

Appendix D Urban performance indicators

Indicator category	Indicator subcategory	Indicator code	Indicator name
Assets	Water treatment plants	A1	Number of water treatment plants providing full treatment (plants)
Assets	Other water assets	A2	Length of water mains (km)
Assets	Other water assets	A3	Number of properties served per km of water main (properties/km)
Assets	Wastewater assets	A4	Number of wastewater treatment plants (plants)
Assets	Wastewater assets	A5	Length of sewer mains and channels (km)
Assets	Wastewater assets	A6	Number of properties served per km of sewer main (properties/km)
Assets	Water main breaks	A8	Number of water main breaks, bursts, and leaks, per 100 km of water mains (mains breaks/100 km)
Assets	Water losses	A9	Infrastructure leakage index (ILI)
Assets	Water losses	A10	Real losses: service connections (L/service connection/day)
Assets	Water losses	A11	Real losses: water mains (kL/km water main/day)
Assets	Wastewater breaks and chokes	A14	Number of sewer mains breaks and chokes per 100 km (breaks and chokes/100 km)
Assets	Wastewater breaks and chokes	A15	Number of property connection sewer breaks and chokes per 1,000 properties (breaks and chokes/1,000 properties)
Assets	Water main breaks	IA8	Number of water main breaks, bursts, and leaks (mains breaks)
Customers	Connected properties and population	C1	Population receiving services: water supply (population 000s)
Customers	Connected properties and population	C2	Number of connected residential properties: water supply (properties 000s)
Customers	Connected properties and population	C3	Number of connected non-residential properties: water supply (properties 000s)
Customers	Connected properties and population	C4	Total number of connected properties: water supply (properties 000s)
Customers	Connected properties and population	C6	Number of connected residential properties: wastewater (properties 000s)
Customers	Connected properties and population	C7	Number of connected non-residential properties: wastewater (properties 000s)
Customers	Connected properties and population	C8	Total number of connected properties: wastewater (properties 000s)
Customers	Water quality complaints	C9	Number of water quality complaints per 1,000 properties: water supply (complaints/1,000 properties)
Customers	Water service complaints	C10	Number of water service complaints per 1,000 properties (complaints/1,000 properties)

Indicator category	Indicator subcategory	Indicator code	Indicator name
Customers	Wastewater service complaints	C11	Number of sewerage service complaints per 1,000 properties (complaints /1,000 properties)
Customers	Billing and account complaints	C12	Number of billing and account complaints per 1,000 properties: water supply and sewerage (complaints/1,000 properties)
Customers	Total water and wastewater complaints	C13	Number of water and sewerage complaints per 1,000 properties (complaints/1,000 properties)
Customers	Connect time to a telephone operator	C14	Percentage of calls answered by an operator within 30 seconds (%)
Customers	Average duration of unplanned water supply interruptions	C15	Average duration of an unplanned interruption: water supply (minutes)
Customers	Water interruption frequency	C17	Number of unplanned interruptions per 1,000 properties: water supply (interruptions/1,000 properties)
Customers	Restrictions or legal action for non-payment of water bill	C18	Number of restrictions for non-payment of water bills per 1,000 properties (restrictions/1,000 properties)
Customers	Restrictions or legal action for non-payment of water bill	C19	Number of legal actions taken for non-payment of water bills per 1,000 properties (legal actions/1,000 properties)
Customers	Water quality complaints	IC9	Number of water quality complaints: water supply (complaints)
Customers	Water service complaints	IC10	Number of water service complaints (complaints)
Customers	Wastewater service complaints	IC11	Number of sewerage service complaints (complaints)
Customers	Billing and account complaints	IC12	Number of billing and account complaints: water supply and sewerage (complaints)
Customers	Total water and wastewater complaints	IC13	Number of water and sewerage complaints (complaints)
Customers	Water interruption frequency	IC17	Number of unplanned interruptions: water supply (interruptions)
Customers	Restrictions or legal action for non-payment of water bill	IC18	Number of restrictions for non-payment of water bills (restrictions)
Customers	Restrictions or legal action for non-payment of water bill	IC19	Number of legal actions taken for non-payment of water bills (legal actions)
Environment	Comparative wastewater treatment levels	E1	Percentage of wastewater only treated to a primary level (%)
Environment	Comparative wastewater treatment levels	E2	Percentage of wastewater only treated to a secondary level (%)
Environment	Comparative wastewater treatment levels	E3	Percentage of wastewater treated to a tertiary level (%)
Environment	Net greenhouse gas emissions	E8	Percentage of biosolids reused (%)
Environment	Net greenhouse gas emissions	E9	Net greenhouse gas emissions per 1,000 properties: water supply (t CO ₂ equivalents/1,000 properties)

Indicator category	Indicator subcategory	Indicator code	Indicator name
Environment	Net greenhouse gas emissions	E9.1	Net greenhouse gas emissions per ML: water supply – bulk utility (t CO ₂ equivalents/ML)
Environment	Net greenhouse gas emissions	E10	Net greenhouse gas emissions per 1,000 properties: wastewater (t CO ₂ equivalents/1,000 properties)
Environment	Comparative wastewater treatment levels	E10.1	Net greenhouse gas emissions per ML: wastewater – bulk utility (t CO ₂ equivalents/ML)
Environment	Net greenhouse gas emissions	E11	Net greenhouse gas emissions per 1,000 properties: other (t CO ₂ equivalents/1,000 properties)
Environment	Net greenhouse gas emissions	E11.1	Net greenhouse gas emissions per ML: other – bulk utility (t CO ₂ equivalents/ML)
Environment	Net greenhouse gas emissions	E12	Total net greenhouse gas emissions per 1,000 properties (t CO ₂ equivalents/1,000 properties)
Environment	Net greenhouse gas emissions	E12.1	Total net greenhouse gas emissions per ML: bulk utility (t CO ₂ equivalents/ML)
Environment	Comparative wastewater treatment levels	IE1	Volume of wastewater only treated to a primary level (ML)
Environment	Comparative wastewater treatment levels	IE2	Volume of wastewater only treated to a secondary level (ML)
Environment	Comparative wastewater treatment levels	IE3	Volume of wastewater treated to a tertiary level (ML)
Environment	Net greenhouse gas emissions	IE9	Net greenhouse gas emissions: water supply (t CO ₂ equivalents)
Environment	Net greenhouse gas emissions	IE10	Net greenhouse gas emissions: wastewater (t CO ₂ equivalents)
Environment	Net greenhouse gas emissions	IE11	Net greenhouse gas emissions: other (t CO ₂ equivalents)
Environment	Net greenhouse gas emissions	IE12	Total net greenhouse gas emissions (t CO ₂ equivalents)
Finance	Revenue	F1	Total revenue: water supply (\$000s)
Finance	Revenue	F2	Total revenue: wastewater (\$000s)
Finance	Revenue	F3	Total income for the utility (\$000s)
Finance	Revenue	F4	Percentage of residential revenue from usage charges: water supply (%)
Finance	Revenue	F5	Revenue per property: water supply (\$/property)
Finance	Revenue	F5.1	Revenue per ML: water supply – bulk utility (\$/ML)
Finance	Revenue	F6	Revenue per property: wastewater (\$/property)
Finance	Revenue	F6.1	Revenue per ML: wastewater – bulk utility (\$/ML)
Finance	Revenue	F7	Total income per property (\$/property)
Finance	Revenue	F7.1	Total income per ML: bulk utility (\$/ML)
Finance	Revenue from community service obligations (CSOs)	F8	Community service obligations ratio
Finance	Costs	F9	Written-down replacement cost of fixed water supply assets (\$000s)
Finance	Costs	F10	Written-down replacement cost of fixed wastewater assets (\$000s)

Indicator category	Indicator subcategory	Indicator code	Indicator name
Finance	Costs	F11	Operating cost per property: water supply (\$/property)
Finance	Costs	F11.1	Operating cost per ML: water supply – bulk utility (\$/ML)
Finance	Costs	F12	Operating cost per property: wastewater (\$/property)
Finance	Costs	F12.1	Operating cost per ML: wastewater – bulk utility (\$/ML)
Finance	Costs	F13	Combined operating cost per property: water supply and wastewater (\$/property)
Finance	Costs	F13.1	Combined operating cost per ML: water supply and wastewater – bulk utility (\$/ML)
Finance	Capital expenditure	F14	Capital expenditure: water supply (\$000s)
Finance	Capital expenditure	F15	Capital expenditure: wastewater (\$000s)
Finance	Capital expenditure	F16	Total capital expenditure: water supply and wastewater (\$000s)
Finance	Economic real rate of return	F17	Economic real rate of return: water supply
Finance	Economic real rate of return	F18	Economic real rate of return: wastewater
Finance	Economic real rate of return	F19	Economic real rate of return: water supply and wastewater
Finance	Dividends	F20	Dividend (\$000s)
Finance	Dividends	F21	Dividend payout ratio
Finance	Net debt to equity	F22	Net debt to equity ratio
Finance	Interest cover	F23	Interest cover ratio
Finance	Dividends	F24	Net profit after tax (NPAT) (\$000s)
Finance	Community service obligations (CSOs)	F25	Community service obligation (\$000s)
Finance	Capital works grants	F26	Capital works grants: water supply (\$000s)
Finance	Capital works grants	F27	Capital works grants: wastewater (\$000s)
Finance	Capital Expenditure	F28	Capital expenditure per property: water supply (\$/property)
Finance	Capital Expenditure	F28.1	Capital expenditure per ML: water supply – bulk utility (\$/ML)
Finance	Capital Expenditure	F29	Capital expenditure per property: wastewater (\$/property)
Finance	Capital Expenditure	F29.1	Capital expenditure per ML: wastewater – bulk utility (\$/ML)
Finance	Capital works grants	F30	Net profit after tax (NPAT) ratio
Finance	Costs	IF11	Operating cost: water supply (\$000s)
Finance	Costs	IF12	Operating cost: wastewater (\$000s)
Public Health	Water quality compliance	H1	Water quality guidelines (provided as text)
Public Health	Water quality compliance	H3	Percentage of population where microbiological compliance was achieved (%)
Public Health	Water quality compliance	H4	Number of zones where chemical compliance was achieved (zones)
Public Health	Water quality compliance	H4a	Total number of zones (zones)

Indicator category	Indicator subcategory	Indicator code	Indicator name
Public Health	Water quality compliance	H5	Risk-based drinking water management plan externally assessed (yes/no)
Pricing	Residential tariff structure	P1	Tariff structure: water supply (provided as text)
Pricing	Residential tariff structure	P1.2	Fixed charge: water supply (\$)
Pricing	Residential tariff structure	P1.3	Usage charge: step 1 (\$/kL)
Pricing	Residential tariff structure	P1.4	Usage charge: step 2 (\$/kL)
Pricing	Residential tariff structure	P1.5	Usage charge: step 3 (\$/kL)
Pricing	Residential tariff structure	P1.6	Usage charge: step 4 (\$/kL)
Pricing	Residential tariff structure	P1.7	Usage charge: step 5 (\$/kL)
Pricing	Residential tariff structure	P1.12	Special levies: water supply (\$)
Pricing	Residential tariff structure	P1.13	Income from special levies retained by the utility: water supply (yes/no)
Pricing	Residential tariff structure	P1.3a	Upper bound of usage: step 1 (kL)
Pricing	Residential tariff structure	P1.4a	Upper bound of usage: step 2 (kL)
Pricing	Residential tariff structure	P1.5a	Upper bound of usage: step 3 (kL)
Pricing	Residential tariff structure	P1.6a	Upper bound of usage: step 4 (kL)
Pricing	Residential tariff structure	P1.7a	Upper bound of usage: step 5 (kL)
Pricing	Annual bill	P2	Annual residential bill based on 200 kL per annum: water supply (\$)
Pricing	Annual bill	P3	Typical residential bill: water supply (\$)
Pricing	Residential tariff structure	P4	Tariff structure: wastewater (provided as text)
Pricing	Residential tariff structure	P4.1	Fixed charge: wastewater (\$)
Pricing	Residential tariff structure	P4.2	Usage charge: wastewater (\$/kL)
Pricing	Residential tariff structure	P4.3	Special levies: wastewater (\$)
Pricing	Residential tariff structure	P4.4	Income from special levies retained by the utility: wastewater (yes/no)
Pricing	Annual bill	P5	Annual residential bill based on 200 kL per annum: wastewater (\$)
Pricing	Annual bill	P6	Typical residential bill: wastewater (\$)
Pricing	Annual bill	P7	Total annual residential bill based on 200 kL per annum: water supply and wastewater (\$)
Pricing	Annual bill	P8	Total typical residential bill: water supply and wastewater (\$)
Water Resources	Sources	W1	Volume of water sourced from surface water (ML)
Water Resources	Sources	W2	Volume of water sourced from groundwater (ML)
Water Resources	Sources	W3.1	Volume of water sourced from desalinated marine water (ML)
Water Resources	Transfers	W5	Total volume of water received from other service providers or operational areas within the urban water system (ML)

Indicator category	Indicator subcategory	Indicator code	Indicator name
Water Resources	Transfers	W5.3	Volume of water, excluding recycled water, received from other service providers or operational areas within the urban water supply system (ML)
Water Resources	Transfers	W6	Volume of recycled water received from other service providers or operational areas within the urban water supply system (ML)
Water Resources	Sources	W7	Total volume of water sourced (ML)
Water Resources	Use	W8	Total volume of water supplied to residential customers (ML)
Water Resources	Use	W8.3	Volume of water supplied to residential customers (ML)
Water Resources	Use	W9	Total volume of water supplied to non-residential customers (ML)
Water Resources	Use	W9.3	Volume of water supplied to non-residential customers (ML)
Water Resources	Use	W10.1	Volume of non-revenue water (ML)
Water Resources	Production	W11	Total volume of urban water supplied (ML)
Water Resources	Production	W11.3	Volume of potable water produced for supply into the urban water supply system (ML)
Water Resources	Use	W12	Average volume of residential water supplied per property (kL/property)
Water Resources	Use	W13	Volume of water returned as environmental flows from outside of the urban water supply system (ML)
Water Resources	Transfers	W14	Total volume of water exported to other service providers or operational areas within the urban water supply system (ML)
Water Resources	Transfers	W14.3	Volume of water, excluding recycled water, exported to other service providers or operational areas within the urban water supply system (ML)
Water Resources	Transfers	W15	Volume of recycled water exported to other service providers or operational areas within the urban water supply system (ML)
Water Resources	Wastewater collected	W16	Volume of wastewater, excluding trade waste, collected (ML)
Water Resources	Wastewater collected	W17	Volume of trade waste collected (ML)
Water Resources	Wastewater collected	W18	Total volume of wastewater collected (ML)
Water Resources	Transfers	W18.1	Volume of wastewater exported to other service providers or operational areas within the urban wastewater system (ML)
Water Resources	Transfers	W18.2	Volume of wastewater received from other service providers or operational areas within the urban wastewater system (ML)

Indicator category	Indicator subcategory	Indicator code	Indicator name
Water Resources	Extraction for sewer mining	W18.3	Volume of wastewater taken through sewer mining (ML)
Water Resources	Inflow to plant	W18.4	Volume of wastewater inflow to wastewater treatment plants (ML)
Water Resources	Outflow from plant	W18.5	Volume of treated effluent outflow from wastewater treatment plants (ML)
Water Resources	Wastewater collected	W19	Average volume of wastewater collected per property (kL/property)
Water Resources	Use	W21	Volume of recycled water supplied to non-residential customers (ML)
Water Resources	Use	W23	Volume of recycled water supplied as environmental flows (ML)
Water Resources	Use	W25.1	Volume of recycled water supplied to managed aquifer recharge (ML)
Water Resources	Use	W26	Total volume of recycled water supplied (ML)
Water Resources	Use	W27	Recycled water as a percentage of total wastewater collected
Water Resources	Use	W28.4	Volume of urban stormwater supplied to residential customers (ML)
Water Resources	Use	W28.5	Volume of urban stormwater supplied to non-residential customers (ML)
Water Resources	Use	W29	Volume of treated wastewater disposals (ML)
Water Resources	Outflow from plant	W30	Volume of wastewater losses and discharges (ML)
Water Resources	Use	W31	Volume of water returned to surface water or groundwater from the urban water supply system (ML)
Water Resources	Use	W20	Volume of recycled water supplied to residential customers (ML)