

**WATER SUPPLY SYSTEM** - Byron Shire Council serves a population of 20,700 (11,450 connected properties). Byron Council is a reticulator with 85% of its supply comprising a fully treated bulk water supply provided by Rous County Council. Water is drawn from Rocky Creek to supply Byron Bay, Bangalow, Brunswick Heads and Ocean Shores. Mullumbimby is supplied from its own water treatment works at Laverty's Gap. The water supply network comprises 1 direct filtration works (2.9 ML/d), 12 service reservoirs (24 ML), 8 pumping stations, 3.9 ML/d delivery capacity into the distribution system, 22 km of transfer and trunk mains and 247 km of reticulation. Byron Shire Council is a reticulator with 79% of its supply provided by Rous Water. 92% of water supplied is potable and 8% nonpotable (recycled).

**BPM IMPLEMENTATION** - Byron Shire Council achieved 100% implementation of the outcomes required by the NSW BPM Framework, however, Council needs to prepare a 30-year IWCM Strategy, Financial Plan and Report in accordance with the July 2014 IWCM Check List ([www.water.nsw.gov.au](http://www.water.nsw.gov.au)) to maintain 100% BPM Implementation.

**PERFORMANCE** - The 2016-17 typical residential bill was \$596 which was close to the statewide median of \$625 (Indicator 14). The economic real rate of return was 3.1% which was greater than the statewide median (Indicator 43). The operating cost (OMA) per property was \$471 which was close to the statewide median of \$440 (Indicator 49). Water quality complaints were less than the statewide median of 3 (Indicator 25). Compliance with ADWG was achieved for microbiological water quality (100% of the population, 2 of 2 zones compliant), chemical water quality and physical water quality. There were no failures of the chlorination system or the treatment system. Byron Shire Council reported no water supply public health incidents. Council has a risk-based Drinking Water Management System (DWMS) and had 0 days of water restrictions. Current replacement cost of system assets was \$96M (\$8,000 per assessment). Cash and investments were \$13.3M and revenue was \$9.8M (excluding capital works grants).

#### IMPLEMENTATION OF OUTCOMES REQUIRED BY THE NSW BEST-PRACTICE MANAGEMENT (BPM) FRAMEWORK

(1) Complete Current Strategic Business Plan & Financial Plan	YES	(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*
(2e) Pricing - DSP with Commercial Developer Charges	Yes	<b>IMPLEMENTATION OF ALL OUTCOMES</b>	<b>100%</b>

#### TRIPLE BOTTOM LINE (TBL) PERFORMANCE INDICATORS

				RESULT	RANKING		MEDIANS				
					Size Group 1	All LWUs	Statewide	National			
				Col 1	Col 2	Col 3	Col 4	Col 5			
UTILITY	CHARACTERISTICS	NWI No.									
		C1	1	Population served: 20,700	(Number of assessments: 11,930)						
		C4	2	Number of connected properties:	Council is within Size Group 1: (>10,000 properties)	11,450					
			3	Residential connected properties	% of total	87		91			
			4	New residences connected to water supply	%	1.6	2	1	1.0		
		A3	5	Properties served	prop/km	43		33	34		
			6	Rainfall	% median annual rainfall	103	2	3	104		
		W11	7	Total urban water supplied at master meters	ML	3,040		6,900	9,770		
			8	Peak week to average consumption	%			142			
			9	Renewals expenditure	% CRC	2.9	1	1	0.6		
	10	Employees	per 1,000 prop	0.8	1	1	1.5				
SOCIAL	CHARGES & BILLS	P1	Residential tariff structure for 2016-17: inclining block; independent of land value; access charge \$179								
		P1.3	12a	Residential water usage charge for 2015-16 for usage <450 kL	c/kL (2015-16)	242	2	2	228	190	
			12	Residential water usage charge for 2016-17 for usage <450 kL	c/kL (2016-17)	247	2	2	230		
		P3	14a	Typical residential bill for 2015-16	\$/assessment (2015-16)	584	2	2	601	623	
			14	Typical residential bill for 2016-17	\$/assessment (2016-17)	596	2	1	625		
			15	Typical developer charge for 2016-17	\$/ET (2016-17)	3,560	4	4	5,600		
		F4	16	Residential revenue from usage charges	% residential bills	71	3	3	73	66	
		F5	17	Revenue - Water	\$/prop	860	4	4	928	921	
		HEALTH	18	Water Supply Coverage (% of Urban Population with reticulated WS)	% of population	99.6	2	1	99.2		
	H4		19b	% population with chemical compliance	% of population	100	1	1	100		
	H3		20a	% population with microbiological compliance	% of population	100	1	1	100	100	
		SERVICE LEVELS	C9	25	Water quality complaints	per 1,000 prop	1	3	3	2	
			C10	26	Water service complaints	per 1,000 prop	0	1	1	4	0.5
	C17		27	Incidence of unplanned interruptions	per 1,000 prop	13	2	3	32	90	
	A8		30	Number of water main breaks	per 100km main	7	2	2	9	13	
		32	Total days lost	%	0.3	2	2	3.5			
ENVIRON- MENTAL	NATURAL RESOURCE MANAGEMENT	W12	33	Average annual residential water supplied - STATEWIDE result	kL/prop	169	3	2	162	181	
			33a	Average annual residential water supplied - COASTAL LWUs	kL/prop	169	5	4	155		
		A10	34	Real losses (leakage)	L/connection/day	90	4	3	70	76	
			35	Energy consumption	kWh/ML	41	1	1	660		
		E12	36a	Net greenhouse gas emissions - WS & Sge	t CO2 eq per 1,000 prop	170	1	1	390	402	
ECONOMIC	FINANCE		42	Current replacement cost	\$/assessment	8,100	5	5	17,400		
		F17	43	Economic real rate of return - Water	%	3.1	2	1	2.3	2.8	
			44	Return on assets - Water	%	3.6	2	2	1.7		
		F22	45	Net Debt to equity - WS & Sge	%	11	2	1	-3	7	
		F23	46	Interest cover - WS & Sge		3	1	1	34	2	
			47	Loan payment - Water	\$/prop	0	4	3	11		
		F24	47b	Net profit after tax - WS & Sge	\$/000	6,400	3	1	3,800	9300	
		EFFICIENCY		48	Operating cost (OMA) per 100km of main	\$/000	1,110	2	3	1,120	
	F11		49	Operating cost (OMA) per property - Note 9	\$/prop	471	4	2	440	485	
			50	Operating cost (OMA) per kilolitre	c/kL	98	1	3	120		
			51	Management cost	\$/prop	137	2	2	148		
			52	Treatment cost	\$/prop	21	1	1	59		
			53	Pumping cost	\$/prop				28		
	54		Energy cost	\$/prop				17			
	55	Water main cost	\$/prop	54	1	1	71				
F28	56	Capital Expenditure	\$/prop	243	3	2	212	193			

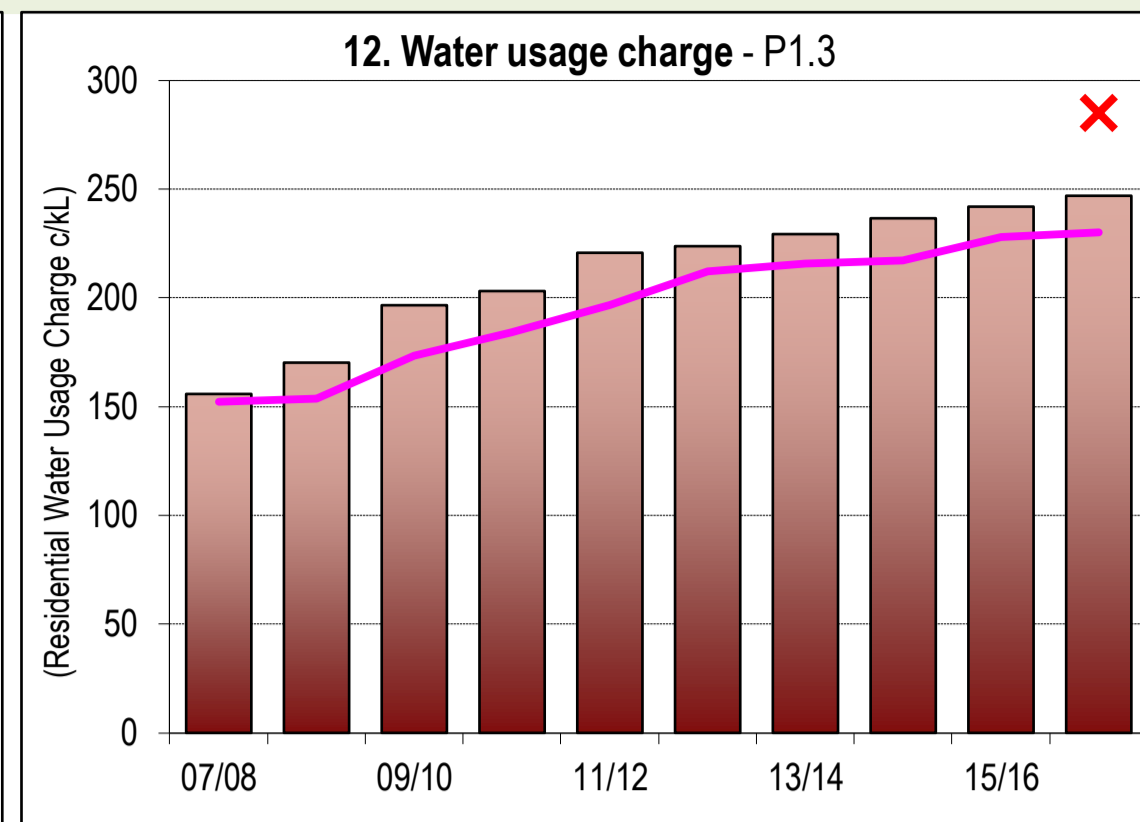
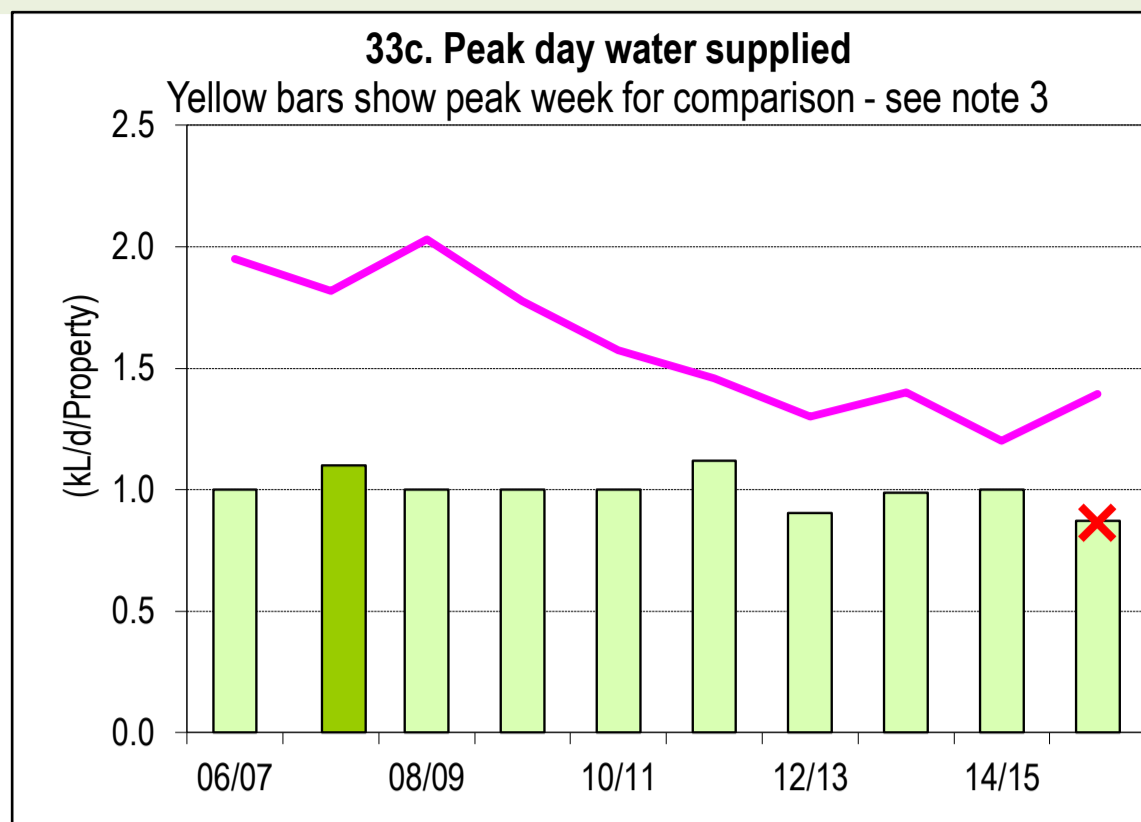
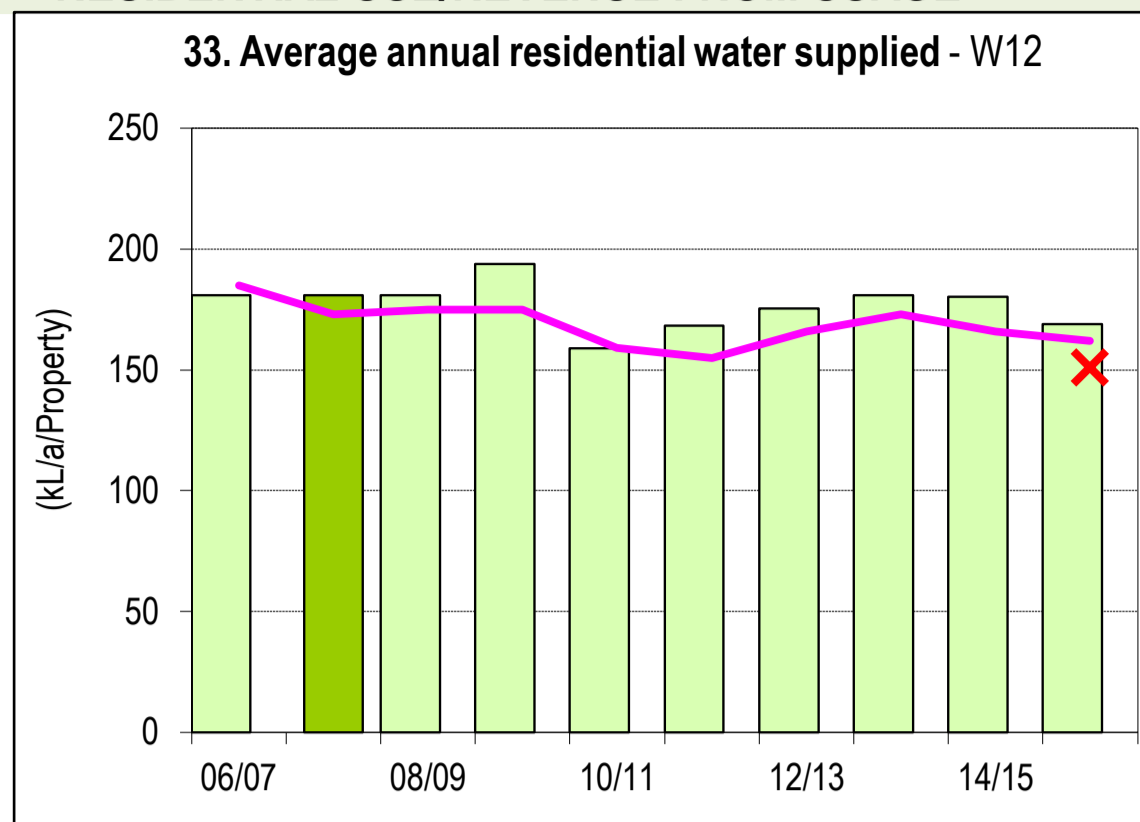
#### NOTES :

- Col 2 rankings are on a % of LWUs basis - best reveals performance compared to LWUs in a similar Size Group (ie. Result in Col 1 is compared with LWUs in Size Group 1).
- Col 3 rankings are on a % of LWUs basis - best reveals performance compared to all NSW LWUs (ie. Result in Col 1 is compared with all NSW 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 75 utilities reporting water supply performance in the National Performance Report 2015-16 ([www.bom.gov.au](http://www.bom.gov.au)).
- LWUs are required to annually review key projections & actions in the later of their IWCM 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.
- Byron Shire Council is a reticulator - costs include operating costs. Water harvesting and water treatment are provided by Rous County Council.
- 2016-17 Non-res tariff: Access Chg based on Service Connection\* (40mm: \$716), Two Part: Usage Chg 265c/kL.
- Non-residential water supplied was 30% of potable water supplied (excluding non-revenue water).  
Non-residential revenue was 29% of annual rates and charges. This indicates fair pricing of services between the residential and non-residential sectors.
- Operating cost (OMA/ property) was \$471, components were bulk supply (\$211), management (\$137), operation (\$89), maintenance (\$30) & chemical (\$5).
- Rehabilitations included 1.1% of water mains, 1.04% of service connections and 3.3% of water meters. Renewals expenditure was \$1,036,000/100km of main.
- Byron Shire Council has 5 fully qualified water treatment operators who meet the requirements of the National Certification Framework.

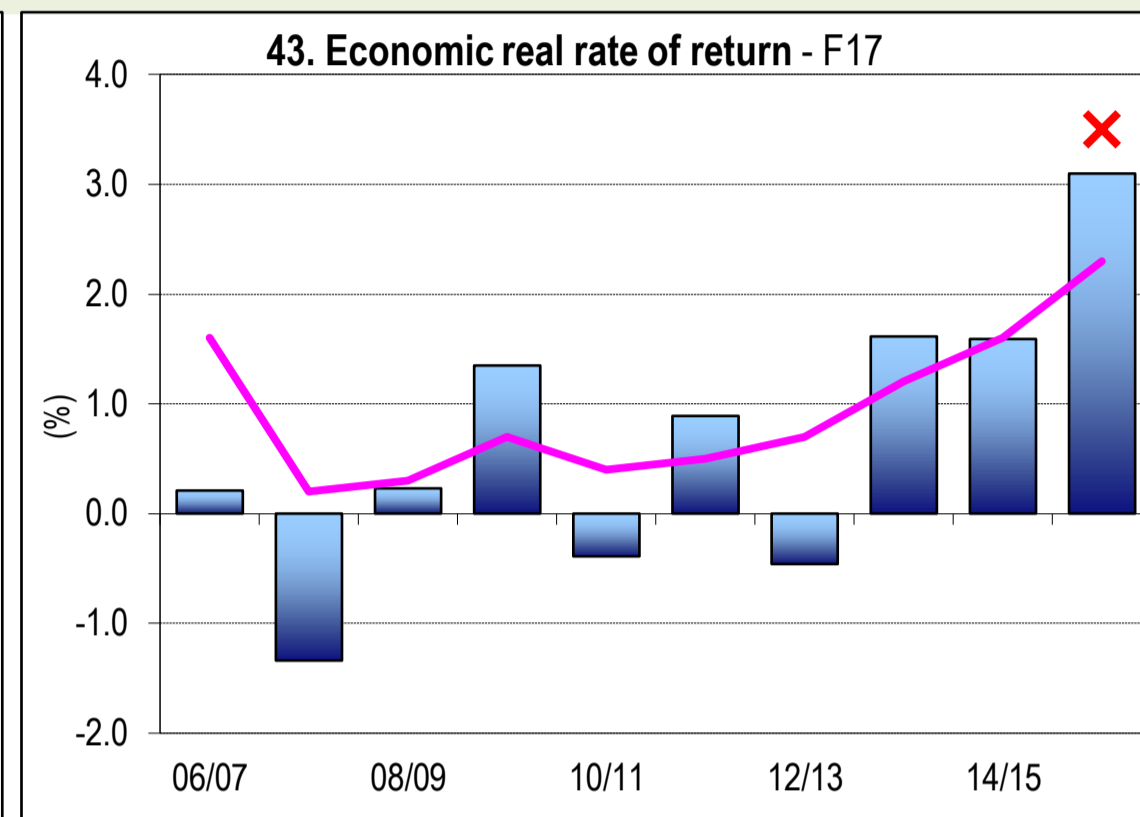
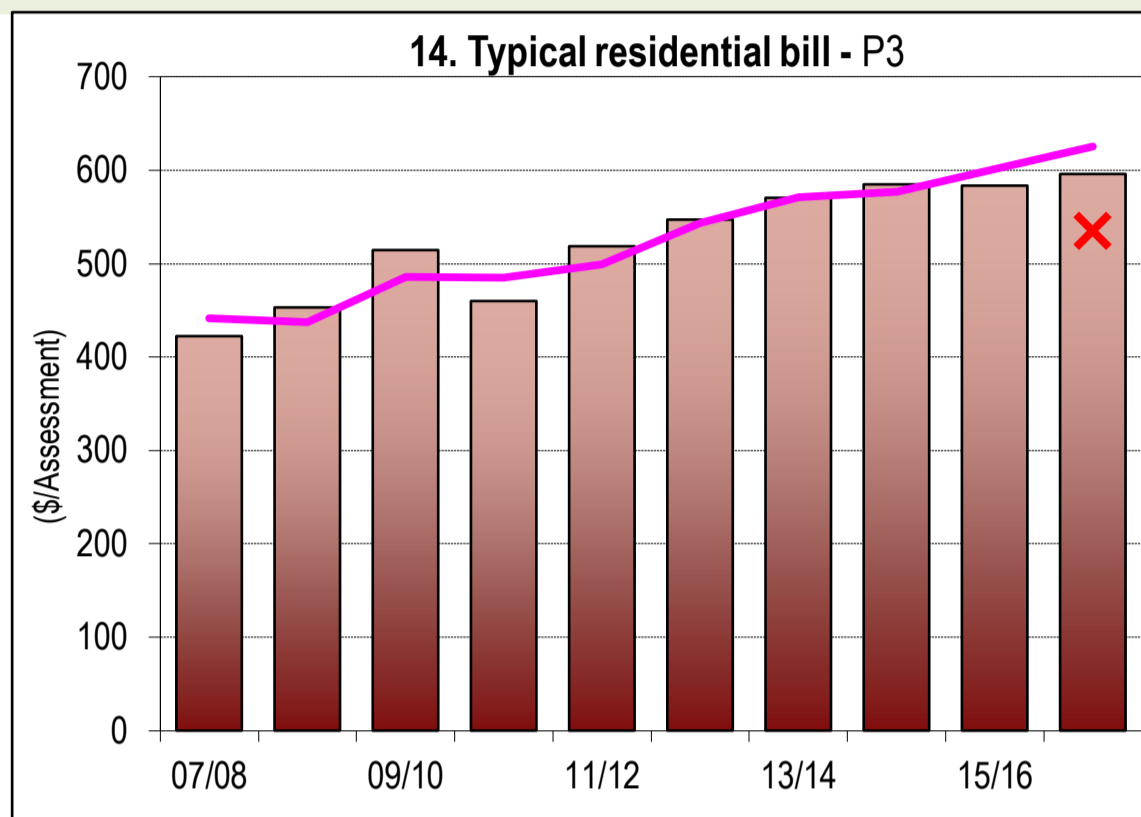
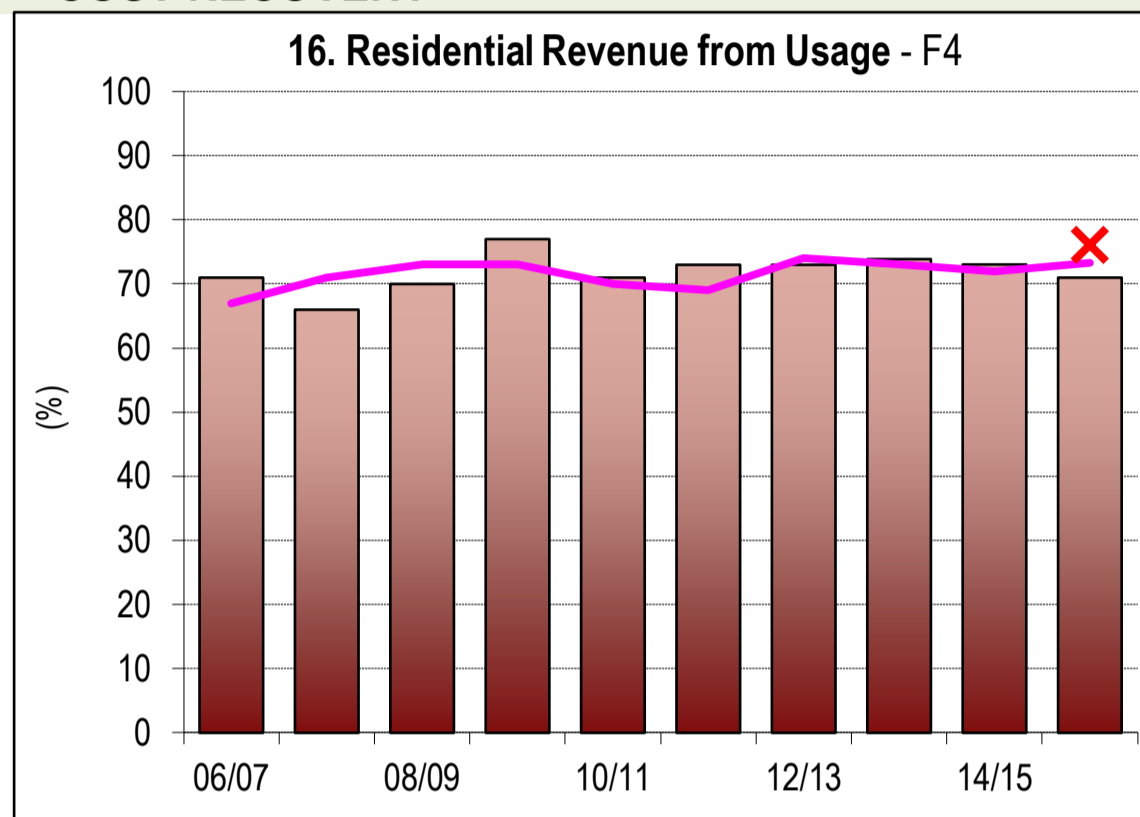


(Results shown for 10 years together with Statewide Median and 2015-16 Top 20%)

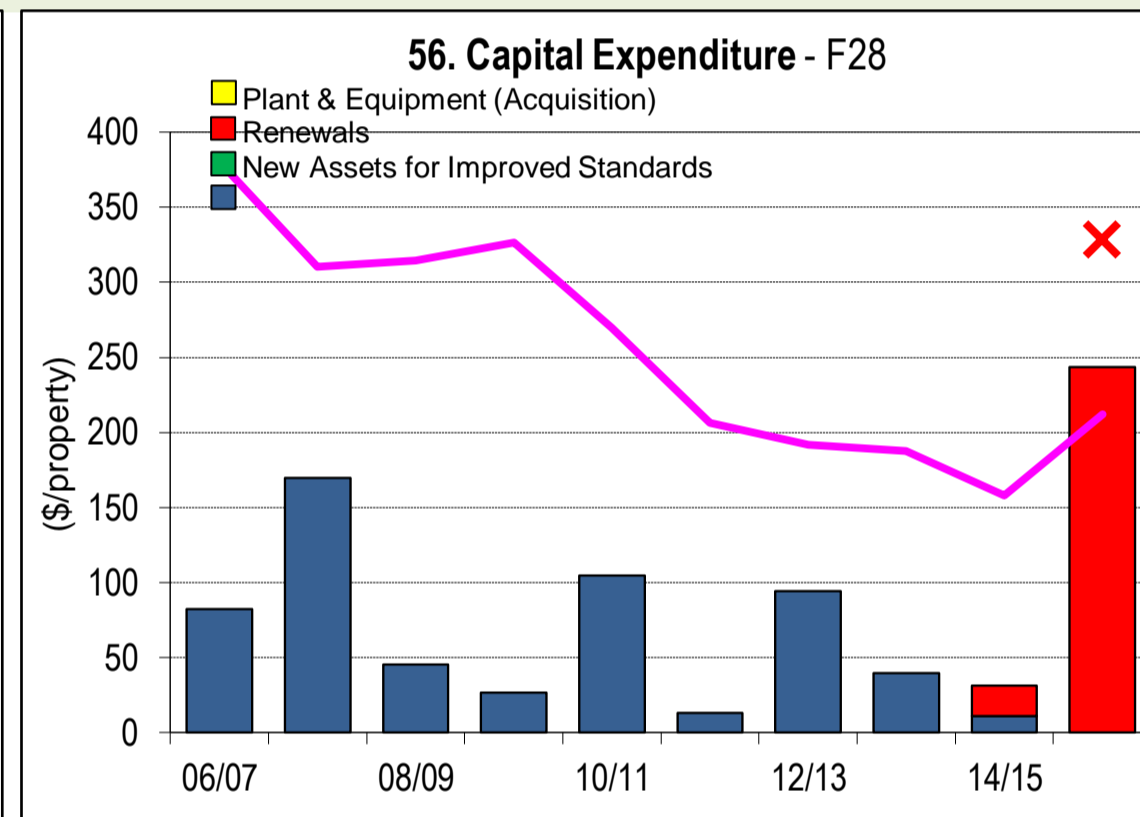
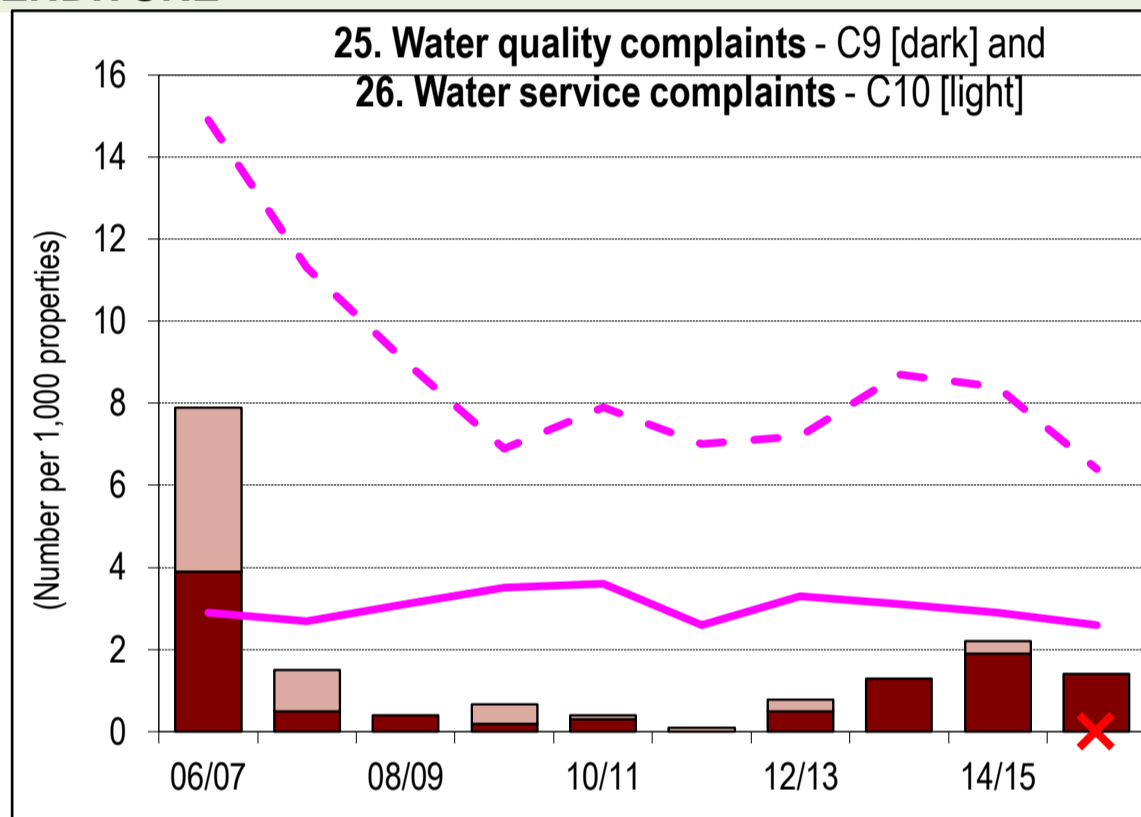
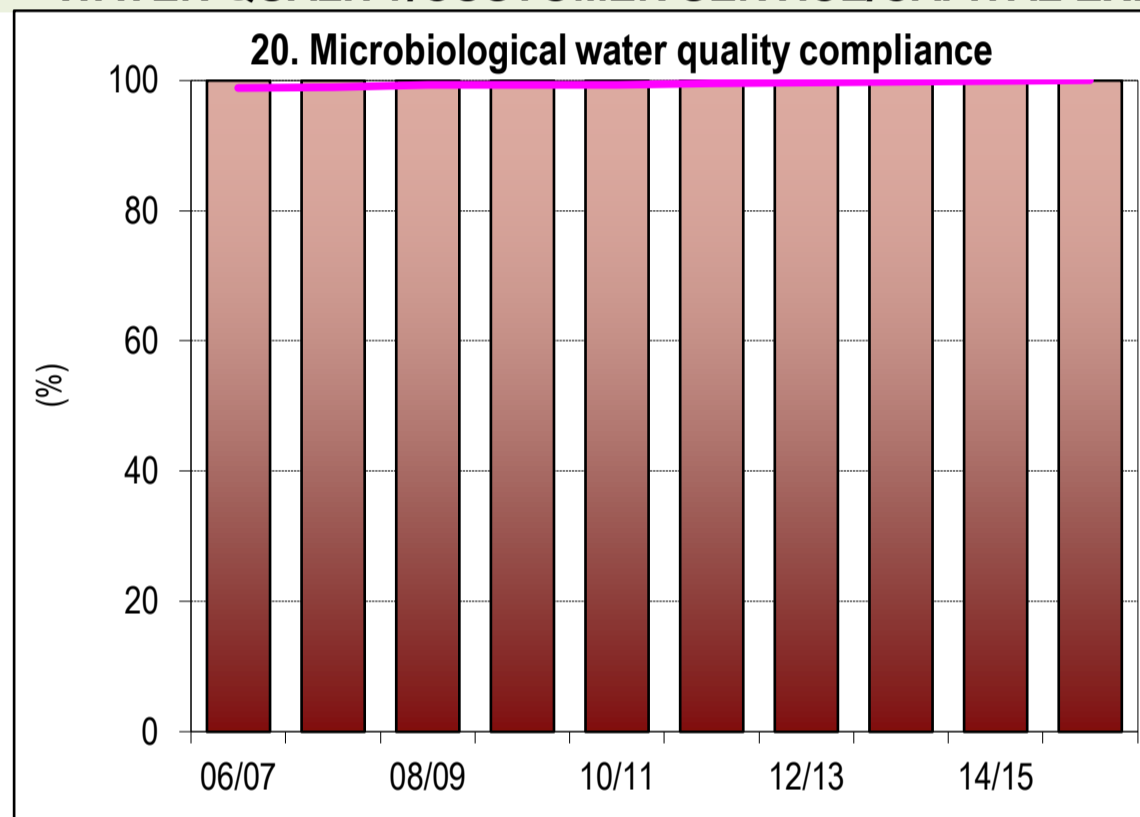
**RESIDENTIAL USE/REVENUE FROM USAGE**



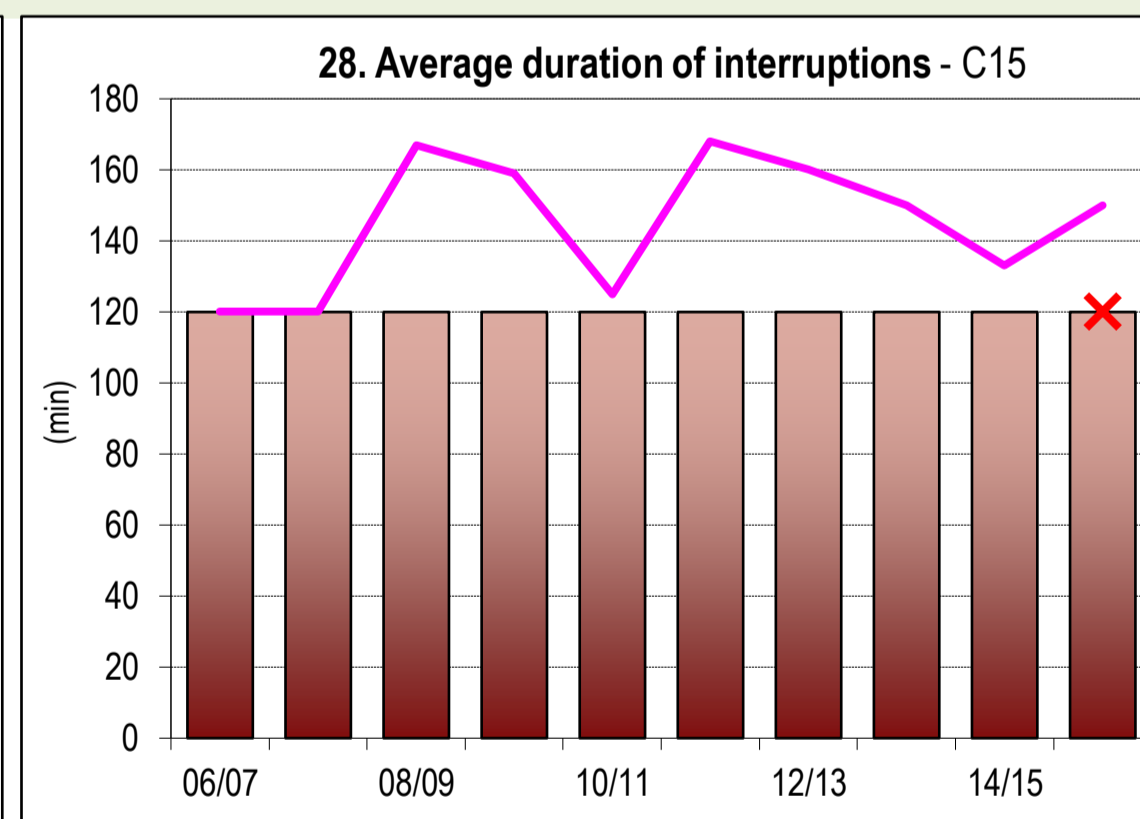
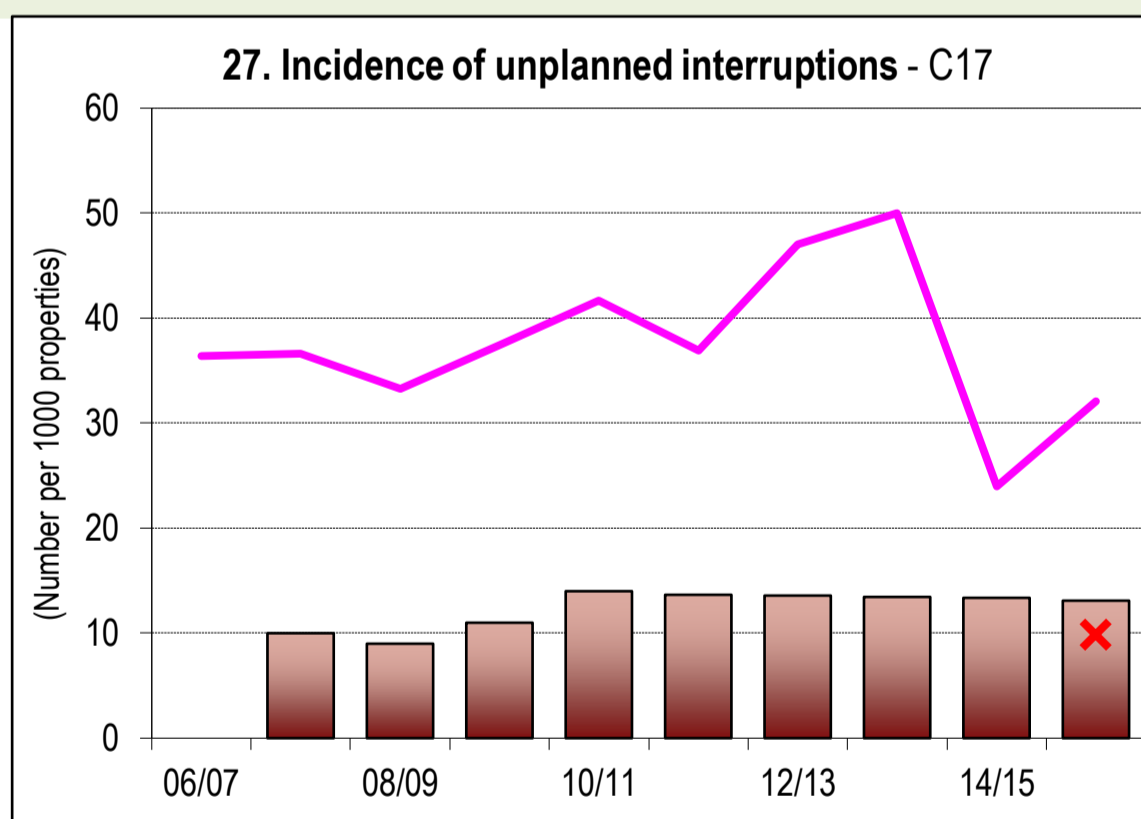
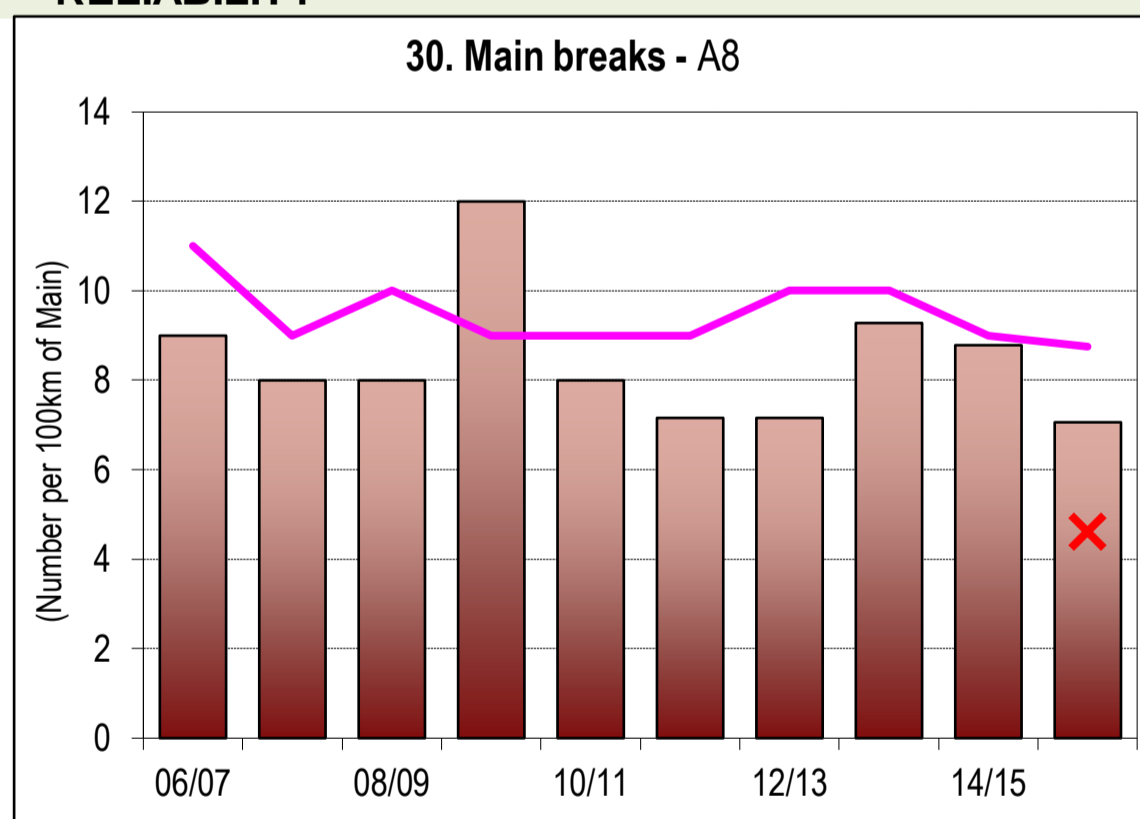
**COST RECOVERY**



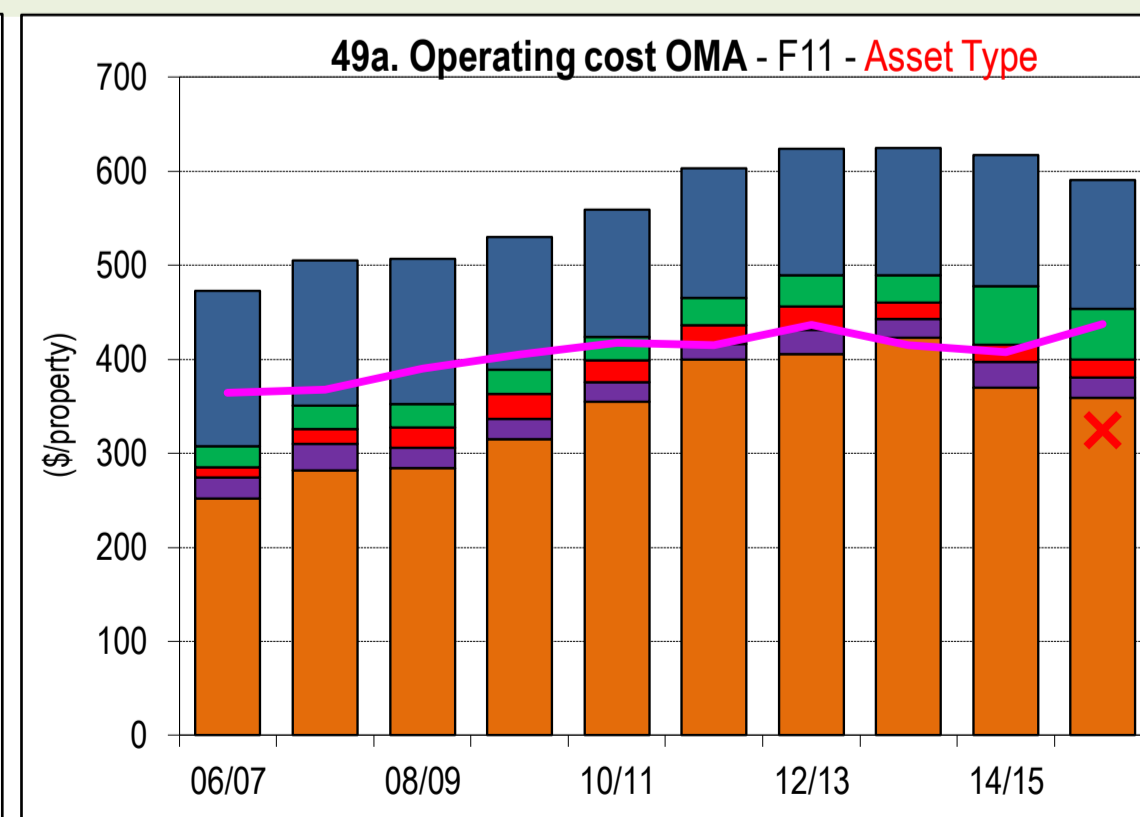
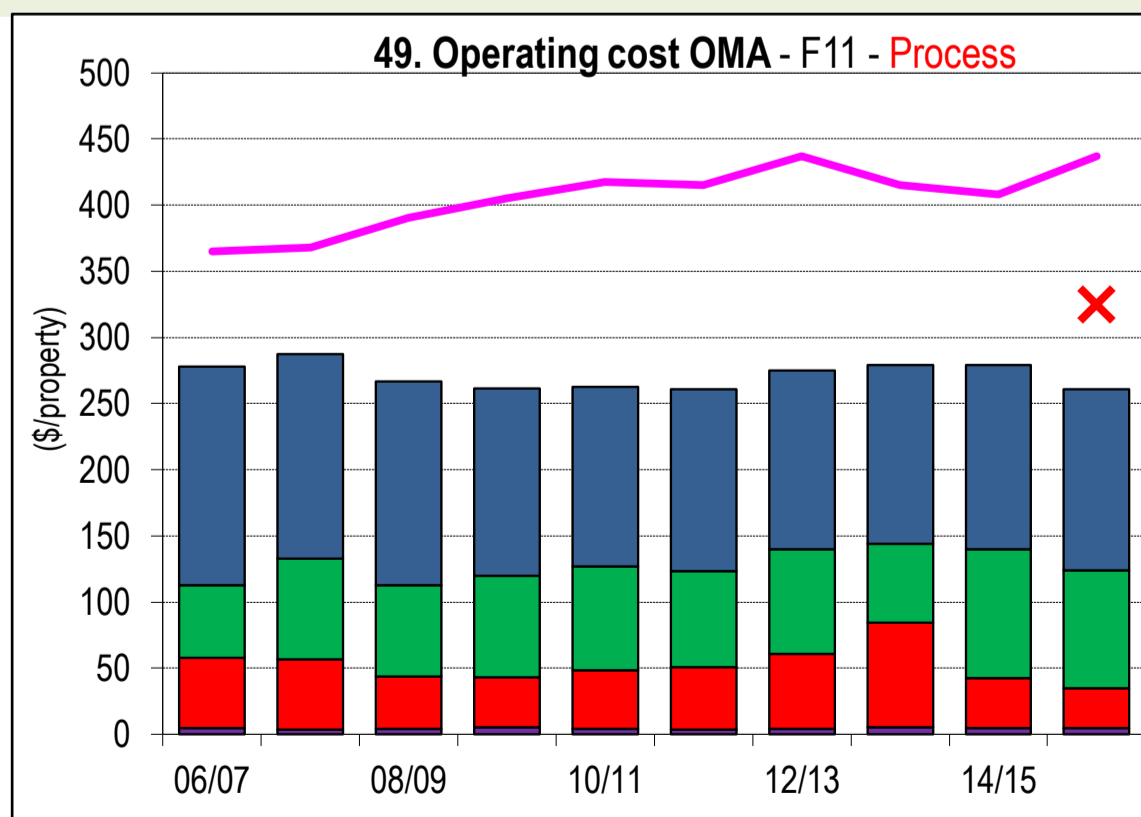
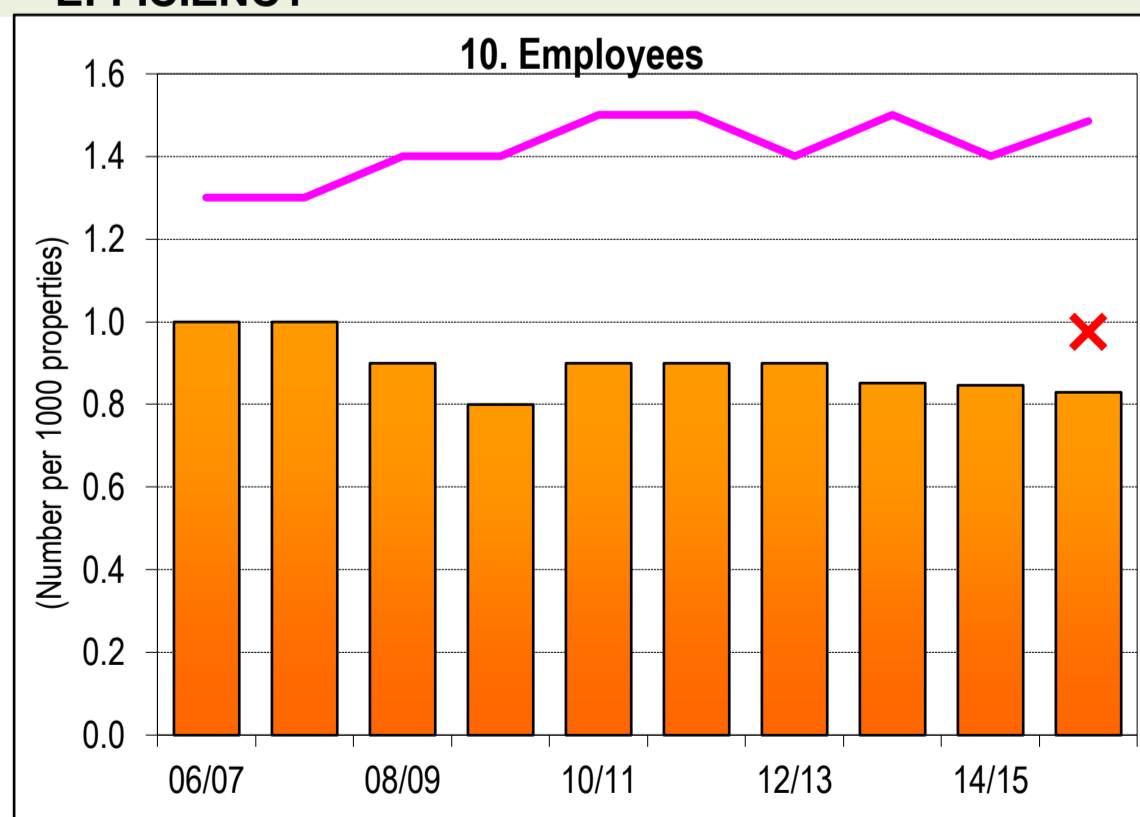
**WATER QUALITY/CUSTOMER SERVICE/CAPITAL EXPENDITURE**



**RELIABILITY**



**EFFICIENCY**



**NOTES:**

- Costs are in Jan 2016\$ except for graphs 12 and 14, which are in Jan 2017\$.
- Microbiological water quality compliance up to 2010-11 was on the basis of 2004 NHMRC/NRMMC Australian Drinking Water Guidelines (ADWG) and for 2011-12 to 2015-16 compliance was on the basis of the 2011 ADWG.
- Indicator 33c - Yellow bars show Peak Week Water Supplied for comparison with Peak Day Water Supplied shown in green.
- Indicators 33 and 33c - Green shading of bars shows % of time Drought Water Restrictions applied in each year:

**LEGEND**

State Median for all years (pink line)

Top 20% for 2015-16 (red X)

0 - 30% (light green bar)

30-50% (medium green bar)

>50% of time (dark green bar)

Management Operation Maintenance Energy Chemicals Management Mains Pump Stations Reservoirs Treatment Dams/Weirs Other