APPENDIX A POTENTIAL PERFORMANCE INDICATORS

Indicator	Split	Performance Measure	Comments
Baseline Explanatory Data			
Water customers	Domestic Non-Domestic	Context & normalising measure	Baseline explanatory data may need to be expanded to accurate summarise the activities of regional water businesses and Melbourne Water. For example information may need to include number of: water treatment plants, major dams, pump stations, rising mains.
Sewerage customers	Domestic Non-Domestic	Context & normalising measure	
Length of water main (km)		Context & normalising measure	
Length of sewerage main (km)		Context & normalising measure	
Volume of water received (Ml)		Context & normalising measure	
Metered volume of water delivered to customers (Ml)	Domestic Non-domestic	Average customer consumption Unaccounted for water	May need to consider additional measure of consumption given increased emphasis in the WIRO.
Volume of sewage delivered (Ml)	Wholesaler Treatment plants	Context & normalising measure	
Volume of sewage treated (Ml)	Primary treatment Secondary treatment Tertiary treatment	Context & normalising measure % of sewage subject to primary, secondary & tertiary treatment	
Water Quality			To be developed in conjunction with DHS.
E.coli		% of sample comply	Water quality indicators may need to be expanded to provide an overall summary of performance consistent with changed arrangements to Drinking Water Quality Regulatory Framework.
Total coliforms		% of sample comply	Monitoring and reporting of total coliforms should be removed consistent with proposed changes to Drinking Water Quality Regulatory Framework

Indicator	Split	Performance Measure	Comments
NETWORK RELIABILITY AND EFFICIENCY			
Bursts and leaks	Priority 1 Priority 2	Context & normalising measure Burst and leaks per 100km of water main	Broadly used measure of network reliability. Need to ensure definition clarifies any differences in approach between metro retailers and regional businesses re meter to main. Measure appropriate for Melbourne Water as urban businesses.
Total minutes to respond to bursts and leaks	Priority 1 Priority 2	Average minutes to respond	
Water supply interruptions	Planned Unplanned	Water supply interruptions per 100 customers Water supply interruptions per 100 km of water main	Measures customer impact of interruptions (not all bursts and leak result in outage). Ability for management to improve performance through a range of strategies.
Water supply interruptions restored within 5 hours	Planned Unplanned	% of water supply interruptions restored within 5hrs	Previous suggestion by some Melbourne retailers to include interruptions restored within 3hrs. Regulators such as Ofwat and IPART include outlier measures such as customers off supply for 12 or 24hrs. This is unlikely to be a major issue in Victoria.
Water supply customer-interruptions	Planned Unplanned	Average customer interruption frequency	
Customer-minutes to restore water supply	Planned Unplanned	Average duration of water supply interruptions Average minutes off supply	Good measure of asset management practices and system availability.
Customers receiving more than 5 water supply interruptions in year	Unplanned	Average number of customers receiving greater than five interruptions in a year as % of customers	Potentially expanded to include customers receiving 1,2,3,4 &5 interruptions per year as per WSAA and IPART benchmarking. Some regional businesses have expressed difficulty in collecting this measure.
Total duration of general water restrictions (days)		Average days of restrictions per customer	Need to include other measure of resource security. Need to consider practicality for regional businesses where some part of an authority may be under restrictions while others are not. In Melbourne is this measure of retailer performance or Melbourne Water.
Unaccounted water		% of unaccounted water	

Indicator	Split	Performance Measure	Comments
Sewerage network reliability and efficiency			
Sewer blockages		Sewer blockages per 100 km of sewer main	
Sewerage service customer-interruptions		Average customer interruption frequency	
Customers receiving more than 3 sewerage service interruptions in year		Average number of customers receiving greater than 3 sewerage service interruptions in a year as a % of customers	Potential to break down to include customers receiving 1,2 &3 blockages per years, as is used for monitoring Sydney Water.
Sewerage service customer-interruptions restored within 5 hours		% of sewerage service customer-interruptions restored within 5 hrs	Current measure has been ineffectual and is not publicly reported
Sewer spills from reticulation and branch sewers	Priority 1&2	Context & normalising measure	
Inflow (infiltration) to the sewerage system		Estimated %	Suggest deletion of indicator. Inflow/infiltration has proved hard to accurately measure and has not been reported for metropolitan retailers.
Sewer spills from reticulation and branch sewers fully contained within 5 hours	Priority 1& 2	% of sewer spills contained within 5 hrs	Consider deleting measure. Current performance standard for retailers but is not a particularly meaningful measure.
Water conservation, reuse, recycling and environment			Measure to be developed with EPA. An area of monitoring likely to be expanded consistent with increased emphasis on conservation and reuse in WIRO

Indicator	Split	Performance Measure	Comments
Effluent reuse	Volume produced Volume reused	Volume reused means volume of sewage effluent reused. Volume of effluent reused means reuse undertaken in accordance with EPA published guidelines or exempted from EPA licensing on the basis of being recognised as a legitimate reuse activity.	See earlier EPA comments
Biosolids reuse	Mass produced Mass reused Mass stored	Mass produced means the mass dry weight of sludge produced by the licensee's sewage treatment plants. Mass reused means the mass dry weight of sludge reuse undertaken in accordance with EPA published guidelines or exempted from EPA licensing on the basis of being recognised as a legitimate reuse activity. Mass stored means the mass dry weight of sludge stored by, or on behalf of, the licensee.	See earlier EPA comments
Customer responsiveness and Service			
Calls to fault line		Calls received as % of customers	Need to redefine call centre definitions and measures
Calls to fault line put through to operator		Normalising measure	As above
Calls to fault line answered within 30s		% of calls answered within 30 seconds	As above
Calls to account line		Calls received as % of customers	As above
Water quality complaints	Colour Taste & odour Other	Complaints as % of customers	

Indicator	Split	Performance Measure	Comments
Water supply reliability complaints		Complaints as % of customers	Consider a category of pressure complaint if this is an issue in regional Victoria.
Sewerage service quality & reliability complaints		Complaints as % of customers	
Affordability complaints		Complaints as % of customers	Need to consider breaking category in two with one part covering billing and pricing issues, the other covering hardship and incapacity to pay
Billing complaints		Complaint as % of customers	
Other complaints		Complaints as % of customers	May need to include complaints about sewage odours for regional business and potentially Melbourne Water.
Affordability			Consider expanding to include field visits to customer with payment difficulties, application for and customers assisted under hardship policies.
Instalment plans	Domestic Non domestic	% of customers on instalment plans	
Restrictions applied for non-payment of bill	Domestic Non-domestic	% of customers restricted	
Legal action for non-payment of bill	Domestic Non-domestic	% of customers subject to legal action	
Environmental performance			To be developed and reported in conjunction with the EPA
Sewer spills from emergency relief structures (ERS) and pumping stations	Blockage Hydraulic Extreme wet weather System failure	Context & normalising measure	

Indicator	Split	Performance Measure	Comments
Volume of sewage spilt from emergency relief structures (ERS) and pumping stations (Ml)	Blockage Hydraulic Extreme wet weather System failure	as per EPA requirements	See earlier EPA comments
Treatment plants		To be reported via a table of performance for each treatment plant, including calculated overall performance for the licensee. Pro-forma to be provided	See earlier EPA comments
Sewage effluent samples - compliance with effluent standards	Method of treatment Volume treated (Ml) Analyses performed (by analyte) Analyses complying (by analyte) Sampling periods Sampling periods achieving full compliance	Analyses performed means the total number of EPA licence compliance analyses performed on the treated effluent for any treatment plant. Analyses complying means the number of analyses complying with EPA licence limits for that treatment plant. Sampling periods means the number of full sample sets taken to monitor compliance with EPA licence standards. Sampling periods achieving full compliance means the number of full sample sets which fully complied with EPA licence standards.	See earlier EPA comments
FINANCIAL PERFORMANCE			
			To be developed as part of the water plan