal)



4 CUSTOMER RESPONSIVENESS AND SERVICE

4.1 BACKGROUND

This chapter reports on customer service and responsiveness performance — in particular, call centre performance and customer complaints.

The Customer Service Code places obligations on businesses for customer responsiveness and service. These include having policies, practices and procedures for handling customers' complaints and disputes, and providing certain information to customers on request. Auditing businesses' compliance with the Code is done in conjunction with performance report audits.

4.2 RESPONSIVENESS OF WATER BUSINESS CALL CENTRES

In 2011-12 the water businesses received 2.25 million phone calls, 80 per cent of which were calls to account enquiry lines.

Call centre performance is measured in terms of the:

- time taken for a customer call to be connected to an operator
- percentage of calls connected to an operator within 30 seconds
- response to 'mystery caller' surveys.

Connection measures are disaggregated between account enquiries and emergency contact numbers. Ten businesses have a separate number for faults and emergencies. These businesses are Goulburn Valley Water, Barwon Water, South East Water, North East Water, Westernport Water, Central Highlands Water, Gippsland Water, City West Water, GWMWater and Yarra Valley Water. Those without a separate fault and emergency number must record all calls against account lines. These businesses are Coliban Water, East Gippsland Water, Lower Murray Water, South Gippsland Water, Wannon Water and Western Water. This can make direct comparisons between businesses difficult, although calls are generally answered faster when a business has a fault line available to customers.

TIMELINESS OF CALL CENTRES IN CONNECTING CALLS TO AN OPERATOR

Timeliness of call centres in connecting incoming calls to operators is an important factor influencing customer satisfaction.

The time taken to connect to an operator depends on the nature of the phone system used by the business. Businesses may use interactive voice response (IVR) systems to intercept calls before directing the customer to the appropriate customer service area. This increases the time taken to connect to an operator. City West Water - with the longest connect time this year (160 seconds) - uses an IVR, while Wannon Water - with the shortest connect time (7 seconds) - has external calls answered by an operator.

Across the Victorian water industry, the weighted average time to connect to an operator was 64 seconds in 2011-12, 20 seconds longer than the average of 44 seconds in 2010-11. This increase was heavily influenced by City West Water's 101 second increase in average connection time. Coliban Water also had a notable increase from 2010-11 (by 10 seconds). The remaining businesses reported connection times similar to those reported in 2010-11 (figure 4.1).

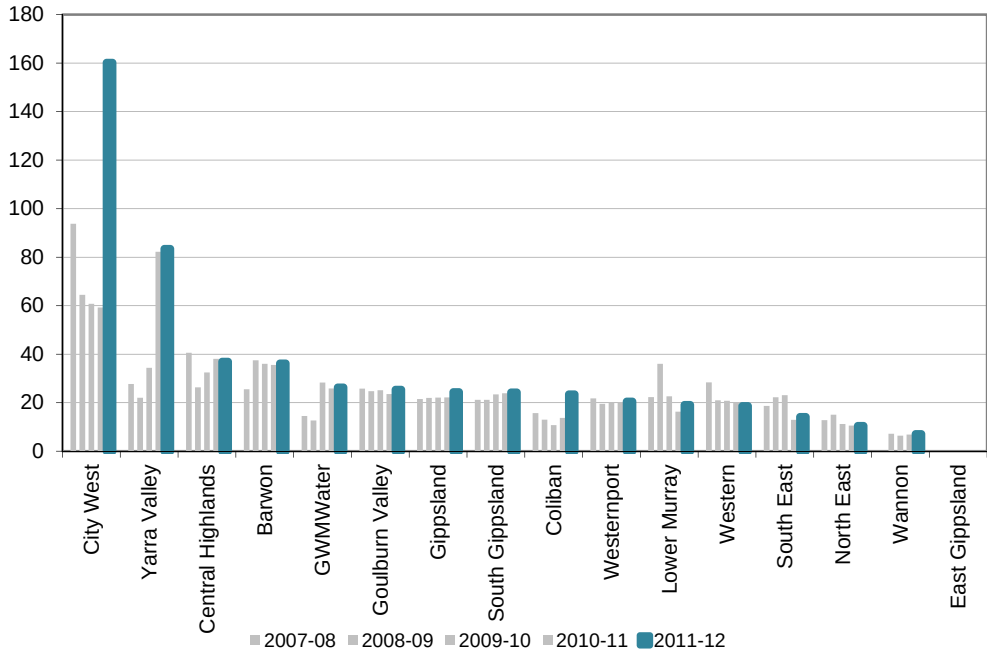
City West Water 170 per cent increase in call connect time was caused by a 126 second increase in call connect time for its account lines; its fault line call connect time did not increase. City West Water noted its contact centre experienced significant staffing instability during parts of 2011-12, resulting in periods of understaffing. City West Water has had consistently high call connect times over the past five years. It intends to invest in better IVR technology to improve call connection times.

Yarra Valley Water's call connect time remained high, at an average 83 seconds in 2011-12. Yarra Valley Water commented it redirected resources from its call centre to implement a new billing system, which limited its capacity to handle calls within expectations. It also noted its call connection times improved by the end of 2011-12. Yarra Valley Water had a similar connect time (82 seconds) in 2010-11.

No business recorded a substantial reduction in time to connect to an operator.

All 10 businesses with a separate emergency fault line reported connection times of 43 seconds or less for the fault line. Central Highlands Water recorded the largest increase (five seconds) in call connect times to its fault line. By contrast, GWMWater improved the call connect time to its fault lines by 5 seconds, from an average of 24 seconds in 2010-11 to 19 seconds in 2011-12.

FIGURE 4.1 AVERAGE TIME TAKEN TO CONNECT TO AN OPERATOR — ACCOUNT AND FAULT LINES
(seconds)



Note: East Gippsland Water was unable to report this data because all calls were answered by an operator

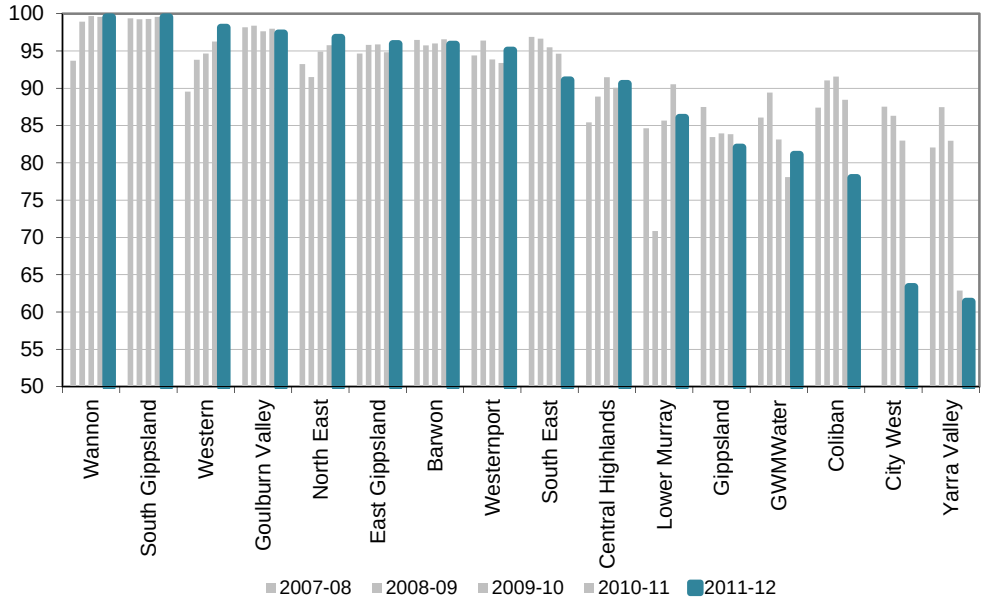
CALLS ANSWERED WITHIN 30 SECONDS

While the average time taken for calls to be connected to an operator measures the overall responsiveness of a call centre, it does not capture the frequency with which calls are answered promptly. The percentage of calls answered within 30 seconds is important because it more accurately reflects the incidence of poor waiting times.

Ten businesses reported more than 90 per cent of calls answered within 30 seconds, with South Gippsland Water and Wannon Water reporting almost 100 per cent for the fourth consecutive year (figure 4.2).

Yarra Valley Water and City West Water had the lowest percentage of calls answered within 30 seconds (61 per cent and 63 per cent respectively), reflecting the call centre resourcing issues described in the previous section. City West Water recorded the most significant decline in performance over the period, falling from 83 per cent in 2010-11 to 63 per cent in 2011-12.

FIGURE 4.2 CALLS ANSWERED WITHIN 30 SECONDS — ACCOUNT AND FAULT LINES
(per cent)



4.3 BENCHMARKING OF CALL CENTRES

The Commission engaged Customer Service Benchmarking Australia (CSBA) to benchmark call centre performance in 2011-12 against Australian water and energy sector averages. CSBA assesses a business's performance from calls to their account lines using the 'mystery caller' technique, which can result in different figures than those reported by businesses.

CSBA reported performance for sector averages (metropolitan retail and regional urban) and for the top performing business in a particular category. In 2011-12 CSBA made 1549 calls to regional urban businesses and 325 calls to the metropolitan retailers.

CALL CENTRE CONNECT TIMES

CSBA's 'mystery caller' survey for the metropolitan water businesses reported a connect time of 53 seconds in 2011-12, 1 second faster than in 2010-11. South East Water again had the shortest connect time, averaging 21 seconds per call; this was 4 seconds slower than in 2010-11 but similar to its 22 second average in 2009-10.

Regional businesses recorded the shortest connect time of all the sectors surveyed, with an average of 32 seconds (which was consistent with 2009-10 and 2010-11). Wannon Water was the best performing regional urban business, with a 13 second connect time, almost 20 seconds quicker than the Victorian regional water average.

The average connect time for the Australian water sector was 41 seconds in 2011-12 (down slightly from 42 seconds in 2010-11), while the average response time for all utilities in Australia (which includes energy and water) rose slightly to 61 seconds (from 59 seconds in 2010-11).

CALLS ANSWERED WITHIN 30 SECONDS

CSBA reported metropolitan retailers answered 62 per cent of calls within 30 seconds in 2011-12, down from 79 per cent in 2010-11 and 82 per cent in 2009-10. South East Water was again the best performer, answering 88 per cent of all calls within 30 seconds (although down 5 percentage points from 2010-11).

Regional urban businesses again performed better than the metropolitan retailers, answering 89 per cent of all calls within 30 seconds, 27 percentage points ahead of their metropolitan counterparts. This result reflects the relative decline in City West Water and Yarra Valley Water's performance in the previous two years, while the regional urban businesses' performance remained steady. North East Water and Wannon Water were the best performers, answering 99 per cent of calls within 30 seconds during the year.

Victorian regional water businesses compared favourably with the Australian average for the water sector, where 80 per cent of calls were answered within 30 seconds in 2011-12 (down from 83 per cent in 2010-11 and 85 per cent in 2009-10). The Australian utility sector remained fairly steady, answering 74 per cent of calls within 30 seconds in 2011-12 and 2010-11 and 76 per cent of calls in 2009-10.

GREETING QUALITY

CSBA measures greeting quality according to an index comprising: welcome salutation, giving the business name, giving the agent's name, making an offer to help the caller and sign off.

Greeting quality remained relatively constant over the three years to 2011-12. The metropolitan retailers achieved an overall greeting quality score of 89 per cent in 2011-12, down 2 percentage points from 2010-11. City West Water achieved the best results, with 91 per cent over the year, down from 94 per cent in 2010-11.

The regional urban businesses achieved an overall greeting quality score of 88 per cent, a slight decrease from 2010-11. Wannon Water led the Victorian regional water sector for 2011-12, with 94 per cent.

Victorian water businesses were consistent with Australian averages. The overall greeting quality score for the Australian water sector was 88 per cent in 2011-12, down from 90 per cent in 2010-11. The overall greeting quality score for the Australian utility sector was 90 per cent (down slightly from 91 per cent in 2010-11).

AGENT MANNER

CSBA measures agent (operator) manner using four mutually exclusive ratings: interested, helpful and warm (best practice agent manner); businesslike and unemotive; laidback and easygoing; and disinterested and curt.

The metropolitan retailers achieved best practice agent manner 78 per cent of the time in 2011-12 (up from 74 per cent in 2010-11). Yarra Valley Water had the best full year results with 86 per cent in 2011-12.

The regional urban businesses achieved best practice agent manner for 75 per cent of calls in 2011-12, similar to 2010-11 (76 per cent). East Gippsland Water was the best performing regional urban business in 2011-12 (with 87 per cent), overtaking Wannon Water (the best performer in 2010-11).

The performance of the Victorian water businesses was largely consistent with Australian averages. The overall best practice agent manner score for the Australian water sector was 75 per cent in 2011-12, compared to 74 per cent in 2010-11 and 73 per cent in 2009-10. The overall score for the Australian utility sector was 74 per cent (compared to 73 per cent in 2010-11 and 2009-10).

The Victorian metropolitan and regional water businesses also performed well in terms of 'acceptable' agent manner, which incorporates both the interested, helpful and warm rating and the businesslike and unemotive rating. The metropolitan retailers achieved a score of 97 per cent in this category, slightly improving on their previous score of 96 per cent for 2010-11 and 2009-10. The regional urban businesses achieved a score of 96 per cent (compared with 97 per cent in 2010-11 and 95 per cent in 2009-10). These results were consistent with the performance of the Australian water and utility sectors.

ENQUIRY HANDLING SKILLS

CSBA measures four key enquiry handling skills: ability to probe to clarify customer needs; product-service knowledge; agent provides a clear outcome for the enquiry; and agent is helpful and courteous.

In 2011-12 call centre staff of the metropolitan retailers:

- fully probed the caller's needs 64 per cent of the time (compared to 78 per cent in 2010-11 and 77 per cent in 2009-10)
- demonstrated good product knowledge 80 per cent of the time (compared to 78 per cent in 2010-11 and 84 per cent in 2009-10)
- provided a clear outcome to an enquiry 85 per cent of the time (compared to 81 per cent in 2010-11 and 86 per cent in 2008-09)
- were courteous and helpful 89 per cent of the time (compared to 91 per cent in 2010-11 and 88 per cent in 2009-10).

South East Water performed best in all enquiry handling skill categories, with 81 per cent for 2011-12.

In 2011-12 call centre staff of the regional urban businesses:

- fully probed the caller's needs 65 per cent of the time (compared to 72 per cent in 2010-11 and 74 per cent in 2009-10)
- demonstrated good product knowledge 83 per cent of the time (compared to 84 per cent in 2010-11 and 88 per cent in 2009-10)
- provided a clear outcome to an enquiry 85 per cent of the time in both 2011-12 and 2010-11 (down from 89 per cent in 2009-10)
- were courteous and helpful 89 per cent of the time (compared to 88 per cent in 2010-11 and 91 per cent in 2009-10).

East Gippsland Water was the best Victorian regional water company in the enquiry handling skills category for 2011-12, with 88 per cent.

4.4 COMPLAINTS

Customer complaints indicate overall customer satisfaction with the services provided by water businesses. The subject matter of customer complaints can also provide important information about aspects of performance needing improvement. Where a business is unable to resolve a complaint directly with the customer, the customer may refer the matter to the Energy and Water Ombudsman (Victoria) (EWOV) for further investigation.

TOTAL NUMBER OF COMPLAINTS

The performance reporting framework requires businesses to report the number of customer complaints for the following:

- water quality
- water supply reliability
- sewerage service quality and reliability
- affordability
- billing
- water pressure
- sewage odour
- 'other' complaints.

A complaint is registered if a customer registers dissatisfaction in a complaint category.

Businesses must also further categorise the types of water quality complaints they receive into:

- colour
- taste and odour
- blue water
- 'other'.

Water quality complaints are discussed in more detail in chapter 6.

In 2011-12 businesses received a total of 16 235 complaints, a 20 per cent increase from the 13 498 complaints received in 2010-11. This equates to a frequency of 0.67 complaints per 100 customers across the state in 2011-12. East Gippsland Water reported the lowest number of complaints per 100 customers (at 0.20), followed by North East Water with 0.31 complaints per 100 customers (figure 4.3).

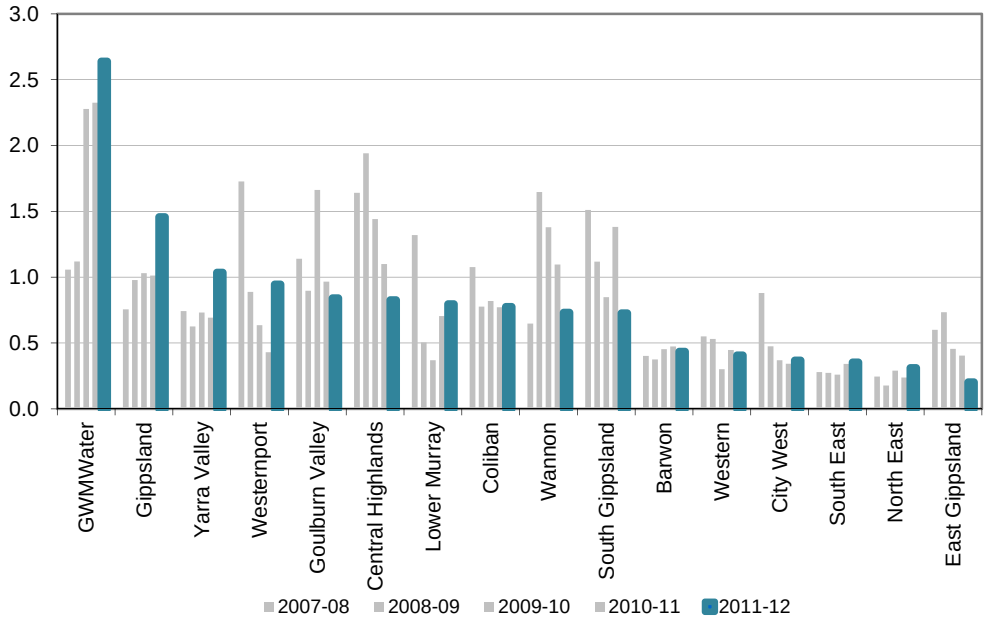
GWMWater's complaint rate was highest for the third consecutive year in 2011-12, with 2.64 complaints per 100 customers. This high result reflected both billing issues and water quality issues - as outlined in chapter 6, GWMWater experienced water quality issues following flooding in 2010-11 that is still impacting turbidity levels. The high figure also reflects the inclusion of rural customer billing complaints. Westernport Water also had a significant increase in complaints (0.94 complaints per 100 customers, up from 0.43 in 2010-11) caused by water quality issues and water pressure issues. Westernport Water commented its results were negatively affected by: its ongoing air scouring program (a treatment process to manage a blue-green algae event), a pressure increase in one suburb that is now rectified, and odour issues from one pump station that have now been mitigated.

Gippsland Water saw an increase (1.46 complaints per 100 customers up from 1.01 in 2010-11) caused by several factors, including water quality, affordability and pressure. Gippsland Water noted its increased complaints were the result of a taste and odour event affecting the Moe supply region in November 2011, and a burst water main in Sale in June 2012 leading to dirty water complaints. Yarra Valley Water also had a significant increase this year (1.03 complaints per 100 customers, up from 0.69 in 2010-11), commenting complaints increased as prices increased and following the desalination plant payment issue in May 2012 to June 2012. City West Water and South East Water’s results did not change significantly, despite also facing pricing and desalination issues.

South Gippsland Water reported the greatest improvement in complaint numbers decreasing from 1.38 complaints per 100 customers in 2010-11 to 0.73 complaints in 2011-12. South Gippsland Water attributed this to implementing pressure management in the Yarram system and an on-going pipe replacement program. Wannon Water also recorded a large improvement (from 1.1 to 0.73 complaints per 100 customers).

The complaint types received by the water businesses in order of frequency were: water quality (39.7 per cent), billing (26.8 per cent), water pressure (9.8 per cent), sewer odour (3.6 per cent), affordability (3.3 per cent), water supply reliability (1.1 per cent), and sewer service reliability (0.8 per cent). Other complaints not included in these categories comprised 14.8 per cent of total complaints.

FIGURE 4.3 COMPLAINTS RECEIVED BY WATER BUSINESSES
(per 100 customers)



4.5 COMPLAINTS RECEIVED BY THE ENERGY AND WATER OMBUDSMAN (VICTORIA)

Since 2001 EWOV has investigated complaints about water businesses. Its role is to help resolve complaints and disputes between consumers and electricity, gas and water providers in Victoria.

EWOV records complaints under three separate categories: investigated complaints; assisted referrals; and unassisted referrals. It also records the number of enquiries it receives. Information on the number of enquiries and complaints EWOV receives about each business is set out in table 4.1.

In 2011-12 EWOV received 2008 complaints and 69 enquiries about the metropolitan and regional urban businesses, up 16 per cent from 1731 complaints and 197 enquiries in 2010-11.

South East Water had the smallest frequency of complaints to EWOV of the metropolitan retailers, with 24 per cent of metropolitan complaints while servicing 38 per cent of metropolitan customers. By contrast, City West Water and Yarra Valley Water again had a higher proportion of complaints than their sector share.

For the regional businesses, Westernport Water had the highest number of complaints referred to EWOV relative to sector share, with 4 per cent of all regional complaints while only servicing 2 per cent of the regional population. This was followed by Wannon Water (10 per cent of regional complaints and a 6 per cent sector share). Goulburn Valley Water experienced the lowest ratio of customer complaints to EWOV relative to customers served, with only 5 per cent of all regional complaints while servicing 8 per cent of regional customers. This was followed by North East Water (4 per cent of regional complaints and a 7 per cent sector share).

TABLE 4.1 EWOV CASES

Water Businesses	Total Cases				Total Enquiries		Total Complaints		2011-12 Complaints			Sector Share	Ratio
	2011-12	%	2010-11	%	2011-12	%	2011-12	%	Investigated Complaints	Assisted Referrals	Unassisted Referrals		Complaints to Sector Share
Melbourne Water	100		58		2		98		18	43	37	-	-
City West	424	27	364	26	14	28	410	27	71	227	112	22	1.27
South East	373	24	387	27	15	30	358	24	43	211	104	38	0.63
Yarra Valley	753	49	672	47	21	42	732	49	122	433	177	40	1.21
Total – Metropolitan	**1 550**	**100**	**1 423**	**100**	**50**	**100**	**1,500**	**100**	**236**	**871**	**393**	**100**	
Barwon	65	15	81	19	6	35	59	14	7	35	17	21	0.67
Central Highlands	54	13	59	8	1	6	53	13	12	23	18	10	1.34
Coliban	52	12	42	6	2	12	50	12	9	28	13	10	1.17
East Gippsland	10	2	21	4	1	6	9	2	1	7	1	3	0.65
Gippsland	48	11	43	8	1	6	47	11	3	28	16	10	1.16
Goulburn Valley	21	5	31	10	1	6	20	5	3	14	3	8	0.58
GWMWater	25	6	22	3	1	6	24	6	8	13	3	5	1.22
Lower Murray	17	4	9	3	0	0	17	4	2	7	8	5	0.84
North East	20	5	14	6	2	12	18	4	3	10	5	7	0.61
South Gippsland	13	3	13	3	0	0	13	3	0	8	5	3	1.09
Wannon	39	9	46	11	0	0	39	10	5	23	11	6	1.50
Western	45	11	43	12	1	6	44	11	2	26	16	8	1.29
Westernport	18	4	20	7	1	6	17	4	5	5	7	2	1.76
Total — Regional	**427**	**100**	**444**	**100**	**17**	**100**	**410**	**100**	**60**	**227**	**123**	**100**	**427**
TOTAL — VICTORIA	**2 077**		**1 925**		**69**		**2 008**		**314**	**1 141**	**553**		

Source: Energy and Water Ombudsman (Victoria) 2012, Annual Report 2011-12. Melbourne.

5 NETWORK RELIABILITY

5.1 BACKGROUND

A reliable supply of water and sewerage services to customers is the cornerstone of a water business's operation. This chapter presents information on network reliability, considering performance of the assets, service interruptions to customers and responsiveness to service problems.

We look firstly at water supply, then at sewerage services.

5.2 WATER SUPPLY RELIABILITY

This section reports information about water supply reliability from two perspectives - asset performance and the impact on customers.

Reliability is assessed primarily by:

- the frequency of interruptions (as measured by the number of interruptions per 100 kilometres of water main, the average number of customer interruptions and the number of customers receiving multiple interruptions)
- the time taken to respond to and restore water supply following interruptions (as indicated by the number of interruptions restored within specified timeframes and the average duration of customer interruptions)

5.3 WATER SUPPLY INTERRUPTIONS

A water supply interruption is an event that causes a total loss of supply to one or more customers. Interruptions may be due to planned maintenance activities, or unplanned activities resulting from pipeline or delivery system failures. The frequency of interruptions across different networks is compared by measuring the number of water supply interruptions per 100 kilometres of water main.

Soil type, geography and the assets' age and material cause regional variations in interruption rates for water mains, but asset management can also significantly affect supply reliability in the medium to long term.

Over the last five years, the average number of water supply interruptions across the state improved, down to 36.0 interruptions per 100 kilometres of water main in 2011-12 from 45.3 interruptions in 2007 08. In 2011-12 Wannon Water again reported the lowest rate of water supply interruptions (at 5.5 per 100 km), as they have done for the past five years while continuing to improve their performance (figure 5.1). By contrast, Lower Murray Water reported the highest number of water supply interruptions (88.6 per 100 km) caused by a very large increase in planned interruptions. This is its highest result in the last five years and goes against its recent improving trend.

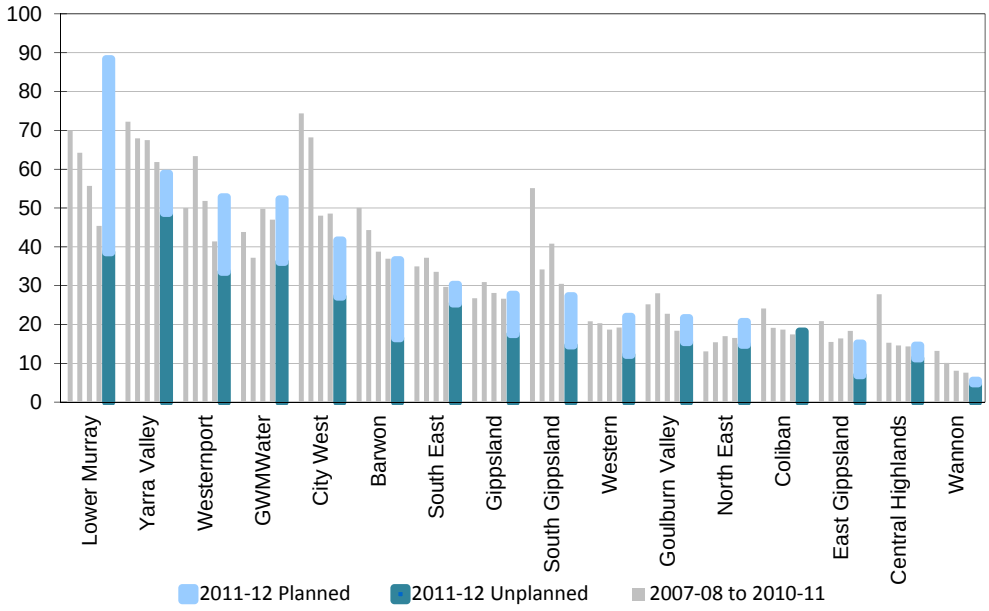
Most water businesses' 2011-12 performance was consistent with previous years. The largest increases were reported by Lower Murray Water and Westernport Water. North East Water also reported a 25 per cent increase, continuing an upward trend over recent years, although it is still one of the better performers.

Lower Murray Water carried out an extensive air scouring program of its water mains during 2011-12 affecting all towns in its supply system. These planned interruptions were generally for one to three hours. As a result, planned interruptions increased from 76 in 2010-11 to 449 in 2011-12, and the associated planned interruption duration rose from 46 minutes in 2010-11 to 156 minutes in 2011-12. Lower Murray Water advised the planned interruption frequency and duration in 2012-13 should return to levels similar to those in 2010-11 once the scouring program is complete.

The water businesses showing the best longer term improvements for water supply interruptions are Wannon Water (13.2 in 2007-08 down to 5.5 in 2011-12), Barwon Water (50.1 in 2007-08 down to 36.6 in 2011-12), City West Water (74.4 in 2007-08 down to 41.7 in 2011-12) and Yarra Valley Water (72.2 in 2007-08 down to 58.8 in 2011-12).

Wannon Water, Central Highlands Water, North East Water, Coliban Water and East Gippsland Water, consistently maintained low water supply interruption rates (around 20 or less) in the last five years. However, North East Water's annual results have been increasing. Coliban Water reported zero planned interruptions for the fourth straight year.

FIGURE 5.1 WATER SUPPLY INTERRUPTIONS (PLANNED AND UNPLANNED)
(per 100 kilometres of water main)



5.4 CUSTOMER INTERRUPTION FREQUENCY

Customer interruption frequency measures how often on average a customer will experience an interruption. One water supply interruption will generally inconvenience a specific number of customers. For example, an event causing 50 customers to lose supply is recorded as one water supply interruption and 50 customer interruptions.

In 2011-12 the average frequency of customer interruptions (planned and unplanned) across the state was 0.24 interruptions per customer (the same level as 2010-11). Wannon Water reported the least water supply interruptions per customer (0.04) and has done so since 2009-10 (figure 5.2). By contrast, Westernport Water reported the highest number of interruptions per customer (1.10), which has been the case over the last five years. Its result increased in 2011-12 because its unplanned interruptions rate doubled (up to 0.67 from 0.34 in 2010-11).

Westernport Water's ongoing high customer interruption frequency is closely related to the unusual nature of its business; it has a very small customer base mostly located on Phillip Island with a single water supply main to the island. Any interruption to this supply, planned or unplanned, will impact a large proportion of the customer base. Furthermore, the region's population is very seasonal, with many empty holiday houses during the non-summer months leading to water stagnating in dead-end supply mains. Westernport Water introduced its extensive air scouring and flushing program to clear stagnant lines before the holiday season, which also contributes to the high number of interruptions recorded, although many of these will be for unoccupied houses.

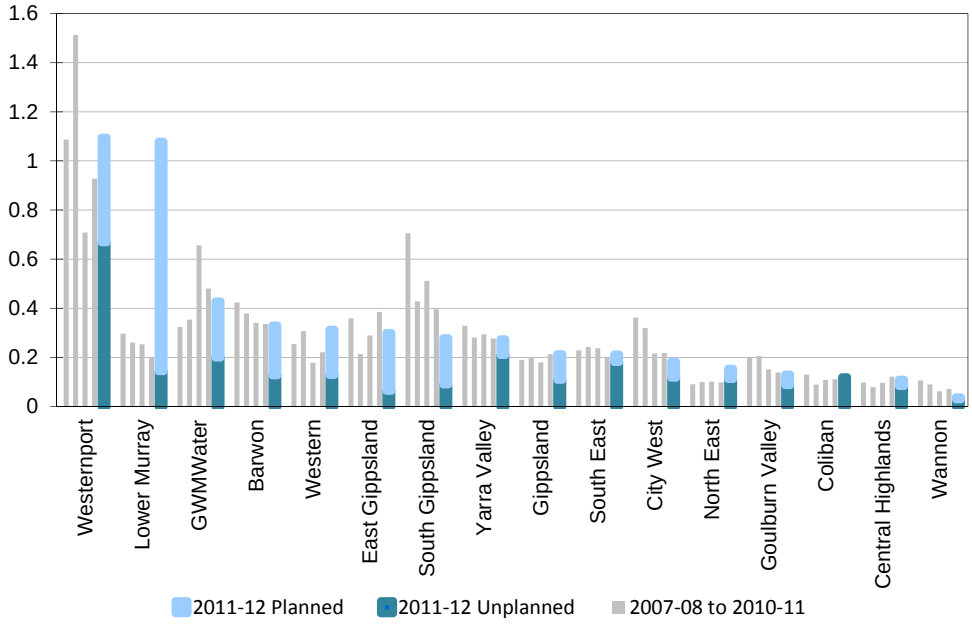
Among the metropolitan businesses, City West Water improved on their 2010-11 customer interruption frequency, while South East Water and Yarra Valley Water remained fairly steady. Of the regional businesses, Wannon Water, South Gippsland Water, East Gippsland Water and GWMWater also reported improved results. By contrast, Lower Murray Water's customer interruption frequency jumped from 0.20 up to 1.08 as a result of the planned air scouring program described above.

Results are also presented separately for planned and unplanned interruptions per customer. Nine businesses experienced increases in planned customer interruption frequency while eight businesses experienced increases in unplanned interruptions per customer.

Several water businesses' performance improved over recent years, including South Gippsland Water, Wannon Water, Goulburn Valley Water, City West Water and Barwon Water. By contrast, North East Water's results slowly increased each year.

South Gippsland Water attributes its ongoing improvement to implementing pressure management in the Yarram system, and to its pipe replacement program throughout the region.

FIGURE 5.2 CUSTOMER INTERRUPTION FREQUENCY (PLANNED AND UNPLANNED)
(interruptions per customer)



The timing of customer interruptions, as well as the frequency, affects the inconvenience caused to customers. Customer interruptions during peak hours of water use occur from 5am-9am and 5pm-11pm.

In 2011-12 Western Water and Coliban Water reported no planned customer interruptions during peak hours, which has been the case for Coliban Water for the last five years. Westernport Water reported the highest result for the fifth straight year, with a frequency of 0.02 planned interruptions per customer during peak hours. However, this improved on its 2010-11 result of 0.04 planned interruptions per customer during peak hours. It previously advised the duration of the air scouring process necessitates some interruptions during peak hours.

5.5 AVERAGE DURATION OF INTERRUPTIONS

Average interruption duration indicates how long it takes, on average, to restore supply after an interruption. It is measured from the time water supply is shut down until it is returned to normal service levels.

The frequency of interruptions may be influenced by matters outside the control of water businesses, but it is possible to establish practices and procedures to ensure the timely restoration of supply when an interruption does occur.

PLANNED INTERRUPTIONS

Supply interruptions for planned work can vary greatly in duration, depending on the nature and extent of the planned work. On the one hand, businesses may conduct extensive programs to clean or replace pipes, and choose to maximise the amount of work performed during each scheduled supply interruption, which will increase the average duration. On the other hand, a business may strive to minimise or avoid planned supply interruptions wherever possible. This can produce quite varied results for a particular business from year to year, depending on the planned workload and strategy.

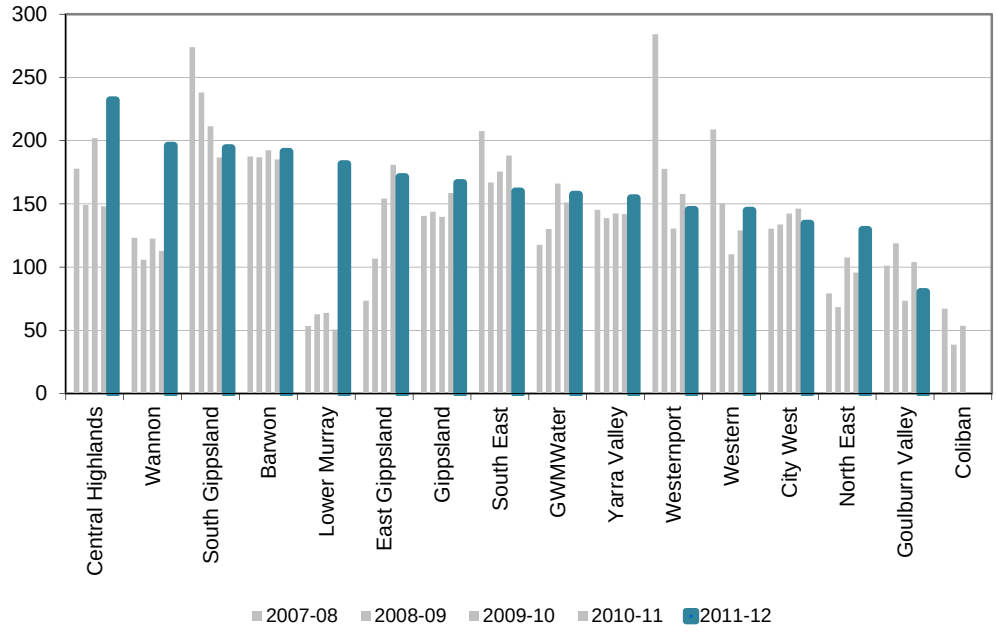
In 2011-12 the average duration of planned interruptions across the state increased slightly to 162 minutes from 159 minutes in 2010-11 (figure 5.3). Apart from Coliban Water (with zero planned water supply interruptions for the second straight year), Goulburn Valley Water recorded the shortest average duration of planned interruptions (80 minutes) while Central Highlands Water recorded the longest (232 minutes and its highest result in the last five years).

Among the metropolitan businesses, South East Water and City West Water improved their average duration for planned interruptions compared with 2010-11. For the regional businesses, East Gippsland Water, Goulburn Valley Water and Westernport Water also reported better results. By contrast, Lower Murray Water, one of the best performers over the last five years (with the second shortest annual average duration for planned interruptions), saw its average duration more than triple as a result of the planned air scouring program — up to 181 minutes in 2011-12 from 51 minutes in 2010-11.

Central Highlands Water had an 84 minute increase in 2011-12 caused by an increased focus on preventative works including renewing larger diameter mains and air scouring in larger townships. These works were generally longer to ensure maximum benefit from planned outage activities. Central Highlands Water did report a correspondingly significant reduction in unplanned interruptions in 2011-12.

Wannon Water also reported a large 83 minute increase in average duration of planned interruptions, due mainly to two planned projects on water mains requiring a longer than expected supply interruption.

FIGURE 5.3 AVERAGE DURATION OF PLANNED INTERRUPTIONS
(minutes)



UNPLANNED INTERRUPTIONS

Unplanned interruptions generally involve the failure of water supply infrastructure, such as pipeline bursts, equipment or instrument failures, requiring water supply to be shutdown while emergency repairs are conducted. The duration can be greatly affected by factors including the size and location of the pipeline, access to the worksite, the availability of work crews to attend, and the nature of the repair required.

In 2011-12 the average duration for unplanned interruptions across the state decreased, down to 103 minutes from 110 minutes in 2010-11 (figure 5.4). Lower Murray Water recorded the shortest average duration (55 minutes) in stark contrast to the big impact of planned work this year, while North East Water reported the longest average duration (199 minutes). This is its highest result and almost double its annual average duration in the last five years.

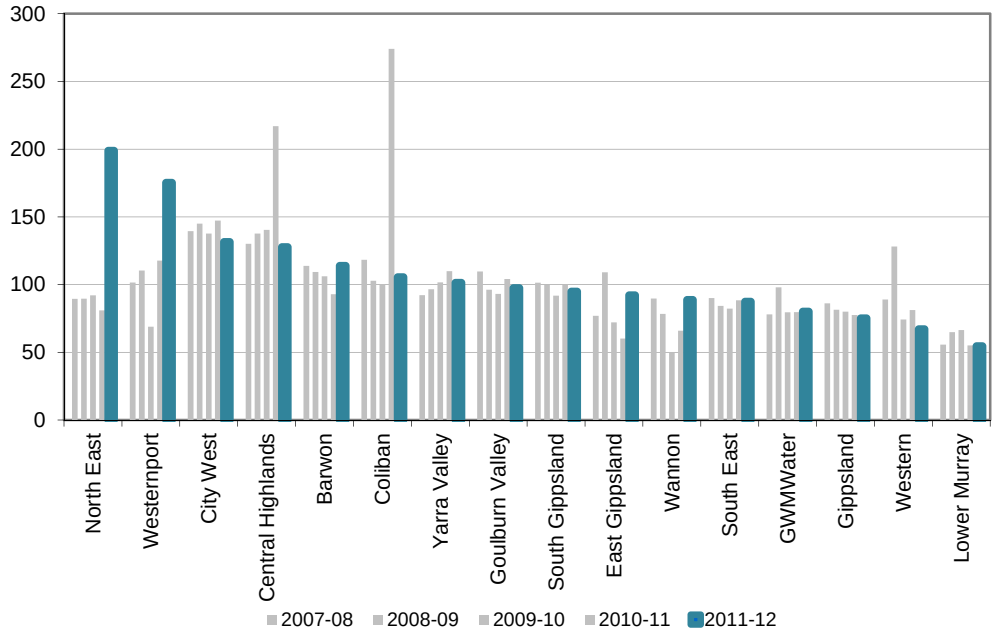
All three metropolitan businesses reported small improvements in the average duration for unplanned interruptions compared with 2010-11, while seven regional businesses improved their performance and six reported deteriorations in their results.

Coliban Water and Central Highlands Water were both heavily affected by the January 2011 floods, which resulted in some very long supply outages. This year, their performances were similar to earlier years.

By contrast, North East Water not only reported the highest average duration, it also experienced the biggest percentage increase (146 per cent) in average duration for unplanned interruptions compared with 2010-11. North East Water explained this was caused by water main failures in Myrtleford and Yarrawonga, with the Myrtleford interruption resulting in an overnight outage to the town.

Westernport Water also had a 50 per cent increase in unplanned interruption duration, up to 175 minutes from 118 minutes. This was mainly attributable to supply main bursts across the system and some leaks developing following air scouring.

FIGURE 5.4 AVERAGE DURATION OF UNPLANNED INTERRUPTIONS
(minutes)



5.6 OVERALL RELIABILITY

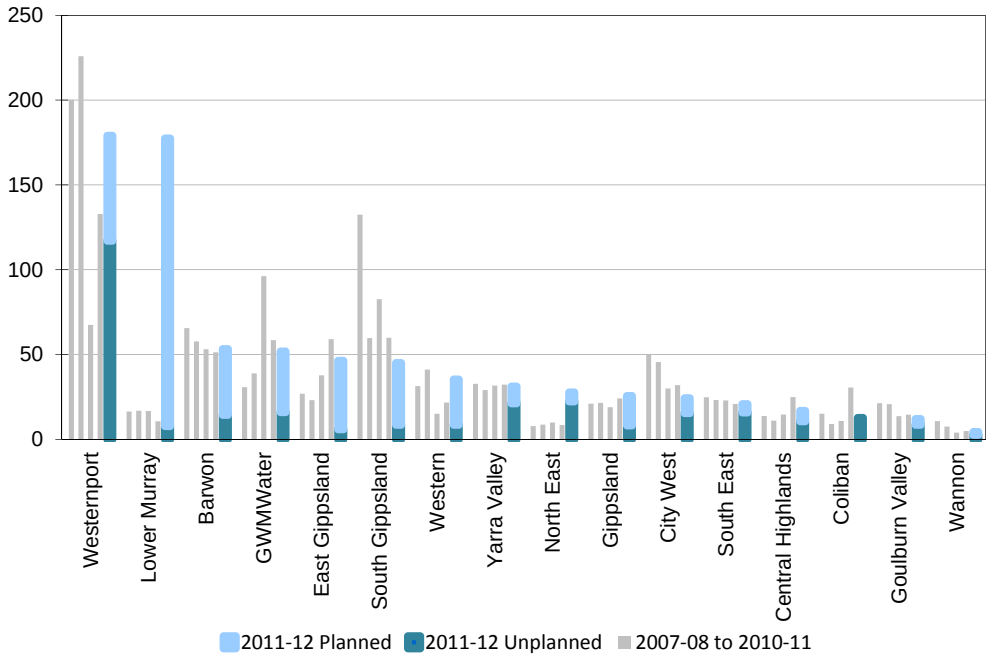
Overall reliability of a water supply network is measured by customer minutes off supply (the product of average customer interruption frequency and average interruption duration). Therefore, businesses can improve overall reliability by reducing the frequency of interruptions, reducing the number of customers affected with each interruption event or by targeting the duration of interruptions. Businesses are likely to pursue a combination of these approaches to improve reliability.

In 2011-12 the average customer minutes off supply across the state remained fairly steady, at 30 minutes compared with 29 minutes in 2010-11 (figure 5.5). Wannon Water reported the smallest average customer time off supply for the last four years (4 minutes in 2011-12), while Westernport Water reported the highest (179 minutes) for the fourth time in the past five years, due mainly to its air scouring program.

Among the three metropolitan businesses, City West Water reported improved performance while South East Water and Yarra Valley Water remained steady. Seven regional businesses reported improved results with Coliban Water and Central Highlands Water experiencing the highest percentage reduction after last year's flood impacts. By contrast, six regional businesses reported deteriorations in their 2011-12 results. Lower Murray experienced the worst result, increasing to 177 minutes from 11 minutes in 2010-11, directly reflecting its extensive air scouring program described earlier. Before 2011-12, Lower Murray Water was consistently one of the best performing regional businesses, ranging from 11 to 17 minutes.

Most businesses reported variable results over the last five years with the exceptions of City West Water, Goulburn Valley Water and South East Water. These businesses reported steadily decreasing average customer minutes off supply over the period.

FIGURE 5.5 AVERAGE CUSTOMER MINUTES OFF SUPPLY
(minutes)



5.7 CUSTOMERS EXPERIENCING AN INTERRUPTION

This measure examines the number of customers who experienced a particular number of interruptions in a year. Many of the performance indicators concentrate on average performance, but this measure can identify customers who received poor service with a higher number of interruptions.

GWMWater and Westernport Water did not report this data for 2011-12, because their current asset management systems cannot properly capture multiple interruptions for a given customer. Both businesses advised they expect to be able to capture this information for inclusion in the next reporting period after improving their systems.

Nine of the 14 businesses collating this data in 2011-12 reported less than 10 per cent of customers incurred one or more unplanned water supply interruptions. Wannon Water reported the lowest interruption rate (2.4 per cent) while Yarra Valley Water (15.7 per cent) and South East Water (13.3 per cent) reported the highest rates.

In terms of multiple interruptions (two or more unplanned interruptions), Goulburn Valley Water reported the smallest percentage (0.1 per cent of customers) while Yarra Valley Water reported the highest (3.8 per cent) followed by South East Water and North East Water (both 3.1 per cent).

Businesses also reported the restoration times for unplanned and planned customer interruptions. These measures look at how promptly a water business restores supply once it shuts down a water main. The majority of unplanned water supply interruptions are restored within three hours, ranging from 69 per cent at City West Water up to 98 per cent at Lower Murray Water. Seven businesses reported more than 90 per cent. All businesses reported more than 95 per cent of unplanned interruptions were restored within five hours, and 99 per cent within 12 hours.

5.8 SEWERAGE SERVICE RELIABILITY

This section reports information about the reliability of sewerage services from two perspectives — the performance of the businesses' assets and the impacts on customers. Sewerage reliability is influenced by:

- frequency of service failure (as indicated by sewer blockages per 100 kilometres of main and the number of blockages experienced by customers)
- responsiveness to service failure (as indicated by sewer spills contained within five hours)
- containment of sewage within the system (as indicated by the number of sewage spills, in particular spills onto customers' properties).

Customers in Victoria rarely lose access to sewerage services. Blockages or other faults usually result in sewage spills rather than incapacity to dispose of sewage. The exception is when blockages occur in the pipe connecting a customer's property to the sewerage system. The impact of these interruptions, while great on the individual customer affected, is minor in an overall network context because it is confined to that customer. By contrast, a single water supply interruption will typically result in a loss of service to about 50 properties.

5.9 FREQUENCY OF SEWER BLOCKAGES

A sewer blockage is a partial or total obstruction of a sewer main that impedes sewage flow. This includes all trunk and reticulation main blockages, but excludes blockages in the service connection branch and property drain.

A sewer blockage may lead to a sewage spill because it reduces the capacity of the sewer to handle the volume of sewage, particularly at times of high rainfall. Asset management practices affect the performance of the sewerage network, but a range of external factors can contribute to sewer blockages, particularly hot liquid fats solidifying as they cool and tree roots intruding into the sewers.

The overall rate of sewer main blockages across the state continued to fall in 2011-12, with 18 sewer blockages per 100 km of sewer main, down from 25 in 2010-11 (figure 5.6). Fourteen of the 16 water businesses showed an improvement in performance, with 12 of those reporting the lowest sewer blockage rate since reporting to the Commission commenced. Only South Gippsland Water and Coliban Water reported increases in sewer blockage rate this year (up 45 and 5 per cent respectively). East Gippsland Water (2.7) and Westernport Water (4.7) had the lowest rates of sewer blockages. As in previous years, Coliban Water and Yarra Valley Water reported the two highest sewer blockage rates (43.0 and 26.3 per 100 kilometres of sewer main respectively), however Yarra Valley Water's rate improved by 35 per cent from last year.

East Gippsland Water recorded the biggest percentage improvement in 2011-12 (down to 2.7 blockages per 100 km of sewer main from 8.8 in 2010-11), the best annual result of any business.

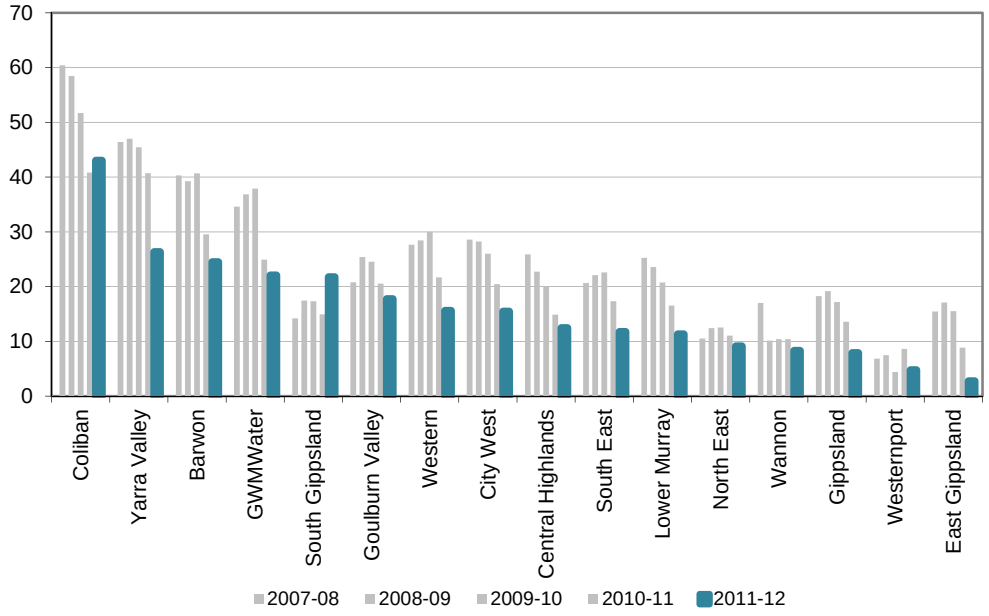
Businesses also report the number of customers affected by sewer blockages caused by a fault in the system, identifying where a customer experienced multiple sewer blockages during the year. This parameter can be very subjective, because it is difficult to determine how many customers are actually affected by a particular sewer blockage, unlike water where precise numbers are known. A sewer blockage may result in a sewer spill at a low point in the system, without necessarily leading to a loss of service for all upstream customers. This is because customers upstream of the blockage and spill location might still be able to discharge into the sewer.

Most businesses continued to report less than 1 per cent of their customers experience one or more sewer blockages per year, with most improving from last year. The exceptions are North East Water (2.3 per cent of customers) and Coliban Water (1.1 per cent). North East Water explained its figure this year was influenced by repairs carried out on two sewer rising mains in Benalla, which resulted in a supply interruption to a larger number of customers. Coliban Water historically had a higher number of blockages relative to other businesses due to its ageing, shallow gravity sewers in Bendigo, but this number fell in recent years. Additional expenditure proposed in its 2013-18 Water Plan should result in enhanced long term performance and service improvements in sewer reliability.

As with multiple water interruptions, GWMWater and Westernport Water did not report on multiple sewer blockages due to the limitations of their current asset management systems, and advised they will be able to comply with this reporting requirement in future years.

Of those businesses that do report multiple blockages, the majority reported less than 0.1 per cent of customers experience more than one sewer blockage.

FIGURE 5.6 SEWER BLOCKAGES
(per 100 kilometres of sewer main)



5.10 CONTAINMENT OF SEWER SPILLS

Reticulation and branch sewage spills are a failure to contain sewage within the sewerage system. This measure excludes spills from emergency relief structures and at sewer pump stations and spills due to blockages in house connection branches. The severity of spills is broken into two priority levels.

A priority one spill refers to a spill that causes:

- a public health concern
- significant damage to property
- a discharge to a sensitive receiving environment, or
- a discharge from a sewer pipe that is 300 millimetres (or greater) in diameter, or the flow is greater than 800 litres per minute.

A priority two spill refers to any minor failure to contain sewage within the sewerage system and any spill affecting several users that results in:

- minor property damage, or
- a discharge outside a building that does not pose a health risk.

PRIORITY ONE AND TWO SPILLS

In 2011-12:

- Fourteen of the sixteen water businesses reported three or less priority one sewer spills per 100 kilometres of sewer main, and ten reported one or less spill. Historically, eight businesses had less than one priority one spill per 100 kilometres of sewer main for five years running, with only Coliban Water and South Gippsland Water averaging more than five for the same period (figure 5.7).
- Coliban Water continued to have a considerably greater number of priority one spills than other businesses, which it attributed to a high number of blockages caused by the age and condition of its sewer network. Coliban Water reported an increased number of priority one spills in 2011-12, up to 13.3 from 10.2 in 2010-11.
- While Yarra Valley Water again reported the highest rate of priority two spills (17.3 per 100 kilometres of sewer main) this is its best result, down from 31.5 in 2010-11 and the previous best of 27.1 in 2005 06.

- Gippsland Water, Lower Murray Water and North East Water all reported zero priority one sewer spills.

It is worth noting some businesses classify their spills differently. For example, South Gippsland Water considers all sewer spills have a potential public health concern, and therefore classifies all sewer spills as priority one.

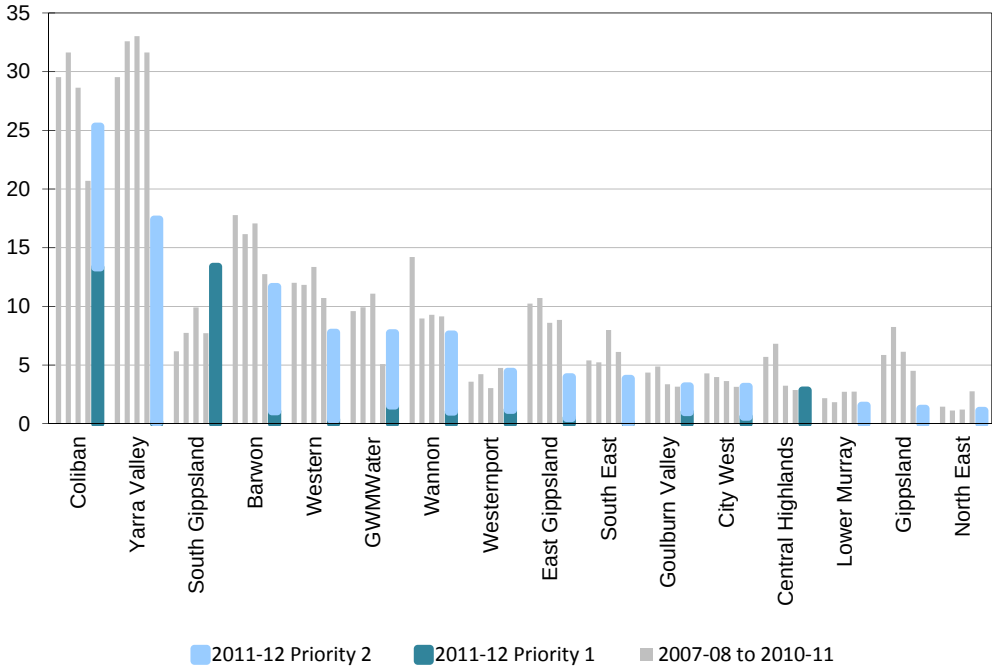
CONTAINING SPILLS

Reporting the percentage of spills that are fully contained within five hours reflects the timeliness with which businesses contain sewer spills from branch and reticulation sewers.

In 2011-12 twelve businesses contained 100 per cent of sewer spills within five hours, up from seven businesses last year. The remaining four businesses were Yarra Valley Water (99.4 per cent, up from 98.6 per cent in 2010-11), GWMWater (98 per cent, up from 97 per cent), Westernport Water (93.3 per cent, up from 87.5 per cent) and Gippsland Water (falling significantly, down to 60 per cent from 94.3 per cent in 2010-11). However, the actual number of spills not contained within five hours is quite small for most of these businesses: 10 spills of 1578 for Yarra Valley Water, one of 50 for GWMWater, and one of 15 for Westernport Water. Gippsland Water did not contain eight of 20 spills within five hours.

Historically, water businesses responded quickly to contain sewer spills. Over the last five years, the overall response has seen 99.5 per cent of sewer spills contained within five hours.

FIGURE 5.7 SEWER SPILLS FROM RETICULATION AND BRANCH SEWERS
(per 100 kilometres of sewer main)



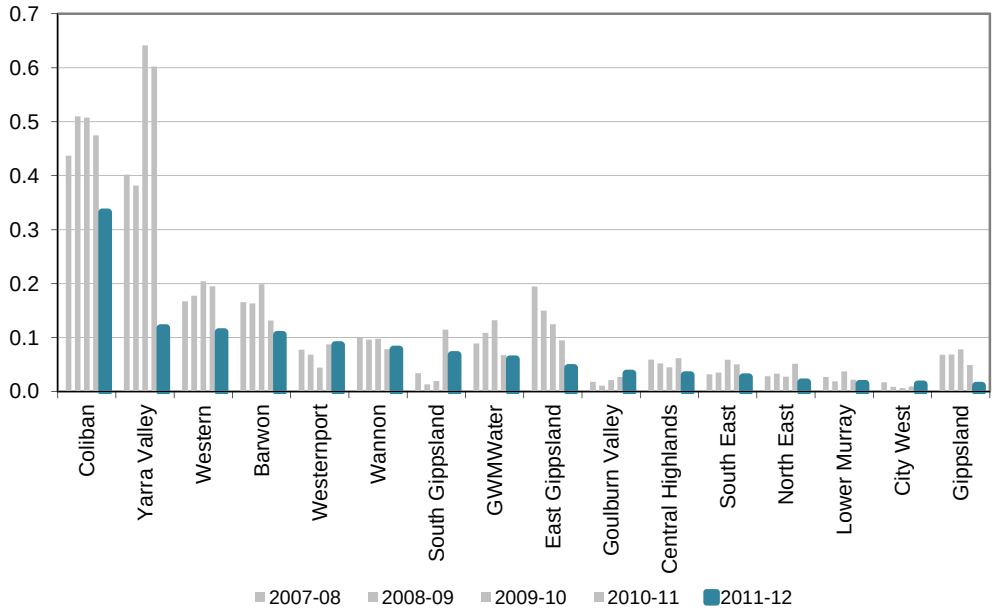
5.11 SEWER SPILLS - CUSTOMER PROPERTIES AND THE ENVIRONMENT

Another measure of sewerage reliability is the number of sewer spills due to a fault that caused sewage to discharge onto a customer's property.

Across the state, the overall rate of sewer spills to customer property decreased from 0.23 spills per 100 customers in 2010-11 to 0.07 spills per 100 customers in 2011-12. City West Water, Goulburn Valley Water and Lower Murray Water reported the lowest figures, with 0.01 per 100 customers in 2011-12, while Coliban Water reported the highest rates of spills to customers' properties at 0.33 (figure 5.8). This result is consistent with Coliban Water's higher rate of sewer blockages and spills than the other businesses.

Yarra Valley Water was the most improved business in 2011-12; its average sewer spills to customer property decreased by 80 per cent, down to 0.12 from 0.60 in 2010-11. Yarra Valley Water typically reports more than twice as many spills as all the other water businesses combined, so this vast improvement caused the big reduction in the statewide figure. It is also Yarra Valley Water's best annual result with the lowest reported number of spills to a customer's property. Likewise, Coliban Water also recorded its best result to date, down to 0.33 from 0.47 in 2010-11.

FIGURE 5.8 SEWER SPILLS TO CUSTOMER PROPERTY
(per 100 customers)



6 DRINKING WATER QUALITY

6.1 BACKGROUND

Safe, good quality drinking water is essential for community health and wellbeing. One of the core functions of the urban water businesses is delivering water that is safe and pleasant to drink.

In Victoria, the governance framework for supplying safe drinking water is set out in the *Safe Drinking Water Act 2003* and the *Safe Drinking Water Regulations 2005*, both administered by the Department of Health.

This chapter reports on compliance with some key parameters that indicate drinking water quality, namely:

- microbiological activity
- turbidity
- customer complaints due to water quality.

Some reticulated water supplies in regional Victoria do not need to meet drinking water standards. These supplies are not included in the indicators.

6.2 WATER QUALITY

The microbiological quality of drinking water is measured in terms of the number of Escherichia coli (E. coli) bacteria per 100 millilitres of drinking water. The presence of E. coli means water may be contaminated with faecal material. These organisms should not be present in drinking water.

In 2011-12 fourteen of the 16 urban water businesses met the Safe Drinking Water Regulations requirement for all water supply zones. This requirement specifies at least 98 per cent of all samples of drinking water collected for a water supply zone in any 12 month period contain no E. coli per 100 millilitres of drinking water.

Gippsland Water reported 99.7 per cent of customers received drinking water that complied with the E. coli standard. The Jumbuk supply zone failed the zero E. coli test on three occasions because rainwater infiltrated the surface of one tank; the tank was resealed and an additional disinfection system installed. Wannon Water reported 99.3 per cent of customers received compliant water, with one supply zone at Penshurst not complying as a result of an illegal water tank connection at the supply point. No other customers were affected and the connection was removed.

Turbidity in water is caused by the presence of fine suspended particles of clay and silt, algae and other microscopic organisms. It is measured in Nephelometric Turbidity Units (NTU). High turbidity levels can result in water having a 'muddy' or 'milky' appearance.

In 2011-12 all urban water businesses except GWMWater delivered water that met the turbidity levels set in the Safe Drinking Water Regulations. The Regulations require at least 95 per cent of samples collected for a drinking water supply zone in a 12 month period be below 5.0 NTU.

GWMWater steadily improved the percentage of customers receiving water that meets the turbidity limits between 2007-08 and 2009-10. However extreme rain events in 2010-11 and the January 2011 flooding significantly affected the turbidity levels of its sources of water supply, which resulted in only 89 per cent of its customers receiving water that met the standards. The raw water quality improved in 2011-12 along with treatment methods at several towns. Further, some towns were reclassified as regulated water rather than drinking water, which means they do not have to comply with this standard. GWMWater reported 98 per cent of customers received drinking water that meets the turbidity standard in 2011-12.

6.3 WATER QUALITY COMPLAINTS

From a public health perspective, microbiological water quality is the most important indicator. However, colour, taste and odour are important to customers' perceptions. The number of water quality complaints is a measure of customer satisfaction with these aesthetic qualities.

Most water businesses maintained or reduced their overall rate of water quality complaints for 2011-12 (figure 6.1). The water quality complaint rate for all Victorian water customers was steady at 0.27 complaints per 100 customers in 2011-12, similar to 0.26 recorded in 2010-11.

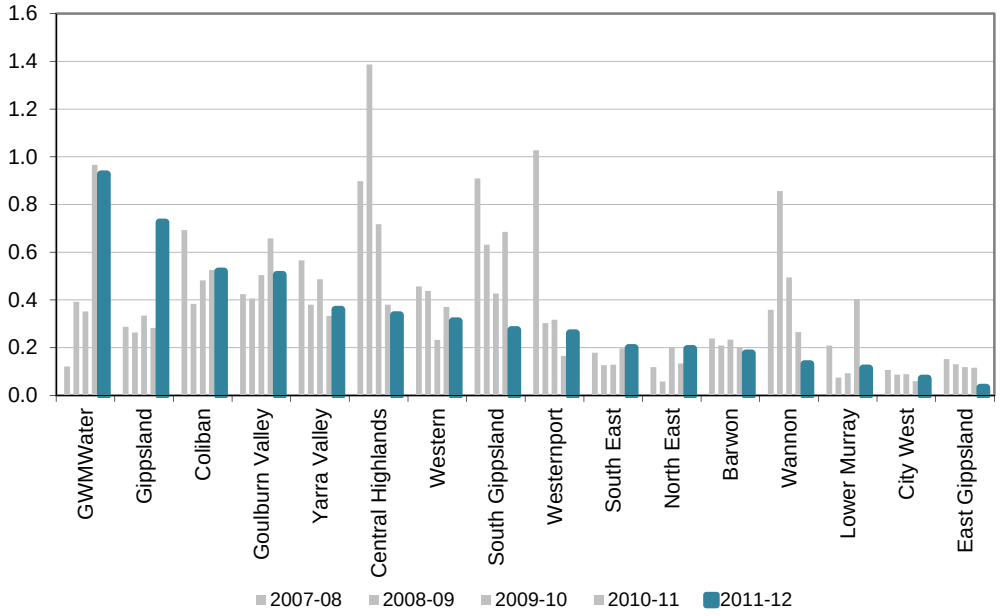
GWMWater and Gippsland Water reported the highest rates of water quality complaints at 0.93 and 0.72 per 100 customers, respectively. GWMWater's result was a slight improvement over last year's figure; they are still dealing with the impact on water quality from the January 2011 floods. By contrast, Gippsland Water's result deteriorated substantially from its steady results over the last four years, which ranged from 0.26 to 0.33 per 100 customers. Gippsland Water's figures showed odour/taste complaints more than tripled in 2011-12 and colour and other complaints both doubled.

Gippsland Water attributed this increase to two main events. The first was a change in raw water quality from the catchment, which resulted in widespread odour/taste complaints throughout the Moe supply region. Gippsland Water undertook a flushing/scouring program to improve the taste, but this also stirred up sediment in the water mains and led to a number of dirty water complaints. The second incident involved a large water main burst in the Sale water supply system; the resulting high water flow rates scoured a significant length of pipe, leading to a high rate of complaints for dirty water.

Lower Murray Water experienced a significant increase in complaints in 2010-11 when water quality was severely affected by the Murray River flooding in January 2011. Complaints returned to the typical lower rate in 2011-12.

East Gippsland Water, South Gippsland Water and Wannon Water also reported substantially fewer water quality complaints than in previous years. South Gippsland Water in particular showed a marked improvement over the past five years, due to a greater focus and awareness on water treatment and quality monitoring (including regularly cleaning the water supply pipe system).

FIGURE 6.1 WATER QUALITY COMPLAINTS — ALL CAUSES
(per 100 customers)



The majority of water businesses reported colour was the main cause of complaints — except East Gippsland Water, North East Water and Westernport Water, where taste/odour was the main cause.

7 ENVIRONMENTAL

7.1 BACKGROUND

This chapter covers sewage treatment and compliance, effluent recycling, biosolids reuse and greenhouse gas emissions.

7.2 SEWAGE EFFLUENT TREATMENT VOLUMES

A sewerage system receives waste water from various sources, including domestic sewage, nondomestic sewage, trade waste and other sources such as inadvertent storm water. The nature of this combined sewage stream, and therefore the treatment required, can vary significantly due to these different sources, in particular the trade waste sources.

The Environment Protection Authority (EPA) regulates treated sewage effluent quality through discharge licences at sewage treatment plants. The level of sewage treatment required usually depends on the type of waterway into which the treated sewage is discharged. There are three defined levels of sewage treatment:

- primary treatment - generally to remove a substantial amount of suspended matter
- secondary treatment - to substantially reduce Biological Oxygen Demand (BOD) and suspended solids
- tertiary treatment - to remove nutrients, further suspended solids and possibly targeted contaminants of concern.

The total volume of sewage treated in Victoria decreased 3 per cent in 2011-12 to 483 600 megalitres, down from 497 000 megalitres in 2010-11 when heavy rainfall increased volumes. However, the 2011-12 figure is still 16 per cent higher than the 2009-10 figure of 416 500 megalitres. Most businesses reported a decrease in volume, as expected given fewer heavy rainfall events; metropolitan and regional businesses volumes decreased by 2 per cent and 5 per cent, respectively. The largest percentage reductions were reported by Central Highlands Water (16 per cent) and Wannon Water (12 per cent). Only three water businesses reported increases in sewage volume. Westernport Water reported the largest percentage increase of 5 per cent, followed by Barwon Water and East Gippsland Water (both reporting 3 per cent increases).

Gippsland Water was the only business to treat sewage only to primary level in 2011-12, with a third of its volume receiving just primary treatment, accounting for almost 2 per cent of total sewage treated in Victoria.

About 85 per cent of Victorian sewage was treated to a secondary level. This included all of Melbourne Water's treatment, which accounted for 67 per cent of the state's total sewage. South East Water reported a 2137 megalitre increase in secondary treatment volume, up to 2722 megalitres from 585 megalitres in 2010-11. There was a corresponding 2302 megalitre drop in its tertiary treatment volume — this was because a high total nitrogen level meant the Pakenham treatment plant did not meet tertiary treatment requirements in 2011-12. The proportion of sewage treated to a tertiary level in 2011-12 was 13 per cent, down from 14 per cent in 2010-11, reflecting South East Water's changes.

7.3 RECYCLED WATER

The majority of sewage treatment plants operated by the water businesses are subject to the State Environment Protection Policy (Waters of Victoria) schedules, which are developed and administered by the EPA. The schedules require sewage treatment plant operators to sustainably reuse wastewater and treatment sludge wherever practicable and environmentally beneficial.

Recycled water is generally used for activities such as turf farms, some industrial processes, dairy farms, recreational lands such as parks or golf courses, and irrigation. Some businesses operate 'third pipe' recycled water supply systems to their customers, for non-potable uses such as garden watering and toilet flushing. Recycled water can also be used for beneficial environmental outcomes, such as wetlands, and onsite treatment plant uses external to the treatment process.

Figure 7.1 shows the proportion of treated effluent reused by each business. Table 7.1 shows the actual volumes reused for each business.

Last year's 2010-11 performance report saw a considerable fall in effluent reuse across Victoria, due to higher regular rainfall across the year, as well as several extreme rainfall events and significant flooding across much of the state. This greatly reduced the demand for recycled water for agricultural purposes, and to a lesser degree urban and industrial use. In addition, the large increase in effluent volume produced (because heavy rainfall entered the sewer systems) reduced the calculation for percentage of available effluent reused.

In 2011-12 the total volume of effluent reused across the state increased by 19 per cent to 89 300 megalitres, from 75 000 megalitres in 2010-11. However, this is still well below the 115 000 megalitres reused in both 2008-09 and 2009-10. In percentage terms, 19 per cent of the available effluent was reused in 2011-12, up from only 15 per cent in 2010-11, and compared with the peak of 31 per cent in 2008-09.

Thirteen of the 17 water businesses reported an increase in volume reused this year, with seven of these being higher than the 2009-10 figure; the other four reported only small decreases. GWMWater reported 105 per cent reuse, because it ran down high levels of effluent remaining in storage from the previous year. East Gippsland Water's reuse was 90 per cent, down from 99 and 100 per cent in previous years, while Goulburn Valley Water bounced back up to almost 80 per cent after a big drop last year. City West Water (which commissioned the Altona Recycled Water project to provide treated effluent to industrial and commercial customers) and South East Water recorded the largest increases.

Most of the increased reuse was for agricultural purposes, partially recovering from last year where usage halved compared with the previous three years.

FIGURE 7.1 PROPORTION OF EFFLUENT REUSED
(per cent)

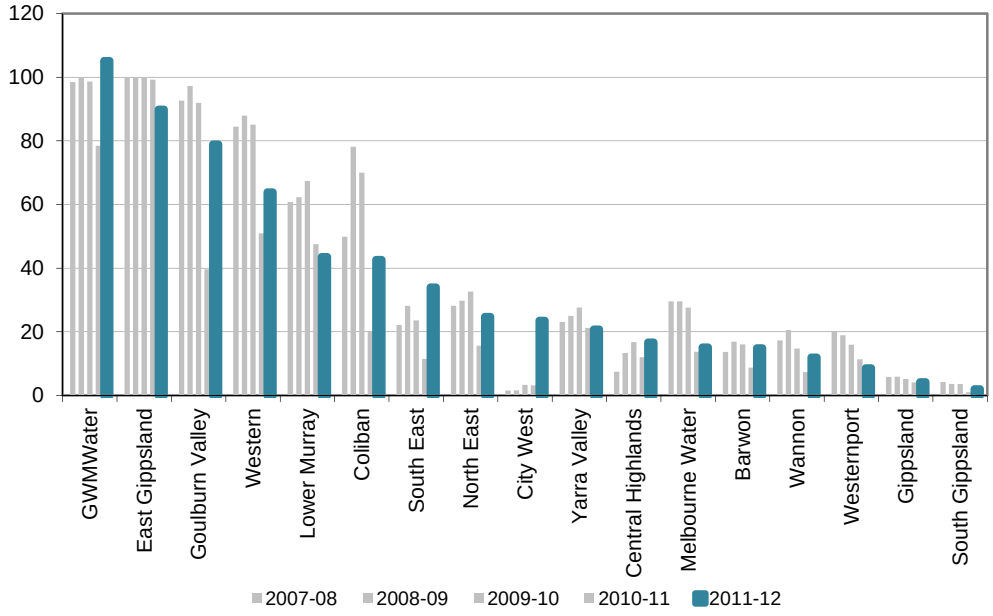


TABLE 7.1 VOLUME OF EFFLUENT REUSED
(megalitres)

	2008-09	2009-10	2010-11	2011-12	Change in 2011-12	Percentage Change
Melbourne Water	77 109	74 818	46 713	48 756	2 043	+4
City West	71	154	175	1 216	1 040	+593
South East	3 298	2 865	1 653	4 554	2 901	+175
Yarra Valley	2 252	2 639	2 425	2 319	- 107	-4
Barwon	3 159	3 017	1 997	3 483	1 486	+74
Central Highlands	996	1 504	1 410	1 628	218	+15
Coliban	4 601	5 483	1 781	3 893	2 112	+119
East Gippsland	2 370	2 153	2 511	2 469	- 42	-2
Gippsland	1 125	1 171	1 113	1 128	15	+1
Goulburn Valley	6 992	6 649	4 021	6 824	2 803	+70
GWMWater	1 951	1 856	2 036	2 291	254	+12
Lower Murray	2 588	2 707	2 735	2 456	- 279	-10
North East	1 642	2 004	1 312	1 959	647	+49
South Gippsland	122	128	40	87	47	+118
Wannon	1 759	1 453	825	1 248	423	+51
Western	5 327	6 288	4 053	4 814	761	+19
Westernport	202	181	163	129	-34	-21
TOTAL	**115 565**	**115 071**	**74 964**	**89 253**	**14 289**	**+19**

7.4 BIOSOLIDS REUSE

Organic sludge material, or biosolids, produced during the sewage treatment process is periodically removed from treatment plants and can be either stockpiled or disposed of. Disposal options include beneficial reuses such as organic-rich fertiliser, or disposal as a non-reusable waste to landfill.

The reporting protocol only counts biosolids as being produced when they are removed from the treatment process. It is therefore possible for a business to not produce any biosolids in a given year, by not desludging any of the lagoons or tanks where the sludge accumulates. In 2011-12 only GWMWater reported zero biosolids produced because it did not carry out desludging activities.

In any given year, a water business can accumulate (stockpile) biosolids without disposing of any; therefore, a zero reuse figure does not necessarily imply a business does not find reuse opportunities for its biosolids. Correspondingly, reuse percentages in excess of 100 per cent indicate some of the stockpiled material from previous years was used. To help produce a clearer picture of the longer term biosolids management for the businesses, a four-year average reuse figure is included in figure 7.2 along with the current year's reuse as a percentage of this year's biosolids production.

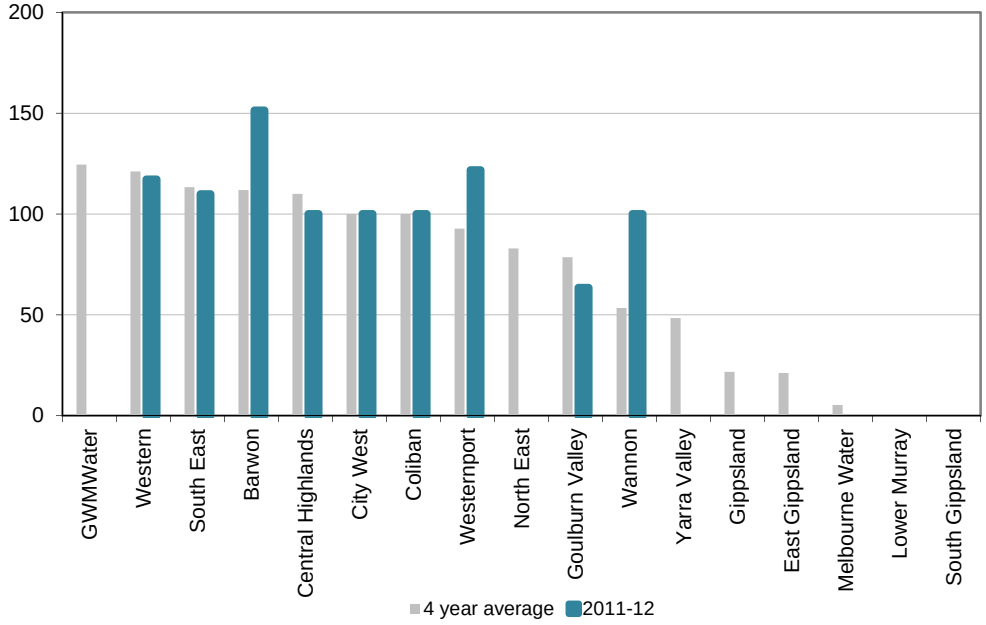
Overall, only 18 per cent of biosolids produced in 2011-12 were reused, which is significantly lower than the percentages recorded in any of the four previous years; the highest rate occurred in 2010-11 (68 per cent). This lower result was largely driven by Melbourne Water producing the largest amount of biosolids but reporting a zero reuse for 2011-12. Melbourne Water conducted a number of trials over 2009-10 and 2010-11 for reusing its biosolids, in particular using clay enriched biosolids as geotechnical fill for road construction and other uses. Following completion of these trials, a number of commercial projects are now being developed to reuse biosolids from both the Eastern and Western treatment plants.

The average proportion of biosolids reused by regional businesses was steady — 73 per cent in 2010-11 and 72 per cent in 2011-12.

Two metropolitan business and six regional businesses reported biosolids reuse of 100 per cent or more in 2011-12. Seven businesses have four-year averages at or above 100 per cent, which suggests these businesses are fully reusing their generated biosolids. Barwon Water reported the highest reuse rate; it slowly reduced stockpiles by more than 20 000 tonnes over recent years using temporary processing facilities located at Melbourne Water's Western Treatment Plant. The increase in 2011-12 reflects a longer drying season at the Western Treatment Plant this year. Barwon Water is commissioning a new thermal drying biosolids plant at its Black Rock facility in 2012, which will further increase biosolids reuse.

Melbourne Water, Yarra Valley Water, East Gippsland Water, Gippsland Water, GWMWater, Lower Murray Water, North East Water and South Gippsland Water reported no biosolids reuse in 2011-12. GWMWater did not produce any biosolids in 2011-12 but previous years showed biosolids reuse of more than 100 per cent. Yarra Valley Water did not reuse any biosolids for the last three years; it is stockpiling this material while investigating reuse opportunities for future development. Lower Murray Water and South Gippsland Water did not report any biosolids reuse in the last five years, but typically produced lower quantities than most other businesses.

FIGURE 7.2 PROPORTION OF BIOSOLIDS REUSED
(per cent)



Note: The four-year average refers to the proportions of biosolids reused between 2008-09 and 2011-12.

7.5 GREENHOUSE GAS EMISSIONS

Table 7.2 shows the net greenhouse gas emissions produced by each of the businesses from 2008-09 to 2011-12 (including any offsets claimed by the business). The calculations for greenhouse gas emissions are based on the framework of the National Greenhouse and Energy Reporting System (NGERS), with Melbourne Water the only business required to report to the Australian Government's Department of Climate Change and Energy Efficiency.

Comparing different businesses' net carbon dioxide equivalent (CO2-e) emissions should be done cautiously given the differences in the nature of each operation, including:

- source of water
- gravity versus pumped networks
- geographical conditions (which influence pumping needs)
- the number of large customers and the extent of industry within the customer base
- the calculation method.

Similarly, variations in emissions per customer might reflect the differences between customer bases across businesses.

Net CO_2-e emissions increased for Victorian urban water businesses for the second consecutive year with 789 096 tonnes recorded in 2011-12, up from 782 354 tonnes in 2010-11. The overall emissions per residential customer for all businesses in 2011-12 were 0.36 tonnes, the same as the previous year. Metropolitan businesses achieved slightly less emissions per residential customer, at 0.26 tonnes compared to 0.27 tonnes in 2010-11. Regional businesses averaged 0.63 tonnes per residential customer, which is slightly higher than the 0.61 tonnes reported in 2010-11.

Having a relatively larger scale of operations, Melbourne Water remains the largest net CO2-e emitter and accounted for 46 per cent of the net total. Gippsland Water was the second largest, followed by Barwon Water. Looking at emissions per customer, Lower Murray Water had the highest level of CO2-e, followed by Gippsland Water, Wannon Water, North East Water and Goulburn Valley Water. Most individual businesses maintained or lowered their levels of emissions per customer over the year, with Goulburn Valley Water, Lower Murray Water, Westernport Water and Wannon Water the notable exceptions.

TABLE 7.2 HISTORIC NET GREENHOUSE GAS EMISSIONS
(equivalent tonnes of CO_2)

	2008-09	2009-10	2010-11	2011-12	Percentage change	Per customer
Melbourne Water	376 157	351 071	371 760	361 288	-3	0.22
City West	5 318	2 388	-1 225	-1 651	+35	0.00
South East	24 488	29 023	31 361	33 554	+7	0.05
Yarra Valley	30 725	27 077	29 041	28 361	-2	0.04
Barwon	52 485	52 348	57 170	56 422	-1	0.44
Central Highlands	56 483	51 251	18 782	14 797	-21	0.26
Coliban	49 905	51 396	32 674	33 126	+1	0.54
East Gippsland	8 525	8 846	8 687	8 378	-4	0.44
Gippsland	70 886	73 288	68 798	61 727	-10	1.05
Goulburn Valley	32 707	29 742	24 122	42 453	+76	0.88
GWMWater	13 434	19 031	15 590	10 778	-31	0.41
Lower Murray	28 686	21 007	22 820	34 922	+53	1.24
North East	32 922	36 587	35 671	38 432	+8	0.91
South Gippsland	11 458	13 209	12 560	8 154	-35	0.51
Wannon	39 025	30 734	28 578	33 753	+18	0.97
Western	24 503	20 846	21 620	17 287	-20	0.34
Westernport	4 490	4 317	4 344	7 315	+68	0.51
TOTAL	**862 198**	**822 160**	**782 354**	**789 096**	**+1**	**0.36**

Note: Emissions per customer for Melbourne Water is calculated using the total customers of City West Water, South East Water and Yarra Valley Water.

Table 7.3 shows the contributions to CO2-e emissions by each water business activity. Similar to previous years, sewage treatment processes were the biggest contributor of greenhouse gas emissions and accounted for 70 per cent of the gross emissions (that is, not including offsets) in 2011-12. This was followed by water treatment processes, responsible for 22 per cent of the gross total.

Goulburn Valley Water showed a large increase in CO2-e emissions this year (76 per cent). This was partly because it updated its reporting methodology to comply with the latest NGERS reporting requirements, which increased the 2010-11 figure to 31 477 tonnes (up from the figure of 24 122 tonnes reported last year). It also increased actual emissions in 2011-12 primarily because electricity usage returned to longer term averages as water consumption and therefore sewage volume increased. The increase from 2010-11 to 2011-12 using the new calculation methodology is actually 35 per cent.

All metropolitan businesses reported CO2-e emissions offsets, as did five regional businesses. Similar to its 2010-11 results, City West Water had a higher level of offsets than its gross emissions, resulting in a negative figure for net emissions. Relative to the respective gross emission levels for each business, Western Water had the next highest amount of offsets (29 per cent of gross emissions), followed by GWMWater (19 per cent) and Melbourne Water (14 per cent). Overall offsets decreased from 105 408 tonnes (12 per cent of gross emissions) in 2010-11 to 90 882 tonnes (10 per cent of gross emissions) in 2011-12. While net emissions increased slightly this year by about 7 000 tonnes, the gross CO2-e emissions actually decreased by about 8 000 tonnes from 887 762 tonnes in 2010-11 to 879 978 in 2011-12.

Most of the offsets were purchased through recognised offset schemes. Melbourne Water also has its own eligible self-generated renewable energy sources, which contribute to its emissions offsets.

TABLE 7.3 SOURCES OF GREENHOUSE GAS EMISSIONS
(equivalent tonnes of CO_2)

	Water	Sewerage	Transport	Other	Offsets	Total[a]
Melbourne Water	64 501	342 042	3 602	11 869	60 726	361 288
City West	254	9 577	1 191	1 937	14 608	- 1 651
South East	5 430	27 632	703	2 481	2 692	33 554
Yarra Valley	5 385	19 260	1 046	2 940	270	28 361
Barwon	15 089	36 805	1 369	3 159	0	56 422
Central Highlands	2 932	9 715	1 085	1 079	15	14 797
Coliban	10 480	20 985	1 038	623	0	33 126
East Gippsland	3 898	3 905	299	276	0	8 378
Gippsland	9 906	28 446	2 157	21 218	0	61 727
Goulburn Valley	12 539	29 025	1 096	435	642	42 453
GWMWater	5 636	5 565	1 223	858	2 503	10 778
Lower Murray	25 889	9 725	805	744	2 240	34 922
North East	7 796	28 664	854	1 118	0	38 432
South Gippsland	2 618	4 674	664	198	0	8 154
Wannon	15 271	16 985	829	668	0	33 753
Western	8 176	14 459	572	1 266	7 186	17 287
Westernport	1 834	4 733	215	533	0	7 315
TOTAL	**197 633**	**612 197**	**18 747**	**51 401**	**90 882**	**789 096**

a Total CO2-e emissions are net of offsets.

8 STATUS OF MAJOR PROJECTS

Table 8.2 describes the projects each business scheduled for completion in 2011-12, and its status. A large tick indicates the project was completed, while a small tick indicates the core elements were completed, effectively delivering the intended project outcome, but some residual work remained (for example, site restoration, or decommissioning redundant equipment). The table also lists projects that were to be completed before 2011-12, but were delayed for various reasons. Original and new completion dates are shown in the table. Table 8.1 summarises the number of major projects for each business and their completion status.

In 2011-12 the Victorian water industry spent $1.35 billion on capital works. Capital expenditure on water was $586 million and sewerage was $760 million.

The Wonthaggi Desalination Plant is a state government project managed by the Department of Sustainability and Environment and is not included in this analysis.

Water businesses identified 52 major projects in the last price review to be completed in 2011-12 or delayed from previous years. Fourteen of these projects were completed and another project was largely completed when this report was published. Of the remaining projects, 25 are delayed while seven were deferred into Water Plan 3 or beyond, and five projects were effectively cancelled due to changes to needs and priorities or where they were able to be met through a different approach.

Many of the delays this year were caused by wet weather affecting construction. Some projects were also delayed by matters beyond the direct control of the water businesses, such as local government approvals or planning appeals. In some instances, businesses chose to defer a scheduled project when the circumstances driving the project changed, reprioritising resource allocation and avoiding unnecessary expenditure.

For major projects in 2011-12:

- no business completed all of the scheduled or previously overdue major projects on its list
- only 27 per cent of the listed projects were completed in 2011-12
- almost half of the projects were delayed for various reasons, including:
  - wet weather impacts on construction
  - project scope and design issues
  - planning/permit requirements
- several businesses did not complete a major project this year - North East Water (nil from seven scheduled/overdue projects), City West Water (delayed or deferred all four projects), Central Highlands Water, Gippsland Water and Western Water (each business delayed its one scheduled project), and Westernport Water (deferred or cancelled all five scheduled major projects)
- East Gippsland Water, Goulburn Valley Water and Lower Murray Water did not schedule any major projects for completion in 2011-12, nor have any overdue projects from previous years.

All water businesses submitted their Water Plan 3 business plans for the next (third) regulatory period, which commences in July 2013. Capital expenditure forecasts are generally lower for most businesses as they enter a period of consolidation and maintenance after a significant capital program in the current regulatory period. Increases in capital expenditure are generally to service growth areas throughout the state.

The Commission has engaged consultants to assess the prudency and efficiency of the proposed expenditure plans; they expect to see a strong business case and justification for all major capital projects, along with detailed project evaluations and cost estimates. They will also consider the proposed project schedule given the low on-schedule completion rate over recent years, and where appropriate adjust forecast timing for those businesses with a history of failing to meet target completion dates or budgets.

TABLE 8.1 SUMMARY OF MAJOR PROJECTS 2011-12

	No. Major Projects (Due and overdue)	Completed	Delayed	Deferred	Cancelled
Melbourne Water	4	3	1		
City West	4		2	2	
South East	2	1	1		
Yarra Valley	4	2	1	1	
Barwon	3	1	2		
Central Highlands	1		1		
Coliban	4	1	3		
East Gippsland	0				
Gippsland	1		1		
Goulburn Valley	0				
GWMWater	6	3	2		1
Lower Murray	0				
North East	7		6		1
South Gippsland	5	3	1	1	
Wannon	5	1	3		1
Western	1		1		
Westernport	5			3	2
TOTAL	**52**	**15**	**25**	**7**	**5**

a One of GWMWater's projects was essentially completed with some minor residual work remaining.

TABLE 8.2 STATUS OF PROJECTS NOMINATED FOR COMPLETION IN 2011-12

Project Description	Completion Date	Complete	Water business comments
Melbourne Water			
Eastern Treatment Plant — implement a new nitrification/ denitrification process	2009-10, delayed Due: End 2013		The project was delayed when defects became evident in the works. Defect rectification works are expected to be completed early 2013 with remaining contract works completed by late 2013.
Northern Sewerage Project	2011-12	✓	Project is complete and assets are now operational.
Melbourne main sewer	2011-12	✓	Project is complete and assets are now operational.
Western Treatment Plant — Wet weather upgrade	2011-12	✓	Project is complete and assets are now operational.
City West Water			
Derrimut interceptor sewer	2010-11, delayed		The project is now forecast to be completed in 2012-13. The gravity section of the works was commissioned in December 2011; the pumping station and rising main works are scheduled to be commissioned in early 2013. The project experienced delays in obtaining local government and third party approvals and weather delays.
West Werribee dual water supply scheme	2011-12, partially deferred Due: 2016-17		The project will be significantly operational in 2014, however it won't be complete until 2015-16 to accommodate completion of a section of the Regional Rail Link project
Sayers Road to Dohertys Road —1150mm water main	2011-12, delayed Due: 2012-13		The project is now forecast to be completed in April 2013. The project experienced delays in obtaining federal, state, local government approvals, along with other third party approvals and easement creation.
West Werribee low level reservoir and Werribee West — 750mm inlet/outlet main	2011-12, partially deferred Due: 2015-16		The 'Werribee West – 750mm inlet/outlet main' project was subsumed into the West Werribee Low Level Reservoir project. The combined project will be significantly operational in 2014, however it won't be complete until 2015-16 to accommodate completion of a section of the Regional Rail Link project.
South East Water			
Pakenham — Narre Warren sewer	2010-11, delayed Due: 2011-12	✓	Construction completed 2011-12.
Upper Beaconsfield sewer backlog scheme	2011-12, delayed Due: 2012 13		A major portion of the Upper Beaconsfield project was completed as per schedule in 2011-12, however a small number of lots remain to be connected in 2012-13.

Continued next page

TABLE 8.2 (CONT)

Project Description	Completion Date	Complete	Water business comments
Yarra Valley Water			
Epping–Craigieburn — Section 1	2010-11, deferred to Water Plans 3 and 4		A decision was taken to defer this project (now called Epping Sewer Tunnel project) to Water Plans 3 and 4. This was possible because development rates in the Epping catchment (including the scope and timing of the new wholesale fruit and vegetable market and employment precinct around Cooper Street) were lower than expected. A temporary solution uses storage available in Epping Craigieburn Sections 2 and 3 to store flows during peak periods. A temporary sewage pumping station discharges this stored flow during off-peak times to the existing sewer system.
Epping–Craigieburn — Sections 2 and 3	2009-10, delayed Completed: 2011-12	✓	Both sections were completed with the project essentially finished at the end of 2011-12 (with some minor expenditure early in 2012-13). Both sections were delivered under budget by redesigning some aspects of the project, by negotiating with stakeholders to remove some restrictive requirements and by using open cut rather than trenchless methods.
Mitcham office extension	2011-12	✓	Completed as scheduled in February 2012.
Wonga Park sewer backlog	2011-12, delayed Due: December 2012		This project is due for completion by December 2012. It is six months behind schedule because it was unclear whether recycled water would be provided at the same time (using a common trench to reduce cost). Stakeholders raised the possibility of providing recycled water during consultation; it was resolved not to proceed, but the sewer works were delayed until it was decided. Excessive wet weather during 2011-12 further contributed to the delay. The scope of the project also expanded, when the City of Manningham requested an additional 11 lots (to bring the total to 631 lots). The project is still expected to be delivered within budget.
Barwon Water			
Apollo Bay/Skenes Creek bulk water supply	2010-11, delayed Due: 2013-14		The preferred site was identified, land was acquired and the design completed. The new storage is currently scheduled for completion in November 2013, although approvals and weather may push this out to March 2014.
Anglesea–Borefield project	2009-10, delayed Completed: 2011-12	✓	Drilling was completed in April 2012 at the final production bore site. The project was commissioned in late 2009.
Melbourne interconnector	2011-12, delayed Due: 2012-13		All construction works complete, minor defects rectified and pipeline successfully pressure tested in December 2012.
Central Highlands Water			
Country Town Water and Sewerage Schemes	2010-11, delayed Due: End 2012		The project is programmed for completion at the end of 2012, subject to weather. Discussions about the proposed Blackwood Sewerage Solution are ongoing with DSE.

Continued next page

TABLE 8.2 (CONT)

Project Description	Completion Date	Complete	Water business comments
Coliban Water			
Main Channel refurbishment	2010-11, delayed Completed: 2011-12	✓	Works were completed on replacing the Back Creek siphon and on two creek crossing structures and erosion prevention on the Coliban Main Channel.
Leitchville and Gunbower water treatment plant	2009-10, delayed Due: 2012-13 for Leitchville		Gunbower water treatment plant construction and commissioning is completed and the plant is fully operational. Leitchville water treatment is on track to be completed in 2012-13.
Recycled Water scheme	2011-12, delayed Due: 2012-13		A number of recycled water projects in Bendigo and Castlemaine were completed, with the remaining 10 per cent of works to be completed in 2012-13.
Pipelines for potable supply — Bridgewater, Raywood, Sebastian and Goornong	2011-12, delayed Due: 2012-13		The construction contract was mutually terminated after the contractor completed the first stage of works. The remaining works were retendered to select a new contractor. The work is now progressing with the expected completion in 2012-13. Minor water quality works were completed at Bridgewater and Goornong with upgrades to Bridgewater proposed for the third regulatory period.
East Gippsland Water			
Nil major projects			NOTE: East Gippsland Water had no major projects scheduled for completion in 2011-12, and no overdue projects carried over from previous years.
Gippsland Water			
Drouin Waste Water Treatment Plant Upgrade	2011-12, delayed Deferred to Water Plan 3		Construction works for the initial trial were completed in 2011-12 with works delayed due to extended wet weather. The trial is now underway. Results of the trial will determine the final scope of works required in the third regulatory period, with provision made in Water Plan 3 for carrying over this project.
Goulburn Valley Water			
Nil major projects			NOTE: Goulburn Valley Water had no major projects scheduled for completion in 2011-12, and no overdue projects carried over from previous years.

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TABLE 8.2 (CONT)

Project Description	Completion Date	Complete	Water business comments
GWMWater			
Lake Bolac New Sewerage Scheme	2010-11, delayed Completed: 2012	✓	This project reached practical completion in June 2012.
St Arnaud's Waste Water Treatment Plant upgrade	2010-11, delayed Due: early 2012-13		Construction at the plant is well advanced. Project will be completed in 2012-13.
Edenhope water supply security	2009-10, delayed Due: mid 2012-13	✓	Bores and interconnecting pipelines complete. Some minor works at the water treatment plant remain for completion in 2012-13.
Stawell Waste Water Treatment Plant	2011-12, delayed Due: 2012-13		All work is under contract and advanced in terms of construction. It is expected to be completed in 2012-13.
Dam safety works at Lake Lonsdale	2011-12, suspended, not currently required		Works at Lake Lonsdale were deferred following a detailed technical assessment that assessed these structures as being low risk. These works will only be advanced if the risk status changes for these structures.
Natimuk treated water supply	2011-12	✓	This project was completed in 2009-10 using a pipeline supply from Horsham.
Lower Murray Water			
Nil major projects			NOTE: Lower Murray Water had no major projects scheduled for completion in 2011-12, and no overdue projects carried over from previous years.

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TABLE 8.2 (CONT)

Project Description	Completion Date	Complete	Water business comments
North East Water			
Bright/Porepunkah Off-stream Storage	2010-11, delayed Due: 2013-14		This project was put on hold in January 2011, following the Minister's request for a review of the site selection process. North East Water issued a report in February and a decision by the Minister was reached in late September 2011 to allow the project to progress through to the planning stage. Detailed designs are complete and construction of the off-stream storage is planned to commence in April 2013, with an anticipated construction period of 12 months.
Leneva Trunk Sewer	2010-11, deferred indefinitely		Project design plans were completed however construction work was deferred indefinitely because the Wodonga Council's focus moved away from this currently undeveloped residential growth corridor to other areas. The expected completion date is therefore unknown.
Loombah Dam Improvements	2010-11, delayed Due: 2012-13		Construction of the spillway and associated works at Loombah Dam commenced in 2012 and is substantially advanced. High water levels through the winter months restricted aspects of the construction. The project is expected to be completed by June 2013.
Regional Headquarters	2009-10, delayed Due: October 2013		The Regional Headquarters construction contract was awarded in October 2012 with a projected construction period of 12 months.
Beechworth Sewage Treatment Plant Upgrade	2009-10, delayed Due: December 2013		Designs and approvals were completed for this project. Innovative fixed film technology was selected based upon value engineering principles. Construction will commence in late 2012 with final completion for the project anticipated for December 2013.
Wangaratta Waste Water Treatment Plant Winter Storage Improvement	2011-12, delayed Due: June 2013		A new winter storage is to be constructed in North Wangaratta to alleviate capacity limitations of the existing infrastructure. Designs and approvals are complete with a construction contract awarded in November 2012. The project is expected to be completed in June 2013.
Corryong Water Treatment Plant	2011-12, delayed Due: March 2013		Construction of the water treatment plant commenced in March 2012. The project is expected to be completed in March 2013.

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TABLE 8.2 (CONT)

Project Description	Completion Date	Complete	Water business comments
South Gippsland Water			
Meeniyan Sewerage Scheme	2009-10, delayed: Completed: September 2012	✓	Prolonged wet weather delayed the completion of the project significantly. Meeniyan Wastewater Treatment Plant and Wetlands was officially opened by the Deputy Premier on 27 September 2012.
Tarra River off-stream storage (Replaced with Yarram Bore project)	2011-12, different solution adopted Completed: August 2011	✓	In accordance with the Water Supply Demand Strategy, South Gippsland Water purchased an additional 187 megalitres per year of groundwater licences from existing licence holders for use at the recently constructed and commissioned bore in Yarram. Construction of 200 megalitre off-stream storage will not proceed because the alternative groundwater supply solution is considered to provide much greater reliability of supply.
Wonthaggi Wastewater Strategy Works	2011-12, delayed Due: Jun 2014		Installation of probiotics low energy aeration system in the lead lagoon was completed in February 2011. South Gippsland Water will construct a sludge drying pan and purchase mechanical sludge removal equipment to effectively remove sludge from existing Wonthaggi Wastewater Treatment Plant lagoons. This part of the project incurred delays in acquiring Crown land for the new facilities, and was also impacted by wet weather.
Agnes River Augmentation —Construction of Off Stream Storage (Replaced with Central Towns strategy)	2011-12, different solution adopted Deferred to Water Plan 3 Due: June 2015		In accordance with the Water Supply Demand Strategy, South Gippsland Water will link Fish Creek, Foster and Toora (Agnes River) water supply systems as part of the Central Towns Upgrades project. This new project is included in Water Plan 3, and effectively negates the need for this existing project. Construction of a 250 megalitre off-stream storage will not proceed, given water quality concerns and a high degree of uncertainty in future demands of the potential Barry Beach development. South Gippsland Water will complete linking towns as an alternative project.
Korumburra & Leongatha Wastewater Treatment Plants —Sludge Dewatering	2011-12	✓	Construction of mechanical sludge dewatering facilities at Korumburra and Leongatha Wastewater Treatment Plants cost $4.1m. Practical completion achieved. Performance testing completed. Plant handed over to Operations.

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TABLE 8.2 (CONT)

Project Description	Completion Date	Complete	Water business comments
Wannon Water			
Upgrade Portland Water Reclamation Plant	2010-11, delayed Due: August 2013		Currently under construction. The project was delayed by permit issues, followed by wet weather impacts once the project was underway.
West Portland Sewerage Services	2008-09, delayed Due: March 2013		Currently under construction. The project was delayed by planning objections and VCAT processes, then impacted by wet weather after construction commenced.
Port Campbell Sewage Treatment Plant and Recycling Works	2009-10, delayed Project cancelled		Project no longer required following review and risk assessment.
SCADA provision	2011-12	✓	Installation of SCADA (Supervisory Control and Data Acquisition) system is complete, system now operational.
Water Recycling at Warrnambool Water Reclamation Plant	2011-12, delayed Due: June 2013		This project was originally dependent on another project that was able to be deferred for some years. The water recycling project was rescoped and redesigned to account for the changed circumstances, delaying the project. Detailed design has commenced. The construction contract will be awarded in December 2012.
Western Water			
Bacchus Marsh Recycled Water Plant	2011-12, delayed Due: March 2013		Construction is in progress. Works include new inlet works and a sludge treatment facility. This project was originally scheduled to align with population growth estimates in the Bacchus Marsh area during the second regulatory period. It was delayed when capital works were reprioritised to service growth across Western Water.
Westernport Water			
Bass River Augmentation	2009-10, suspended, not currently required		The 2011 update of the Water Supply and Demand Strategy, the Candowie upgrade project and the interconnection with the Metro Pool determined this project may not be required until after 2035.
Bass River Pipeline extension to Ian Bartlett Water Treatment Plant	2009-10, deferred to Water Plan 4 or 5		This project is to be reviewed after completion of the project to upgrade Candowie Reservoir. It will be considered for inclusion in Water Plan 4 or 5.
Water quality improvement	2011-12, deferred to Water Plan 3		A Functional Design for an ultra violet tertiary treatment addition to the Ian Bartlett Water Purification Plant was completed. An allowance was made for this project to proceed in Water Plan 3.
Cowes Basin Reactivation	2011-12, deleted Project cancelled		This project will not proceed. The installation of the Under-Channel pipeline secured an independent means of providing water to Phillip Island.
Cowes Waste Water Treatment Plant Stage 3 upgrade	2011-12, amended and deferred to Water Plan 3		The upgrades to the Cowes waste water treatment plant were reviewed. A multi-year program of works is included in Water Plan 3.