

SEWERAGE SYSTEM - Forbes Shire Council serves a population of 7,900 (3,180 connected properties) and has 1 sewage treatment works providing tertiary treatment. The system comprises 12,000 EP treatment capacity (Intermittent Extended Aeration (Activated Sludge)), 17 pumping stations (20 ML/d), 13 km of rising mains and 76 km of gravity trunk mains and reticulation. 1% of effluent was recycled (Indicator 27) and the treated effluent is discharged to land and river. Forbes Shire Council has a Pollution Incident Response Management Plan (PIRMPs) for their sewage treatment works.

PERFORMANCE - Residential growth for 2013-14 was minimal. Forbes Shire Council achieved 100% implementation of the NSW BPM requirements. The 2014-15 typical residential bill was \$644 which was much less than the statewide median of \$669 (Indicator 12). The economic real rate of return was 0.8% which was less than the statewide median (Indicator 46). The operating cost per property (OMA) was \$470 which was above the statewide median of \$430 (Indicator 50). Sewage odour complaints were less than the statewide median of 1 (Indicator 21). Forbes Council reported no public health incidents. Council did not comply with the P requirements of the environmental regulator for effluent discharge. The current replacement cost of system assets was \$45M (\$14,100 per assessment), cash and investments were \$4M, debt was \$1M and revenue was \$2.3M (excluding capital works grants).

## IMPLEMENTATION OF REQUIREMENTS OF NSW BEST-PRACTICE MANAGEMENT (BPM) FRAMEWORK

(1) Complete current strategic business plan & financial plan	YES <sup>11</sup>	(2e) Pricing - DSP with commercial developer charges	Yes
(2) (2a) Pricing - Full Cost Recovery without significant cross subsidies	Yes	(2f) Pricing - Liquid trade waste approvals & policy	Yes
(2b) Pricing - Appropriate Residential Charges	Yes	(3) Complete performance reporting (by 15 September)	YES
(2c) Pricing - Appropriate Non-Residential Charges	Yes	(4) Integrated water cycle management strategy	YES <sup>11</sup>
(2d) Pricing - Appropriate Trade Waste Fees and Charges	Yes	IMPLEMENTATION OF ALL REQUIREMENTS	100%

## TRIPLE BOTTOM LINE (TBL) PERFORMANCE INDICATORS

UTILITY	CHARACTERISTICS	C5	1	Population served: 7,900	C8	2	Number of connected properties: 3,180	C6	3	Number of residential connected properties: 2,820	A6	5	Properties served per kilometre of main	W18	6	Volume of sewage collected (ML)	7	Renewals expenditure (% of current replacement cost of system assets)	8	Employees per 1000 properties	LWU RESULT	RANKING	MEDIAN	National
SOCIAL	CHARGES & BILLS	P4		Description of residential tariff structure: access charge/prop; independent of land value																				
		P4.1	11a	Residential access charge for 2013-14 (\$/assessment)																				
			11	Residential access charge for 2014-15 (\$/assessment)																				
		P6	12a	Typical residential bill for 2013-14 (\$/assessment)																				
			12	Typical residential bill for 2014-15 (\$/assessment)																				
			13	Typical developer charge for 2014-15 (\$/equivalent tenement)																				
			14	Non-residential sewer usage charge (c/kL)																				
		F6	15	Revenue per property - Sge (\$)																				
			16	Sewerage Coverage (% of Urban Population with Reticulated Sge Service)																				
		E3	17	Percent of sewage treated to a tertiary level (%)																				
ENVIRONMENTAL	NATURAL RESOURCE MANAGEMENT	E4	18	Percent of sewage volume treated that was compliant (%)																				
		E5	19	Number of sewage treatment works compliant at all times																				
			21	Odour complaints per 1000 properties																				
		C11	22	Service complaints - sewerage per 1000 properties																				
		C16	23a	Average sewerage interruption (minutes)																				
			25	Total days lost (%)																				
		W19	26	Volume of sewage collected per property (kL)																				
		W26	26a	Total recycled water supplied (ML)																				
		W27	27	Recycled water (% of effluent recycled)																				
		E8	28	Biosolids reuse (%)																				
ECONOMIC	ENVIRONMENTAL PERFORMANCE		30	Energy consumption - sewerage (kWh/ML)																				
			31	Renewable energy consumption (% of total energy consumption)																				
		E12	32	Net greenhouse gas emissions - WS & Sge (net tonnes CO2 equivalents per 1000 properties)																				
			33	90 <sup>th</sup> Percentile licence limits for effluent discharge: BOD 10 mg/L; SS 15 mg/L; Total N 10 mg/L; Total P 0.3 mg/L																				
			34	Compliance with BOD in licence (%)																				
			35	Compliance with SS in licence (%)																				
		A14	36	Sewer main breaks and chokes (per 100 km of main)																				
			37a	Sewer overflows (per 100 km of main)																				
		E13	37b	Sewer overflows reported to environmental regulator (per 100km of main)																				
			39	Non res & trade waste % of total sge volume																				
ECONOMIC	FINANCE		43	Revenue from non-residential plus trade waste charges (% of total revenue)																				
			44	Revenue from trade waste charges (% of total revenue)																				
		F18	46	Economic real rate of return - Sge (%)																				
			46a	Return on assets - Sge (%)																				
			48a	Loan payment per property - Sge (\$)																				
		F24	48b	Net profit after tax - WS & Sge (\$'000)																				
			49	Operating cost (OMA) per 100 km of main (\$'000)																				
		F12	50	Operating cost (OMA) per property (\$) (Note 9)																				
			51	Operating cost (OMA) per kL (cents)																				
			52	Management cost per property (\$)																				
ECONOMIC	EFFICIENCY		53	Treatment cost per property (\$)																				
			54	Pumping cost per property (\$)																				
			55	Energy cost per property (\$)																				
			56	Sewer main cost per property (\$)																				
		F29	57	Capital Expenditure per property - Sewerage (\$)																				

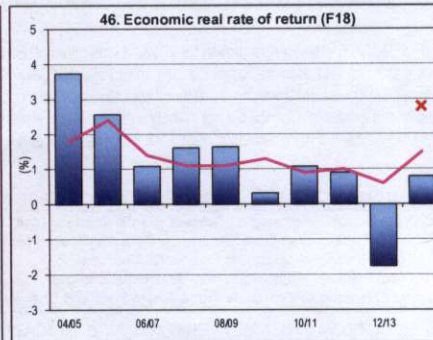
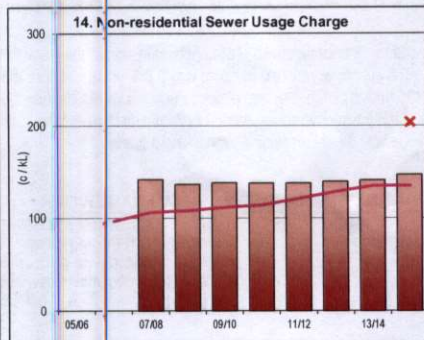
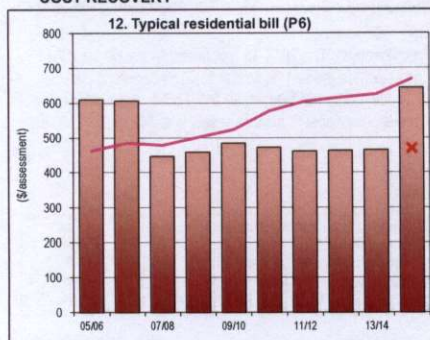
## NOTES:

- Col 2 rankings are on a % of LWUs basis - best reveals performance compared to similar sized LWUs (ie. Col 1 is compared with LWUs with 3,001 to 10,000).
- Col 3 rankings are on a % of LWUs basis - best reveals performance compared to all LWUs (ie. Col 1 is compared with all LWUs). - see attachment.
- Col 4 (Statewide Median) is on a % of connected properties basis- best reveals statewide performance (gives due weight to larger LWUs & reduces effect of smaller LWUs).
- Col 5 (National Median) is the median value for the 66 utilities reporting sewerage performance in the National Performance Report 2013-14 ([www.bom.gov.au](http://www.bom.gov.au)).
- LWUs are required to annually review key projections & actions in the later of their IWCMS Strategy and financial plan and their Strategic Business Plan and to annually 'roll forward', review and update their 30-year total asset management plan (TAMP) and 30-year financial plan.
- Non-residential access charge - \$485, proportional to square of size of service connection. Sewer usage charge - 147 c/kL.
- Non-residential and trade waste volume was 36% of total sewage collected.
- Non-residential revenue was 22% of revenue from access, usage & trade waste charges, indicating fair pricing of services between the residential and non-residential sectors.
- Compliance with Total N in Licence was 100%. Compliance with Total P in Licence was 75%.
- Operating cost (OMA)/property was \$470. Components were: management (\$58), operation (\$184), maintenance (\$129), energy (\$68) and chemical (\$30).
- Forbes Shire Council rehabilitations included 3.4% of its sewerage mains and 0.2% of its service connections. Renewals expenditure was \$980,000/100km of main.
- As Forbes Shire Council's strategic business plan and financial plan are over 4 years old, it needs to prepare a 30-year IWCMS Strategy and financial plan in accordance with the July 2014 IWCMS Check List ([www.water.nsw.gov.au](http://www.water.nsw.gov.au)).

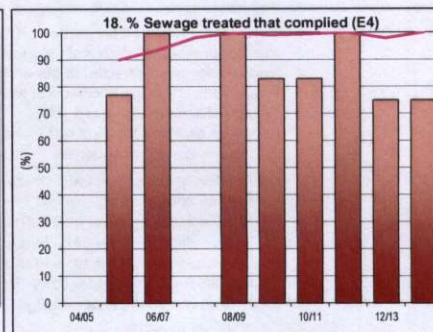
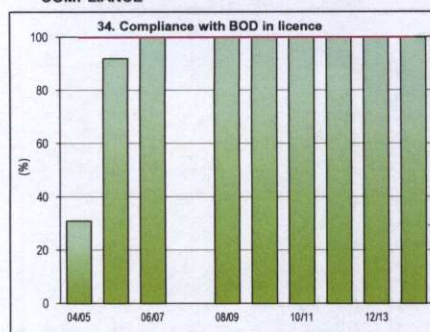


(Results shown for 10 years together with 2013-14 Statewide Median and Top 20%)

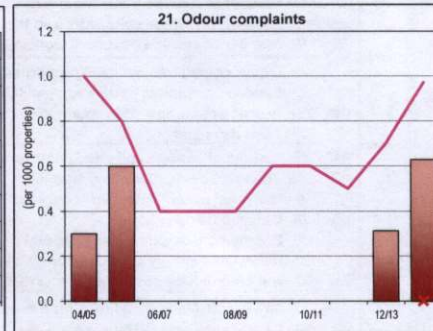
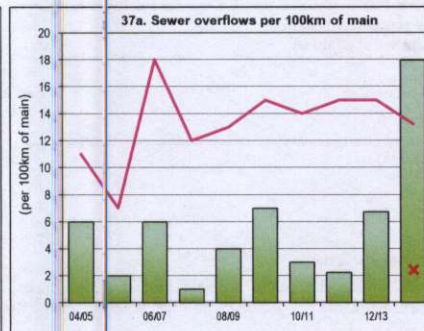
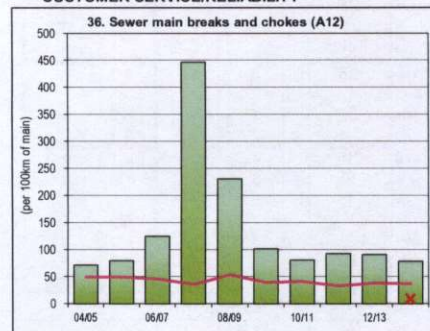
## COST RECOVERY



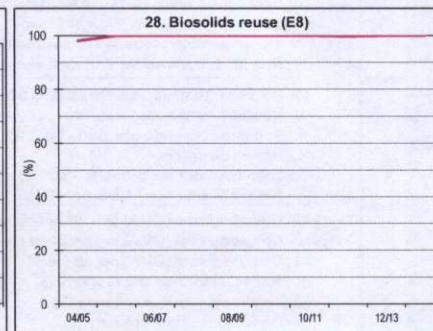
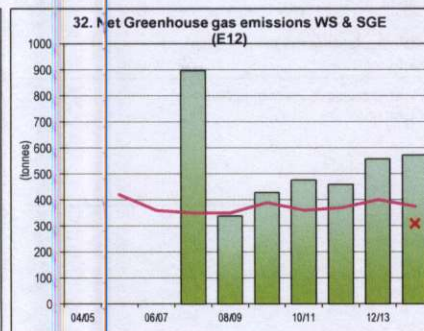
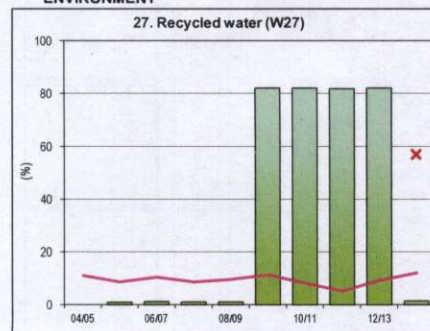
## COMPLIANCE



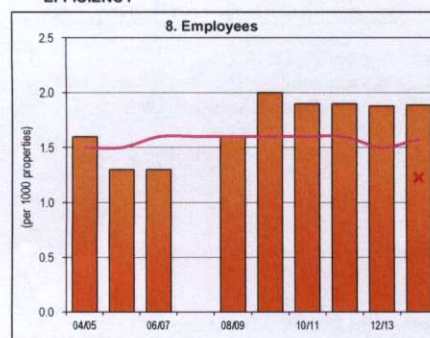
## CUSTOMER SERVICE/RELIABILITY



## ENVIRONMENT



## EFFICIENCY



## NOTES:

- Costs are in Jan 2014\$ except for graphs 12 and 14, which are in Jan 2015\$.

**LEGEND**  
State Median for all years  
Top 20% for 2013-14





WATER SUPPLY SYSTEM - Forbes Shire Council serves a population of 7,900 (3,680 connected properties). Water is drawn from the Lachlan River and 2 bores (7.3 ML/d) to supply Forbes and Ootha. The water supply network comprises 1 rapid sand filter treatment works (26 ML/d), 4 service reservoirs (30 ML), 6 pumping stations, 26 ML/d delivery capacity into the distribution system, 30 km of transfer and trunk mains and 118 km of reticulation. Forbes has a dual supply with fully treated potable supply for indoor use (94%) and an untreated non-potable supply for outdoor uses (6%).

PERFORMANCE - Forbes Shire Council achieved 100% implementation of the NSW BPM requirements. The 2014-15 typical residential bill was \$529 which was close to the statewide median of \$582 (Indicator 14). However, the economic real rate of return was negative (Indicator 43). The operating cost (OMA) per property was \$623 which was well above the statewide median of \$400 (Indicator 49). Water quality complaints were similar to the statewide median of 3 (Indicator 25). Compliance was achieved for microbiological water quality (100% of the population, 1 of 1 zones compliant), chemical water quality and physical water quality. There were no failures of the chlorination system or the treatment system. Forbes Shire Council reported no water supply public health incidents. Current replacement cost of system assets was \$72M (\$19,700 per assessment). Cash and investments were \$10M, debt was nil and revenue was \$2.7M (excluding capital works grants).

## IMPLEMENTATION OF REQUIREMENTS OF NSW BEST-PRACTICE MANAGEMENT (BPM) FRAMEWORK

(1) Complete Current Strategic Business Plan & Financial Plan	YES <sup>12</sup>	(3) Sound water conservation implemented	YES
(2) (2a) Pricing - Full Cost Recovery, without significant cross subsidies	Yes	(4) Sound drought management implemented	YES
(2b,2c) Pricing - Appropriate Residential Charges	Yes	(5) Complete performance reporting (by 15 September)	YES
(2d) Pricing - Appropriate Non-Residential Charges	Yes	(6) Integrated water cycle management strategy	YES <sup>12</sup>
(2e) Pricing - DSP with Commercial Developer Charges	Yes	IMPLEMENTATION OF ALL REQUIREMENTS	100%

## TRIPLE BOTTOM LINE (TBL) PERFORMANCE INDICATORS

	NWU No.			LWU RESULT	RANKING		MEDIAN	
					3,001 to 10,000	All LWUs	Statewide	National
UTILITY	CHARACTERISTICS	C1	1 Population served:	7900				
		C4	2 Number of connected properties:	3680				
			3 Residential connected properties (% of total)					
			4 New residences connected to water supply (%)					
		A3	5 Properties served per kilometre of water main					
			6 Rainfall (% of median annual rainfall)					
		W11	7 Total urban water supplied at master meters (ML)					
			8 Peak week to average consumption (%)					
			9 Renewals expenditure (% of current replacement cost of system assets)					
			10 Employees per 1000 properties					
SOCIAL	CHARGES & BILLS	P1	Residential tariff structure for 2014-15: two part; independent of land value; access charge \$206					
		P1.3	12a Residential water usage charge for 2013-14 all usage (c/kL)	c/kL (2013-14)				
			12 Residential water usage charge for 2014-15 all usage (c/kL)	c/kL (2014-15)				
		P3	14a Typical residential bill for 2013-14 (\$/assessment)	\$ (2013-14)				
			14 Typical residential bill for 2014-15 (\$/assessment)	\$ (2014-15)				
			15 Typical developer charge for 2014-15 (\$/equivalent tenement)	\$ (2014-15)				
		F4	16 Residential revenue from usage charges (% of residential bills)	%				
		F5	17 Revenue per property - water (\$/property)	\$/prop				
			18 Water Supply Coverage (% of Urban Population with reticulated WS)	% of population				
		H6	18a Risk based drinking water quality plan?	Yes				
SOCIAL	HEALTH		19 Physical compliance achieved? Note 10	Yes				
			19a Chemical compliance achieved? Note 10	Yes				
		H4	19b % population with chemical compliance	100				
			20 Microbiological (E. coli) compliance achieved? Note 10	Yes				
		H3	20a % population with microbiological compliance	100				
ENVIRONMENTAL	NATURAL RESOURCE MANAGEMENT	C9	25 Water quality complaints per 1000 properties	per 1,000 prop				
		C10	26 Water service complaints per 1000 properties	per 1,000 prop				
		C17	27 Incidence of unplanned interruptions per 1000 properties	per 1,000 prop				
		C15	28 Average duration of interruption (min)	min				
		A8	30 Number of water main breaks per 100 km of water main	per 100km				
			31 Drought water restrictions (% of time)	% of time				
			32 Total days lost (%)	%				
		W12	33 Average annual residential water supplied - STATEWIDE (kL/property)	kL/prop				
			33a Average annual residential water supplied - COASTAL LWUs (kL/property)	kL/prop				
			33b Average annual residential water supplied - INLAND LWUs (kL/property)	kL/prop				
ECONOMIC	FINANCE	A10	34 Real losses (leakage) (L/service connection/day)	L/connection/day				
			35 Energy consumption per Megalitre (kiloWatt hours)	kWh				
			36 Renewable energy consumption (% of total energy consumption)	%				
		E12	36a Net greenhouse gas emissions - WS & Sge (net tonnes CO <sub>2</sub> - equivalents per 1000 properties)	t CO <sub>2</sub>				
			42 Current replacement cost per assessment (\$)	\$				
		F17	43 Economic real rate of return - Water (%)	%				
			44 Return on assets - Water (%)	%				
		F22	45 Net Debt to equity - WS&Sge (%)	%				
		F23	46 Interest cover - WS&Sge					
			47 Loan payment per property - Water (\$)	\$				
ECONOMIC	EFFICIENCY	F24	47b Net profit after tax - WS & Sge (\$'000)	\$'000				
			48 Operating cost (OMA) per 100km of main (\$'000)	\$'000				
		F11	49 Operating cost (OMA) per property (\$/prop) Note 8	\$/prop				
			50 Operating cost (OMA) per kilolitre (cents)	c/kL				
			51 Management cost (\$/prop)	\$/prop				
			52 Treatment cost (\$/prop)	\$/prop				
			53 Pumping cost (\$/prop)	\$/prop				
			54 Energy cost (\$/prop)	\$/prop				
			55 Water main cost (\$/prop)	\$/prop				
		F28	56 Capital Expenditure (\$/prop)	\$/prop				

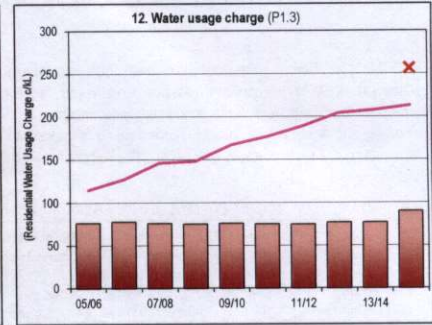
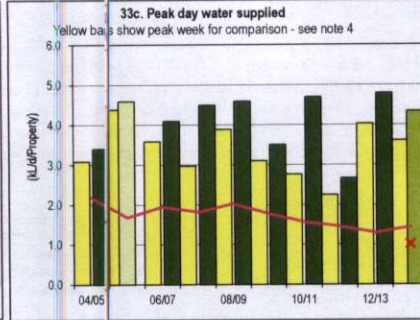
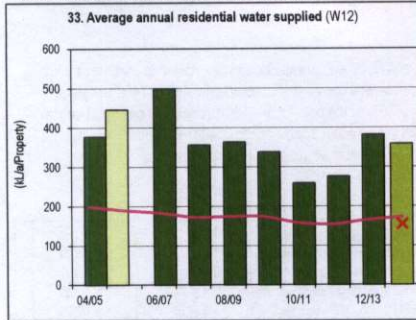
## NOTES:

- Col 2 rankings are on a % of LWUs basis - best reveals performance compared to similar sized LWUs (ie. Col 1 is compared with LWUs with 3,001 to 10,000).
- Col 3 rankings are on a % of LWUs basis - best reveals performance compared to all LWUs (ie. Col 1 is compared with all LWUs).
- Col 4 (Statewide Median) is on a % of connected properties basis - best reveals statewide performance (gives due weight to larger LWUs & reduces effect of smaller LWUs).
- Col 5 (National Median) is the median value for the 67 utilities reporting water supply performance in the National Performance Report 2013-14 ([www.bom.gov.au](http://www.bom.gov.au)).
- LWUs are required to annually review key projections & actions in the later of their IWC Strategy and financial plan and their Strategic Business Plan and to annually 'roll forward', review and update their 30-year total asset management plan (TAMP) and 30-year financial plan.
- 2013-14 Non-residential Tariff: Access Charge based on Service Connection Size\* (40mm: \$824), Two Part Tariff; Usage Charge 90c/kL.
- Non-residential water supplied was 36% of potable water supplied excluding non-revenue water.
- Non-residential revenue was 9% of annual rates and charges.
- Operating cost (OMA) per property was \$623, including \$56 for bulk supply. Other components were: management (\$70), operation (\$203), maintenance (\$251), energy (\$1) & chemical.
- Rehabilitations included 0.7% of water mains, 0.24% of service connections and 19.8% of water meters.
- Compliance with ADWG 2011 for drinking water quality is shown as "Yes" if compliance has been achieved (indicators 19, 19a & 20).
- Forbes Shire Council has 2 fully qualified water treatment operators who meet the requirements of the National Certification Framework.
- As Forbes Shire Council's strategic business plan and financial plan are over 4 years old, it needs to prepare a 30-year IWC Strategy and financial plan in accordance with the July 2014 IWC Check List ([www.water.nsw.gov.au](http://www.water.nsw.gov.au)).

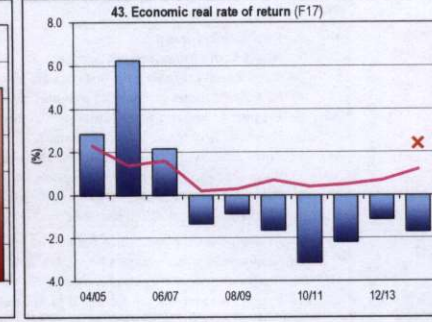
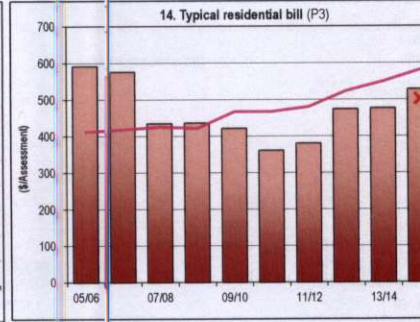
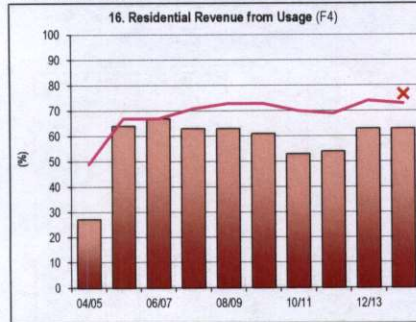


(Results shown for 10 years together with 2013-14 Statewide Median and Top 20%)

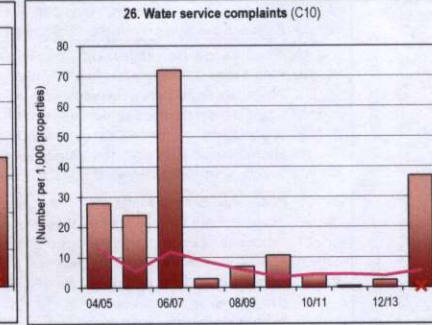
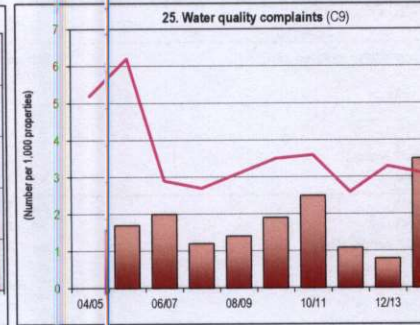
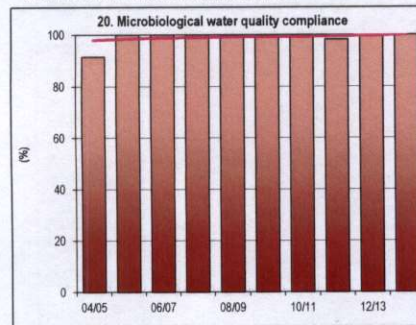
## RESIDENTIAL USE/REVENUE FROM USAGE



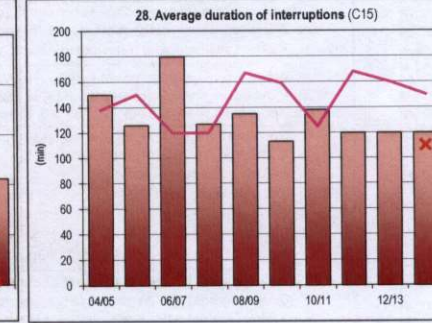
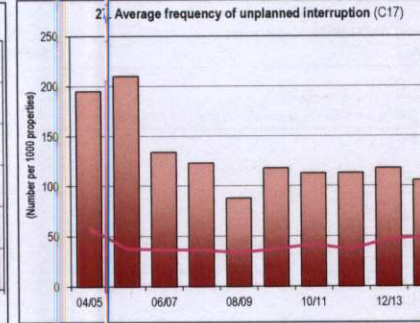
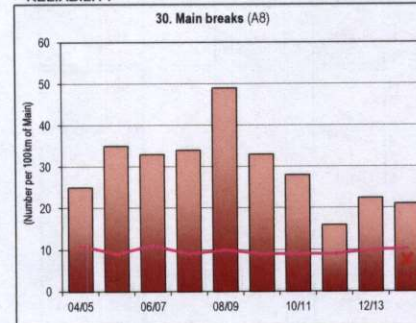
## COST RECOVERY



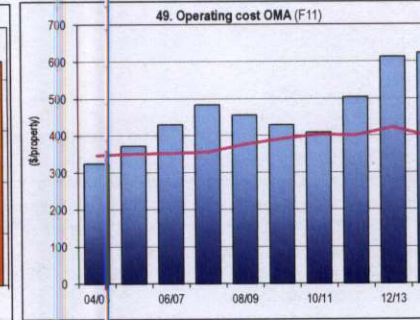
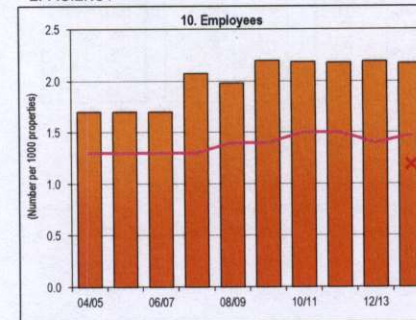
## WATER QUALITY/CUSTOMER SERVICE



## RELIABILITY



## EFFICIENCY



## NOTES:

- Costs are in Jan 2014\$ except for graphs 12 and 14, which are in Jan 2015\$.
- Microbiological water quality compliance 1999-00 to 2003-04 was on the basis of 1996 NHMRC/ARMCANZ Australian Drinking Water Guidelines for E. coli; from 2004-05 to 2010-11 compliance was on the basis of the 2004 NHMRC/NRMMC Australian Drinking Water Guidelines (ADWG) and for 2011-12 to 2012-13 compliance was on the basis of the 2011 ADWG.
- Indicators 33 and 33c - Green shading of bars shows % of time Drought Water Restrictions applied in each year.
- Indicator 33c - Yellow bars show Peak Week Water Supplied for comparison with Peak Day Water Supplied shown in green.

## LEGEND

State Median for all years  
Top 20% for 2013-14

0 - 30% 30-50% >50% of time