

# Water Performance Indicator Definitions

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## Summary of changes from previous version

Our revisions since our May 2024 release of the Water Performance Indicator Definitions are:

- **BED 1 - We have added references to NPF indicators CL\_N1, CL\_N2 and CL\_N3.**
- **RES 1 - We have added reference to NPF indicator IA14.**
- **CRS 4 – We have added reference to NPF indicator IC9.**
- **UPP 3 – We have added reference to NPF indicator CC\_N2.**
- **UPP 4 – We have added reference to NPF indicator CC\_N1.**
- **CRR 1 – We have added reference to NPF indicator WR\_N4.**
- **CRR 5 – We have added reference to NPF indicator HE\_N1 and removed references to IE9, IE10, IE11 and IE12.** Indicators IE9-IE12 were retired as they have been consolidated into the indicators HE\_N1 and HE\_N2.

Changes from the previous version of this document have been highlighted yellow throughout the text.

# Introduction

The Essential Services Commission is the economic regulator of the Victorian water sector. One of our regulatory functions is to monitor and to 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 baseline performance and provide incentives for water businesses to improve their own performance over time
- compare 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.

Water businesses are responsible for providing performance data against key performance indicators specified by the commission.

## Performance indicator framework

To facilitate the efficient collection of performance indicator data, we have established the following:

- Water Performance Indicator Definitions – this guidance manual provides context for each indicator to assist both the water businesses and regulatory auditors in determining a value for each indicator.
- Water performance report data collection template – we annually provide the water businesses with a data collection template for their completion. The worksheets include monthly and annual data requirements.
- Water industry regulatory audits – we require the reported performance indicator values to be audited. Audits are undertaken in accordance with our Guideline for Approving, Conducting & Reporting Operational Audits.
- Water Performance Report – annually we publish a report on the performance of the Victorian water businesses that provide water, sewerage and related services to urban customers. This allows a comparison of current performance with historical performance, and a clear indication of performance trends.

Copies of these documents can be found at [www.esc.vic.gov.au](http://www.esc.vic.gov.au).

## The national performance indicators

In accordance with the commitment under the National Water Initiative, metropolitan and regional water delivery agencies participate in the annual completion of performance indicators for the Bureau of Meteorology in accordance with the National urban water utility performance reporting framework: Indicators and definitions handbook (NPF handbook), which is sometimes updated. The commission's definitions are referenced to the 2023 NPF handbook.

Our definitions are generally consistent with the NPF unless there are specific differences in the state jurisdictional codes, regulations, or legal requirements. Where the NPF definition differs from our definition, water businesses should use our definition.

## Completion of the water performance report data collection template

For consistent reporting, it is important that businesses provide data accurately in accordance with the Water Performance Indicator Definitions, and any specific instructions included with our data collection template.

Each indicator may be subject to inclusion in the annual audit, and the commission releases its audit scope and data collection template on an annual basis.

Where a term is defined in an indicator definition, that term applies for subsequent relevant categories.

The following provides an outline of the template's requirements.

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
Our reference	Name of indicator and units of measurement	Indicator elements to be reported in the template	Who indicator applies to, i.e. Melbourne Water and/or Regional and Metropolitan. (A) indicates whether the indicator is auditable.	How we will use the indicator to measure performance	<p>A guideline on how to determine or calculate the indicator, including clear definitions for specific relevant terms for each indicator.</p> <p>Where a term is defined in an indicator definition, that term applies for subsequent relevant categories.</p> <p>Yellow highlights show changes from the previous version indicator definition.</p>	<p>Any related NPF indicator.</p> <p>Note: The commission calculation may be different.</p>

The accuracy and reliability of the reported annual data is verified through a regulatory audit. The audit requirements are set out in the commission's Guideline for Approving, Conducting & Reporting Operational Audits.

## Indicator definitions

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
<b>Baseline Explanatory Data (BED)</b>						
BED 1	Number of water customers (No)	Residential  Non-Residential  Recycled	Regional and Metropolitan (A)	Context and normalising measure	<p><b>Water customer</b> – a property which, at the end of the reporting period:</p> <ul style="list-style-type: none"> <li>• is connected to the water business's water system; and</li> <li>• receives a fixed and/or usage account.</li> </ul> <p><b>Excluded</b> – a water customer does not include:</p> <ul style="list-style-type: none"> <li>• A body corporate.</li> <li>• A property which is rated but is not connected to the water business's water system.</li> </ul> <p>In relation to determining whether a connection is residential or non-residential, refer to the property's primary purpose.</p> <p>A tenanted property which is separately metered, and in respect of which, the tenant is liable for water usage counts as one water customer. The owner and the tenant are not separately counted as water customers.</p>	C2, C3, C4, CL_N1 (res), CL_N2 (non-res), CL_N3 (total)
BED 2	Number of sewerage customers (No)	Residential  Non-Residential	Regional and Metropolitan (A)	Context and normalising measure	<p><b>Sewerage customer</b> – a 'connected property' can be a water customer who is connected to the sewerage system (and is separately billed for sewerage services (fixed and/or usage)).</p> <p>A sewerage customer who is also a trade waste customer counts as one sewerage customer.</p>	C6, C7, C8

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
BED 3	Number of waterways and drainage charge customers (No)		Melbourne Water (A)	Context and normalising measure	<b>Drainage customer</b> – a property (No) which receives a waterways and drainage account at the end of the reporting period.	No NPF requirement
BED 4	Number of trade waste customers (No)	Industrial Commercial	Regional and Metropolitan (A)	Context and normalising measure	<p><b>Trade waste customer</b> – a property which has a trade waste agreement with the licensee or has received the business's consent to discharge trade waste to sewer.</p> <p>Note: this does not include 'deemed' trade waste customers, with agreements arising through customer conduct in accordance with clause 4.4 of the Trade Waste Customer Service Code.</p>	No NPF requirement
BED 5	Permanent population served (No)		Regional and Metropolitan	NPF only	<b>Total permanent population</b> – permanent population (No) connected or able to be connected (demographic population) to the water business's system. Information should be derived from the most recently available ABS census data and adjusted for growth.	C1

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
BED 6	Length of water mains (km)	Water  Recycled water	Melbourne Water (A)  Regional and Metropolitan (A)	Context and normalising measure	<p><b>Length of water mains</b> – all the business’s water and recycled water mains (km) used to deliver potable and non-potable (regulated supply) water to the customer, in operation at the end of the reporting period.</p> <p><b>Water</b> – transfer, distribution and reticulation mains for potable and non-potable regulated water (excluding recycled water).</p> <p><b>Recycled Water</b> – transfers, third pipe distribution and reticulation mains. This includes all classes of treated recycled water.</p> <p><b>Length of mains excludes:</b></p> <ul style="list-style-type: none"> <li>• Property service pipes.</li> <li>• Decommissioned assets.</li> </ul> <p>Total length of water main – sum water and recycled water mains.</p>	A2
BED 7	Length of sewerage mains (km)		Melbourne Water (A)  Regional and Metropolitan (A)	Context and normalising measure	<p><b>Length of sewer mains</b> – all the water business’s sewerage mains (km) in operation at the end of the reporting period. Includes pressure mains.</p> <p><b>Length excludes:</b></p> <ul style="list-style-type: none"> <li>• House connection branches.</li> <li>• Mains carrying treated effluent or recycled water.</li> <li>• Conduits and pipelines downstream from treatment plants.</li> </ul>	A5, A6
BED 8	Volume of water sourced (ML)	Surface water  Groundwater	Melbourne Water (A)  Regional and Metropolitan (A)	Total volume of sourced water	<p><b>Volume of water</b> – the total volume (ML) of potable and non-potable water received from all sources, including surface water (dams, rivers and irrigation channels extraction), groundwater, desalination, bulk supplier and recycled water (including purchased).</p>	W1, W2, W3.1, W5, W6, W7

Indicator definitions

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
<i>BED 8 (continued)</i>		Desalination (marine)			<p><b>Surface Water</b> – the total volume (ML) of water (potable and non-potable) abstracted by the water business from surface water sources such as dams, rivers or irrigation channels during the reporting period. Stormwater volumes are excluded.</p> <p><b>Groundwater</b> – the total volume (ML) of water abstracted from groundwater during the reporting period. To avoid double counting, this excludes volumes sourced from groundwater supplies that have been artificially recharged using sources of water that have been counted elsewhere i.e. from rivers, desalination plants or sewerage plants (recycling). Other forms of artificial recharge (i.e. stormwater) not counted elsewhere are to be included.</p> <p><b>Desalination</b> – the total volume (ML) of water (potable and non-potable) sourced from marine water desalination plants during the reporting period.</p> <p><b>Bulk supplier</b> – the total volume (ML) of water (potable and non-potable) purchased from another business or entity outside the business's geographic area of responsibility. The volume of water will include water that is subsequently exported (sold) to another business.</p> <p><b>Bulk supplier (recycled)</b> – the total volume (ML) of recycled water purchased from another business or another entity outside the business's geographic area of responsibility</p> <p><b>Total sourced water</b> – the sum of the volumes (ML) reported above as supplied from dams, river extraction, groundwater, desalination, recycling and bulk supplier. Stormwater volumes are excluded.</p>	
BED 9	Volume of water received (ML)		Melbourne Water (A)  Regional and Metropolitan (A)	Context and normalising measure	<p><b>Total volume</b> – the volume (ML) of potable and non-potable water received by the water business from its headworks (including its water treatment plants) and from any wholesaler of water.</p> <p>For example, the volume of water delivered to retailers by Melbourne Water.</p>	W5, W7

Indicator definitions

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
BED 10	Metered volume of water delivered to customers (ML)	Residential  Non-residential   Recycled (Residential and non-residential)	Regional and Metropolitan (A)	Context and normalising measure	<p><b>Volume of water</b> – the total metered (or estimated equivalent used for billing purposes) volume (ML) of potable and non-potable (regulated) water delivered/supplied to customers from all sources, including residential, commercial, municipal and industrial, and other.</p> <p><b>Residential</b> – the metered (or estimated equivalent used for billing purposes) volume (ML) of water delivered to residential customers over the reporting period.</p> <p><b>Non-residential</b> – the metered (or estimated equivalent used for billing purposes) volume (ML) of water delivered to commercial, municipal and industrial properties over the reporting period.</p> <p><b>Recycled</b> – the metered volume (or estimated equivalent used for billing purposes) (ML) of recycled water delivered to residential and non-residential customers over the reporting period.</p>	W8.3, W9.3, W20, W21
BED 11	Volume of bulk water (potable and non-potable) exports (ML)		Melbourne Water (A)  Regional and Metropolitan (A)	Context and normalising measure	<p><b>Volume of bulk water</b> – the total volume (ML) of water (potable and non-potable) sold to another water business or another entity outside this utility's geographic area of responsibility.</p> <p>Does not include recycled water – see BED 12.</p>	{Removed reference to W14}
BED 12	Volume of bulk recycled water exports (ML)		Melbourne Water (A)  Regional and Metropolitan (A)	Context and normalising measure	<p><b>Volume of bulk recycled water exports</b> – the total volume (ML) of recycled water sold to another water business or another entity outside this utility's geographic area of responsibility.</p>	W15

## Indicator definitions

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
BED 13	Number of water treatment plants (No)		Melbourne Water  Regional and Metropolitan	Context	<p><b>Water Treatment Plant</b> – the number (No) of ‘Full Treatment’ water treatment plants producing potable water. Includes third party operated and build, own, operate and transfer (BOOT schemes but excludes secondary disinfection plants.</p> <p><b>Full treatment</b> – the water treatment plant includes processes to remove colour and/or turbidity as well as providing filtration and disinfection. In addition, it may include processes for taste and/or odour reduction, softening, pH correction and target removal of elements and compound such as iron, manganese, nitrates and pesticides.</p>	A1
BED 14	Volume of sewage collected (ML)	Wholesaler  Own treatment plants	Melbourne Water (A)  Regional and Metropolitan (A)	Context and normalising measure  Sewage collected per property	<p><b>Volume of Sewage Collected</b> – the total volume (ML) of sewage (including trade waste) delivered by the water business to any wholesaler of sewage treatment services or to its own sewage treatment plants.</p> <p><b>Total Volume Collected</b> = residential + non-residential + trade waste + other known sources</p>	W16 (BED 14-BED 19), W17, W18
BED 15	Number of sewage treatment plants (No)	Primary  Secondary  Tertiary	Melbourne Water  Regional and Metropolitan	Context and normalising measure	<p><b>Sewage treatment plants</b> – the number (No) of plants providing sewage services to customers in operation at the end of reporting period.</p> <p>Each plant should only be recorded once corresponding to the highest level of treatment (see BED 16 definitions).</p> <p>Include third party operated and BOOT schemes.</p>	A4

## Indicator definitions

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
BED 16	Volume of influent sewage treated (ML)	Primary Secondary Tertiary	Melbourne Water (A)  Regional and Metropolitan (A)	Context and normalising measure	<p><b>Influent sewage treated</b> – the net volume (ML) of influent sewage treated at the water business's sewage treatment plants.</p> <p>To avoid double counting, sewage should only be counted on its first pass, based on maximum level of treatment provided and does not include internal recycle or reuse volumes.</p> <p><b>Primary treatment</b> – the first major treatment to remove settleable solids and suspended matter.</p> <p><b>Secondary treatment</b> – a biological treatment process to remove (typically 85% to 90%) of the Biological Oxygen Demand (BOD) and influent suspended solids.</p> <p><b>Tertiary or advanced treatment</b> – designed to further reduce BOD and suspended solids, and to remove nutrients (phosphorus and nitrogen).</p> <p><i>As the volumes relate to received, not produced, the total volume should equal BED 14 'Own treatment plant' total.</i></p> <p><i>Total of Volume Treated (ML) in Treatment Plant Schedule in the reporting template should correlate.</i></p>	IE1, IE2, IE3
BED 19	Volume of trade waste collected (ML)	Wholesaler  Own treatment plants	Regional and Metropolitan (A)	Total volume of trade waste (metered and estimated) delivered to a wholesaler and/or own treatment plants.	<p><b>Volume of Trade waste</b> – the billable volume (ML) of trade waste from all trade waste customers whether it be metered or estimated. It does not include 'deemed' trade waste customers. Does not include the sewage component from trade waste customers.</p> <p><b>Wholesaler</b> – volume of trade waste received into sewers delivered to a wholesaler's treatment plant (ML).</p>	W17

## Indicator definitions

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
BED 19 (continued)					<b>Own treatment plant</b> – volume of trade waste received into sewers delivered to a water business's own treatment plant (ML).	

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
<b>Water Network Reliability and Efficiency (REW)</b>						
REW 1	Number of bursts and leaks (No)	Priority 1 Priority 2 Priority 3	Melbourne Water (A) Regional and Metropolitan (A)	Bursts and leaks per 100km of water main	<p><b>Burst or leak</b> – the total number (No) of unplanned events in which water (potable and non-potable) is lost that is attributable to failure of a pipe, hydrant, valve, fitting or joint material (being the mains and trunk infrastructure, excluding the mains to meter connections) regardless of cause. A burst or leak may not necessarily result in an interruption or loss of supply.</p> <p><b>Priority 1</b> – a burst or leak which causes, or has the potential to cause, substantial damage or harm to customers, water quality, flow rate, property or the environment.</p> <p><b>Priority 2</b> – a burst or leak which causes, or has the potential to cause, minor damage or harm to customers, water quality, flow rate, property or the environment.</p> <p><b>Priority 3</b> – a burst or leak which is causing no discernible impacts on customers, property or the environment.</p>	A8
REW 2	Total minutes to respond to bursts and leaks (Minutes)	Priority 1 Priority 2 Priority 3	Regional and Metropolitan (A)	Average minutes to respond to priority 1, 2 and 3 bursts and leaks	<p><b>Minutes to respond</b> – the response time (Minutes) from when the water business is first notified or becomes aware of a burst or leak to the time the water business arrives at the site of the burst or leak.</p> <p><b>Total Minutes</b> – the cumulative total of minutes to respond to all bursts or leaks.</p>	No NPF requirement

Indicator definitions

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
REW 3	Total minutes to rectify bursts and leaks (Minutes)	Priority 1 Priority 2 Priority 3	Regional and Metropolitan (A)	Average minutes taken to fully repair and rectify bursts and leaks	<p><b>Time to rectify</b> – time (Minutes) from receiving first notification of a burst or leak to rectifying the fault to the required level of service.</p> <p><b>Rectification time excludes</b> – follow-up site restoration works, such as reinstatement of nature strips, and time elapsed to planned future rectification works.</p> <p>Where interruption is to a drinking water supply, service of potable water must be restored. Potable water should comply with the requirements of the Victorian Safe Drinking Water Act 2003.</p> <p><b>Rectification</b> – no ongoing risk of damage to infrastructure or to the quality of the water supply.</p> <p><b>Total Minutes</b> – the cumulative total of minutes to rectify all bursts and leaks.</p>	No NPF requirement
REW 5	Number of water supply interruptions (No)	Planned Unplanned	Regional and Metropolitan (A)	Water supply interruptions per 100km of water main	<p><b>Water supply interruption</b> – the total number (No) of events causing a total loss of water supply due to any cause.</p> <p><b>Included:</b> Recycled water interruptions if a supply to a residential property, and where toilet flushes and laundry are not possible.</p> <p><b>Excluded:</b> Interruptions do not include those caused by bursts or leaks in the property service connection (mains to meter) unless the burst or leak requires the mains to be shut down for repair.</p> <p><b>Planned interruption</b> – an interruption of supply to a customer for which the water business has provided the required notification of at least two business days in advance in accordance with the code.</p> <p><b>Unplanned interruption</b> – an interruption of supply to a customer, and the customer has not received a notification or where a planned interruption exceeds the duration estimated.</p>	C17

Indicator definitions

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
REW 6	Number of water supply interruptions restored within 5 hours (No)	Planned Unplanned	Regional and Metropolitan (A)	% of water supply interruptions restored within 5 hours	<p><b>Within 5 hours</b> – Where the loss of water supply is due to the shutdown of a section of water main, the water supply interruption begins when the water supply is shut off and ends when the main is fully recharged.</p> <p>Otherwise, the water supply interruption begins when the water supply is lost and ends when it is fully restored.</p>	No NPF requirement
REW 7	Number of water supply customer-interruptions (No)	Planned Unplanned  Potable water	Regional and Metropolitan (A)	Average customer-interruption frequency (interruptions per customer)	<p><b>Water supply customer-interruption</b> – a loss of water supply to an individual customer due to a water supply interruption. For example, a water supply interruption which causes loss of supply to 100 customers is 100 customer-interruptions.</p> <p><b>Potable water interruption</b> – where the water business has reason to believe that the water in its potable water supply system is not safe for potable consumption and has issued a boil water alert or other health alert, notifying a customer not to drink the water running from their taps. For example, an alert issued to 100 customers is 100 customer-interruptions.</p>	C17

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
REW 8	Total customer minutes to restore water supply (Minutes)	Planned Unplanned  Potable water	Regional and Metropolitan (A)	Average duration of water supply interruptions  Average customer minutes off supply	<p><b>Customer Minutes to Restore</b> – the total (Minutes) of all water supply customer-interruptions. For example, a water supply interruption which causes loss of supply to 100 customers and lasts for 150 minutes counts as 15,000 customer minutes to restore water supply (minutes off supply).</p> <p><b>Calculating duration of Planned Interruptions</b> – duration (Minutes) a customer is without water supply, i.e. from isolation to recommissioning of the water supply.</p> <p><b>Calculating duration of Unplanned Interruptions</b> – the time (Minutes) from when the water business is first notified or becomes aware that water is no longer available at the customer's premise, to when water supply is restored.</p> <p><b>Calculating duration of a potable water interruption</b> – the time (Minutes) a customer is without access to a potable water supply (but still has water running from their taps), from when a boil water alert or other health alert is first issued, to when the water business notifies customers that it is safe to drink the water from their taps again. <sup>1</sup></p>	C15

<sup>1</sup> While this indicator is related to water quality, its purpose is to capture the duration of interruptions to customers where they have been issued a boil water alert or other health alert and are unable to drink water from their taps, not the duration of time taken to test and restore/confirm water quality.

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
REW 9	Number of customers receiving 1, 2, 3, 4, 5, and 6+ unplanned water supply interruption/s in the year (No)	1 2 3 4 5 6+	Regional and Metropolitan (A)	Number of customers receiving 1, 2, 3, 4, 5, and 6+ interruptions in a year as a % of total customers	<p><b>Total customer unplanned interruptions</b> – the accumulation (No) of individual unplanned interruptions a water customer has experienced in the 12 month reporting period.</p> <p>Each customer experiencing an unplanned interruption is assigned according to the cumulative number of interruptions they incurred, either: 1, 2, 3, 4, 5, or 6+ (6 or more) interruptions.</p> <p><i>The total of all splits should equal the total of all unplanned water supply customer-interruptions (REW 7 – unplanned).</i></p>	No NPF requirement
REW 10	Number of residential water customer-interruptions exceeding 5 hours (No)	Planned  Unplanned	Regional and Metropolitan (A)	Number of residential customers affected by planned and unplanned interruptions greater than 5 hours	<b>Interruptions exceeding 5 hours</b> – the total number (No) of planned and unplanned residential customer-interruptions lasting longer than 5 hours in the 12 month reporting period (see REW 7).	No NPF requirement
REW 11	Number of planned residential water customer-interruptions during peak hours (5am-9am and 5pm-11pm) (No)	Planned	Regional and Metropolitan (A)	Number of residential customers affected by planned water supply interruptions in peak hours (5am-9am and 5pm-11pm)	<p><b>Peak hour customer-interruptions</b> – the number (No) of planned residential water supply customer-interruptions that occurred during peak hours of between 5am-9am and 5pm-11pm.</p> <p>Customer-interruptions that start outside peak hours but continue into peak hours are to be included.</p>	No NPF requirement

#### Indicator definitions

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
REW 13	Non-revenue water (ML)		Regional and Metropolitan (A)	% non-revenue (unaccounted) water	<p><b>Non-revenue water</b> – the total volume (ML) of water not metered (or estimated equivalent used for billing purposes), or water losses (known or unknown).</p> <p><i>Determined by calculating the difference between the volume of water received by the water business (BED 9) and the volume of water metered to the water business's customers (BED 10).</i></p>	W10.1
REW 14	Leakage (ILI)	Infrastructure leakage index (ILI)  Real water losses	Regional and Metropolitan (A)  Melbourne Water (A)	Infrastructure Leakage Index (ILI) – NPF Only  Real water losses per connection per day (kL/connection/day)  Real water losses per kilometre of water main per day (kL/km/day)	<p><b>Infrastructure Leakage Index (ILI)</b> – the ILI is the ratio of the Current Annual Real Losses (CARL, calculated from a Water Balance) to the Unavoidable Annual Real Losses (UARL calculated from an equation developed by the IWA Water Losses Task Force), as per NPF handbook.</p> <p><b>Current Annual Real Losses (CARL)</b> – the numerator of the ILI calculation – real losses as measured in the pressurised distribution system up to the point of customer metering. When calculating the Current Annual Real Losses, a number of assumptions are required regarding errors in metered components of the Water Balance and estimates of unmetered components. For Unbilled Authorised Consumption, Unauthorised Consumption and Customer Metering Errors, water utilities may elect to use the default values prescribed below or determine the actual values for their operations. The defaults are outlined in the NPF handbook.</p> <p><b>Unbilled Authorised Consumption</b> – any consumption for which a bill is not issued to the consumer (e.g. process water at water treatment works, hydrants for mains flushing, fire services, etc.). It can be metered or unmetered.</p> <p><b>Unauthorised Consumption</b> – generally this refers to illegal use. The water utility should be consistent across reporting years in calculating its</p>	A9, A10, A11

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
REW 14 (continued)					<p>CARL and, where appropriate, have supporting documentation to verify assumptions for the purpose of auditing.</p> <p><b>Service Connections</b> – the number of service connections is not the same as the number of metered accounts or connected properties. The number of service connections can be taken as being the number of metered accounts, minus the total of any sub-meters (after master meters e.g. to shops and flats), plus the estimated number of unmetered service connections (e.g. fire service connections).</p> <p><b>Real losses</b> – apparent leaks (unauthorised consumption and retail metering errors) and real losses (leakage and overflows from mains, service reservoirs and service connections prior to customer meters) to potable water distribution systems (excluding recycled water). Indicators to be calculated by an approved software package.</p> <p>In reporting real losses, the NPF handbook indicates if a business has:</p> <p><b>More than 20 service connections/km</b> – report real losses as kL/service connection/day (NPF indicator A10). If a regional business, the calculation is for distribution systems to major towns only.</p> <p><b>Less than 20 service connections</b> – report real losses as kL/km water main/day (NPF indicator A11).</p> <p>For Melbourne Water, the measure is calculated as the estimated manageable losses over average yearly consumption. Total estimated manageable losses from aqueducts, reservoirs, pipes and operations divided by average yearly water supplied to retail water companies. Estimates of losses do not include evaporation, seepage or environmental flows.</p>	

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
<b>Sewerage Network Reliability and Efficiency (RES)</b>						
RES 1	Number of sewer blockages (No)	Main  House Connection Branch (HCB)	Regional and Metropolitan (A)	<p>Sewer main blockages per 100 km of sewer main</p> <p>Note: HCBs are not included in calculating the above measure but are used for our calculation of response time.</p>	<p><b>Sewer blockage</b> – the number (No) of confirmed partial or total blockages which cause an interruption to sewer service and/or a spill.</p> <p><b>Sewer mains</b> includes:</p> <ul style="list-style-type: none"> <li>all gravity sewer mains</li> <li>pressure mains including common effluent pipelines, rising mains; and</li> <li>vacuum system mains.</li> </ul> <p>It excludes:</p> <ul style="list-style-type: none"> <li>HCBs or property connections</li> <li>property drain</li> <li>pipeline carrying treated effluent or recycled water; and</li> <li>recycled distribution and reticulation mains.</li> </ul> <p><b>House Connection Branch (HCB)</b> – from 2014/15, under the new Water (Estimation, Supply and Sewerage) Regulations 2014, all water businesses (not just metropolitan retailers) are required to maintain and report blockages in the HCB. The HCB, or property connection, is a short sewer owned and operated by the water business which connects the sewer main to the customer's sanitary works. The extent of maintenance responsibility is defined in the regulations.</p>	<p><b>IA14</b></p> <p>{Removed reference to A14}</p>
RES 2	Total minutes to respond to reported sewer blockage/spill (Minutes)		Regional and Metropolitan (A)	Average minutes to respond to a reported sewer blockage/spill	<p><b>Minutes to respond</b> – the response time (Minutes) from when the water business is first notified or becomes aware of the sewer blockage/spill to the time the water business arrives at the site of the blockage/spill.</p> <p><b>Total Minutes</b> – the cumulative total of minutes to respond to all blockages/spills, including those in the HCB.</p>	No NPF requirement

Indicator definitions

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
RES 3	Total time taken to repair sewer blockage/ spill (Minutes)		Regional and Metropolitan (A)	Average number of minutes taken to repair a sewer blockage/spill	<p><b>Time to repair</b> – the time (Minutes) from receiving first notification to rectifying the fault to the required level of service or when service is restored.</p> <p><b>Repair</b> – no ongoing risk of damage to infrastructure or repaired to the required level of service.</p> <p><b>Repair time excludes</b> – follow-up site restoration works, such as reinstatement of nature strips, and time elapsed to planned future rectification works.</p> <p><b>Total Minutes</b> – the cumulative total of minutes to repair all blockages/spills, including those in the HCB.</p>	No NPF requirement
RES 5	Number of customers receiving 3 or more sewer blockages in the year (No)		Regional and Metropolitan (A)	Average number of customers with 3+ sewer blockages in a year as a % of total customers	<p><b>Number of customers</b> – total number (No) of sewerage customers receiving 3 or more sewer blockages within the reporting period.</p>	No NPF requirement
RES 6	Number of sewage spills from reticulation and branch sewers (No)	Priority 1 Priority 2	Regional and Metropolitan (A)	Sewage spills from reticulation and branch sewers per 100 kilometres of sewer main	<p><b>Sewage spill</b> – the number (No) of failures to contain sewage within the sewerage system, excluding:</p> <ul style="list-style-type: none"> <li>spills from emergency relief structures (a manhole is not an emergency relief structure)</li> <li>pump station spills; and</li> <li>spills due to House Connection Branch blockages.</li> </ul> <p><b>Priority 1</b> – a sewage spill that involves or results in any of the following:</p>	No NPF requirement

#### Indicator definitions

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
RES 6 (continued)					<ul style="list-style-type: none"> <li>a public health concern</li> <li>significant damage to property</li> <li>a discharge to a sensitive receiving environment</li> <li>a discharge from a sewer pipe that is 300 mm diameter or greater; or</li> <li>the flow is &gt;80 L/min.</li> </ul> <p><b>Priority 2</b> – any minor failure to contain sewage within the sewerage system and any spill affecting several users which results in minor property damage or results in a surcharge outside a building which does not pose a health risk.</p>	
RES 7	Number of sewage spills from reticulation and branch sewers fully contained within 5 hours (No)	Priority 1  Priority 2	Regional and Metropolitan (A)	% of sewage spills contained within 5 hours	<p><b>Sewage spill duration</b> – a sewage spill is to be regarded as:</p> <ul style="list-style-type: none"> <li>having taken place at the time the water business becomes aware of the spill; and</li> <li>being fully contained when there is no longer a discharge from the containment area.</li> </ul> <p><b>Containment</b> – the sewage spill has ceased or has been alleviated by by-pass pumping/diversions, education or sand bagging.</p> <p><b>Total Spills</b> – the cumulative number of all sewage spills contained within 5 hours.</p>	No NPF requirement
RES 8	Number of sewage spills to customer properties (No)		Regional and Metropolitan (A)	Sewage spills to customer property per 100 customers	<p><b>Customer property sewage spill</b> – the number (No) of sewage spills caused by a fault in the water business's system that discharges to a customer's property.</p> <p><b>Excluded</b> – sewage spills caused by faults in the service connection or HCB and the property drain.</p> <p><b>Total Spills</b> – the cumulative number of all sewage spills at customer properties.</p>	No NPF requirement

#### Indicator definitions

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
RES 9	Number of residential sewer supply customer-interruptions restored within X hours (No.)	<p>Number of residential sewer supply customer-interruptions (No)</p> <p>Number of residential sewer supply customer-interruptions restored within X hours (No)</p>	Regional and Metropolitan (A)	Number of residential customers affected by sewerage interruptions restored within specified time	<p><b>Sewer supply customer-interruption</b> – the number (No) of sewer interruptions to a residential customer. For example, a sewer interruption which causes disruption to 100 customers is counted as 100 customer-interruptions.</p> <p><b>Sewer interruption</b> – a confirmed partial or total blockage which causes an interruption to service. It does not include interruptions caused by faults in the customer's pipe.</p> <p><b>Time to restore</b> – the time (Minutes) from receiving first notification of a blockage/interruption to rectifying the fault to the required level of service or when service is restored.</p> <p><b>X hours</b> – businesses should align the number of hours to their Guaranteed Service Level (GSL) target. For example, in the case of Yarra Valley Water and South East Water, the time ('X') is 4 hours to recognise their GSL targets. If a business does not have a relevant GSL target, then the time ('X') is 5 hours.</p>	No NPF requirement
RES 10	Number of sewer spills within a house (No)	<p>Number of sewer spills within a house (No)</p> <p>Number of sewer spills within a house not contained within X hours (No)</p>	Regional and Metropolitan (A)	<p>Number of sewer spills within a house</p> <p>Number of sewer spills within a house not contained within X hours</p>	<p><b>Spill within a house</b> – the number (No) of residential sewerage customers experiencing a sewage spill inside their house, caused by a fault in the water business's system, including a spill caused by a fault in the HCB.</p> <p>It does not include sewage spills caused by faults or blockages in the customer's pipes.</p> <p><b>X hours</b> – businesses should align the number of hours to their GSL target. For example, if a GSL payment is required when a sewer spill within a house is not contained within 30 minutes, then 'X' will equal 0.5.</p>	No NPF requirement

## Indicator definitions

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
RES 10 (Continued)					If a business does not have a relevant GSL target, then the time ('X') is 1 hour.	

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
<b>Customer Responsiveness and Service (CRS)</b>						
CRS 1	Number of calls (No)	Number of calls to the account line (No)	Regional and Metropolitan (A)	Number of calls received	<b>Total number of calls</b> – the number (No) of telephone calls received by the water business's telephone operator/customer service operators, including Interactive Voice Response (IVR) system. Calls that are resolved by an automated system, or hang ups, are not included in the total.	{Removed reference to C14}
		Number of calls to the fault line (No)			<b>No fault line</b> – businesses with one contact point should report the figure against the account line.	
	Average call connect time to operator (Seconds)	Account line (Seconds)		Average time taken to connect to an operator	<b>Connect time</b> – the time (Seconds) taken for a caller to be connected to an operator should they elect to or be required to do so. For measurement, this is the period:	
		Fault line (Seconds)			<ul style="list-style-type: none"> <li>Non IVR systems – from the time when the call is received by the switchboard until the call is answered</li> <li>IVR systems – from the time that the customer selects an operator option.</li> </ul> <p><b>Average call connect time</b> – calculated by taking the Total Seconds Taken to Answer a Call divided by the Total Number of Calls Received for each line type.</p>	
CRS 2	Number of calls connected to operator within 30 seconds (No)	Account line Fault line	Regional and Metropolitan (A)	% of calls connected to operator within 30 seconds	<p><b>Connected within 30 Seconds</b> – measurement is the total number (No) of calls received by water business's telephone operator/customer service operators, including Interactive Voice Response (IVR) system, answered within 30 seconds. Calls that are resolved by an automated system, or hang ups, are not included in the total.</p> <p>Refer to CRS 1 for definition of connect time.</p>	{Removed reference to C14}

Indicator definitions

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
CRS 2 (continued)					<b>No fault line</b> – businesses with one contact point should report the figure against the account line.	
CRS 3	Total complaints (No)		Regional and Metropolitan	Complaints per 100 customers  <b>NOTE:</b> This indicator is the sum of all complaints recorded against CRS 4 to CRS 11 inclusive and is calculated from the sub-categories in the Water Performance Report Data Collection Template.	<p><b>Complaint</b> – the total number (No) of written or verbal expressions of dissatisfaction about an action, proposed action or failure to act by the water business, its employees or contractors, requiring resolution (as per AS/NZS 10002:2014). Includes complaints received by the water utility in person, by mail, fax, phone, email or text messaging.</p> <p><b>Includes:</b></p> <ul style="list-style-type: none"> <li>Complaints from separate customers arising from the same cause count as separate complaints.</li> <li>Complaints resolved on the spot, i.e. over the phone, are still to be counted as a complaint, even if the customer is satisfied with the outcome of the discussion.</li> </ul> <p><b>Excludes:</b></p> <ul style="list-style-type: none"> <li>Genuine customer enquiries where dissatisfaction is not expressed, or where the customer clearly does not wish to record a complaint, for example “could you please explain....”</li> <li>Complaints that were investigated and found to be unrelated to a water business’s infrastructure, operations or service delivery should be excluded.</li> </ul> <p>Australian Standards define a complaint as an ‘expression of dissatisfaction made to or about an organisation, related to its products, services, staff or handling of a complaint where a response is implicitly expected or legally required.’ (AS/NZS 10002:2014).</p>	{Removed reference to C13}

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
CRS 4	Number of water quality complaints (No)	Colour  Taste & odour  Other	Regional and Metropolitan (A)	Water quality complaints per 100 customers	<p><b>Water quality complaints</b> – the total number (No) of any complaints about water quality, including those resulting from operational practices:</p> <ul style="list-style-type: none"> <li>• colour – discolouration or cloudy water (e.g. caused by oxygenation)</li> <li>• taste</li> <li>• odour; or</li> <li>• other – stained washing, illness, etc.</li> </ul> <p><b>Excluded</b> – complaints related to service interruptions, adequacy of service, restrictions and water pressure complaints, which are captured under subsequent complaint categories.</p> <p>As a general rule, any customer contact with respect to water quality should be treated as a complaint.</p> <p>For more information please refer to the Department of Health and Human Service's annual report on drinking water quality in Victoria.</p>	C9, IC9
CRS 5	Number of water supply reliability complaints (No)		Regional and Metropolitan (A)	Complaints per 100 customers	<p><b>Supply reliability complaints</b> – the total number (No) of complaints received by the water business that relate to water supply reliability.</p> <p><b>Excluded</b> - Flow rate complaints (and water pressure complaints) as recorded under CRS 9.</p>	C10

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
CRS 6	Number of sewerage service quality and reliability complaints (No)		Regional and Metropolitan (A)	Complaints per 100 customers	<p><b>Sewerage service quality and reliability complaints</b> – the total number (No) of any complaints relating to the service quality, availability or reliability of sewerage services. Excludes sewage odour complaints which have their own category.</p> <p><b>Excluded</b> – complaints relating to property connections, government pricing policy and tariff structures.</p> <p>When a customer reports a blockage or spill, this is not counted as a complaint unless the customer expresses dissatisfaction about the interruption.</p>	C11
CRS 7	Number of payment issue complaints (No)		Regional and Metropolitan (A)	Complaints per 100 customers	<p><b>Payment issue complaints</b> – the total number (No) of complaints received by the water business that relate to water bill payment including:</p> <ul style="list-style-type: none"> <li>• account payment issues</li> <li>• financial loss or overcharging</li> <li>• billing errors; or</li> <li>• affordability.</li> </ul> <p>If a customer makes repeated enquiries/queries on the same billing issue this should be recorded as a complaint.</p>	C12
CRS 9	Number of flow rate complaints (No)		Regional and Metropolitan (A)	Complaints per 100 customers	<p><b>Flow rate complaints</b> – the total number (No) of complaints received by the water business that relate to flow rate and/or water pressure.</p>	C10
CRS 10	Number of sewage odour complaints (No)		Regional and Metropolitan (A)	Complaints per 100 customers	<p><b>Sewage odour complaints</b> – the total number (No) of complaints received by the water business that relate to sewage odour. Includes odour from sewerage systems and from sewage treatment plants.</p>	C11

## Indicator definitions

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
CRS 11	Number of other complaints (No)		Regional and Metropolitan (A)	Complaints per 100 customers	<p><b>Other complaints</b> – the total number (No) of complaints relating to quality and timeliness of other services.</p> <p><b>Included</b> – Complaints about trade waste management and services.</p> <p>Examples include connections, account confidentiality, responding to correspondence and staff behaviour.</p>	No NPF requirement
CRS 12	Number and value of GSL payments (No) (\$)	<p>Number of GSL payments (No)</p> <p>Total value of GSL payments paid to customers (\$)</p>	Regional and Metropolitan (A)	<p>Number of GSL payments paid to customers</p> <p>Total value of GSL payments paid to customers</p>	<p><b>Guaranteed Service Level (GSL) payment</b> – the total number (No) of GSL <b>payment incidents requiring payment</b> to customers, <b>triggered</b> within the reporting period.</p> <p><b>GSL payment value</b> – the total value (\$) of GSL payments paid to customers <b>for incidents occurring</b> within the reporting period.</p>	No NPF requirement

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
<b>Usage, Price Trends and Payment Management (UPP)</b>						
UPP 1	Number of instalment plans at the end of the reporting period (No)	Residential non-concessional  Residential concession  Non-residential	Regional and Metropolitan (A)	% of customers on instalment plans	<p><b>Instalment plans reported</b> – the total number (No) of instalment plans in place at the end of the reporting period. This indicator effectively gives a snapshot of all instalment plans active on 30 June each year.</p> <p><b>Instalment plan</b> – an alternative payment arrangement (confirmed in writing) between the customer and the water business in accordance with clause 5.2 'Flexible payment plans' of the Customer Service Code (September 2014). An instalment plan does not include direct debit customers whose payment arrangements are consistent with regular payment terms offered by the business.</p> <p>A verbal extension of the payment period does not constitute an instalment plan.</p>	No NPF requirement
UPP 2	Number of restrictions applied for non-payment of bill during the reporting period (No)	Residential non-concessional  Residential concession  Non-residential	Regional and Metropolitan (A)	Restrictions per 100 customers.	<p><b>Restrictions applied</b> – the total number (No) of restrictions applied for non-payment of water bills in the reporting period.</p> <p>Multiple restrictions for one customer should be counted as separate restrictions.</p> <p><b>Restriction</b> – all cases where due to non-payment of account a water supply restriction device is fitted.</p> <p><b>Excluded</b> – restrictions carried out for breach of water restriction or disconnections due to unsafe infrastructure, or customers who choose to disconnect from the water business's supply (e.g. due to preference for a tank water supply).</p>	C18

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
UPP 3	Legal action initiated for non-payment of bill (No)	Residential non-concessional	Regional and Metropolitan (A)	Number of customers subject to legal action per 100 customers	<b>Legal action initiated</b> – the total number (No) of customer accounts forwarded to a solicitor for legal action, subjecting the customers to additional costs.	CC_N2 {Removed reference to C19}
		Residential concession			It does not include where a water business threatens to take legal action but does not proceed.	
		Non-residential			<p><b>Legal action</b> – considered to commence from the issue of a summons. Includes cases in which accounts are forwarded to a solicitor for legal action and the legal costs to the customer are subsequently waived.</p> <p>Multiple restrictions, disconnections and legal actions for one customer should be counted as separate legal actions.</p>	
UPP 4	Restriction duration – Residential (No)	No of restrictions restored within 3 days	Regional and Metropolitan (A)	% of restrictions restored within 3 days	<b>Restored within 3 days</b> – the total number (No) of residential restrictions for non-payment that are removed within 3 days of the restriction being applied.	CC_N1
		No of restrictions still in place after 14 days		% of restrictions still in place after 14 days	<b>Restrictions restored</b> – the point in time at which a water business physically removes a restriction device, restoring un-restricted water supply to a customer.	
					<b>In place after 14 days</b> – the total number (No) of residential restrictions for non-payment that are still in place 14 days after the restriction was applied.	

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
UPP 5	Average debt levels for residential customers subject to restriction and legal action (\$)	Restriction (\$) Legal action (\$)	Regional and Metropolitan (A)	Average debt level for customers subject to restrictions  Average debt level for customers subject to legal action	<b>Debt level</b> – the total value (\$) of residential customer debt levels, measured at the time action is taken to recover the debt either by legal means or by water supply restriction.	No NPF requirement
UPP 6	Number of customers awarded hardship grants (No)	Number of customers that applied for hardship grants (No)  Number of customers awarded hardship grants (No)  Total value of hardship grants awarded to customers (\$)	Regional and Metropolitan (A)	Number of customers that applied for hardship grants  Number of customers awarded hardship grants  Average value of hardship grants	<b>Hardship grant applications</b> – the total number (No) of customers that make hardship assistance grant applications under the water business's hardship policy. This includes verbal or written applications. Hardship grant applications and award approvals must be counted in the same reporting year. Customers with outstanding grant applications should be carried over and counted in the next reporting period, along with the assessment outcome. If a customer applies for one or more hardship grants, this is only counted as one customer.  <b>Hardship grants awarded</b> – the total number (No) of customers awarded hardship assistance grants under the water business's hardship policy. If a customer receives two hardship grants, this is only counted as one customer.  <b>Hardship grants value</b> – the total value (\$) of hardship assistance grants awarded under the water business's hardship policy.	No NPF requirement

## Indicator definitions

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
					<p><b>Hardship grant</b> – this indicator refers to a business’s own hardship grant scheme. This may include a rebate, waiver, credit, write-off etc.</p> <p><b>Excluded</b> – It does not include government schemes (such as URGS).</p>	
UPP 7	Number of physical visits associated with GSL process management (No)		Regional and Metropolitan (A)	Number of physical visits associated with GSL process management	<p><b>GSL Visits</b> – the total number (No) of physical or personal visits made to a customer’s residence in relation to Step 5 of the <b>Check-list for minimum ‘reasonable endeavours’ – Hardship-related GSL</b> (attempt at personal contact by personal visit with a customer), required before a water supply restriction can be put in place. This is the final step that a water business must take to avoid a payment under the hardship related GSL.</p>	No NPF requirement
UPP 8	<p>Number of customers entering hardship programs - differentiated by the level of debt (No)</p> <p>Note: Only reported by Metropolitan retailers and Western Water.</p>	<p>Debt less than \$1000</p> <p>Debt of \$1000-2000</p> <p>Debt above \$2000</p>	Metropolitan (A)	<p>Number of customers entering a hardship program with debt less than \$1000</p> <p>Number of customers entering a hardship program with a debt of \$1000-2000</p> <p>Number of customers entering a hardship program with debt above \$2000</p>	<p><b>Customers entering a hardship program with debt less than \$1000</b> – the total number (No) of residential customers entering a water business’s hardship program during the reporting period, with the level of debt less than \$1000.</p> <p><b>Customers entering a hardship program with debt \$1000-2000</b> – the total number (No) of residential customers entering a water business’s hardship program during the reporting period, with the level of debt being \$1000 to \$2000.</p> <p><b>Customers entering a hardship program with debt above \$2000</b> – the total number (No) of residential customers entering a water business’s hardship program during the reporting period, with the level of debt above \$2000.</p>	No NPF requirement

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
UPP 9	Percentage of customers in hardship program meeting instalment plans (%)	Percentage of customers in hardship program meeting their instalment plans (%)	Regional and Metropolitan (A)	% of customers in hardship program meeting their instalment plans	<p><b>Meeting instalment plans in the hardship program</b> – the number of customers in a water business's hardship program who are meeting their instalment plans, expressed as a percentage (%) of the total number of customers on instalment in hardship programs with agreed instalment plans.</p> <p><b>Meeting their instalment plan includes</b> – any instance where a customer has missed or skipped a payment with the agreement of the water business, or to the extent that they continue to meet the eligibility criteria of the water businesses hardship program.</p>	No NPF requirement
UPP 10	Number of concessions applied (No)  Note: Only reported by Metropolitan retailers and Western Water.	Total number of concession customers (No)  Number of retrospective concessions applied (No)	Regional and Metropolitan (A)	Total number of concession customers  Number of retrospective concessions applied	<p><b>Customers on a concession</b> – the total number (No) of concession customers, which may include more than one customer on a single bill.</p> <p><b>Retrospective concessions applied</b> – the total number (No) of concessions applied on past bills for which the customer was eligible. This only applies to bills raised on the principal place of residence, issued in the last 12 months and where the account is still active.</p> <p>Note: Only reported by Metropolitan retailers and Western Water.</p>	No NPF requirement

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
<b>Water Conservation, Reuse, Recycling (CRR)</b>						
CRR 1	Treatment plant effluent end use (ML) and class (a, b, c)  (Reuse Schedule in Reporting Template)	Volume of effluent produced (ML)  Volume of effluent reused (ML) – broken down by: Volume supplied to retailers (ML) Domestic/Residential (ML) Municipal (ML) Commercial (ML) Industrial (ML) Agricultural uses (ML)  Beneficial allocations (ML)	Melbourne Water (A)  Regional and Metropolitan (A)	Volume of effluent produced  Volume of effluent reused  % of effluent reused  % of effluent reused by category  Class of effluent produced (a, b, c)	<p><b>Volume effluent produced</b> – the net volume (ML) of treated sewage produced as effluent from a sewage treatment plant. Evaporative losses from the treatment process are excluded.</p> <p><b>Total volume</b> = Volume effluent reused + Environmental discharge</p> <p><b>Volume of effluent reused</b> – the net volume (ML) of all treated effluent that is used by either the water business, a business supplied by the water business, or supplied through a third pipe system for urban reuse. Reuse activity needs to be in accordance with Environment Protection Authority (EPA) published guidelines or exempted from EPA licensing on the basis of being recognised as a legitimate reuse activity.</p> <p><b>Calculation</b> – Sum volume supplied to retailers, supplied to domestic/residential, municipal, commercial, and industrial users, supplied for agriculture uses, beneficial allocation and within process.</p> <p>Note: volumes included under 'Release to land' (see below) should not be included in reuse calculations.</p> <p><b>Domestic/Residential</b> – recycled water supplied for residential purposes e.g. via third pipe schemes.</p> <p><b>Municipal</b> – recycled water used for municipal purposes e.g. open space, sporting ovals and nature strip irrigation, community gardens, municipal-run golf courses, and for supplementing recreational lakes (eg recycled water provided to Lake Wendouree).</p> <p><b>Commercial</b> – recycled water used for commercial purposes eg firefighting, construction activities including dust suppression and</p>	W26, W27, W29, <b>WR_N4</b> {Removed references to W20, W21 and W23 for reuse categories}

Indicator definitions

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
CRR 1 (continued)		Within process (ML)			construction, sand washing, offices, shops, accommodation, privately-owned irrigation (eg golf courses, school ovals, race courses, cemeteries)	
		Release to land (ML)			<b>Industrial</b> – recycled water used for industrial and manufacturing processes.	
		Ocean outfall discharge (ML)			<b>Agricultural uses</b> – recycled water provided to agricultural customers for agricultural uses including irrigation, forestry and livestock. <b>Excludes:</b> discharge for irrigation or release to land where there is no customer, community group or similar entity using products generated by irrigation (i.e. crops, woodlots, livestock, etc).	
		Inland water discharge (ML)			<b>Beneficial allocation</b> – treated effluent discharged to a waterway for recognised environmental purposes (as prescribed by the EPA). There must be a quality characteristic that is a net benefit to the environment. (There is a clear distinction between ‘disposal’ to the environment and ‘beneficial use’, such as environmental flows.)	
		Effluent reuse – Potable water substitution (ML)			<i>Note: the EPA is developing guidance for the use of recycled water for environmental purposes. Volumes reported under beneficial allocation will ultimately be expected to align with this policy following its development.</i>	
		Class of effluent produced			<b>Within process</b> – water treatment process water eg mains flushing and other consumption due to operations. <b>Includes:</b> treated effluent used in desludging processes, if mains water/surface water would need to be used in the absence of the treated effluent. <b>Excludes:</b> treated effluent volumes released to onsite or offsite woodlots or other similar irrigation/land releases.	
					<b>Release to land</b> – any effluent used for irrigation or released to land for the purpose of disposal (including in designated lagoons or drying pans)	

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
CRR 1 (continued)					<p>where there is no customer, community group or similar entity using products generated by irrigation (ie crops, woodlots, livestock, etc).</p> <p><b>Ocean outfalls discharge</b> – disposal of treated effluent to ocean outfalls pursuant to an EPA waste discharge licence.</p> <p><b>Inland water discharge</b> – disposal of treated effluent to inland water pursuant to an EPA waste discharge licence.</p> <p><b>Effluent Reuse – Potable water substitution</b> – the volume (ML) of potable water avoided due to reuse of treated effluent ie where potable water would need to be purchased if the recycled water was not available.</p> <p><b>Class of effluent produced</b> – the class (a, b or c) of effluent produced at each of the water business's treatment plants. Water businesses can list more than one effluent class for each treatment plant.</p>	
CRR 3	Number of sewage spills from emergency relief structures (ERS) and pumping stations (No)	Blockage Hydraulic Extreme wet weather	Melbourne Water (A) Regional and Metropolitan (A)	Volume of sewage spilt as a % of the volume of sewage transported	<p><b>Sewage spill</b> – total number (No) of sewage spills from emergency relief structures and pumping stations. Does not include spills from reticulation and branch sewers (refer RES 6).</p> <p>An estimation of spill volumes (ML) may be used where direct measurement of spill volume cannot be made.</p>	No NPF requirement
CRR 3 (Continued)	Volume of sewage spilt from ERS and pumping stations (ML)	System failure			<p><b>Extreme wet weather</b> – a 1 in 5 (or higher) year rainfall event.</p>	

Indicator definitions

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
CRR 5	CO <sub>2</sub> equivalent emissions (Tonnes)	Water treatment and supply (Tonnes)  Sewerage treatment and management (Tonnes)  Transport (Tonnes)  Other (Tonnes)  CO <sub>2</sub> offsets (Tonnes)  Total CO <sub>2</sub> Equivalent Emissions (Tonnes)	Melbourne Water (A)  Regional and Metropolitan (A)	Greenhouse gas emissions – equivalent tonnes of CO <sub>2</sub>	<p><b>Greenhouse gas emissions</b> – conversion factors for greenhouse emissions should be based on those provided by the Department of Environment and Energy – National Greenhouse Accounts (NGA) Factors. Refer to the department’s website for these factors. A water business may also use the department’s ‘Technical guidelines for the estimation of greenhouse gas emissions by facilities in Australia’ for conversion factors. To ensure consistency with national reporting requirements (e.g. National Greenhouse and Energy Reporting scheme), scope 1 and scope 2 emissions only are included in the National Performance Framework. Scope 3 emissions are excluded. Businesses should use the conversion factors specific to their location.</p> <p><b>Water</b> – CO<sub>2</sub>-equivalents (Tonnes) generated relating to water supply, including recycled water. Include direct (scope 1) and indirect (scope 2) but exclude scope 3.</p> <p><b>Sewerage</b> – CO<sub>2</sub>-equivalents (Tonnes) generated relating to sewerage. Include direct (scope 1) and indirect (scope 2) but exclude scope 3.</p> <p><b>Transport</b> – CO<sub>2</sub>-equivalents (Tonnes) generated relating to vehicle use directly related to the business’s activities (scope 1).</p> <p><b>Other</b> – CO<sub>2</sub>-equivalents (Tonnes) generated relating to office buildings, etc.</p> <p><b>Offsets</b> – accredited sequestration activities (including accredited offset schemes) that remove carbon from the atmosphere, i.e. tree plantations (reported as a negative figure).</p>	HE_N1 {Removed references to IE9, IE10, IE11, IE12}
CRR 5 (continued)						

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
					<p><b>Total emissions</b> – net tonnes of CO<sub>2</sub> equivalent emissions for the whole business and its activities, allowing for sequestration (sum of the above less offsets).</p> <p><b>Leased assets and emissions</b> – where a leased asset generates emissions, these emissions should be reported under the same category as if the water business owned the asset.</p> <p>I.e. a water business owns one truck and leases one truck for the operation of its treatment facility – emissions should be reported for both vehicles under ‘Transport – scope 1’.</p>	
CRR 6	Treatment plant biosolid reuse (Tonnes) (Reuse Schedule in Reporting Template)	Mass produced (Tonnes)  Mass reused (Tonnes)  Mass stored (Tonnes)	Melbourne Water (A)  Regional and Metropolitan (A)	Biosolids reuse as a % of biosolids produced in the reporting year  Total mass of biosolids reused	<p><b>Mass produced</b> – the mass dry weight (Tonnes) of biosolids produced by the licensee’s sewage treatment plants.</p> <p>Biosolids is considered to be produced when it is extracted from the process, for storage or reuse purposes. It excludes biomass accumulating in the process and lagoon systems.</p> <p><b>Mass reused</b> – the mass dry weight (Tonnes) of biosolids reuse undertaken in accordance with EPA published guidelines or exempted from EPA licensing on the basis of being recognised as a legitimate reuse activity. Includes biosolids produced and reused within the reporting period, plus reuse from stockpiled biosolids in the reporting year.</p> <p><b>Mass stored</b> – the mass dry weight (Tonnes) of biosolids produced during the reporting year that is stored by, or on behalf of, the licensee. (This does not refer to the total amount of currently stockpiled biosolids material.)</p> <p><b>Biosolids</b> – primarily organic solids derived from sewerage treatment processes, which must meet EPA requirements for reuse. It does not include non-stabilised sludge.</p>	

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
CRR 7	Trade waste volume received (ML) (Treatment Plant Schedule in Reporting Template)	By treatment plant	Melbourne Water (A)  Regional and Metropolitan (A)	Volume of trade waste received into each treatment plant as a % of total influent volume	<b>Trade waste volume</b> – the aggregated influent volume (ML) of trade waste received into each of the water business's own treatment plants.  The trade waste volumes should be based on the billable volumes (metered and estimated) as reported under BED 19 and does not include the 'deemed' trade waste discharges.	W17

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
<b>Drinking Water Quality (DWQ)</b>						
DWQ 1	Standards for drinking water quality	<p>Percentage of connections receiving water meeting E. Coli standards (%)</p> <p>Percentage of connections receiving water meeting turbidity standards (%)</p>	Regional and Metropolitan (A)	<p>% of connections receiving water meeting standards for:</p> <ul style="list-style-type: none"> <li>E. coli</li> <li>Turbidity</li> </ul>	<p><b>Percentage of Connections</b> – the number (No) of connections receiving drinking water that complies with the standard for E. coli and turbidity, expressed as a proportion of connections receiving drinking water from that supplier.</p> <p><b>Excluded</b> – non-potable (regulated) supplies are excluded from calculations.</p> <p>The formula for % of connections receiving water meeting standards is:</p> $\frac{\text{Number of connections in zones without a non-compliance}}{\text{Total number of connections}} \times 100$ <p><b>Standards</b> – the standards for drinking water quality are set out in the Safe Drinking Water Regulations 2015. (Note that for data prior to 18 July 2015, businesses reported using the 2005 regulations.)</p> <p><b>Compliance with the standard</b> – compliance with standards for E. coli and turbidity is assessed annually on a zone-by-zone basis. Any confirmed non-compliant test result for a supply zone means that zone is considered non-compliant for the year, i.e. it was not fully compliant for the full year.</p> <p><b>Zone</b> – equivalent to a water sampling locality/zone of water supply system, as defined in the Safe Drinking Water Regulations 2015. Each zone will be assessed as either compliant or non-compliant with the standards.</p>	H3
DWQ 2	Non-compliance incidents (water sampling and audit)		Regional and Metropolitan (A)	Number of non-compliance incidents (water)	<p><b>Non-compliance incident</b> – measures the sum of the following:</p> <ul style="list-style-type: none"> <li>Number of notifications of non-complying water supplied in accordance with s. 18. of the Safe Drinking Water Act 2003.</li> </ul>	

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
DWQ 2 (continued)				sampling and audit)	<ul style="list-style-type: none"> <li>Number of non-compliances found in the risk management plan audit, referred to in s. 10. of the Safe Drinking Water Act 2003.</li> </ul> <p>This indicator is verified by the Department of Health and Human Services, consistent with its annual reporting on drinking water quality in Victoria.</p>	

Indicator reference	Performance indicator	Split	Coverage	Performance measure	Definition	NPF Reference
Trade Waste (TDW)						
TDW 1	Number of trade waste customers with agreements containing customer-specific acceptance criteria (No)		Regional and Metropolitan (A)	Number of trade waste customers with agreements containing customer-specific acceptance criteria	<p><b>Number of trade waste customers</b> – the total number (No) of trade waste customers with agreements containing customer-specific acceptance criteria at the end of the reporting period.</p> <p><b>Trade waste agreement</b> – trade waste customers must have some form of trade waste agreement with their water business. The Trade Waste Customer Service Code requires this trade waste agreement to specify (or refer to) the relevant trade waste discharge limitations, normally the water business's Statement of Approved Acceptance Criteria, which is a common set of acceptance criteria applying to all trade waste customers.</p> <p>The code allows for water businesses to establish customer-specific acceptance criteria for one or more parameters for an individual customer, in order to suit the specific requirements of the customer and the sewerage catchment and treatment systems.</p> <p>This indicator reflects the number of trade waste customers with one or more of these customer-specific parameters in their trade waste agreement on 30 June each year.</p>	No NPF requirement