



Key performance indicators for annual performance reporting for Queensland urban water service providers

Definitions guide

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Acknowledgement of Country

The Department of Local Government, Water and Volunteers respectfully acknowledges the Traditional Custodians of Country. We recognise the ongoing spiritual and cultural connection Aboriginal Peoples and Torres Strait Islander Peoples have with land, water, sea and sky. We pay our deep respects to their Elders past and present, support future leaders and acknowledge First Nations People's right to self-determination.

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Key performance indicators for Queensland urban water service providers

The definitions and reporting information for the Queensland Government Key Performance Indicators (QG KPIs) for urban water service providers are outlined in this document.

Under section 142A of the Water Supply (Safety & Reliability) Act 2008, Water Supply Regulation (the Regulator), operating for the Department of Local Government, Water and Volunteers requires Queensland drinking water service providers to undertake annual performance reporting. This document contains definitions and detailed descriptions for all required key performance indicators (KPIs).

Service providers must provide a response to all KPIs, even if they are not appropriate for a service provider's operations. When a KPI does not apply to a service provider's operations, they should respond using NR (not relevant) as explained in the "Reporting Rules" section below. Service providers can submit their report to the regulator through qldwater's Statewide Water Information Management (SWIM) database or using the performance reporting template, which can be provided upon request by emailing drinkingwater.reporting@rdmw.qld.gov.au.

The Regulator is responsible for gathering water industry performance data to monitor service delivery, water security measures, inform water demand management strategies, gauge infrastructure investment and maintenance, assess financial stability, customer service levels and water affordability. This information is made publicly available via an online tool, the *Queensland Urban Water Explorer*. The goal of sharing this data is to provide open access to information for customers across Queensland and encourage voluntary performance improvement of service providers.

The QG KPIs and related definitions in this document apply to the 2024-2025 reporting period, and for subsequent reporting periods until a new version of this document is issued.

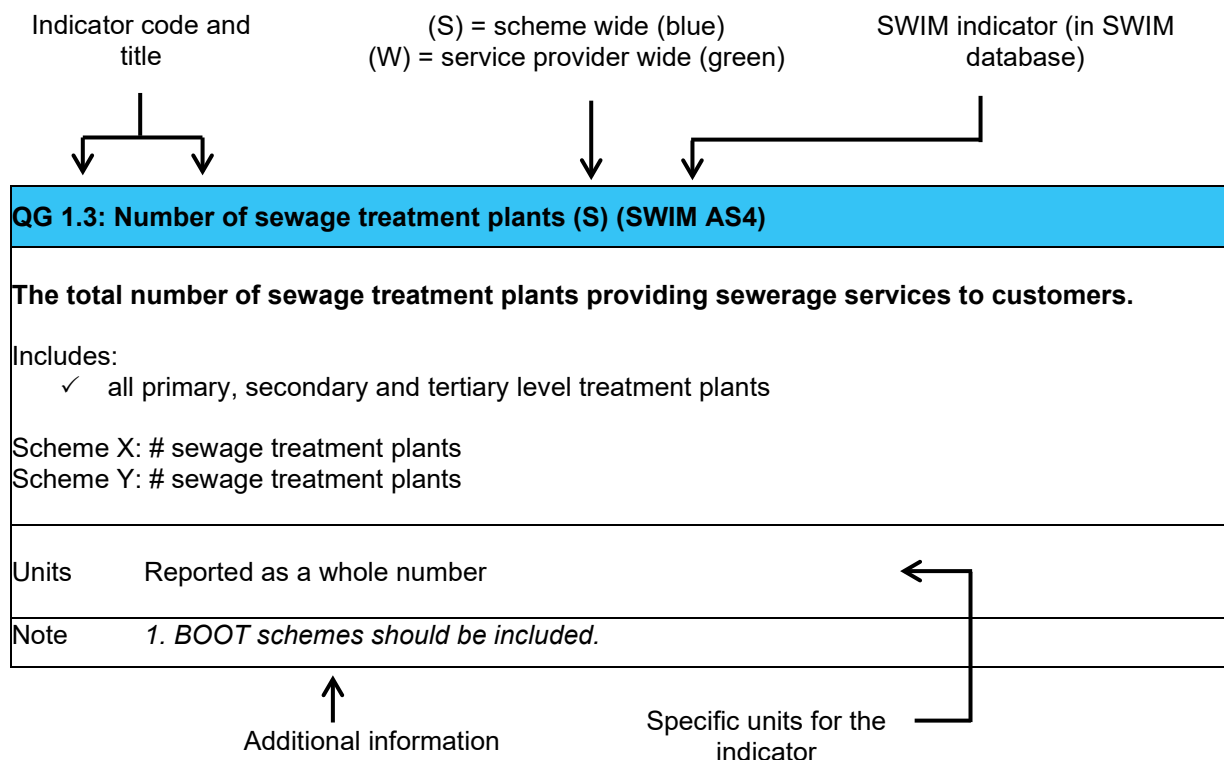
Most Queensland service providers must also report their performance against the indicators outlined by the Bureau of Meteorology in its National Performance Reporting (NPR) framework. For further details and the latest guidance, service providers can refer to the National performance reports section on the Bureau of Meteorology's website. Service providers are to follow reporting instructions contained within the appropriate handbook and the associated guidance memos. Guidance memos are specific for bulk water providers, for operations with more than 10,000 connected properties and operations with less than 10,000 connected properties.

Guide to definitions

QG KPIs are categorised into the following series: general; water security; finance; customer; distributor-retailers and cyber security. Each indicator has a separate table outlining the KPI definition, how it is to be reported, as well as additional information to assist the service provider in collecting and reporting performance data. Examples are provided for the majority of QG KPIs for the reader's information and/or consideration only and are not meant to be exhaustive or prescriptive. Services covered in the reporting includes:

- Potable water
- Non-potable water
- Recycled water
- Sewerage

Below is a QG KPI definition formatting example, as used throughout this document.



Reporting rules

Service providers are required to provide data for all QG KPIs contained within this guide unless the provision of the data is not relevant for the service provider, is missing or is zero.

This means service providers are expected to submit a response to every KPI rather than a specified list. The rules listed below can be used to clearly indicate where an indicator has no relevance to the service providers business.

Not relevant (NR) – The service provider has never provided the service or carried out the activity and therefore did not do it during this reporting financial year. This is most likely when a service provider does not have the infrastructure to carry out the particular activity.

Missing data (MD) - The service provider does the activity but does not know how much and cannot reasonably estimate the data. Previously recorded as No Data (ND). This must be accompanied by an explanatory comment.

Zero (0) – The service provider usually does the activity, however, for this financial year did not do the activity e.g. a recycling activity was suspended during the financial year.

Service providers must use MD for indicators where there is no data available; do not use '0'.

Example - QG 1.10: Volume of water sourced from desalination of marine water (S) (SWIM WA61):

- A service provider does not source any water from marine desalination and never has – reported as 'NR'.
- A service provider does source water from marine desalination but has no meters or other way of estimating the amount sourced – reported as 'MD' and comment to say there are no meters.

- A service provider usually sources water from marine desalination, during dry times, but due to good rains this reporting period, no marine desalination was needed/used – reported as '0'.

Missing data

Service providers should not be entering 'MD' (missing data) unless in exceptional circumstances. If a service provider has no data for certain indicators, the service provider must understand why this is the case and use the appropriate reporting rule above, including the need to provide explanatory comments, which should include information of how the provider intends to remedy the monitoring deficiency for future reporting purposes.

Estimating data

Where service providers currently do not have the facilities to collect the data, they should put in place a realistic and reproducible way of estimating the values consistently over time. Service providers should enter information into the comments field, found in both the departmental template and SWIM, summarising how the data was estimated. Ideally, these established estimation processes should be the same each financial year to allow across year comparisons of the provider. Where changes to the method of estimation are necessary, this should also be advised through the comments field.

The department will consider how the estimations were determined in undertaking comparisons across service providers.

Service providers should, over time, minimise the number of data estimations that need to be made through the implementation of any necessary measuring devices or alterations to system data collection. It is expected that the number of entries of missing data and estimated data will decrease over time.

Instructions for Scheme Reporting

Where appropriate, the performance data for water supply services (drinking water, non-potable and recycled water) and sewerage services should be reported for separate schemes. Service provider schemes are defined by providers as part of the registration process (including annual review of the registration details), and it is expected that the scheme names and service areas reported as part of the performance report will match the registration documents. Colour coding and an (S) at the end of indicator titles are used in the guide to identify which KPIs are to be reported by scheme.

Commonly used terms

The following is a list of terms that are used throughout this guide. These definitions should be referred to when preparing KPIs.

Available contingency supply – a contingency supply that will be readily accessible when required. That is, the steps to enable use of the contingency supply are known, and involve no major works, and are able to be undertaken in the necessary timeframes.

Available water supply – the volume of water that is readily able to be accessed from all water sources, including available contingency supply. To determine the available supply weather projections, historical behaviour of the supply, forecast demands and operational constraints should be considered.

Common effluent drainage system – a type of on-site effluent treatment process whereby effluent is piped from individual property septic tanks to a collection point, or into a reticulated

sewerage system for further treatment and disposal. The portions of the system owned and operated by the service provider are included in sewerage related KPI reporting.

Contingency supply – a planned response to increase the likelihood that the expected demands of the town will be met when ‘usual’ supplies are compromised (for example during drought or during infrastructure breakdown). The contingency supply augments the towns’ water supply, either temporarily or permanently. Examples include new bore, temporary desalination plant, accessing local waterhole, short haul / low volume water carting.

Control and associated systems – any collection of data, information, devices or equipment, which support a service provider to perform its water and sewerage functions.

Desalination water – water sourced from desalination processes and is not confined to marine desalination, unless specifically stated.

Effluent – wastewater discharged from a sewage treatment facility whether from residential, commercial, industrial connections. Not intended for re-use.

Emergency supply – planned response that is temporary and is required to provide sufficient supply to meet highly restricted demand. It is implemented when there is a low likelihood that ‘usual’ supplies will be able to meet expected demands or when there are inadequate supplies to meet demands. Examples include long distance / high volume carting water, low quality feed water sources (e.g. local waterhole) with high treatment costs, temporary desalination plant that has capacity to supply only highly restricted demand. Typically requires significant expenditure of resources.

Exported water – Water from a scheme that is delivered to another scheme, which may or may not be operated by the same service provider. Water from the scheme that is exported may have been taken directly from a source using the service provider’s infrastructure, produced in the scheme (including desalinated marine water) or imported into the scheme. Exported water may be raw water, treated water or partially treated water that is potable or non-potable.

Imported water – Water that has been exported from another water scheme, which may or may not be operated by the same service provider. Imported water may be potable or non-potable. It includes water that may be used within the scheme or exported to a subsequent scheme.

Water sourced from a regulated recycled water scheme and used for indirect potable reuse is considered imported (for example purified recycled water that is used to augment a surface water source that supplies a potable water scheme).

For water accounting purposes, if imported raw water is added to a storage (e.g. surface water source), it is assumed that this imported water is used first.

Marine desalination – The process of treating surface water sourced from marine or brackish environments to remove the salt and other impurities. May be treated to potable or non-potable standards dependent on planned purpose.

Municipal – related to a town or district or its governing bodies. Water for municipal use includes for parks, gardens, sporting fields and associated amenities. Excludes operational water used as part of any water or wastewater treatment processes, or network maintenance activities.

Non-potable – water that has been removed from the source and is not intended for use as a drinking water supply, whether it is treated or not (also called Raw-partially treated).

Non-potable water scheme – the infrastructure owned by a service provider for single or multiple combinations of the individual components of treatment, transmission, or reticulation of the supply of non-potable water (i.e. not for drinking).

Permanent water conservation measures (PWCM) – on-going measures in place to ensure best practice for the efficient use of outdoor water use.

Potable water – water that is intended for use as a drinking water supply, whether it is treated or not. Potable water should materially meet the most current version of the Australian Drinking Water Guidelines (ADWG).

Potable water scheme – also referred to as a drinking water scheme. The infrastructure owned by a provider for single or multiple combinations of the individual components of treatment, transmission, or reticulation of drinking water supply.

Raw water - Untreated surface and/or groundwater either used to directly supply customers of a non-potable water supply scheme or used as a source for a treatment process that supplies customers of a potable water supply scheme. Sewerage or stormwater used as a source for recycled water schemes are not considered raw water.

Recycled water – water sourced from sewage or effluent, or urban stormwater, or wastewater from industrial, commercial or manufacturing activities, including animal husbandry activities that has been treated for specific re-use purposes and supplements water supply.

Recycled water scheme – The infrastructure owned by a provider for storage, treatment, transmission, or reticulation of recycled water.

Schemes – the determination of a scheme is left to providers. However, the sum of each scheme must equate to the full service provision area. Where a service provider is having some difficulty establishing schemes, the following advice is offered.

Where possible a single water supply service or sewerage collection and treatment service should be reported as separate schemes as management (and data) should be at this level. So, for example, in regional/rural areas where individual towns are distinctly separated, each town with its own water and/or sewerage service should be classed as a scheme. In metropolitan areas, where areas of service can be less distinct, e.g. two water treatment plants may connect to a single interconnected distribution network, then this may become the management unit and thus the scheme.

Urban – any reticulated water and/ or sewerage serviced areas. Includes rural, remote and regional areas and townships.

Urban stormwater – stormwater collected from built up urban areas. Stormwater is not regulated under the *Water Supply (Safety and Reliability) Act 2008*.

Water Security – means having a high degree of confidence that the water needs of a community can sustainably be met, now and in the future. Water security is underpinned by the availability, accessibility and reliability of the sources of supply to meet the communities water needs.

Water supply – includes all of the water sources from which water is taken to supply the water supply scheme, including available contingency supply.

Water treatment – processes such as filtration, coagulation, pH correction and softening used to remove particulate matter and contaminants. Includes advanced treatment process such as reverse osmosis. Disinfection alone is not considered treatment.

Water treatment plant – facility that houses a combination of processes such as filtration, coagulation, pH correction, disinfection and softening used to make the water fit for purpose. Includes advanced treatment process such as reverse osmosis. The infrastructure and facilities operated in isolation are not considered water treatment plants i.e. disinfection dosing equipment; pH correction equipment and water-cooling equipment.

Series 1 – General

Series 1 'General' QG KPIs relate to water and sewerage infrastructure in place as well as water sourced and supplied for the reporting financial year.

The QG KPIs relating to water supply and sewerage infrastructure include the number of treatment plants, capacity, length of mains and connections, i.e. the infrastructure in place to deliver the service in each scheme. The QG KPIs relating to water sourced and supplied provide overall water balance information for each scheme.

QG 1.1: Length of water mains (S) (SWIM AS2)

The total length of water mains delivering potable and non-potable water for urban areas.

Includes:

- ✓ transfer, distribution and reticulation mains
- ✓ recycled water distribution and reticulation mains

Excludes:

- × mains associated with property water service (mains to meter) connections
- × mains delivering recycled water for non-urban uses, e.g. agriculture reuse
- × disused pipe lengths should not be counted, even if they are maintained by the water utility for possible future use
- × privately owned mains
- × mains associated with source works, e.g. bore field mains
- × mains and channels associated with sources that transfer raw water
- × recycled water mains not supplying water direct to customers
- × mains associated with facilities, e.g. mains within pump stations, storage facilities or treatment plants

Scheme X: # km of water mains

Scheme Y: # km of water mains

Units Kilometres (km): one decimal place

Note

1. Ferrule is part of the service connection.

QG 1.2: Length of sewerage mains (S) (SWIM AS5)

The total length of sewerage mains, including all trunk, pressure and reticulation mains.

Includes:

- ✓ combined sewerage and stormwater mains

Excludes:

- × lengths associated with property connection sewers or conduits carrying treated effluent
- × conduits and pipelines (e.g. feeding paddocks for grass and land filtration)

Scheme X: # km of sewerage mains

Scheme Y: # km of sewerage mains

Units Kilometres (km): one decimal place

QG 1.3: Number of sewage treatment plants (S) (SWIM AS4)

The total number of sewage treatment plants providing sewerage services to customers.

Includes:

- ✓ all primary, secondary and tertiary level treatment plants

Scheme X: # sewage treatment plants

Scheme Y: # sewage treatment plants

Units Reported as a whole number

Note

1. BOOT schemes should be included.

QG 1.4a: Number of water treatment plants (S) (SWIM AS1)

Number of water treatment plants providing full water treatment.

Excludes

- × disinfection only schemes
- × secondary disinfection even when there is pH correction
- × cooling down bore water through heat exchange process

Scheme X: # water treatment plants

Scheme Y: # water treatment plants

Units Reported as a whole number

Note

1. If response is zero (0) water treatment plants, then QG 1.4b and QG 1.6a should reported as 'NR' (Not Relevant).

QG 1.4b: Capacity of water treatment plants (S) (SWIM AS47)

Daily reliable production capacity of water treatment plants providing full water treatment and producing potable water.

Excludes

- × disinfection only schemes
- × secondary disinfection even when there is pH correction
- × cooling down bore water through heat exchange process

Scheme X: Total treatment capacity of # ML per day

Scheme Y: Total treatment capacity of # ML per day

Units Megalitres per day (ML/day): two decimal places

Notes

1. Where applicable capacity is to be expressed based on designed capacity and a 20-hour operational timeframe.
2. For schemes operating 24/7 or less than 20 hours per day, capacity should be the best estimate of the reliable daily production capacity.
3. Only required if response to QG 1.4a is 1 or more.

QG 1.5: Maximum daily demand (S) (SWIM WA201)

The greatest daily demand for potable and non-potable water recorded in the financial year.

Scheme X: Maximum daily demand # ML per day

Scheme Y: Maximum daily demand # ML per day

Units Megalitres per day (ML/day): as a whole number

Notes

1. Maximum daily demand is to represent the maximum volume provided to the network.
2. Small service providers should consider excluding days on which main bursts, firefighting or flushing occurred. Service providers may consider using the 90th percentile maximum daily demand.
3. May be estimated by using a single average daily demand multiplied by the peaking factor as determined by the service provider or using mean day maximum month values, noting that this is likely to be less than the peaking factor.

QG 1.6a: Volume of potable water produced at a water treatment plant (S) (SWIM WA225)

The volume of potable water produced at a water treatment plant in the scheme.

The reported volume includes all potable water produced at a water treatment plant including:

- ✓ water that is subsequently exported
- ✓ water produced to potable standards but used for non-potable applications
- ✓ imported non-potable water that is treated at a water treatment plant within the scheme to potable standards

Excludes:

- × recycled water
- × potable water (treated or untreated that meet the drinking standard requirements) that has not passed the scheme water treatment plant(s) (e.g. some bore water or imported potable water)

Scheme X: # ML total volume of potable water produced

Scheme Y: # ML total volume of potable water produced

Units Megalitres (ML): as a whole number

Notes

1. The reported volume is measured at the outflow of treatment plants.
2. If there is not water treatment plant within the scheme, 'NR' should be reported.
3. This volume reported under this KPI includes all potable water that is produced, including volumes that might be subsequently reported as real or apparent losses in the system.
4. This indicator is NOT the volume of water supplied to end users.
5. Refer to Estimating Data for further information on estimating volumes.

QG 1.7: Total potable water storage (S) (SWIM AS48)**Total available storage capacity for potable water (assuming no further production).**

Scheme X: Total treated drinking water storage of # ML

Scheme Y: Total treated drinking water storage of # ML

Units Megalitres (ML): three decimal places

Notes

1. If potable water production stopped for any reason, what storage capacity is available to supply to customers (use full capacity of storage infrastructure, not current storage volumes).
2. If there is no treated/drinking water storage refer to Reporting Rules to determine whether NR or 0 is appropriate.
3. Does not include pipe capacity.

QG 1.8: Volume of water sourced from surface water (S) (SWIM WA1)

The volume of raw water taken by the service provider from surface water sources.

Includes:

- ✓ dams, weirs and barrages
- ✓ rivers, creeks and streams
- ✓ irrigation channels
- ✓ overland flow
- ✓ pumping pools
- ✓ river wells

The reporting volume includes:

- ✓ water for which the service provider holds an entitlement or contract (including sale, lease or temporary trade arrangements) or for which the raw water source is not regulated
- ✓ water taken by others operating on behalf of the service provider
- ✓ water that is subsequently exported to other water schemes

Excludes:

- × water that is imported from other water schemes, including recycled water that is regulated for indirect potable reuse
- × seawater or brackish water used as feed water to marine desalination

Scheme X: # ML surface water

Scheme Y: # ML surface water

Units Megalitres (ML): as a whole number

Notes

1. The reported volume can be based on metered extraction of raw water or on the metered inflow of raw water to treatment plants.
2. Refer to Estimating Data for further information on estimating volumes.
3. The aggregate volume should be reported if water is taken from various surface water sources.
4. Other schemes may be operated by same or different service provider.
5. Volume of imported water should be reported at QG1.21. Refer to the 'commonly used terms' for the definition of imported water.

QG 1.9a: Volume of water sourced from groundwater (S) (SWIM WA2)

The volume of raw water taken from groundwater sources by the service provider.

Groundwater sources includes:

- ✓ aquifers, at all depths
- ✓ water sources from groundwater that is subsequently treated by desalination

The reported volume includes:

- ✓ water for which the service provider holds an entitlement or contract (including sale, lease or temporary trade arrangements, dewatering licence or permit) or for which the raw water source is not regulated
- ✓ water taken by others operating on behalf of the service provider
- ✓ water that is subsequently exported

Excludes

- × water that is imported from other schemes, including recycled water that is regulated for indirect potable reuse

Scheme X: # ML groundwater

Scheme Y: # ML groundwater

Units Megalitres (ML): as a whole number

Notes

1. The reported volume can be based on metered extraction of raw water or on the metered inflow of raw water to treatment plants.
2. Refer to Estimating Data for further information on estimating volumes.
3. The aggregate volume should be reported if water is taken from a number of groundwater sources.
4. Imported water includes water that has been transported or stored in association with natural occurring groundwater. For example, coal seam gas stored in an aquifer or managed aquifer recharge.

QG 1.10: Volume of water produced by desalination of marine water (S) (SWIM WA61)

The volume of water produced by the desalination of marine water by the service provider.

Includes:

- ✓ desalinated marine water sources
- ✓ desalinated marine water that is subsequently exported
- ✓ desalinated marine water taken by others operating on behalf of the service provider

Excludes:

- × water sourced from groundwater
- × water sourced from surface water
- × water that is imported

Scheme X: # ML water from desalination

Scheme Y: # ML water from desalination

Units Megalitres (ML): as a whole number

Notes

1. Marine water sources may be considered as including sources from estuarine areas.
2. Refer to Estimating Data for further information on estimating volumes.
3. The aggregate volume should be reported if water is sourced from a number of desalinated marine water sources.

QG 1.11: Volume of recycled water supplied (S) (SWIM WA26)

The volume of recycled water supplied by the service provider from a scheme.

The reported volume includes all recycled water supplied to all customers including:

- ✓ recycled water treated to either potable or non-potable standard for on-site reuse, agriculture, irrigation industry, or any other use external to the treatment process
- ✓ treated sewage effluent associated with local sewage treatment schemes
- ✓ treated effluent imported from sewage treatment schemes outside the local area
- ✓ water that is subsequently exported

Excludes:

- × imported treated recycled water
- × urban stormwater or recycled water produced from urban stormwater

Scheme X: # ML recycled water

Scheme Y: # ML recycled water

Units Megalitres (ML): as a whole number

Notes

1. Recycled water schemes are regulated under the Water Supply (Safety and Reliability) Act 2008.
2. The recycled water supplied could be used by the service provider itself, a business supplied by the service provider, supplied through a third pipe system for urban reuse and other users (including aquifer recharge).

QG 1.12: Volume of water sourced (S) (SWIM WA7)

The volume of water taken by the service provider from all sources.

The reported volume includes:

- ✓ volume of water sourced from surface water (QG 1.8)
- ✓ volume of water sourced from groundwater (QG 1.9a)
- ✓ volume of imported water (QG 1.21)
- ✓ volume of water produced by marine desalination (QG 1.10)
- ✓ for recycled water schemes only – volume of recycled water (QG 1.11)
- ✓ water that is subsequently exported

Excludes:

- × for schemes that are not recycled water schemes – do not include recycled water

Scheme X: # ML total water sourced

Scheme Y: # ML total water sourced

Units Megalitres (ML): as a whole number

Note

1. Refer to Estimating Data for further information on estimating volumes.

QG 1.13: Connected residential properties – water supply (S) (SWIM CS68)

Number of residential water properties that are:

- connected to the service provider's water system.
- the subject of billing for water supply - fixed and /or consumption based.
- any property which, at the end of the reporting period, is connected to the water system and is separately billed for the water services - fixed and/or consumption based.

Includes:

- ✓ a connected, rateable residential property
- ✓ a connected, non-rateable residential property
- ✓ a connected but non-metered residential property

Excludes:

- × a rated but unconnected property (e.g. vacant lot)
- × body corporate
- × a non-real property or strata garages (e.g. a master meter for a block of separately metered strata title flats)

Scheme X: # of connected residential properties (water supply)

Scheme Y: # of connected residential properties (water supply)

Units Reported as a whole number

Notes

1. Properties are classified according to their main purpose.
2. The owner and tenant of a rented property are not counted as separate properties.
3. Properties with dual reticulation are counted as 1 property.
4. Where a service provider has 10% or fewer of its properties as strata title flats, it is acceptable to report each such block of flats as 1 property.

QG 1.14: Connected non-residential properties – water supply (S) (SWIM CS69)

Number of non-residential properties that are:

- connected to the service provider's water system.
- the subject of billing for water supply - fixed and /or consumption based.
- any property which, at the end of the reporting period, is connected to the water system and is separately billed for the water services - fixed and/or consumption based.

Includes:

- ✓ a connected, rateable non-residential property
- ✓ a connected, non-rateable non-residential property
- ✓ a connected but non-metered non-residential property
- ✓ standpipes
- ✓ public facilities

Excludes:

- × a rated but unconnected non-residential property (e.g. vacant lot)
- × body corporate
- × a non-real property or strata garages (e.g. a master meter for a block of separately metered strata title flats)

Scheme X: # of connected non-residential properties (water supply)

Scheme Y: # of connected non-residential properties (water supply)

Units Reported as a whole number

Notes

1. Properties are classified according to their main purpose.
2. The owner and tenant of a rented property are not counted as separate properties.
3. Properties with dual reticulation are counted as 1 property.
4. Where a service provider has 10% or fewer of its properties as strata title flats, it is acceptable to report each such block of flats as 1 property.

QG 1.15: Connected residential properties – sewerage (S) (SWIM CS70)

Number of residential water properties that are:

- connected to the service provider's sewerage system.
- the subject of billing for sewerage services - fixed and /or usage based.
- any property which, at the end of the reporting period, is connected to the sewerage system and is separately billed for the sewerage services - fixed and/or usage based.

Includes:

- ✓ a connected, rateable residential property
- ✓ a connected, non-rateable residential property
- ✓ a connected but non-metered residential property

Excludes:

- × a rated but unconnected property (e.g. vacant lot)
- × body corporate
- × a non-real property or strata garages (e.g. a master meter for a block of separately metered strata title flats)

Scheme X: # of connected residential properties (sewerage)

Scheme Y: # of connected residential properties (sewerage)

Units Reported as a whole number

Notes

1. Properties are classified according to their main purpose.
2. The owner and tenant of a rented property are not counted as separate properties.
3. Where a service provider has 10% or fewer of its properties as strata title flats, it is acceptable to report each such block of flats as 1 property.

QG 1.16: Connected non-residential properties – sewerage (S) (SWIM CS71)**Number of non-residential properties that are:**

- connected to the service provider's sewerage system.
- the subject of billing for sewerage services - fixed and /or usage based.
- any property which, at the end of the reporting period, is connected to the sewerage system and is separately billed for the sewerage services - fixed and/or usage based.

Includes:

- ✓ a connected, rateable non-residential property
- ✓ a connected, non-rateable non-residential property
- ✓ a connected but non-metered non-residential property
- ✓ public facilities

Excludes:

- × a body corporate
- × a rated but unconnected non-residential property (e.g. vacant lot)
- × a non-real property or strata garages (e.g. a master meter for a block of separately metered strata title flats)

Scheme X: # of connected non-residential properties (sewerage)

Scheme Y: # of connected non-residential properties (sewerage)

Units Reported as a whole number

Notes

1. Properties are classified according to their main purpose.
2. The owner and tenant of a rented property are not counted as separate properties.
3. A sewerage property which is also a trade sewerage property counts as one non-residential connected property.
4. Where a service provider has 10% or fewer of its properties as strata title flats, it is acceptable to report each such block of flats as 1 property.

QG 1.17a: Volume of potable water supplied – residential (S) (SWIM WA32)

The volume of potable water supplied to residential properties by the service provider.

The reported volume includes:

- ✓ metered and non-metered potable water supplied to residential properties
- ✓ potable water that has been imported from another scheme and subsequently supplied

Excludes:

- × real and apparent losses for the system
- × unbilled authorised consumption
- × recycled water

Scheme X: #ML of potable water supplied to residential properties

Scheme Y: #ML of potable water supplied to residential properties

Units Megalitres (ML): as a whole number

Notes

1. Refer to Estimating Data for further information on estimating volumes.
2. The reported volume includes all potable water supplied to residential customers.
3. Another scheme may be operated by the same or different service provider.

QG 1.17b: Volume of non-potable water supplied – residential (S) (SWIM WA91)

The volume of non-potable water supplied to residential properties by the service provider.

The reported volume may include:

- ✓ metered and non-metered non-potable water (including raw water) supplied to residential properties
- ✓ water that has been imported from another scheme and subsequently supplied

Excludes:

- × real and apparent losses for the system
- × unbilled authorised consumption
- × recycled water

Scheme X: #ML of non-potable water supplied to residential properties

Scheme Y: #ML of non-potable water supplied to residential properties

Units Megalitres (ML): as a whole number

Notes

1. Refer to Estimating Data for further information on estimating volumes.
2. The reported volume includes all non-potable water supplied for residential uses: metered and unmetered.
3. Volume of recycled water supplied is reported in recycled water schemes only.
4. Another scheme may be operated by the same or different service provider.

QG 1.18a: Volume of potable water supplied – non-residential (S) (SWIM WA34)

The potable volume of water supplied to non-residential properties by the service provider.

The reported volume includes:

- ✓ metered and non-metered potable water supplied to non-residential (e.g. commercial, municipal, agricultural and industrial) connections
- ✓ potable water that has been imported from another scheme and subsequently supplied

Excludes:

- × unbilled authorised consumption
- × real and apparent losses for the system
- × recycled water

Scheme X: #ML of water supplied to non-residential properties

Scheme Y: #ML of water supplied to non-residential properties

Units Megalitres (ML): as a whole number

Notes

1. Refer to Estimating Data for further information on estimating volumes.
2. The reported volume includes all potable water supplied for non-residential uses: metered and unmetered. (It does not include any unbilled or unauthorised use or losses).
3. Volume of recycled water supplied is reported in recycled water schemes only.
4. Another scheme may be operated by the same or different service provider.

QG 1.18b: Volume of non-potable water supplied – non-residential (S) (SWIM WA92)

The non-potable volume of water supplied to non-residential properties by the service provider.

Includes:

- ✓ metered and non-metered non-potable water (including raw water) water supplied to non-residential (e.g. commercial, municipal, agricultural and industrial) connections
- ✓ water that has been imported from another scheme and subsequently supplied

Excludes:

- × real and apparent losses for the system
- × unbilled authorised consumption
- × recycled water

Scheme X: #ML of water supplied to commercial, municipal and industrial properties

Scheme Y: #ML of water supplied to commercial, municipal and industrial properties

Units Megalitres (ML): as a whole number

Notes

1. Refer to Estimating Data for further information on estimating volumes.
2. The reported volume includes all non-potable water supplied for non-residential uses: metered and unmetered. (It does not include any unbilled or unauthorised use or losses.)
3. Volume of recycled water supplied is reported in recycled water schemes only.
4. Another scheme may be operated by the same or different service provider.

QG 1.20: Total full-time equivalent water and sewerage services employees (W) (SWIM WF1)

The total number of personnel involved in delivering water and sewerage services at the end of the reporting period including administrative and maintenance services, whether direct employees or indirect employees e.g. contractor staff.

Includes:

- ✓ operational employees
- ✓ administrative employees
- ✓ maintenance employees
- ✓ laboratory employees
- ✓ contractors employed in these areas

Excludes:

- × contractors employed in constructing or upgrading a plant or network as a one-off

full-time equivalent water and sewerage services employees

Units Full-time equivalent: one decimal place

Example

A small service provider has 4 FTEs employed in operations and maintenance for its water and sewerage systems and 2 administrative FTEs employed across the local government who spend about a quarter of their time dealing with water and sewerage business.

Total number of FTE water and sewerage services employees is $4 + (0.25 \times 2) = 4.5$

The service provider reports 4.5 FTEs.

If a provider has a discrete business unit which provides commercial water services to other providers and customers. Then proportion of staff undertaking work for the provider should be included, but not those working for other customers. This would be calculated on the proportion of external and internal effort.

Notes

1. Local government finance and other staff who partially support water service activities should also be included based on an estimate of the proportion of their time spent supporting the water business.

QG 1.20a: Total full-time equivalent water and sewerage operators (W) (SWIM WF2)

The total number of employees involved in the operation of infrastructure or equipment that captures, treats, stores and/or distributes water for human consumption or sewage and/or effluent for reuse or discharge.

Includes:

- ✓ water treatment plant operators
- ✓ wastewater treatment plant operators
- ✓ network operators
- ✓ water sampling field staff

Excludes:

- × Maintenance employees
- × Laboratory employees
- × Administrative employees
- × Management employees

Unless also performing operational activities.

full-time equivalent operational employees

Units Full-time equivalent: one decimal place

Example

A small service provider has one FTE employed as a water treatment plant operator and one FTE sewerage treatment plant operator that spends 80 percent of their time on operating the sewerage treatment plant and the other 20 percent on animal control. The provider also has one FTE manager who provides operational support at the water treatment plant and at the sewerage treatment for 20 percent of their time.

Total number of FTE water and sewerage operators is: $1 + 0.8 + 0.2 = 2.0$

The service provider reports 2.0 FTEs.

QG 1.21: Volume of water imported from other schemes (S) (SWIM WA223)

The volume of water imported from another scheme/s (that may be operated by the same or different service provider).

The reported volume includes:

- ✓ Raw or treated water that has been imported
- ✓ Recycled water (including recycled water produced from urban stormwater) that has been imported into recycled water schemes
- ✓ Recycled water that has been regulated for import as a direct potable reuse into a potable water supply scheme or non-potable water supply scheme
- ✓ Water that is subsequently exported to another scheme
- ✓ Transfers not associated with a financial transaction
- ✓ Unmetered volumes

Scheme X: #ML water imported (comments: text detailing the water imported)

Scheme Y: #ML water imported (comments: text detailing the water imported)

A text comment is required to describe:

- The type and volume of water i.e. raw, treated (potable or non-potable).
- The scheme that the water was imported from.

Units Megalitres (ML): as a whole number

Example 1

WSP X produces 60 ML of drinking water annually at their treatment facility within Scheme L. Of the total volume, 10ML is transferred to Water Supply Scheme J to supplement their water needs.

For scheme J, a value of 10 is reported (volume of water (in ML) imported to Scheme J) and with the comment "potable water imported from Scheme L".

Example 2

WSP Y does not produce their own potable water but instead imports it all (75ML) from a bulk supplier.

WSP Y reports a value of 75 and provides comments, "potable water imported from Bulk Supplier Z".

Notes

1. Refer to Estimating Data for further information on estimating volumes.
2. The aggregate volume should be reported if a scheme receives water from multiple other schemes.
3. There is no equivalent indicator under the national urban water utility performance reporting framework.
4. Another scheme may be operated by the same or different service provider.

QG 1.22: Volume of water exported to other schemes (S) (SWIM WA224 and WA46.1 for bulk suppliers)

The volume of water exported to another scheme/s (that may be operated by the same or different service provider).

The reported volume includes:

- ✓ Raw or treated water that is subsequently exported to another scheme
- ✓ For recycled water schemes that is exported to another recycled water scheme
- ✓ Water that has been imported from another scheme and then is subsequently exported to another scheme
- ✓ Water exported that was not associated with a financial transaction
- ✓ Unmetered volumes

Scheme X: #ML water exported

Scheme Y: #ML water exported

A text comment is required to describe:

- The type and volume of water i.e. raw, treated (potable or non-potable).
- The scheme that the water was exported to.

Units Megalitres (ML): as a whole number

Example 1

WSP K produces 60ML of potable water a year at their water treatment plant within Scheme L. Of this water 50ML is used within Scheme L but 10ML is piped (exported) to Scheme J to augment their supplies.

For Scheme L, WSP K would report 10 adding the comment “potable water exported to Scheme J”.

Example 2

WSP X produces 25ML of potable water a year for a township in a neighbouring WSP's area. WSP X reports 25 and adding the comment “potable water exported to WSP Z”.

Notes

1. Refer to Estimating Data for further information on estimating volumes.
2. The aggregate volume should be reported if water is exported to multiple other schemes.
3. There is no equivalent indicator under the national urban water utility performance reporting framework.
4. Another scheme may be operated by the same or different service provider.

QG 1.23: Volume of real and apparent water losses (S) (SWIM AS56)

The volume of real and apparent losses in the potable scheme.

Includes:

- ✓ Leakages, bursts and overflows from mains, service reservoirs and service connections prior to customer meters
- ✓ Unauthorised potable water consumption (e.g. illegal theft, illegal water connections and illegal water use)
- ✓ Customer metering errors

Excludes:

- × Unbilled authorised water consumption (e.g. fire-fighting, water treatment process water, mains flushing)
- × Any water losses relating to non-potable/Raw-PT water

Scheme X: # ML volume of water losses

Scheme Y: # ML volume of water losses

A text comment is required to describe:

- How the volume of water losses was estimated or determined.
- Add further comments if reporting a high volume of losses (e.g. above 20% of the volume produced) to outline the main causes (e.g. aging infrastructure, meter reading errors).

Units Megalitres (ML): as a whole number

Example 1

WSP B has only one meter at the outflow of the water treatment plant, which produced 1000ML for the financial year. Based on knowledge of its system (e.g. pipe types and age, maintenance records, customer mix, etc.), WSP B estimates that of the water produced (QG1.6a), 60% is for residential use (QG1.17a), 30% is for non-residential use (QG1.18a) and 10% is losses.

WSP B reports a volume of 100ML and comments 'Losses estimated based on 10% of the volume produced (QG1.6a)'.

Example 2

WSP A has an extensive metering network in the scheme, therefore has records of the volume of water sourced, produced (QG1.6a) and supplied (QG1.17a + QG1.18a). WSP A also has a process to reliably estimate the volume associated with real and apparent losses.

WSP A determines the volume of water losses to be 310ML and provides a comment 'Based on meter data', noting that a significant volume was associated with water treatment plant operations (estimated ~ 100ML)'.

QG 1.23: Volume of real and apparent water losses (S) (SWIM AS56)

Notes

1. Service providers should use the actual values, or estimates, (all losses, including real and apparent) determined for their own operations.
2. This is the sum of the SWIM indicators AS55 (apparent losses) and AS52 (real losses).
3. There are always some losses associated with the source and distribution of water and therefore OML is not an acceptable response.

QG 1.24: Estimated population receiving water supply services (S) (SWIM CS1)

The estimated population receiving water supply services from the service provider during the reporting year.

The reported population should account for all properties connected to the service provider's piped (reticulated) supply network.

The method used to estimate the reported population is at the discretion of the service provider, however, it should be statistically defensible and where possible make use of the best available data.

For many service providers, the Australian Bureau of Statistic's regional population data set will provide reliable estimates of population that can be used in a spatial analysis to estimate the resident population receiving drinking and non-drinking water supply services.

Includes:

- ✓ The estimated number of people in connected properties
- ✓ All scheme types

Scheme X: Estimate of population in connected properties (water supply)

Scheme Y: Estimate of population in connected properties (water supply)

Units: Population reported as a whole number

Notes

1. The tenants of a rented property are counted within the population estimate.
2. Please detail the method of population estimation in the comments field.
3. Estimated Resident Population (ERP) is the official estimate of the Australian population, which links people to a place of usual residence within Australia. More information about ERP and other population concepts is available in Information Paper: Population Concepts, Australia (cat. no. 3107.0.55.006).

QG 1.25: Volume of wastewater only treated to a primary level (S) (SWIM EN18)

The volume of wastewater only treated to a primary level by the service provider, during the reporting year in megalitres.

Primary wastewater treatments involve the treatment of wastewater by a physical and/or chemical process involving settlement of suspended solids, or other process in which the Biochemical Oxygen Demand of the incoming wastewater is reduced by at least 20% before discharge and the total suspended solids of the incoming wastewater are reduced by at least 50%.

Includes:

- ✓ Volume of sewerage treated to a maximum primary level

Excludes:

- × Wastewater receiving primary treatment that then goes on to receive secondary or tertiary treatment
- × Water treated multiple times due to onsite reuse

Scheme X: Volume of wastewater only treated to a primary level

Scheme Y: Volume of wastewater only treated to a primary level

Units Megalitres (ML): as a whole number

Notes

1. Additional information should be provided as comments, about the number of partial treatment days due to infrequent wet weather events.
2. Where bypasses were known to have occurred during treatment the service provider should provide their best estimate of the volume receiving this level of treatment.

QG 1.26: Volume of wastewater only treated to a secondary level (S) (SWIM EN19)

The volume of wastewater only treated to a secondary level by the service provider, during the reporting year in megalitres.

Secondary wastewater treatment are defined as post-primary processes that generally involve biological treatment with a secondary settlement or other process, resulting in a Biochemical Oxygen Demand removal of at least 70% and a Chemical Oxygen Demand removal of at least 75%. Natural biological treatment processes are also considered under secondary treatment if the constituents of the effluents from this type of treatment are similar to the conventional secondary treatment.

Includes:

- ✓ Volume of sewerage treated to a maximum secondary level

Excludes:

- × Wastewater receiving secondary treatment that then goes on to receive tertiary treatment
- × Water treated multiple times due to onsite reuse

Scheme X: Volume of wastewater only treated to a secondary level

Scheme Y: Volume of wastewater only treated to a secondary level

Units Megalitres (ML): as a whole number

Notes

1. Additional information should be provided as comments, about the number of partial treatment days due to infrequent wet weather events.
2. Where bypasses were known to have occurred during treatment the service provider should provide their best estimate of the volume receiving this level of treatment.

QG 1.27: Volume of wastewater only treated to a tertiary level (S) (SWIM EN20)

The volume of wastewater only treated to a tertiary level by the service provider, during the reporting year in megalitres.

Tertiary wastewater treatments involve treatment (additional to secondary treatment) of nitrogen and/or phosphorous and/or any other pollutant affecting the quality or specific use of water: microbiological pollution, colour etc.

The different possible treatment efficiencies ('organic pollution removal' of at least 95% for the five-day biochemical oxygen demand, 85% for chemical oxygen demand, 'nitrogen removal' of at least 70%, 'phosphorous removal' of at least 80% and microbiological removal') cannot be added and are exclusive.

Includes:

- ✓ Volume of sewerage treated to a maximum tertiary level

Excludes:

- × Water treated multiple times due to onsite reuse

Scheme X: Volume of wastewater only treated to a tertiary level

Scheme Y: Volume of wastewater only treated to a tertiary level

Units Megalitres (ML): as a whole number

Notes

1. Additional information should be provided as comments, about the number of partial treatment days due to infrequent wet weather events.
2. Where bypasses were known to have occurred during treatment the service provider should provide their best estimate of the volume receiving this level of treatment.

QG 1.28: Volume of wastewater collected (S) (SWIM WA18)

The total volume of wastewater collected by the service provider during the reporting year, from all sources including residential, non-residential, trade and non-trade.

Includes:

- ✓ All used residential and non-residential sewage disposed of through the wastewater systems
- ✓ Trade wastewater generated from any industry, business, trade, or manufacturing processes and can be collected via the sewerage network and/or vehicle transport

Excludes:

- × Transfers from other service providers, e.g., a utility-to-utility transfer

Scheme X: Volume of wastewater collected

Scheme Y: Volume of wastewater collected

Units Megalitres (ML): as a whole number

Notes

1. Additional information on methods for estimating volumes should be included in the comments if appropriate.

QG 1.29: Volume of drinking and non-drinking water exported to other service providers (S) (SWIM WA110)

Volume of drinking and non-drinking water, excluding recycled water, exported to other service providers during the reporting year.

Drinking and non-drinking water encompasses potable (meets drinking water standards), partially treated, and raw (untreated) water but excludes recycled water.

Includes:

- ✓ Billed and unbilled, metered and unmetered volumes
- ✓ Exported to other service providers, infrastructure operators, utilities including bulk water utilities and third-party infrastructure operators

Excludes:

- × Recycled water
- × Water exports to service providers operating infrastructure on behalf of the service provider e.g. BOOT schemes
- × Any potable and non-potable water exported 'internally', from one potable or raw-PT scheme to another

Scheme X: Volume of water exported to other service providers

Scheme Y: Volume of water exported to other service providers

Units Megalitres (ML): as a whole number

Notes

1. Additional information on methods for estimating non-metered volumes should be included in the comments.
2. Provide only the total volume of water exported and not the amount of water that an entity might have been entitled to receive.

QG 1.30: Volume of recycled water exported to other service providers (S) (SWIM WA15)

Volume of recycled water exported to other service providers during the reporting year.

Recycled water is water generated from sewage, greywater or stormwater systems and treated to a standard that is appropriate for its intended use.

Includes:

- ✓ Billed and unbilled, metered and unmetered volumes
- ✓ Water exports to service providers, infrastructure operators, utilities including bulk water utilities and third-party infrastructure operators

Excludes:

- × Water exports to service providers operating infrastructure on behalf of the service provider e.g. BOOT schemes
- × Any recycled sewage water exported 'internally', from one recycled scheme to another

Scheme X: Volume of water exported to other service providers

Scheme Y: Volume of water exported to other service providers

Units Megalitres (ML): as a whole number

Notes

1. Additional information on methods for estimating volumes should be included in the comments if appropriate.
2. Provide only the total volume of water exported and not the amount of water that an entity might have been entitled to receive.

QG 1.31: Volume of drinking and non-drinking water imported from other service providers (S) (SWIM WA158)

The volume of drinking and non-drinking water, excluding recycled water, imported (purchased or received) from other service providers during the reporting year.

Includes:

- ✓ All potable (meets drinking water standards), partially treated, and raw (untreated) water
- ✓ Bulk water purchases and imports from third-party infrastructure operators
- ✓ Unmetered import volumes
- ✓ Any water that is subsequently exported to another service provider

Excludes:

- × Recycled water
- × Imports from entities operating infrastructure on behalf of the service provider e.g. BOOT schemes
- × Any potable and non-potable water imported 'internally', from one potable or raw-PT scheme to another

Scheme X: Volume of water imported

Scheme Y: Volume of water imported

Units Megalitres (ML): as a whole number

Notes

1. Additional information on methods for estimating volumes should be included in the comments if appropriate.

QG 1.32: Volume of recycled water, imported from other service providers (S) (SWIM WA101)

The volume of recycled water, imported (purchased or received) from other service providers during the reporting year.

Includes:

- ✓ Recycled water, metered and unmetered import volumes
- ✓ Recycled water imports from third-party infrastructure operators
- ✓ Any recycled water that is subsequently exported to another service provider

Excludes:

- × Imports of potable, partially treated, and raw (untreated) water
- × Bulk water purchases (not recycled water)
- × Imports from entities operating infrastructure on behalf of the service provider e.g., BOOT schemes
- × Any recycled water imported 'internally', from one potable or raw-PT scheme to another

Scheme X: Volume of recycled water imported

Scheme Y: Volume of recycled water imported

Units Megalitres (ML): as a whole number

Notes

1. Additional information on methods for estimating volumes should be included in the comments if appropriate.

QG 1.33: Connected residential properties – recycled water supply (S) (SWIM CS68)

Number of recycled water connected residential properties that are:

- connected to the service provider's recycled water system.
- the subject of billing for recycled water supply - fixed and /or consumption based.
- any property which, at the end of the reporting period, is connected to the recycled water system and is separately billed for the water services - fixed and/or consumption based.

Includes:

- ✓ a connected, rateable residential property
- ✓ a connected, non-rateable residential property
- ✓ a connected but non-metered residential property

Excludes:

- × a rated but unconnected property (e.g. vacant lot)
- × body corporate
- × a non-real property or strata garages (e.g. a master meter for a block of separately metered strata title flats)

Scheme X: # of connected residential properties (recycled water supply)

Scheme Y: # of connected residential properties (recycled water supply)

Units Reported as a whole number

Notes

1. Properties are classified according to their main purpose.
2. The owner and tenant of a rented property are not counted as separate properties.
3. Properties with dual reticulation are counted as 1 property.
4. Where a service provider has 10% or fewer of its properties as strata title flats, it is acceptable to report each such block of flats as 1 property.

QG 1.34: Connected non-residential properties – recycled water supply (S) (SWIM CS69)**Number of recycled water connected non-residential properties that are:**

- connected to the service provider's recycled water system.
- the subject of billing for recycled water supply - fixed and /or consumption based.
- any property which, at the end of the reporting period, is connected to the recycled water system and is separately billed for the water services - fixed and/or consumption based.

Includes:

- ✓ a connected, rateable non-residential property
- ✓ a connected, non-rateable non-residential property
- ✓ a connected but non-metered non-residential property
- ✓ standpipes
- ✓ public facilities

Excludes:

- × a rated but unconnected non-residential property (e.g. vacant lot)
- × body corporate
- × a non-real property or strata garages (e.g. a master meter for a block of separately metered strata title flats)

Scheme X: # of connected non-residential properties (recycled water supply)

Scheme Y: # of connected non-residential properties (recycled water supply)

Units Reported as a whole number

Notes

1. Properties are classified according to their main purpose.
2. The owner and tenant of a rented property are not counted as separate properties.
3. Properties with dual reticulation are counted as 1 property.
4. Where a service provider has 10% or fewer of its properties as strata title flats, it is acceptable to report each such block of flats as 1 property.

QG 1.35: WA214)	Volume of drinking and non-drinking water supplied for own use (S) (SWIM
<p>The volume of drinking and non-drinking water, excluding recycled water, supplied by the service provider during the reporting year for its own use, where the water was supplied without a billing arrangement, in megalitres (ML). Own use is water used by the service provider, where the water is supplied without a billing arrangement.</p>	
Includes:	
<ul style="list-style-type: none"> ✓ treatment process water ✓ on-site use at treatment plants and other offices ✓ supply to parks, gardens recreational facilities ✓ municipal operations (e.g., dust suppression street cleaning) 	
Scheme X: Volume of water supplied for own use	
Scheme Y: Volume of water supplied for own use	
Units	Megalitres (ML): as a whole number
Notes	
<ol style="list-style-type: none"> 1. Metered volumes should be based on customer metering data and information on estimates should be included in the comments. 	

QG 1.36: Volume of recycled water supplied for own use (S) (SWIM WA219)

The volume of recycled water supplied by the service provider during the reporting year for its own use, where the water was supplied without a billing arrangement, in megalitres (ML). Own use is water used by the service provider, where the water is supplied without a billing arrangement.

Includes:

- ✓ treatment process water
- ✓ on-site use at treatment plants and other offices
- ✓ supply to parks, gardens recreational facilities
- ✓ municipal operations (e.g., dust suppression street cleaning)
- ✓ potable water used to top-up the recycled water system
- ✓ recycled water derived from sewer mining

Scheme X: Volume of water supplied for own use

Scheme Y: Volume of water supplied for own use

Units Megalitres (ML): as a whole number

Notes

1. Metered volumes should be based on customer metering data and information on estimates should be included in the comments.

QG 1.37: Volume of water returned to surface water or groundwater from water supply system (S) (SWIM WA197)

The total metered and estimated unmetered volume of potable and non-potable water returned by the utility to surface water or groundwater from the urban supply system during the reporting year.

Includes:

- ✓ water that has been subjected to treatment for use and subsequently returned to surface water or groundwater
- ✓ raw water
- ✓ water supplied to managed aquifer recharge
- ✓ water received from other service providers
- ✓ environmental releases made from the potable supply system, i.e. after treatment - releases from the potable supply system

Excludes

- × any volumes of recycled water (i.e. sourced from sewage or stormwater)
- × any untreated environmental flow releases (outside the urban water supply system)

Scheme X: Volume of water returned to surface or ground water

Scheme Y: Volume of water returned to surface or ground water

Units Megalitres (ML): as a whole number

Notes

1. Information on any estimated / unmetered volumes should be included in the comments.
2. Any after treatment releases from the potable supply system should also be noted in the comments.

Series 2 – Water security

Series 2 'Water Security' QG KPIs collectively are aimed at enabling a service provider to outline the security situation of the water supply system over the next 18 months and out to 5 years. These KPIs provide information about the water security, resilience and level of water planning undertaken for the scheme.

The examples shown for each QG KPI are provided for service providers' information and/or consideration only. They are often simplified and are not meant to be exhaustive or prescriptive. The methodology and approach used by each service provider should be determined by the service provider based on a range of issues including the characteristics of the supply systems, the available information (including historical conditions and system behaviour) and available tools.

Service providers are encouraged to provide information regarding details of the supply system, assumptions and methodology in the comments field to assist understanding. Where a text response is mandated for a QG KPI, the absence of an accompanying text explanation will be considered to be a non-compliant response.

QG 2.3: Contingency supplies (S) (SWIM WS3)**Description of the available and/or planned contingency supplies.**

The description should include, but not be limited to:

- ✓ the nature of the contingency supply source/s
- ✓ the capacity of the contingency supply source/s
- ✓ the expected time taken to implement the contingency supply
- ✓ any other information

Scheme X: yes/no

Scheme Y: yes/no.

A text comment is required:

If yes, a comment is required to provide details about the contingency supply/supplies, which should include the expected capacity of the contingency supply, the nature of the contingency supply source/s and the expected time that it will take to make the contingency supply available, including consideration of planning and necessary approvals.

If no, a comment is required to explain why it is appropriate for the water scheme to have no contingency supply available.

Units yes/no

Example 1

WSP B has not identified suitable contingency supplies.

WSP B reports 'no' and comments 'process to identify contingency underway and expected to be completed by June 2025.'

Example 2

WSP C's supply occasionally drops below 6 months prior to the wet season and this has already prompted the Council to commence construction of a 50kL/day pipeline to a nearby town with a more secure supply source.

WSP C reports 'yes' and comments 'Pipeline project to be completed in December 2025, with sufficient capacity (50kL/day) for contingency supplies. Have purchased additional water allocation'.

Example 3

WSP E has not identified any viable local alternative supply sources, so WSP E has an arrangement to cart water from a neighbouring provider in the event of a water supply threat.

WSP E reports 'yes' and comments 'Cart water every 3 days from Town X to supply restricted demand. Carting can be commenced within 2 days.'

Example 4

WSP F has not identified a contingency supply.

WSP F reports 'no' and comments 'the water supply system has always been historically reliable due to its nature and the high levels of rainfalls in the catchment. The water supply available largely exceeds demands of the community. Therefore a contingency supply is currently not considered necessary.'

Note

1. If a contingency supply has not been identified 'no' should be reported.
2. Refer to definitions of contingency supply and emergency supply provided in the 'commonly used terms' section.

QG 2.10 (a to f): Water restrictions (S) (SWIM WS11 to WS16)

The number of days in the year when water restrictions were applied for each level of restrictions, including permanent water conservation measures (PWCM) within each scheme.

Scheme X: PWCM – ## days; L1 - ## days; L2 – ## days; L3 – ## days; L4 – ## days; L5 – ## days;

Scheme Y: PWCM – ## days; L1 - ## days; L2 – ## days; L3 – ## days; L4 – ## days; L5 – ## days;

Units Days: as a whole number

Example 1

WSP C has five levels of water restrictions, including Permanent Water Conservation Measures (which are Level 1) and levels 2 to 5 are increasing in severity. Level 2 water restrictions were in place from February for three months and Level 3 were in place from May.

WSP C reports:

QG2.10a - PWCM: 215

QG2.10b - Level 1: NR

QG2.10c - Level 2: 89

QG2.10d - Level 3: 61

QG2.10e - Level 4: 0

QG2.10f - Level 5: 0

WSP C provides comments against QG2.10b 'PWCM is termed Level 1'.

Example 2

WSP E has four levels of water restrictions (no PWCM or level 5). Level 2 restrictions were in place for 4 months and level 3 restrictions were in place for 2 months during the previous financial year.

WSP E reports:

QG2.10a - PWCM: NR

QG2.10b - Level 1: 0

QG2.10c - Level 2: 122

QG2.10d - Level 3: 61

QG2.10e - Level 4: 0

QG2.10f - Level 5: NR

Example 3

WSP F had no restriction regime in place during the reporting period.

WSP F reports:

QG2.10a - PWCM: NR

QG2.10b - Level 1: NR

QG2.10c - Level 2: NR

QG2.10d - Level 3: NR

QG2.10e - Level 4: NR

QG2.10f - Level 5: NR

QG 2.10 (a to f): Water restrictions (S) (SWIM WS11 to WS16)**Note**

1. If you have a water restriction level but no water restrictions were implemented at that level during the reporting financial year, report '0' for that scheme.
2. If you do not have a particular water restriction level (e.g. no level 5 restriction category), report 'NR' for that level.
3. If you have more than five levels of water restriction, please comment stating the restriction level and the number of days spent at that level (even if 0 days). E.g. 'Level 6 – 30 days'.

QG 2.11 (a to e): Water supply planning (S) (SWIM WS17 to WS21)

Provide an overview of the status of water supply planning for the scheme.

Response to these indicators outlines the extent of water supply planning undertaken by the service provider for a scheme. It should be reported as yes/no for each sub-question. If reported 'no', a comment is required (and is mandatory) explaining why this is justified or when it is intended to complete the planning.

2.11a: Has asset management planning been undertaken in the last 10 years?

2.11b: Has drought management planning been undertaken in the last 10 years?

2.11c: Has water demand forecasts for the scheme been developed or reviewed in the last five (5) years?

2.11d: Has an assessment of key capacity constraints of the water infrastructure (e.g. in the source, treatment and/or distribution) been undertaken in last 10 years?

2.11e: Has the timing for potential future supply augmentation been assessed in the last 10 years?

Scheme X: yes/no. If reported no, please add a comment

Scheme Y: yes/no. If reported no, please add a comment

Units yes/no

Example 1

WSP B has a simple asset management plan and a drought management plan that were both developed 4 years ago. At the time of development, a simple demand projection was made based on the average water use and the Queensland Government Statistician Office population projections.

The drought management plan identifies possible contingency options when water levels drop to critical levels in the main storage. However, WSP B has not fully investigated the contingency supplies. WSP B is about to commence a test drilling program to verify and assess additional groundwater sources as contingency supplies. It is also investigating alternative water supply options for both 'usual' and contingency use. WSP B is currently conducting a 'pinch point' assessment to find the bottlenecks in its infrastructure.

WSP B reports:

2.11a: yes

2.11b: yes

2.11c: yes

2.11d: no and comments 'Process underway. Expected completion in 6 months'

2.11e: no and comments 'Will be undertaken following completion of pinch point assessments'

Example 2

WSP C has asset management plans that are reviewed every 5 years. No planning activities relating to water infrastructure capacity and no supply planning have been undertaken in the last 10 years (a drought management plan was prepared 12 years ago, which included a restrictions framework). Recent demand management has not been as successful as anticipated and so WSP C is currently reviewing the restriction framework and the drought management plan. The community that WSP C provides water to has had little to no growth (<1% p.a.) population growth over the last 10 years; this population trend is expected to continue in the future.

WSP C reports:

QG 2.11 (a to e): Water supply planning (S) (SWIM WS17 to WS21)

2.11a: yes

2.11b: no (as it was reviewed more than 10 years ago) and comments: 'We are currently updating the drought response plan'

2.11c: no and comments: 'Population relatively stable, so little change in water demand expected'.

2.11d: no and comments: 'Current asset capability is being maintained, and is adequate to meet demand, there is no need to understand bottlenecks in detail'

2.11e: no and comments: 'This will be revisited when population starts to grow'

Notes

1. Asset management planning describes the approach to monitoring asset condition and maintaining the capability of assets to provide water services to the agreed customer service standards.
2. Drought management planning identifies supply and/or demand options to respond to drought in order to reduce the risk of a water supply shortfall. It includes, but is not limited to, consideration of demand management measures (e.g. a restrictions schedule), contingency and/or emergency water supply options and triggers for initiating these. Drought management planning may involve the development of new, or review of existing, documentation.
3. Water demand forecasting includes, but is not limited to, consideration of population growth, historical water consumption on a per capita basis and potential changes to non-residential water demand. The forecast period should be for a minimum of 10 years.
4. Key capacity constraints in water infrastructure are the identified limitations or 'bottlenecks' in the source, treatment and transport (distribution) infrastructure. These will physically limit the ability to deliver increased volumes of water in the future without additional expenditure or changes in operating practice.
5. Assessment of likely timing for supply augmentations includes, but is not limited to, consideration of the water supply and demand balance. A water supply and demand balance compare reliable water supply source availability and critical infrastructure capacity constraints with projected water demands.
6. All these planning activities are expected to include some form of documentation.
7. Refer to the definition of 'commonly used terms' at the start of this guide, as required.

QG 2.12: Months of available supply (S) (SWIM WS22)

The months of accessible supply estimated to be available for the water supply scheme.

To assess the months of accessible supply for the scheme, include considerations of:

- ✓ the volume of water that is accessible from all sources
- ✓ available contingency supply
- ✓ anticipated demands including planned demand management measures, such as water restrictions that are likely to be implemented
- ✓ historical behaviour of the supply
- ✓ assumed inflow/streamflow/recharge based on Bureau of Meteorology (BOM) climate projections
- ✓ any relevant operational constraints (limitations of any infrastructure that is needed to access, treat and deliver the water)
- ✓ other water users of the resource

Response to this indicator is chosen from 6 timeframes.

Scheme X: # choice from 6 timeframes

Scheme Y: # choice from 6 timeframes

Units: choice from 6 timeframes:

1. 0-3 months of available supply
2. 4-6 months of available supply
3. 7-12 months of available supply
4. 13-18 months of available supply
5. 19-59 months of available supply
6. 60 months or greater of available supply

Where available contingency supply is combined to estimate months of available supply, comments must be included to state that the estimate is based on available contingency supply.

Example 1

WSP A holds a water allocation of 5,000 ML/annum of 'High Priority' (HP) water in a dam, and services a current demand of around 4,000 ML/annum. WSP A also has a bore for use as a contingency, but the associated infrastructure requires repairs. The bore is therefore not considered 'available' and not accounted for to estimate the months of available supply. Based on the current useable volume in storage, projected inflows based on climate projections, the historical performance of the dam, assumed storage losses, the current announced allocation and projected urban water demand (including water restrictions assumed to be implemented as storage levels further decline), WSP A estimate there is around 30 months of available supply as at 30 June. WSP A reports '5' (19-59 months of available supply).

Example 2

WSP B relies on bores that have met town water supply requirements under most conditions. However, in the past few years falling bore levels due to poor recharge events have been recorded.

Based on the current bore level, the historical performance of the supply, the Bureau of Meteorology climate projections and estimated restricted demands, WSP B estimates 10 months to supply shortfall.

WSP B reports '3' (7-12 months of available supply).

QG 2.12: Months of available supply (S) (SWIM WS22)**Example 3**

WSP C has access to 8,600 kL of water stored in an in-stream storage/pumping pool.

Anticipated demand is 1,750 kL per month.

Based on this rate of demand, current volume of water in the storage, the historical performance of the supply, assumed storage losses and the Bureau of Meteorology climate projections, WSP C estimates there is around 18 weeks of available supply.

WSP C reports '2' (4-6 months of available supply).

Example 4

WSP D sources water from a small bore and desalinated marine water. The water sourced from the bore is estimated to meet the community's current unrestricted demand for 3 months. The marine desalination plant is sized sufficiently to meet the community's projected restricted water demands over the next 5 years.

When reporting WSP D considers both sources of water and reports '6' (60 months or greater of available supply) and adds comment 'Based on assumed contingency desalination supply'.

Example 5

WSP E sources water from run of river flows (i.e. no storage), has inline treatment, to then provide water supplies to its community.

Based on the current water levels at the intake, the historical performance of the supply, the Bureau of Meteorology climate projections and continued low water use, WSP E consider they will be able to meet demand over the next few years.

WSP E reports '5' (19-59 months available supply).

Example 6

WSP F sources water from a small weir to supply a community of about 2000 people. During extended drought conditions the weir often drops to low levels but has never failed. WSP F has an agreement with a nearby town (with a highly reliable supply) to cart water (i.e. an available contingency supply). When reporting, WSP F considers both its 'normal' supply and its contingency supply and reports '6' (60+ months of available supply).

Notes

1. Available contingency supply is contingency supply that will be accessible when required.
2. Where water is solely supplied from the Great Artesian Basin, then '6', i.e. 60 months or greater, should be reported unless there are other known constraints.
3. Where water is solely supplied from groundwater then the best estimate of months of available supply should be reported based on the bore level and consideration of the safe yield.
4. Where seawater or brackish water is sourced from a marine environment, then '6', i.e. 60 months or greater, should be reported unless there are infrastructure constraints that may limit the meeting of water demand.

Service providers may be requested to submit further information on available supply to meet demand by the Water Supply Regulation.

QG 2.12a Months of available supply without contingency supply (S) (SWIM WS27)

The months of non-contingency accessible supply estimated to be available for the water supply scheme.

To assess the months of accessible supply for the scheme, include considerations of:

- ✓ the volume of water that is accessible from all sources except contingency supplies
- ✓ anticipated demands including planned demand management measures, such as water restrictions that are likely to be implemented
- ✓ historical behaviour of the supply
- ✓ assumed inflow/streamflow/recharge based on Bureau of Meteorology (BOM) climate projections
- ✓ any relevant operational constraints (limitations of any infrastructure that is needed to access, treat and deliver the water)
- ✓ other water users of the resource

Excludes:

- × available contingency supply

Response to this indicator is chosen from 6 timeframes.

Scheme X: # choice from 6 timeframes

Scheme Y: # choice from 6 timeframes

Units: choice from 6 timeframes:

1. 0-3 months of available supply
2. 4-6 months of available supply
3. 7-12 months of available supply
4. 13-18 months of available supply
5. 19-59 months of available supply
6. 60 months or greater of available supply

Do not include contingency supply. Detailed comments indicating how the months of supply has been estimated should be included.

Example 1

WSP A holds a water allocation of 5,000 ML/annum of 'High Priority' (HP) water in a dam, and services a current demand of around 4,000 ML/annum. WSP A also has a bore for use as a contingency and is therefore not accounted for to estimate the months of available supply. Based on the current useable volume in storage, projected inflows based on climate projections, the historical performance of the dam, assumed storage losses, the current announced allocation and projected urban water demand (including water restrictions assumed to be implemented as storage levels further decline), WSP A estimate there is around 30 months of available supply as at 30 June. WSP A reports '5' (19-59 months of available supply).

Example 2

WSP B relies on bores that have met town water supply requirements under most conditions. However, in the past few years falling bore levels due to poor recharge events have been recorded. Based on the current bore level, the historical performance of the supply, the Bureau of Meteorology climate projections and estimated restricted demands, WSP B estimates 10 months to supply shortfall.

QG 2.12a Months of available supply without contingency supply (S) (SWIM WS27)

WSP B reports '3' (7-12 months of available supply).

Example 3

WSP C has access to 8,600 kL of water stored in an in-stream storage/pumping pool.

Anticipated demand is 1,750 kL per month.

Based on this rate of demand, current volume of water in the storage, the historical performance of the supply, assumed storage losses and the Bureau of Meteorology climate projections, WSP C estimates there is around 18 weeks of available supply.

WSP C reports '2' (4-6 months of available supply).

Example 4

WSP D sources water from a small bore and desalinated marine water. The water sourced from the bore is estimated to meet the community's current unrestricted demand for 3 months. The marine desalination plant is sized sufficiently to meet the community's projected restricted water demands over the next 5 years.

When reporting WSP D considers both sources of water and reports '6' (60 months or greater of available supply) and adds comment 'Based on assumed contingency desalination supply'.

Example 5

WSP E sources water from run of river flows (i.e. no storage), has inline treatment, to then provide water supplies to its community.

Based on the current water levels at the intake, the historical performance of the supply, the Bureau of Meteorology climate projections and continued low water use, WSP E consider they will be able to meet demand over the next few years.

WSP E reports '5' (19-59 months available supply).

Example 6

WSP F sources water from a small weir to supply a community of about 2000 people. During extended drought conditions the weir often drops to low levels but has never failed. WSP F has an agreement with a nearby town (with a highly reliable supply) to cart water (i.e. an available contingency supply). When reporting, WSP F considers only its 'normal' supply and reports '6' (60+ months of available supply).

Notes

1. Where water is solely supplied from the Great Artesian Basin, then '6', i.e. 60 months or greater, should be reported unless there are other known constraints.
2. Where water is solely supplied from groundwater then the best estimate of months of available supply should be reported based on the bore level and consideration of the safe yield.
3. Where seawater or brackish water is sourced from a marine environment, then '6', i.e. 60 months or greater, should be reported unless there are infrastructure constraints that may limit the meeting of water demand.

Service providers may be requested to submit further information on available supply to meet demand by the Water Supply Regulation.

QG 2.13: Confidence that water demands will be met over the next 18 months (S) (SWIM WS23)

A service provider's level of confidence that the water demand for the scheme can be reliably met over the next 18 months.

Response to this indicator should include consideration of:

- ✓ assumed inflow/streamflow/recharge based on Bureau of Meteorology (BOM) climate projections
- ✓ anticipated demand, including planned demand management measures such as water restrictions
- ✓ available contingency

Scheme X: Confidence level descriptor

Scheme Y: Confidence level descriptor

Where there is uncertainty or a low or very low level of confidence, comments must be provided summarising actions being/to be taken.

Response choice:

Confidence level that water supply will reliably meet the water demands of the scheme for the next 18 months.

Confidence level	Definition	Guidance
High	There is a high level of confidence that the community's water demands can be reliably met over the next 18 months.	There is a good understanding of the reliability of the water supply (including historical performance) and of the community's likely water demands. There is considered to be adequate available supply, including reliable contingency supply, to meet the community's water demands.
Fair	There is a fair level of confidence that the community's water demands can be reliably met over the next 18 months.	There is a sound understanding of the reliability of the water supply (including historical performance) and of the community's likely water demands. There is considered to be adequate available supply, including identified contingency supply, to meet the community's water demands.
Unsure	There is uncertainty that the community's water demand can be reliably met for the next 18 months.	There is uncertainty in either the future water demand or supply reliability (including the reliability and/or availability of the contingency supply). This may be due to a lack of reliable data, a lack of analyses and planning or other reasons.
Low	There is a low level of confidence that the community's water demand can be reliably met over the next 18 months.	There may be a supply shortfall over the next 18 months, based on demand management options and contingency supply options i.e. there is a low level of confidence in the supply reliability. OR Supply augmentation has commenced, but construction may not be completed in time. OR There is a lack of reliable data on historical performance or high degree of uncertainty in the volume of inflows/recharge/stream flow.

QG 2.13: WS23)	Confidence that water demands will be met over the next 18 months (S) (SWIM)	
Very low	There is a very low level of confidence that the community's water demand can be reliably met over the next 18 months.	Planning shows that a supply shortfall is likely over the next 18 months, considering demand management options and contingency supply options, i.e. very low confidence in supply reliability or there is insufficient supply to meet projected demands. OR Adequate funds or resources have not been secured to augment the water supply as needed over the next 18 months.
<p>Example 1</p> <p>WSP A has undertaken an indicative water balance and considers a worst case scenario of around 30 months supply remaining, based on no inflows (as BOM has predicted the dry spell to continue for at least the next season) and planned demand management measures including restrictions and continued use of recycled water.</p> <p>WSP A reports 'High' and comments 'Good understanding of supply'.</p>		
<p>Example 2</p> <p>WSP B relies on bores that have historically met town water supply requirements. However, in the past few years falling bore levels due to poor recharge events have been recorded. Also, the Bureau of Meteorology is predicting that dry climate conditions will continue for at least the next season. WSP B has not fully investigated contingency supplies.</p> <p>WSP B reports 'Low' and provides in the comments 'Poor recharge events have led to low groundwater levels. Contingency not yet determined'.</p>		
<p>Example 3</p> <p>WSP C has access to an in-stream pumping pool. Climate projections indicate that there is only a 30% chance of exceeding median rainfall in the next season. Recent demand management has not been as successful as anticipated. If demand does not come down to target levels current supplies may last less than 18 months. A pipeline to provide a contingency supply is currently being constructed and is planned to be completed within 12 months.</p> <p>WSP C reports 'Unsure' and comments "Dry conditions projected. Uncertain of effectiveness of future restrictions. Pipeline currently being constructed as contingency measure'.</p>		
<p>Example 4</p> <p>WSP E relies on run of river flows (i.e. no storage). Historically this system has been able to meet demands and when it hasn't, water has been carted from a neighbouring provider as pre-arranged.</p> <p>Bureau of Meteorology climate projections indicate average inflows are likely to occur in the next season.</p> <p>WSP E reports 'Fair' and comments 'Assuming average river flows'.</p>		

QG 2.14: Confidence that water demands will be met over the next 5 years (S) (SWIM WS24)

The service provider's level of confidence that the water demand for the scheme can be reliably met over the next 5 years.

Response to this indicator should include consideration of:

- ✓ assumed inflow/streamflow/recharge based on history and with regard to the Bureau of Meteorology (BOM) climate projections
- ✓ projected population estimated by the Queensland Government Statistician's Office (QGSO)
- ✓ anticipated demand, including planned demand management measures such as water restrictions
- ✓ any relevant future water infrastructure planned to be constructed

Scheme X: Confidence level descriptor

Scheme Y: Confidence level descriptor

Where there is uncertainty or a low or very low level of confidence in being able to meet the demands over the next 5 years, comments must be provided to detail actions being taken or planned to be taken.

Response choice:

Confidence level that water supply will reliably meet the water demands of the scheme's community over the next 5 years.

Confidence level	Definition	Guidance
High	There is a high level of confidence that we can reliably meet the community's water demands for the next 5 years.	There is a good understanding of the water supply (including historical performance and confidence in the volume of assumed inflows/recharge/stream flow) and of future water demands. There is considered to be adequate available supply, including reliable contingency supply.
Fair	We have a fair level of confidence that we can reliably meet the community's water demands for the next 5 years.	There is a sound understanding of the water supply (including historical performance, confidence in the volume of assumed inflows/recharge/stream flow) and of future water demands. There is considered to be adequate available supply including identified contingency supply.
Unsure	We are unsure if we can reliably meet the community's water demand for the next 5 years.	There is uncertainty in either the demand projections or supply reliability including the reliability and/or availability of the contingency supply due to a lack of reliable data / a lack of analyses and planning / other reasons.
Low	We have a low level of confidence that we can reliably meet the community's water demand for the next 5 years.	There may be a supply shortfall over the next 5 years, based on demand management options and contingency supply options, i.e. there is a low level of confidence in the supply reliability. OR Planning for supply augmentation has commenced but construction may not be completed in time

QG 2.14: Confidence that water demands will be met over the next 5 years (S) (SWIM WS24)

Very low	<p>We have a very low level of confidence that we can reliably meet the community's water demand for the next 5 years.</p> <p>Example 1 WSP A holds a water allocation of 5,000 ML/annum of High Priority water from a dam, and services a current demand of around 4,000 ML/annum. The demand is expected to increase about 1% per year. The dam historically has a high performance, with few occurrences of falling to low storage levels. WSP A also has a bore for use as a contingency, but the associated infrastructure requires repairs. The bore will be repaired within the next 2-3 years. WSP A reports 'High' and comments 'Good understanding of supply, some uncertainty regarding contingency bore'.</p> <p>Example 2 WSP B relies on bores that have met town water supply requirements historically. However, in the past few years falling bore levels due to poor recharge events have been recorded (not seeming to be correlated to weather patterns). WSP B has not fully investigated the contingency supplies. WSP B reports 'Low' and provides in the comments 'Poor recharge events have led to low groundwater levels. Contingency not yet determined'.</p> <p>Example 3 WSP C has access to an in-stream pumping pool. Recent demand management has not been as successful as anticipated. A pipeline from a reliable source is currently being constructed to enable supply of restricted demand (for the next 10-15 years). The pipeline is expected to be completed within 12 months. A review of demand management is to be undertaken in consultation with the community over the next 1-2 years. WSP C reports 'Fair' and comments 'Assuming pipeline able to supply restricted demand. Review of demand management to be done'.</p> <p>Example 4 WSP E relies on run of river flows. Historically this system has been able to meet demands. The water demands of the community are expected to only slightly increase over the coming 5 years. WSP E has an arrangement to cart water from a neighbouring provider (with an independent supply). The long-term reliability of this neighbouring supply is unclear. WSP E reports 'Unsure' and comments 'Climate dependent supply'.</p>	<p>Planning indicates that supply shortfall is likely over the next 5 years, considering demand management options and contingency supply options, i.e. very low confidence in supply reliability or there is insufficient supply to meet projected demands.</p> <p>OR</p> <p>No/limited planning is in place and/or adequate funds or resources have not been secured to undertake necessary works.</p>
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Series 3 – Finance

Series 3 'Finance' includes QG KPIs in relation to capital expenditure, grants, replacement costs, revenue, operation and maintenance cost, depreciation and renewal expenditure for both water and sewerage services. Service providers are to report on all QG KPIs at service-wide level.

QG 3.1: Total water supply capital expenditure (W) (SWIM FN14)

The actual capital expenditure on water supply for the reporting financial year.

Includes:

- ✓ new works
- ✓ renewals or replacements
- ✓ work in progress expenditure that is expected to be capitalised
- ✓ other expenditure that would otherwise be referred to as capital
- ✓ recycling water assets (see definition of recycled water)
- ✓ plant and equipment

water supply capital expenditure (\$'000s)

Units Thousands of dollars (\$'000s): to nearest \$'000

Example

Service provider spent \$32,420 on water supply capital expenditure.

The service provider reports 32.

QG 3.2: Total sewerage capital expenditure (W) (SWIM FN15)

The actual capital expenditure on sewerage services for the reporting financial year.

Includes:

- ✓ new works
- ✓ renewals or replacements
- ✓ work in progress expenditure that is expected to be capitalised
- ✓ other expenditure that would otherwise be referred to as capital
- ✓ plant and equipment

Excludes:

- × recycling water assets (see definition of recycled water)

sewerage capital expenditure (\$'000s)

Units Thousands of dollars (\$'000s): to nearest \$'000

Example

Service provider spent \$32,420 on sewerage capital expenditure.

The service provider reports 32.

QG 3.3: Capital works grants – water (W) (SWIM FN26)

Total capital works grants funds received within the reported financial year from governments for water specific capital works.

Includes:

- ✓ grants for water recycling

capital works grants – water (\$'000s)

Units Thousands of dollars (\$'000s): to nearest \$'000

Example

A service provider receives a grant of \$1 million for a water treatment plant upgrade.

The service provider reports 1,000.

QG 3.4: Capital works grants – sewerage (W) (SWIM FN27)

Total capital works grants funds received within the reported financial year from governments for sewerage specific capital works.

Excludes:

× grants for water recycling (included in QG 3.3)

capital works grants – sewerage (\$'000s)

Units Thousands of dollars (\$'000s): to nearest \$'000

**QG 3.5: Nominal written-down replacement cost of fixed water supply assets (W)
(SWIM FN9)**

The current cost of replacing fixed water supply assets with modern equivalent assets that would deliver the same service potential (capacity), written down by the accumulated depreciation since the asset was installed plus any residual value.

Includes:

- ✓ fixed recycled water assets

nominal written-down replacement cost of fixed water supply assets (\$'000s)

Units Thousands of dollars (\$'000s): to nearest \$'000

Notes

1. Nominal written-down replacement costs of fixed water supply assets should be estimated for 30 June i.e. the last day of the year for the annual financial reporting period.
2. Local council service providers should use the figure reported in their Annual Financial Report, whether or not it is audited data.

QG 3.6: Nominal written-down replacement costs of fixed sewerage assets (W) (SWIM FN10)

The current cost of replacing of fixed sewerage assets with the modern equivalent assets that would deliver the same service potential (capacity), written down by the accumulated depreciation since the asset was installed plus any residual value.

Excludes:

- × fixed recycled water assets

nominal written-down replacement cost of fixed sewerage assets (\$'000s)

Units Thousands of dollars (\$'000s): to nearest \$'000

Note

1. Nominal written-down replacement costs of fixed sewerage assets should be estimated for 30 June i.e. the last day of the year for the annual financial reporting period.

QG 3.7: Current replacement costs of fixed water supply assets (W) (SWIM FN74)

The lowest it would cost to replace the existing water assets with new (i.e. not second hand), modern equivalent assets.

Includes:

- ✓ work in progress expenditure that is expected to be capitalised
- ✓ replacement of water recycling assets

current replacement costs of fixed water supply assets (\$'000s)

Units Thousands of dollars (\$'000s): to nearest \$'000

Note

1. Current replacement costs of fixed water supply assets should be estimated for 30 June i.e. the last day of the year for the annual report.

QG 3.8: Current replacement costs of fixed sewerage assets (W) (SWIM FN75)

The lowest it would cost to replace the existing sewerage assets with new (i.e. not second hand), modern equivalent assets.

Includes:

- ✓ work in progress expenditure that is expected to be capitalised

Excludes:

- × replacement of water recycling assets

current replacement costs of fixed sewerage assets (\$'000s)

Units Thousands of dollars (\$'000s): to nearest \$'000

Note

1. Current replacement costs of fixed sewerage assets should be estimated for 30 June i.e. the last day of the year for the annual report.

QG 3.9: Total revenue – water (W) (SWIM FN1)**Total revenue from water services.**

Includes (but not limited to):

- ✓ revenue from pay-for-use and base-rate charges for provision of water (including recycled water) to residential and non-residential customers
- ✓ special levies
- ✓ all contributed cash and assets (otherwise known as gifted assets, developer charges or headworks contributions)
- ✓ receipts from governments for specific agreed services (e.g. community service obligations)
- ✓ other revenue from operations which would otherwise be included
- ✓ revenue from bulk water sales (for those businesses that supply bulk water)

Excludes:

- × funds received for specific capital works from governments or other parties
- × equity contributions from governments
- × investment activities
- × non-core service provider activities (e.g. consulting, agriculture, property leases)
- × income from net asset sales

total revenue – water (\$'000s)

Units Thousands of dollars (\$'000s): to nearest \$'000

Note

1. Exclusions include possible and material revenues. In assessing materiality, refer to AASB 1031.

QG 3.10: Total revenue – sewerage (W) (SWIM FN2)

Total revenue from sewerage services.

Includes (but not limited to):

- ✓ revenue from pay-for-use and base-rate charges for provision of sewerage services to residential and non-residential customers
- ✓ special levies
- ✓ all contributed cash and assets (otherwise known as gifted assets, developer charges or headworks contributions)
- ✓ receipts from governments for specific agreed services (e.g. community service obligations)
- ✓ other revenue from operations which would otherwise be included

Excludes:

- × funds received for specific capital works from governments or other parties
- × equity contributions from governments
- × investment activities
- × non-core service provider activities (e.g. consulting, agriculture, property leases)
- × income from net asset sales

total revenue – sewerage (\$'000s)

Units Thousands of dollars (\$'000s): to nearest \$'000

Note

1. Exclusions include possible and material revenues. In assessing materiality, refer to AASB 1031.

QG 3.11a: Operating cost – water (W) (SWIM FN32)

The operating costs (operation, maintenance, administration) of a service provider.

Includes:

- ✓ water resource access charge or resource rent tax
- ✓ purchases of raw, treated or recycled water
- ✓ salaries and wages including proportion of salaries and wages for FTEs shared across local governments as detailed in QG 1.20.
- ✓ overheads on salaries and wages including proportion of overheads on salaries and wages for FTEs shared across local governments as detailed in QG 1.20
- ✓ materials, chemicals and energy used
- ✓ contracts
- ✓ accommodation
- ✓ all other operating costs that would normally be reported
- ✓ items expensed from work in progress (capitalised expense items) and pensioner remission expenses (CSOs) (CSOs are likely to have an equivalent inclusion in revenue)
- ✓ competitive neutrality adjustments, which include but are not limited to land tax, debits tax, stamp duties and council rates
- ✓ indirect costs apportioned to water services

Excludes:

- × depreciation
- × any write-downs of assets to recoverable amounts
- × write-offs, retired or scrapped assets
- × the written-down value of assets sold
- × interest

operating cost – water (\$'000s)

Units Thousands of dollars (\$'000): to nearest \$'000

Notes

1. Possible or material operating costs are to be included. Materiality as per accounting standards.
2. The write-offs could be equated to accelerated depreciation and therefore should be included within current cost depreciation.
3. Costs associated with BOOT schemes should be reported according to accounting standards. All infrastructure should be treated as if owned and operated by the service provider. For more information on BOOT schemes, please refer to the NPR handbook.
4. In apportioning indirect costs between water and sewerage services, the business should apply a consistent methodology for all financial years and can note the methodology as a comment for the indicator.

QG 3.12a: Operating cost – sewerage (W) (SWIM FN33)

The sewerage operating costs (operation, maintenance, administration) of a service provider.

Includes:

- ✓ charges for bulk treatment/transfer of sewage
- ✓ salaries and wages including proportion of salaries and wages for FTEs shared across local governments as detailed in QG 1.20
- ✓ overheads on salaries and wages including proportion of overheads on salaries and wages for FTEs shared across local governments as detailed in QG 1.20
- ✓ materials, chemicals and energy used
- ✓ contracts
- ✓ accommodation
- ✓ all other operating costs that would normally be reported
- ✓ items expensed from work in progress (capitalised expense items) and pensioner remission expenses (CSOs) (CSOs are likely to have an equivalent inclusion in revenue.)
- ✓ competitive neutrality adjustments, which include but are not limited to land tax, debits tax, stamp duties and council rates
- ✓ indirect costs apportioned to sewerage services

Excludes:

- × depreciation
- × any write-downs of assets to recoverable amounts
- × write-offs, retired or scrapped assets
- × the written-down value of assets sold
- × interest

operating cost – sewerage (\$'000s)

Units Thousands of dollars (\$'000): to nearest \$'000

Notes

1. Possible or material operating costs are to be included. Materiality as per accounting standards.
2. The write-offs could be equated to accelerated depreciation and therefore should be included within current cost depreciation.
3. Costs associated with BOOT schemes should be reported according to accounting standards. All infrastructure should be treated as if owned and operated by the service provider.
4. In apportioning indirect costs between water and sewerage services, the business should apply a consistent methodology for all financial years and can note the methodology as a comment for the indicator.

QG 3.13: Annual maintenance costs – water (W) (SWIM FN76)

As a component of (QG 3.11a), report on the maintenance costs only.

Includes:

- ✓ all costs as specified in QG 3.11a relating to routine, operational and preventative maintenance

annual maintenance costs – water (\$'000s)

Units Thousands of dollars (\$'000s): to nearest \$'000

QG 3.14: Annual maintenance costs – sewerage (W) (SWIM FN77)

As a component of (QG 3.12a), report on the maintenance costs only.

Includes:

- ✓ all costs as specified in QG 3.12a relating to routine, operational and preventative maintenance

annual maintenance costs – sewerage (\$'000s)

Units Thousands of dollars (\$'000s): to nearest \$'000

QG 3.15: Current cost depreciation – water (W) (SWIM FN78)

Expenses incurred relating to change in value of the fixed water supply assets, plant and equipment during the reporting financial period.

Current cost depreciation relates to the current value (as opposed to original purchase price) of the fixed assets, plant and equipment during the reporting financial period.

current cost depreciation – water (\$'000s)

Units Thousands of dollars (\$'000s): to nearest \$'000

QG 3.16: Current cost depreciation – sewerage (W) (SWIM FN79)

Expenses incurred relating to change in value of the fixed sewerage services assets, plant and equipment during the reporting financial period.

Current cost depreciation relates to the current value (as opposed to original purchase price) of the fixed assets, plant and equipment during the reporting financial period.

current cost depreciation – sewerage (\$'000s)

Units Thousands of dollars (\$'000s): to nearest \$'000

QG 3.19: Forecast 5 year average annual renewals expenditure – water (W) (SWIM FN82)

The average annual renewals expenditures planned for 5 years after the reporting financial year for water services.

Renewals expenditure is defined as expenditure on asset replacement, refurbishment or rehabilitation works which returns the asset to its original size, capacity or condition. It does not increase the size or capacity of the asset. The expenditure is at current year dollars (as adapted from the AIFMG).

forecast 5 year average annual renewals expenditure – water (\$'000s)

Units Thousands of dollars (\$'000s): to nearest \$'000

Example

A service provider's planned renewals expenditure for the next 5 years (in current year dollars) is \$140,000, \$160,000, \$380,000, \$60,000 and \$90,000.

The forecast 5 year average annual renewals expenditure is: $(\$140,000 + \$160,000 + \$380,000 + \$60,000 + \$90,000) / 5 = \$166,000$.

The service provider reports 166.

Notes

1. Renewals expenditure should be reported irrespective of the source of the funding.
2. If renewals expenditure is irregular, detail in the comments field of the data template.
3. Expenditure that increases the size or capacity of the asset should be reported as capital expenditure (QG 3.1).

QG 3.20: Forecast 5 year average annual renewals expenditure – sewerage (W) (SWIM FN83)

The average annual renewals expenditures planned for 5 years after the reporting financial year for sewerage services.

Renewals expenditure is defined as expenditure on asset replacement, refurbishment or rehabilitation works which returns the asset to its original size, capacity or condition. It does not increase the size or capacity of the asset. The expenditure is at current year dollars (as adapted from the AIFMG).

forecast 5 year average annual renewals expenditure – sewerage (\$'000s)

Units Thousands of dollars (\$'000s): to nearest \$'000

Example

A service provider's planned renewals expenditure for the next 5 years (in current year dollars) is \$140,000, \$160,000, \$380,000, \$60,000 and \$90,000.

The forecast 5 year average annual renewals expenditure is: $(\$140,000 + \$160,000 + \$380,000 + \$60,000 + \$90,000) / 5 = \$166,000$.

The service provider reports 166.

Notes

1. Renewals expenditure should be reported irrespective of the source of the funding.
2. If renewals expenditure is irregular, detail in the comments field of the data template.
3. Expenditure that increases the size or capacity of the asset should be reported as capital expenditure (QG 3.2).

QG 3.21: Other costs – water (W) (SWIM FN49)

The other water supply expenses incurred by the service provider, which are not reported under another indicator.

Includes:

- ✓ all non-core water supply business operating costs
- ✓ any write-downs of water supply assets to recoverable amounts
- ✓ depreciation and amortisation of water supply assets
- ✓ interest expenses

Excludes:

- × all expenses incurred on provision of sewerage and stormwater services
- × all other water supply expenses reported elsewhere

other costs – water (\$'000s)

Units Thousands of dollars (\$'000): to nearest \$'000

Note

1. Information on estimates should be included in the comments.

QG 3.22: Other costs – sewerage (W) (SWIM FN50)

The other sewerage service expenses incurred by the service provider, which are not reported under another indicator.

Includes:

- ✓ all non-core sewerage service business operating costs
- ✓ any write-downs of water supply assets to recoverable amounts
- ✓ depreciation and amortisation of water supply assets
- ✓ interest expenses

Excludes:

- × all expenses incurred on provision of water supply and stormwater services
- × all other water supply expenses reported elsewhere

other costs – sewerage (\$'000s)

Units Thousands of dollars (\$'000): to nearest \$'000

Note

1. Information on estimates should be included in the comments.

QG 3.23: Annual capital renewals expenditure – water (W) (SWIM FN97)

The capital renewals expenditure of the service provider in the reporting financial year in nominal year dollars for water services.

Renewals expenditure is defined as expenditure on asset replacement, refurbishment or rehabilitation works which returns the asset to its original size, capacity or condition. It does not increase the size or capacity of the asset (as adapted from the AIFMG).

Annual renewals expenditure – water (\$'000s)

Units Thousands of dollars (\$'000s): to nearest \$'000

Example

A service provider's renewals expenditure in the reporting financial year was \$180,000.

The service provider reports 180.

Notes

1. Renewals expenditure should be reported irrespective of the source of the funding.
2. Where renewals expenditure is irregular, provide details in the comments.
3. Expenditure that increases the size or capacity of the asset should be reported as capital expenditure (QG 3.1).

QG 3.24: Annual renewals expenditure – sewerage (W) (SWIM FN98)

The annual renewals expenditure for the last reporting financial year in nominal year dollars for sewerage services.

Renewals expenditure is defined as expenditure on asset replacement, refurbishment or rehabilitation works which returns the asset to its original size, capacity or condition. It does not increase the size or capacity of the asset (as adapted from the AIFMG).

annual renewals expenditure – sewerage (\$'000s)

Units Thousands of dollars (\$'000s): to nearest \$'000

Example

A service provider's renewals expenditure in the reporting financial year was \$180,000.

The service provider reports 180.

Notes

1. Renewals expenditure should be reported irrespective of the source of the funding.
2. If renewals expenditure is irregular, detail in the comments field.
3. Expenditure that increases the size or capacity of the asset should be reported as capital expenditure (QG 3.2).

QG 3.25: Operating cost – purchase bulk potable and raw water (W) (SWIM FN44)

The costs of bulk drinking and nondrinking water purchased by the service provider during the reporting year.

Includes:

- ✓ bulk purchases of treated, partially treated and raw water from another service provider

Excludes:

- × bulk purchases of recycled water
- × costs incurred in the extraction, treatment or processing of the purchased potable, raw or partially-treated bulk water
- × other operating costs reported in QG 3.11a

operating cost – bulk water purchase (\$'000s)

Units Thousands of dollars (\$'000): to nearest \$'000

Notes

1. Bulk supplies are typically 'wholesale supply' arrangements between service providers, with the recipient then distributing to final customers according to a 'retail supply' arrangement.
2. All data, even when it is being provided for historical reporting years, should be reported as nominal values (unadjusted for inflation).

QG 3.26: Operating cost – purchase bulk recycled water (W) (SWIM FN45)

The costs of bulk recycled water purchased by the service provider during the reporting year.

Includes:

- ✓ bulk purchases of recycled water

Excludes:

- × bulk purchases of treated, partially treated and raw water
- × other operating costs reported in QG 3.11a

operating cost – bulk water purchase (\$'000s)

Units Thousands of dollars (\$'000): to nearest \$'000

Notes

1. Bulk supplies are typically 'wholesale supply' arrangements between service providers, with the recipient then distributing to final customers according to a 'retail supply' arrangement.
2. All data, even when it is being provided for historical reporting years, should be reported as nominal values (unadjusted for inflation).

Series 4 – Customer

Series 4 'Customer' includes QG KPIs in relation to water and sewerage billing and customer service standards (CSS).

For billing-related QG KPIs, service providers are to report on fixed charges for water and sewerage at scheme level, annual bills based on 200 KL consumption as well as typical bills at service-wide level.

For CSS-related QG KPIs, service providers are to report on the number of mains breaks, incidence of unplanned interruptions and complaints that they have had in the reporting financial year. Also, for some CSS related QG KPIs, service providers report their performance against the targets set in their CSS for responses to water and sewerage incidents.

QG 4.3: Annual bill based on 200 kL/annum (W) (SWIM PR47)**Average annual residential bill based on 200kL of water per annum.**

\$ # annual bill (based on 200kL/annum water)

Units Annual costs (\$): as a whole number

Formula QG 4.3 = Residential sewerage charge + residential water fixed charge + special levies + residential water usage charge for 200kL consumption

Example

Annual average residential bill water and sewerage based on 200 kL consumption, where:

- Sewerage fixed charge = \$100/year (no usage charge)
- Water fixed charge = \$50/year
- Special levy = \$30/year
- Water pay-for-use charge = \$1/kL = \$1 x 200 kL = \$200

Therefore, the annual residential bill for 200 kL = \$100 + \$50 + \$200 + \$30 = \$380

The service provider reports \$380.

Note

1. This indicator is to be reported for the service provider's scheme with highest number of connections.

QG 4.4: Typical residential bill (W) (SWIM PR48)

The dollar amount of the typical residential annual water and sewerage bill for the financial year.

This information is premised on the average annual residential consumption for a full-paying customer.

\$ # typical residential bill

Units Annual cost (\$): as a whole number

Formula $QG\ 4.4 = \text{Residential sewerage charge} + \text{residential water fixed charge} + \text{special levies} + \text{residential water usage charge for the average residential consumption}$

Example

Typical residential bill water and sewerage, where:

- Sewerage fixed charge = \$100/year (no usage charge)
- Water fixed charge = \$50/year
- Special levy = \$30/year
- Average residential water consumption per property = 300 kL (calculated from 'Average annual residential water supplied per property',)
- Water pay-for-use charge = \$1/kL = \$1 x 300 kL = \$300

Therefore, the typical residential bill water and sewerage = \$100 + \$50 + \$300 + \$30 = \$480

The service provider reports \$480.

Note

1. This indicator is to be reported for the service provider's scheme with highest number of connections.

QG 4.5: Total water main breaks (per 100 km) (S) (SWIM AS8)

The total number of main breaks, bursts and leaks in all diameter water distribution and reticulation mains for water services for the financial year, irrespective of whether the break, burst or leak resulted in an interruption.

Includes:

- ✓ water mains for potable, non-potable and recycled water services
- ✓ breaks caused by contractors or employees of the service provider

Excludes:

- × breaks caused by third parties (not contracted by the service provider)
- × those in the property service (i.e. mains to meter connection)

Scheme X: # of breaks / 100km of water main

Scheme Y: # of breaks / 100km of water main

Units Water main breaks per 100km of water main: one decimal place

Formula $(\text{Total number of water main breaks (QG 4.18)} / \text{Total length of water mains (QG 1.1)}) \times 100$

Notes

1. This indicator is a measure of both asset condition and customer service therefore, breaks, bursts or leaks should be reported irrespective of whether there was an interruption to the service.
2. The 'property service' includes any water infrastructure between the water main and the meter connection or other connection assembly and the internal plumbing of the property. It may be owned by the service provider, and it is often referred to as the 'mains to meter' service or connection. All water plumbing downstream of the meter is usually the property owner's asset.
3. Third parties include parties other than those directly employed by or contracted to the service provider e.g. customers and contractors working for customers.

QG 4.6: Total sewerage main breaks and chokes (per 100 km) (S) (SWIM AS39)

The total number of sewerage mains breaks and chokes, irrespective of whether the break or choke resulted in an interruption to the sewerage service, for the financial year.

Includes:

- ✓ all gravity sewer mains
- ✓ all pressure mains (including common effluent pipelines, rising mains, etc.)
- ✓ all vacuum system mains of any diameter
- ✓ chokes in pumps

Excludes:

- × property connection sewers
- × pipelines carrying treated effluent
- × recycled water distribution and reticulation mains delivering water for urban areas
- × breaks caused by third parties (not contracted by the service provider)

Scheme X: # of breaks and chokes / 100km of sewerage main

Scheme Y: # of breaks and chokes / 100km of sewerage main

Units Sewerage main breaks per 100km of sewerage main: one decimal place

Formula $(\text{Total number of sewerage main breaks (QG 4.19)} / \text{Total length of sewerage mains (QG 1.2)}) \times 100$

Notes

1. Sewerage breaks and chokes are affected by factors including sewer configuration, soil composition, climate, tree planting, age of the infrastructure, sewer depth, materials and diameter. These factors are indicators of the condition of the sewer network and customer service.
2. Third parties include parties other than those directly employed by or contracted to the service provider e.g. customers and contractors working for customers.

QG 4.7: Incidence of unplanned interruptions (per 1000 properties) – water (S) (SWIM CS17)

This is the number of unplanned interruptions (when the customer has total loss of water supply and has NOT received at least 24 hours notification or as otherwise prescribed by regulatory requirements) per 1000 properties. A water supply interruption is any event causing a total loss of water supply due to any cause.

Includes:

- ✓ interruptions for which customers did not receive at least 24 hours notification or as otherwise prescribed by regulatory requirements
- ✓ situations where the duration of a planned interruption exceeds the period notified to the customer

Excludes:

- × property service connection interruptions, unless the burst or leak requires the water main to be shut down for repair and therefore affects multiple customers
- × interruptions that cause some reduction to the level of service but where normal activities (shower, washing machine, toilet flushing etc.) are still possible
- × breaks in house connection branches
- × planned interruptions
- × all interruptions caused by third parties

Scheme X: # incidence of unplanned interruptions – water (per 1000 properties)

Scheme Y: # incidence of unplanned interruptions – water (per 1000 properties)

Units Unplanned interruptions per 1000 properties: as a whole number

Example

In the financial year, water service provider (WSP) 'A' had 3 unplanned interruptions. In the first, second and third unplanned interruptions, the number of properties affected were 100, 125 and 200 respectively. Therefore, in total, service provider had 425 properties (100 + 125 + 200 = 425) affected in the financial year as a result of all unplanned interruptions. WSP A has 1500 connections in the scheme.

The incidence of unplanned interruptions is calculated as:

Total number of properties affected – 425

Number of connections in the scheme – 1500

Therefore,

Number of incidence of unplanned interruptions per 1000 connections = $425 / (1500 / 1000) = 283.3$

WSP A reports 283.

Notes

1. The terms property, connection and customer can be used interchangeably.
2. The duration of an unplanned interruption commences once the water provider is aware that water is no longer available and ceases when normal service is restored.
3. Where legislation prescribes a minimum notification time for unplanned interruptions, this timeframe should be used.
4. Third parties include parties other than those directly employed by or contracted to the service provider e.g. customers and contractors working for customers.

QG 4.8a: Performance against customer service standard for response to water incidents (bursts and leaks) (S) (SWIM CS66)

This indicator reports a water service provider's (WSP) performance against their customer service standard for responding to water incidents. This indicator measures the percentage of water incidents the WSP responds to within the agreed timeframe.

Scheme X: % met with customer service standard for responding to water incidents.

Scheme Y: % met with customer service standard for responding to water incidents.

Units Percentage: 1 decimal place

Formula

If the WSP did achieve or exceed all their Customer Service Standard targets for water incidents, their performance is reported as 100%.

If the WSP did NOT achieve all their Customer Service Standard targets for water incidents, then their performance is calculated as:

$\% \text{ water incidents that met the customer service target} / \text{customer service target (\%)} \times 100.$

Example 1: Complied with Customer Service Standard

WSP U has a customer service target of 90% of water incidents responded to within 12 hours.

For the financial year, WSP U had 70 water incidents and they responded to 65 water incidents within their customer service standard target of 12 hours, therefore their performance is calculated as $(65 / 70 \times 100) = 93\%$.

As WSP U did achieve their Customer Service Standard of 90%, WSP U reports 100%.

Example 2: Did NOT comply with Customer Service Standard

WSP V has a customer service target of 80% of water incidents responded to within 3 hours.

For the financial year, WSP V had 320 water incidents and they responded to 208 within their customer service target of 3 hours, therefore, their performance is calculated as $(208 / 320 \times 100) = 65\%$.

As WSP V did NOT achieve their Customer Service Standard of 80%, their performance is calculated as $65\% / 80\% \times 100 = 81.3\%$.

WSP V reports 81.3%.

Example 3: Did NOT comply with priority-based Customer Service Standard

WSP X has a priority-based customer service target of 80% of water incidents responded to within:

- Priority 1: Response within 2 hours.
- Priority 2: Response within 5 hours.
- Priority 3: Response within 2 days.

For the financial year, WSP X had the following water incidents, and responded as follows:

QG 4.8a: Performance against customer service standard for response to water incidents (bursts and leaks) (S) (SWIM CS66)

- Priority 1: Had 20 incidents and responded to 12 within 2 hours.
- Priority 2: Had 100 incidents and responded to 85 within 5 hours.
- Priority 3: Had 450 incidents and responded to 320 within 2 days.

WSP X had a total of 570 water incidents (20 + 100 + 450) and responded to 417 water incidents (12 + 85 + 320) within response target times, therefore their performance is calculated as $(417 / 570 \times 100) = 73\%$.

As WSP X did NOT achieve their Customer Service Standard of 80%, their performance is calculated as $73\% / 80\% \times 100 = 91.3\%$.

WSP X reports 91.3%.

Notes

1. Where service provider only has a timeframe (within 2 hours etc.) as a target for this indicator, it indicates that service provider has agreed with their customers to meet the target timeframe for all water incidents (i.e. 100% of the time).
2. Customer service standards or service performance standards must set targets for response to water incidents. This indicator aims to demonstrate how well the provider meets those targets.

QG 4.9a: Performance against customer service standard for response to sewerage incidents (including mains breaks and chokes) (S) (SWIM CS65)

This indicator reports a water service provider's (WSP) performance against their customer service standard for responding to sewerage incidents. This indicator measures the percentage of sewerage incidents the WSP responds to within the agreed timeframe.

Scheme X: % met with customer service standard for responding to sewerage incidents.

Scheme Y: % met with customer service standard for responding to sewerage incidents.

Units Percentage: one decimal place

Formula

If the WSP did achieve or exceed all their Customer Service Standard targets for sewerage incidents, their performance is reported as 100%.

If the WSP did NOT achieve all their Customer Service Standard targets for sewerage incidents, then their performance is calculated as:

$\% \text{ sewerage incidents that met the customer service target} / \text{customer service target (\%)} \times 100.$

Example 1: Complied with Customer Service Standard

WSP U has a customer service target of 90% of sewerage incidents responded to within 12 hours.

For the financial year, WSP U had 70 sewerage incidents and they responded to 65 incidents within their customer service standard target of 12 hours, therefore their performance is calculated as

$(65 / 70 \times 100) = 93\%.$

As WSP U did achieve their Customer Service Standard of 90%, WSP U reports 100%.

Example 2: Did NOT comply with Customer Service Standard

WSP V has a customer service target of 80% of sewerage incidents responded to within 3 hours.

For the financial year, WSP V had 320 sewerage incidents and they responded to 208 within their customer service target of 3 hours, therefore their performance is calculated as $(208 / 320 \times 100) = 65\%.$

As WSP V did NOT achieve their Customer Service Standard of 80%, their performance is calculated as $65\% / 80\% \times 100 = 81.3\%.$

WSP V reports 81.3%.

Example 3: Did NOT comply with priority-based Customer Service Standard

WSP X has a priority-based customer service target of 80% of sewerage incidents responded to within:

- Priority 1: Response within 2 hours.
- Priority 2: Response within 5 hours.
- Priority 3: Response within 2 days.

QG 4.9a: Performance against customer service standard for response to sewerage incidents (including mains breaks and chokes) (S) (SWIM CS65)

For the financial year, WSP X had the following sewerage incidents, and responded as follows:

- Priority 1: Had 20 incidents and responded to 12 within 2 hours.
- Priority 2: Had 100 incidents and responded to 85 within 5 hours.
- Priority 3: Had 450 incidents and responded to 320 within 2 days.

WSP X had a total of 570 sewerage incidents (20 + 100 + 450) and responded to 417 sewerage incidents (12 + 85 + 320) within response target times, therefore their performance is calculated as $(417 / 570 \times 100) = 73\%$.

As WSP X did NOT achieve their Customer Service Standard of 80%, their performance is calculated as $73\% / 80\% \times 100 = 91.3\%$.

WSP X reports 91.3%.

Notes

1. Where service provider only has a timeframe (within 2 hours etc.) as a target for this indicator, it indicates that service provider has agreed with their customers to meet the target timeframe for all water incidents (i.e. 100% of the time).
2. Customer service standards or service performance standards must set targets for response to sewerage incidents. This indicator aims to demonstrate how well the provider meets those targets.

QG 4.10: Water quality complaints (per 1000 properties) (S) (SWIM CS9)

The total number of complaints received by the service provider that relate to water quality from any type of water provided.

A complaint can be a written or verbal expression of dissatisfaction about an action, proposed action or failure to act by the water utility, its employees or contractors. Includes complaints received either in person, by mail, fax, phone, email or text messaging.

Includes complaints regarding:

- ✓ discolouration
- ✓ taste
- ✓ odour
- ✓ stained washing
- ✓ illness
- ✓ cloudy water (e.g. caused by oxygenation)

Excludes complaints regarding:

- × service interruption
- × adequacy of service
- × restrictions
- × billing and accounts
- × water pressure

Scheme X: # water quality complaints (per 1,000 properties)

Scheme Y: # water quality complaints (per 1,000 properties)

Units Water quality complaints (per 1,000 properties): as a whole number

Formula $(\text{Total number of water quality complaints} / \text{Total water connected properties (QG 1.13 + QG 1.14)}) \times 1000$

Example

Complaint

If a customer calls to complain about the government's or service provider's media comments on water quality because they have suffered poor water quality, this is counted as a complaint.

Not a complaint

If a customer calls to ask about the health standards that apply for water quality, this is counted as a query, not a complaint.

Notes

1. Do not include a customer query.
2. Include complaints about third parties only where the water utility has control (i.e. contractors).
3. Complaints from separate customers regarding the same issue, and multiple complaints from one customer on multiple issues are counted as separate complaints.
4. Australian Standards define a complaint as an 'expression of dissatisfaction made to an organisation, related to its products or the complaints handling process itself, where a response or resolution is explicitly or implicitly implied' (AS ISO 100002-2006).

QG 4.11: Total water and sewerage complaints (per 1000 properties) (S) (SWIM CS13)

The total number of complaints received by the water business that relate to water or sewerage services.

A complaint can be a written or verbal expression of dissatisfaction about an action, proposed action or failure to act by the water utility, its employees or contractors. Includes complaints received by the water utility in person, by mail, fax, phone, email or text messaging.

Includes complaints regarding:

- ✓ bursts
- ✓ leaks
- ✓ service interruptions
- ✓ adequacy of service
- ✓ water pressure
- ✓ water quality or reliability
- ✓ sewerage service complaints
- ✓ sewage odours
- ✓ affordability
- ✓ billings and accounts
- ✓ behaviour of staff or agents

Excludes complaints regarding:

- × government pricing policy
- × tariff structures

Scheme X: # water and sewerage complaints (per 1000 properties)

Scheme Y: # water and sewerage complaints (per 1000 properties)

Units Complaints (per 1,000 properties): as a whole number

Formula $(\text{Total number of water and sewerage complaints} / \text{Total number of water connected properties (QG 1.13 + QG 1.14)}) \times 1000$

Notes

1. Do not include a customer query.
2. Include only complaints about third parties where the water utility has control (i.e. contractors).
3. Complaints from separate customers regarding the same issue, and multiple complaints from one customer on multiple issues are counted as separate complaints.
4. When a customer reports a service interruption, this is not counted as a complaint unless the customer expresses dissatisfaction about the interruption.
5. Australian Standards define a complaint as an 'expression of dissatisfaction made to an organisation, related to its products or the complaints handling process itself, where a response or resolution is explicitly or implicitly implied' (AS ISO 100002-2006).

QG 4.12: Water service complaints (per 1000 properties) (S) (SWIM CS10)

The total number of water service complaints received by the service provider during the financial year.

A complaint can be a written or verbal expression of dissatisfaction about an action, proposed action or failure to act by the water utility, its employees or contractors. Includes complaints received either in person, by mail, fax, phone, email or text messaging.

Includes complaints regarding:

- ✓ bursts
- ✓ leaks
- ✓ service interruptions
- ✓ adequacy of service
- ✓ water pressure
- ✓ water reliability

Excludes complaints regarding:

- × water quality
- × billing and accounts
- × government pricing policy
- × tariff structures

Scheme X: # water service complaints (per 1000 properties)

Scheme Y: # water service complaints (per 1000 properties)

Units Complaints per 1000 properties: as a whole number

Formula (Total number of water service complaints / Total water connected properties (QG1.13 + QG1.14)) x 1000

Notes

1. Do not include a customer query.
2. Include complaints about third parties only where the water utility has control (i.e. contractors).
3. Complaints from separate customers regarding the same issue, and multiple complaints from one customer on multiple issues are counted as separate complaints.
4. When a customer reports a service interruption, this is not counted as a complaint unless the customer expresses dissatisfaction about the interruption.
5. Australian Standards define a complaint as an 'expression of dissatisfaction made to an organisation, related to its products or the complaints handling process itself, where a response or resolution is explicitly or implicitly implied' (AS ISO 100002-2006).

QG 4.13: Sewerage service complaints (per 1000 properties) (S) (SWIM CS11)

The total number of complaints received by the service provider that relate to sewerage service quality and reliability during the financial year.

A complaint can be a written or verbal expression of dissatisfaction about an action, proposed action or failure to act by the water utility, its employees or contractors. Includes complaints received either in person, by mail, fax, phone, email or text messaging.

Includes complaints regarding:

- ✓ sewer chokes and overflows
- ✓ trade waste services
- ✓ sewerage odours
- ✓ sewerage system reliability
- ✓ all other sewerage issues

Excludes complaints regarding:

- × property connections
- × government pricing policy
- × tariff structures
- × other non-applicable areas of business

Scheme X: # sewerage service complaints (per 1000 properties)

Scheme Y: # sewerage service complaints (per 1000 properties)

Units Complaints per 1000 properties: as a whole number

Formula (Total number of sewerage service complaints / Total sewerage connected properties (QG1.15 + QG1.16)) x 1000

Notes

1. Do not include a customer query.
2. Include only complaints about third parties where the water utility has control (i.e. contractors).
3. Complaints from separate customers regarding the same issue, and multiple complaints from one customer on multiple issues are counted as separate complaints.
4. Australian Standards define a complaint as an 'expression of dissatisfaction made to an organisation, related to its products or the complaints handling process itself, where a response or resolution is explicitly or implicitly implied' (AS ISO 100002-2006) Where legislation prescribes a minimum notification time for unplanned interruptions, this timeframe should be used.

**QG 4.14: Billing & account complaints: water & sewerage (per 1000 properties) (S)
(SWIM CS12)**

The total number of complaints received by the service provider that relate to billing and accounts during the financial year.

A complaint can be a written or verbal expression of dissatisfaction about an action, proposed action or failure to act by the water utility, its employees or contractors. Includes complaints received either in person, by mail, fax, phone, email or text messaging.

Includes complaints regarding:

- ✓ account payment
- ✓ financial loss or overcharging
- ✓ billing errors
- ✓ affordability

Excludes complaints regarding:

- × government pricing policy
- × tariff structures
- × correctly calculated bill that is too high

Scheme X: # billing and account complaints (per 1000 properties)

Scheme Y: # billing and account complaints (per 1000 properties)

Units Complaints per 1000 properties: as a whole number

Formula (Total number of billing and account complaints / Total water connected properties (QG1.13 + QG1.14)) x 1000

Notes

1. Do not include a customer query.
2. Include complaints about third parties only where the water utility has control (i.e. contractors).
3. Complaints from separate customers regarding the same issue, and multiple complaints from one customer on multiple issues are counted as separate complaints.
4. Australian Standards define a complaint as an 'expression of dissatisfaction made to an organisation, related to its products or the complaints handling process itself, where a response or resolution is explicitly or implicitly implied' (AS ISO 100002-2006) Where legislation prescribes a minimum notification time for unplanned interruptions, this timeframe should be used.

QG 4.15 (a to p): Residential drinking water supply tariff data (W) (SWIM PR1, PR3, PR6-25, PR49-54)

Pricing and contextual data defining the service provider's residential drinking water supply tariffs.

As tariff structures vary across service providers this information is to be captured using this set of related KPI indicators that has been based on information required by the National Performance Report Framework.

The residential water supply tariff structures and charges information should be reported for the scheme supplying the largest city or community (i.e. the scheme with the most connections).

QG 4.15a Water pricing tariff structure description (SWIM PR1)

Provide a text description of the water pricing tariff structure e.g. flat-rate tariff, two-part tariff, allocation, or inclining-block tariff.

QG 4.15b Value of the fixed water charge per annum (SWIM PR3)

Enter the dollar value of the annual flat rate or fixed charge component for your tariff type, if relevant.

QG 4.15c to QG 4.15h x step charge per kilolitre (SWIM PR6, PR8, PR10, PR12, PR14 and PR16)

Details for any tiered or stepped charging structures, if relevant.

The actual dollar (\$) charge per kL for usage in each step. If you have a 'Free water allowance' it should be captured as the first step of the tariff structure and associated with a \$0 price for 'X' kL ("upper bound volume of 1st step").

QG 4.15i to QG 4.15n x step upper bound volume (SWIM PR49 to PR 54)

The upper bound of water usage (volume in kL) range that defines each step in kL. For last step, when there is a charge for any usage over the upper bound volume detailed in the previous step, the kL value should be entered as NR for 'not relevant'. This indicates there is no upper bound for this last charge step.

QG 4.15o Special levy value (SWIM PR23)

Enter the annual dollar value of the special levy charged to residential customers for water supply services, if relevant.

QG 4.15p Special levy retained (SWIM PR25)

Enter a value of "yes" or "no" if the special levy charged is retained, if relevant.

Example 1

A service provider uses a two-part tariff structure with a fixed charge of \$150 per annum and a volumetric charge – \$3.20 per kL with no usage cap and no special levies for a scheme.

QG 4.15a = Two-part tariff

QG 4.15b = 150

QG 4.15c = 3.20

QG 4.15d to QG 4.15p = NR

Example 2

A service provider uses an inclining block tariff structure with a special levy for a supply scheme, where:

QG 4.15 (a to p): Residential drinking water supply tariff data (W) (SWIM PR1, PR3, PR6-25, PR49-54)

<p>Step 1 – \$2.40 per kL for the first 160 kL per annum Step 2 – \$3.20 per kL for the next 160 kL (i.e. upper bound of 320 kL) per annum Step 3 – \$4.60 per kL per annum for usage over 320 kL.</p> <p>Levies = There is an environmental levy of \$80 per annum that is retained by the service provider</p> <p>QG 4.15a = Inclining-block tariff QG 4.15b = NR QG 4.15c = 2.40 QG 4.15d = 3.20 QG 4.15e = 4.60 QG 4.15f = NR QG 4.15g = NR QG 4.15h = NR QG 4.15i = 160 QG 4.15j = 320 QG 4.15k = NR QG 4.15l = NR QG 4.15m = NR QG 4.15n = NR QG 4.15o = 80 QG 4.15p = yes</p>	
Units	<p>Tariff structure details: Text Charges: dollar amount Volumes : kL</p>
Notes	<ol style="list-style-type: none"> 1. This indicator is to be reported for the service provider's scheme with highest number of connections. 2. For any of the tariff structure KPI indicator parts that are not relevant or appropriate for your service provider structure please use the value "NR".

QG 4.16 (a to h): Residential sewerage services tariff data (W) (SWIM PR4, PR31-34 and PR55-57)

Pricing and contextual data defining the service provider's residential sewerage service tariffs.

As tariff structures vary across service providers this information is to be captured using this set of related KPI indicators that has been based on information required by the National Performance Report Framework.

The residential sewerage services tariff structures and charges information should be reported for the scheme supplying the largest city or community (i.e. the scheme with the most connections).

QG 4.16a Sewerage pricing tariff structure description (SWIM PR4)

Provide a text description of the sewerage pricing tariff structure e.g. flat-rate tariff, two-part tariff or inclining-block tariff.

QG 4.16b Value of the fixed sewerage service charge per annum (SWIM PR31)

Enter the dollar value of the annual flat rate or fixed charge component for your tariff type, if relevant.

QG 4.16c and QG 4.16d x step charge per kilolitre (SWIM PR32 and PR56)

If relevant provide the actual dollar (\$) charge for residential customers for their sewage treatment and disposal per kL (sewerage usage). Use the "step" indicators to report different charges dependant on service use levels.

QG 4.16e and QG 4.16f x step upper bound volume (SWIM PR55 and PR57)

If relevant provide the upper bound of sewerage usage (volume) that defines each step in kL. Use the "step" indicators to report the upper bound for each step. For last step the kL value should be entered as NR for 'not relevant' indicating there is no upper bound for this charge.

QG 4.16g Special sewerage service levy value (SWIM PR33)

Enter the annual dollar value of any special levies charged to residential customers for sewerage services, if relevant.

QG 4.16h Special sewerage service levy retained (SWIM PR34)

Enter a value of "yes" or "no" if the special levy charged is retained, if relevant.

Example 1

A service provider uses a flat-rate charge tariff structure of \$150 per annum on the basis of each connected property, with no special levies.

QG 4.16a = Flat-rate tariff

QG 4.16b = 150.00

QG 4.16c to QG 4.16h = NR

Example 2

A service provider uses a flat-rate tariff structure of \$90 per annum on the basis of each pedestal. In the largest community, most connections have 2 pedestals therefore the service provider reports a charge of \$180 per annum. The details of the charge estimate are recorded in the comments field. There is also an annual environmental special levy of \$60 that is retained.

QG 4.16a = Flat-rate tariff - Comment = " Flat-rate charge is applied per pedestal."

QG 4.16 (a to h): Residential sewerage services tariff data (W) (SWIM PR4, PR31-34 and PR55-57)

QG 4.16b = 180.00 - Comment = "Based on 2 pedestals. Charge per pedestal \$90."
 QG 4.16c = NR
 QG 4.16d = NR
 QG 4.16e = NR
 QG 4.16f = NR
 QG 4.16g = 60.00
 QG 4.16h = Yes

Example 3

A service provider has a flat-rate tariff of \$500 per annum and a \$0.50 sewerage usage charge for the first 250 kL with no further sewerage usage charges after the first 250 kL and no special levy.

QG 4.16a = Inclining-block tariff
 QG 4.16b = 500.00
 QG 4.16c = 0.50
 QG 4.16d = 0
 QG 4.16e = 250
 QG 4.16f = NR
 QG 4.16g = NR
 QG 4.16h = NR

Units Tariff structure details: Text
 Charges: dollar amount
 Volumes : kL

Notes

1. This indicator is to be reported for the service provider's scheme with highest number of connections.
2. Use the comment field to detail where charges are applied using a basis other than per serviced, connected property.
3. For any of the tariff structure KPI indicator parts that are not relevant or appropriate for your service provider structure please use the value "NR".

QG 4.17 (a to h): Residential recycled water supply tariff data (W) (SWIM PR1, PR3, PR6-25, PR49-54)

Pricing and contextual data defining the service provider's residential recycled water supply tariffs.

As tariff structures vary across service providers this information is to be captured using this set of related KPI indicators that has been based on information required by the National Performance Report Framework.

The residential recycled water supply tariff structures and charges information should be reported for the scheme supplying the largest city or community (i.e. the scheme with the most connections).

QG 4.17a Recycled water supply pricing tariff structure description (SWIM PR1)

Provide a text description of the sewerage pricing tariff structure e.g. flat-rate tariff, two-part tariff, allocation or inclining-block tariff.

QG 4.17b Value of the fixed recycled water supply charge per annum (SWIM PR3)

Enter the dollar value of the annual flat rate or fixed charge component for your tariff type, if relevant.

QG 4.17c and QG 4.17d x step charge per kilolitre (SWIM PR6 and PR8)

If relevant provide the actual dollar (\$) charge per kL for usage in each step. If you have a 'Free water allowance' it should be captured as the first step of the tariff structure and associated with a \$0 price for 'X' kL ("upper bound volume of 1st step"). Use the "step" indicators to report different charges dependant on service use levels.

QG4.17e and QG 4.17f x step upper bound volume (SWIM PR49 and PR50)

If relevant the upper bound of recycled water usage (volume) that defines each step in kL. For last step the kL value should be entered as NR for 'not relevant'

QG 4.17g Special recycled water supply service levy value (SWIM PR23)

Enter the annual dollar value of any special levies charged to residential customers for recycled water supply, if relevant.

QG 4.17h Special recycled water supply service levy retained (SWIM PR25)

Enter a value of "yes" or "no" if the special levy charged is retained, if relevant.

Example 1

A service provider uses a flat-rate charge tariff structure of \$150 per annum on the basis of each connected property, with no special levies.

QG 4.17a = Flat-rate tariff

QG 4.17b = 150.00

QG 4.17c to QG 4.17h = NR

Example 2

A service provider uses a block tariff structure with a fixed charge of \$240 per annum and a volumetric charge of \$2.60 per kL for volumes over 320kL and no special levies for a scheme.

QG 4.17a = Block

QG 4.17b = 240.00

QG 4.17c = 0

QG 4.17d = 2.60

QG 4.17 (a to h): Residential recycled water supply tariff data (W) (SWIM PR1, PR3, PR6-25, PR49-54)

QG 4.17e = 320

QG 4.17f = NR

QG 4.17g = NR

QG 4.17h = NR

Units Tariff structure details: Text
 Charges: dollar amount
 Volumes : kL

Notes

1. This indicator is to be reported for the service provider's scheme with highest number of connections.
2. For any of the tariff structure KPI indicator parts that are not relevant or appropriate for your service provider structure please use the value "NR".

QG 4.18: Number of water main breaks (S) (SWIM AS14)

The total number of main breaks, bursts and leaks in all diameter water distribution and reticulation mains for water services for the financial year, irrespective of whether the break, burst or leak resulted in an interruption.

Includes:

- ✓ water mains for potable, non-potable and recycled water services
- ✓ breaks caused by contractors or employees of the service provider

Excludes:

- × breaks caused by third parties (not contracted by the service provider)
- × those in the property service (i.e. mains to meter connection)

Scheme X: # of breaks

Scheme Y: # of breaks

Units # of water main breaks as a whole number

Notes

1. This indicator is a measure of both asset condition and customer service therefore, breaks, bursts or leaks should be reported irrespective of whether there was an interruption to the service.
2. The 'property service' includes any water infrastructure between the water main and the meter connection or other connection assembly and the internal plumbing of the property. It may be owned by the service provider, and it is often referred to as the 'mains to meter' service or connection. All water plumbing downstream of the meter is usually the property owner's asset.
3. Third parties include parties other than those directly employed by or contracted to the service provider e.g. customers and contractors working for customers.

QG 4.19: Number of sewerage main breaks and chokes (S) (SWIM AS38)

The number of sewerage mains breaks and chokes, irrespective of whether the break or choke resulted in an interruption to the sewerage service, for the financial year.

Includes:

- ✓ all gravity sewer mains
- ✓ all pressure mains (including common effluent pipelines, rising mains, etc.)
- ✓ all vacuum system mains of any diameter
- ✓ chokes in pumps

Excludes:

- × property connection sewers
- × pipelines carrying treated effluent
- × recycled water distribution and reticulation mains delivering water for urban areas
- × breaks caused by third parties (not contracted by the service provider)

Scheme X: # of breaks and chokes

Scheme Y: # of breaks and chokes

Units # of sewerage main breaks as a whole number

Notes

1. Sewerage breaks and chokes are affected by factors including sewer configuration, soil composition, climate, tree planting, age of the infrastructure, sewer depth, materials and diameter. These factors are indicators of the condition of the sewer network and customer service.
2. Third parties include parties other than those directly employed by or contracted to the service provider e.g. customers and contractors working for customers.

QG 4.20: Incidence of unplanned interruptions – water (S) (SWIM CS61)

This is the number of unplanned interruptions (when the customer has total loss of water supply and has NOT received at least 24 hours notification or as otherwise prescribed by regulatory requirements).

Includes:

- ✓ interruptions for which customers did not receive at least 24 hours notification or as otherwise prescribed by regulatory requirements
- ✓ situations where the duration of a planned interruption exceeds the period notified to the customer

Excludes:

- × property service connection interruptions, unless the burst or leak requires the water main to be shut down for repair and therefore affects multiple customers
- × interruptions that cause some reduction to the level of service but where normal activities (shower, washing machine, toilet flushing etc.) are still possible
- × breaks in house connection branches
- × planned interruptions
- × all interruptions caused by third parties

Scheme X: # incidence of unplanned interruptions – water

Scheme Y: # incidence of unplanned interruptions – water

Units # of unplanned interruptions as a whole number

Example

In the financial year, water service provider (WSP) 'A' had 3 unplanned interruptions.

WSP A reports 3.

Notes

1. The terms property, connection and customer can be used interchangeably.
2. The duration of an unplanned interruption commences once the water provider is aware that water is no longer available and ceases when normal service is restored.
3. Where legislation prescribes a minimum notification time for unplanned interruptions, this timeframe should be used.
4. Third parties include parties other than those directly employed by or contracted to the service provider e.g. customers and contractors working for customers.

QG 4.21: Number of drinking water service complaints (S) (SWIM CS22)

The total number of complaints received by the service provider relating to drinking water service, during the reporting year.

A complaint can be a written or verbal expression of dissatisfaction about an action, proposed action or failure to act by the water utility, its employees or contractors. Includes complaints received either in person, by mail, fax, phone, email or text messaging.

Includes complaints regarding:

- ✓ bursts
- ✓ leaks
- ✓ service interruptions
- ✓ adequacy of service
- ✓ water pressure
- ✓ water reliability

Excludes complaints regarding:

- × Water quality
- × Billing and accounts
- × Government pricing policy
- × Tariff structures

Scheme X: # drinking water service complaints

Scheme Y: # drinking water service complaints

Units # of complaints as a whole number

Notes

1. Do not include a customer query.
2. Include complaints about third parties only where the water utility has control (i.e. contractors).
3. Complaints from separate customers regarding the same issue, and multiple complaints from one customer on multiple issues are counted as separate complaints.
4. When a customer reports a service interruption, this is not counted as a complaint unless the customer expresses dissatisfaction about the interruption.
5. Australian Standards define a complaint as an 'expression of dissatisfaction made to an organisation, related to its products or the complaints handling process itself, where a response or resolution is explicitly or implicitly implied' (AS ISO 100002-2006).

QG 4.22: Number of sewerage service complaints (S) (SWIM CS21)

The total number of complaints received by the service provider relating to sewerage service quality and reliability, during the reporting year.

A complaint can be a written or verbal expression of dissatisfaction about an action, proposed action or failure to act by the water utility, its employees or contractors. Includes complaints received either in person, by mail, fax, phone, email or text messaging.

Includes complaints regarding:

- ✓ sewer chokes and overflows
- ✓ trade waste services
- ✓ sewerage odours
- ✓ sewerage system reliability
- ✓ all other sewerage issues

Excludes complaints regarding:

- × property connections
- × government pricing policy
- × tariff structures
- × other non-applicable areas of business

Scheme X: # sewerage service complaints

Scheme Y: # sewerage service complaints

Units # of complaints as a whole number

Notes

1. Do not include a customer query.
2. Include complaints about third parties only where the water utility has control (i.e. contractors).
3. Complaints from separate customers regarding the same issue, and multiple complaints from one customer on multiple issues are counted as separate complaints.
4. When a customer reports a service interruption, this is not counted as a complaint unless the customer expresses dissatisfaction about the interruption.
5. Australian Standards define a complaint as an 'expression of dissatisfaction made to an organisation, related to its products or the complaints handling process itself, where a response or resolution is explicitly or implicitly implied' (AS ISO 100002-2006).

QG 4.23: Billing & account complaints: water & sewerage (S) (SWIM CS23)

The total number of complaints received by the service provider that relate to billing and accounts during the financial year.

A complaint can be a written or verbal expression of dissatisfaction about an action, proposed action or failure to act by the water utility, its employees or contractors. Includes complaints received either in person, by mail, fax, phone, email or text messaging.

Includes complaints regarding:

- ✓ account payment
- ✓ financial loss or overcharging
- ✓ billing errors
- ✓ affordability

Excludes complaints regarding:

- × Government pricing policy
- × Tariff structures
- × Correctly calculated bill that is too high

Scheme X: # billing and account complaints

Scheme Y: # billing and account complaints

Units # of complaints as a whole number

Notes

1. Do not include a customer query.
2. Include complaints about third parties only where the water utility has control (i.e. contractors).
3. Complaints from separate customers regarding the same issue, and multiple complaints from one customer on multiple issues are counted as separate complaints.
4. Australian Standards define a complaint as an 'expression of dissatisfaction made to an organisation, related to its products or the complaints handling process itself, where a response or resolution is explicitly or implicitly implied' (AS ISO 100002-2006) Where legislation prescribes a minimum notification time for unplanned interruptions, this timeframe should be used.

QG 4.24: Number of water quality complaints (S) (SWIM CS20)

The total number of complaints received by the service provider that relate to water quality from any type of water provided.

A complaint can be a written or verbal expression of dissatisfaction about an action, proposed action or failure to act by the water utility, its employees or contractors. Includes complaints received either in person, by mail, fax, phone, email or text messaging.

Includes complaints regarding:

- ✓ discolouration
- ✓ taste
- ✓ odour
- ✓ stained washing
- ✓ illness
- ✓ cloudy water (e.g. caused by oxygenation)

Excludes complaints regarding:

- × service interruptions
- × adequacy of service
- × restrictions
- × billing and accounts
- × water pressure

Scheme X: # water quality complaints

Scheme Y: # water quality complaints

Units Water quality complaints as a whole number

Example

Complaint

If a customer calls to complain about the government's or service provider's media comments on water quality because they have suffered poor water quality, this is counted as a complaint.

Not a complaint

If a customer calls to ask about the health standards that apply for water quality, this is counted as a query, not a complaint.

Notes

1. Do not include a customer query.
2. Include complaints about third parties only where the water utility has control (i.e. contractors).
3. Complaints from separate customers regarding the same issue, and multiple complaints from one customer on multiple issues are counted as separate complaints.
4. Australian Standards define a complaint as an 'expression of dissatisfaction made to an organisation, related to its products or the complaints handling process itself, where a response or resolution is explicitly or implicitly implied' (AS ISO 100002-2006).

Series 5 – Distributor retailers

Series 5 'Distributor retailers' includes QG KPIs for operating ratio, capital replenishment ratio and debt to revenue ratio. These QG KPIs apply only to service providers who are distributor retailers and are to be reported at service-wide level.

QG 5.1: Operating ratio (W) (SWIM FN84)

Net operating result before tax divided by total operating revenue.

operating ratio (%)

Units percentage

Formula $[\text{net operating profit (before tax)} / \text{total operating revenue}] \times 100$

Note

1. Refer to Queensland Audit Office (QAO), Results of Audit: Water sector entities 2012-13, p. 39 for more details.

QG 5.2:	Capital replenishment ratio (W) (SWIM FN85)
Purchases of non-current assets divided by depreciation expense.	
# capital replenishment ratio	
Units	expressed as a number
Formula	purchases of non-current assets / depreciation expense
Note	
1. Refer to Queensland Audit Office, Results of Audit: Water sector entities 2012-13', p. 39 for more details.	

1. Refer to Queensland Audit Office, Results of Audit: Water sector entities 2012-13', p. 39 for more details.

QG 5.3: Debt to revenue ratio (W) (SWIM FN86)

Total loans and borrowings divided by total operating revenue.

debt to revenue ratio (% or number)

Units expressed as a percentage or number

Formula $[\text{total loans and borrowings} / \text{total operating revenue}] \times 100$, or
total loans and borrowings / total operating revenue.

Series 6 – Cyber security

The cyber security key performance indicators (introduced from the 2019-20 reporting period) are focussed on confirming that service providers have taken steps to identify their level of vulnerability to cyber threats and have taken action to address any findings from the vulnerability assessment on an ongoing basis.

The below key performance indicators are aimed at establishing an overview of cyber security activities specifically being undertaken to protect water and sewerage assets. However, it is acknowledged that cyber security activities may be occurring at an organisational level and not specifically in relation to water and sewerage assets. In this case, it is acceptable to answer the series 6 key performance indicators from a broader organisational perspective and provide a comment advising that this is the case.

Control and associated systems, as referred to in these key performance indicators, is any collection of data, information, devices or equipment, which support your organisation to perform its water and sewerage functions. They may include both operational technology and information technology assets such as:

- Data from water quality metrics from monitoring systems, e.g. SCADA,
- Control systems such as PLCs (Programmable logic controllers) and RTUs (Remote terminal units)
- Systems such as email communication systems, and
- Devices such as laptops, network equipment, cables and phones.

QG 6.1: Governance structure implemented (W) (SWIM IT1)

Does your organisation implement cyber security governance practices aligned with recognised standards that:

- Clearly defines internal roles and responsibilities for cyber security?
- Places cyber security responsibility with the appropriate component owner and cyber security risk accountability with the head of the executive team (CEO or equivalent level)?
- Considers appropriate security controls and compensating controls where applicable?

Units Yes / No

Comment required:

- If no, a comment is required to explain why the organisation has not implemented a cyber security governance structure.

Notes

1. The implementation of the ISO/IEC 27000 standard family or other equivalent international standards (e.g. ISA/IEC 62443 series) is a strategic decision for an organisation. This decision and implementation should be influenced by the organisation's needs and objectives, security requirements, the organisational processes used and the size and structure of the organisation.
2. The consistent use of a robust governance and risk structure increases the protection of an organisation's confidentiality, integrity and availability, and can also give confidence to external stakeholders and interested parties. An ideal equivalent internal standard aligned to the ISO/IEC 27000 series for example, should provide assurance to the accountable executive, that controls and processes are used to address business risks in line with the organisation's risk appetite and tolerance. It should also clearly define policies and procedures, internal roles and responsibilities for cyber security and place appropriate responsibility with the individual component owner.

**QG 6.2: Vulnerability / risk assessment of water / sewerage assets implemented (W)
(SWIM IT2)**

In the past 12 months, has your organisation undertaken an assessment of the vulnerability of water and sewerage services to cyber security risk which has also:

- Identified critical assets?
- Identified vulnerabilities in critical assets?
- Evaluated the risk of vulnerabilities being exploited in terms of likelihood and impact?

Units Yes / No

Comment required:

- If no, a comment is required to explain why the organisation has not undertaken a vulnerability assessment in the past 12 months.

Notes

3. A suitable vulnerability assessment would ideally include consideration of whether:
 - A critical asset register exists, identifies data and applications across both information technology and operational technology systems, and is consistently reviewed and updated.
 - The organisation can identify the design of its information and operational environments.
 - A validated network diagram exists; and
 - The organisation considered the requirements and implications of third-party access to its information technology and operational technology assets and whether this access is securely managed.
 - The vulnerability assessment should further identify whether exercises are undertaken to actively attempt to compromise the organisation's assets so weaknesses can be identified and addressed. Also, assessments should identify whether the organisation has visibility of the threats most likely to compromise its critical assets.
4. Recommendations should be made to remediate any identified vulnerabilities and manage the risks they introduce.

QG 6.3: Cyber security safeguards implemented (W) (SWIM IT3)

Do risks identified as part of your vulnerability / risk assessment process for water and sewerage control and associated systems:

- Have clear actions identified to mitigate risks?
- Have clearly defined responsibilities?

Units Yes / No

Comment required:

- If no, a comment is required to explain why cybersecurity safeguards have not been implemented.

Notes

5. Actions could include implementing the Australian Signals Directorate Essential Eight mitigation strategies and following advice for 'Secure Administration' from the Australian Cyber Security Centre (ACSC). These strategies include, but are not limited to:
 - Ensuring relevant access control systems and policies are in place.
 - Performing periodic reviews of applications, devices and/or networks in the control environment for their relevance in the field (decommission unused assets).
 - Assessing software for potential vulnerabilities and applying necessary patch management programs to remediate risks emerging from these vulnerabilities.
 - Maintaining and enforcing an application 'whitelist' to disallow unintentional or intentional execution of non-whitelisted applications which may introduce malware to the control environment.
 - Restricting administrative rights on the principle of least privilege' and data access on 'need to know' basis.
 - Enforcing the use of secure passwords that are sufficiently complex and ideally used in tandem with multi-factor authentication.

QG 6.4: Cyber security detection process implemented (W) (SWIM IT4)

Does your organisation monitor its assets to detect cyber security incidents / occurrences in water and sewerage control and associated systems?

Units Yes / No

Comment required:

- If no, a comment is required to explain why your organisation does not implement a cybersecurity detection process.

Note

1. Monitoring could include the implementation of automated or manual processes that identify abnormal, unusual or suspicious cyber security events, such as timed administration resets and numbered log in attempts before accounts are disabled.

QG 6.5: Cyber security response and recovery plan implemented (W) (SWIM IT5)

In the event of cyber security incident in water and sewerage control and associated systems does your organisation have a recovery plan with responses practiced at least annually?

Units Yes / No

Comment required:

- If no, a comment is required to explain why your organisation has not implemented a cybersecurity response and recovery plan.

Note

1. A recovery plan should include the process of daily backups of critical data and procedures to restore backups, and plans and procedures to operate water and sewerage infrastructure manually that are regularly exercised.
2. An internal Incident Response simulation exercise should be performed at least annually and should include the involvement of members of the Incident Response leadership and their subordinates in an exercise that would test the Incident Response team's ability to identify, respond to and remediate an internal incident.

Appendix A Water balance reference calculations

Figure 1: Potable water schemes - relationship of the water balance KPIs

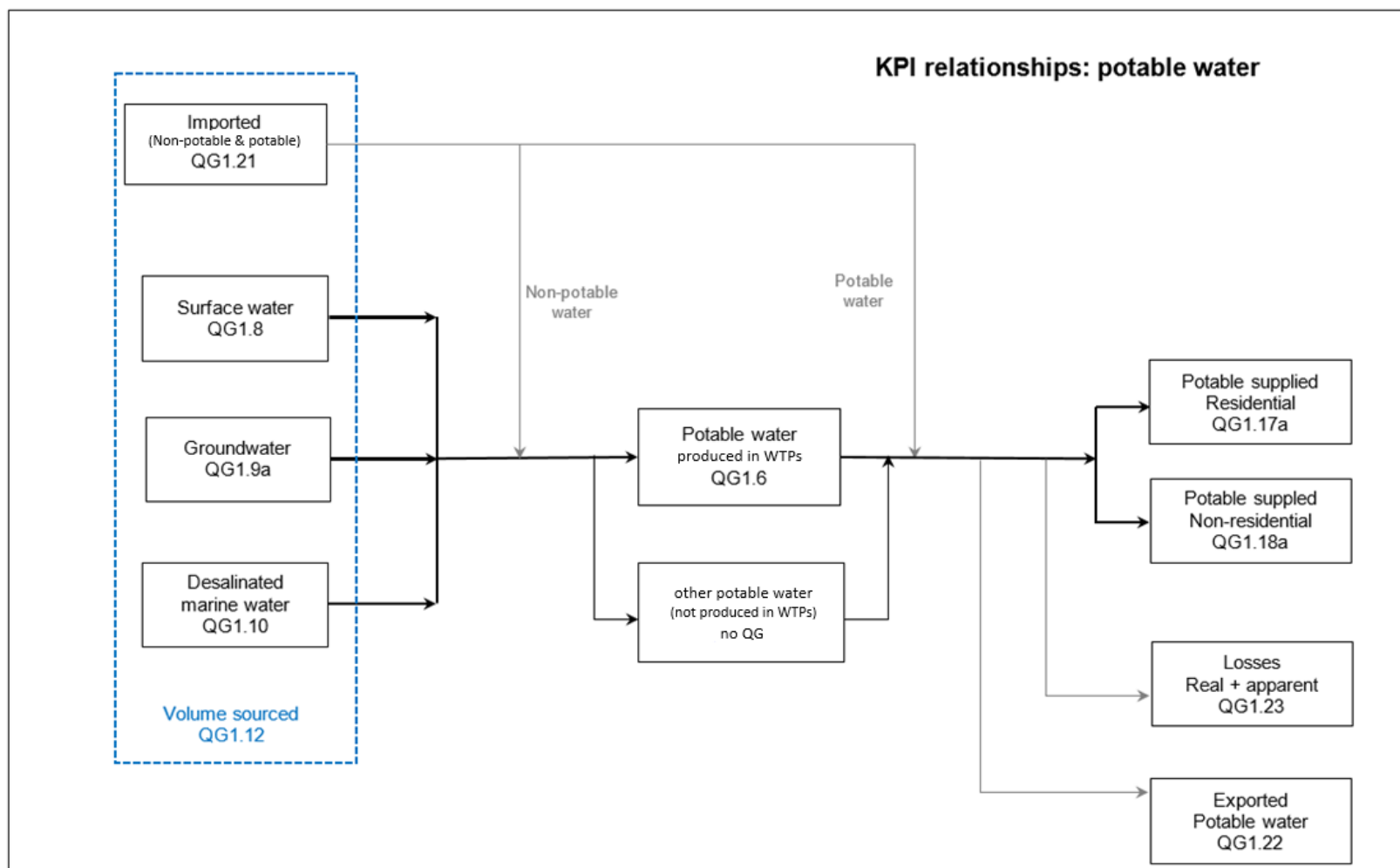


Figure 2: Non-potable water schemes - relationship of the water balance KPIs

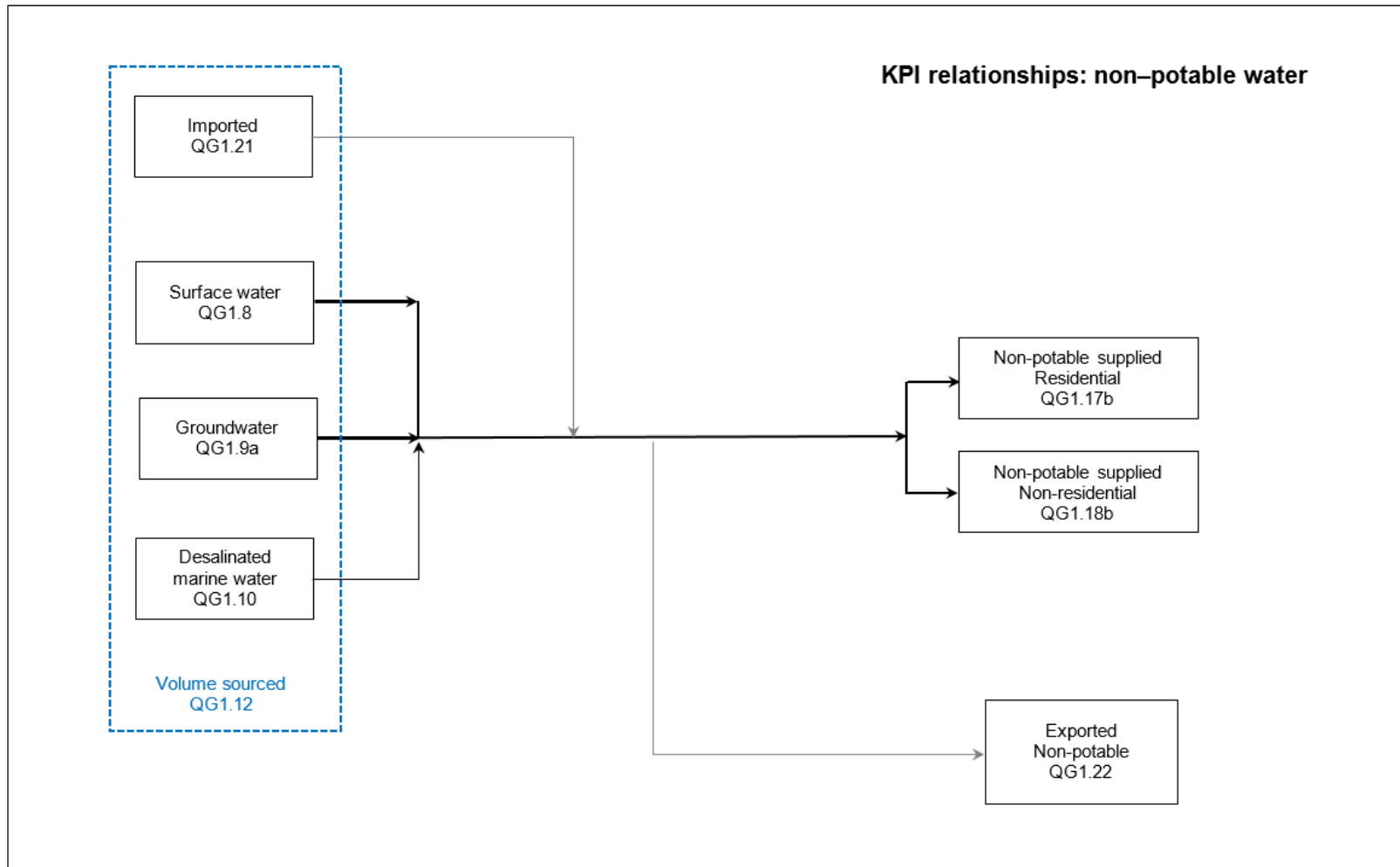
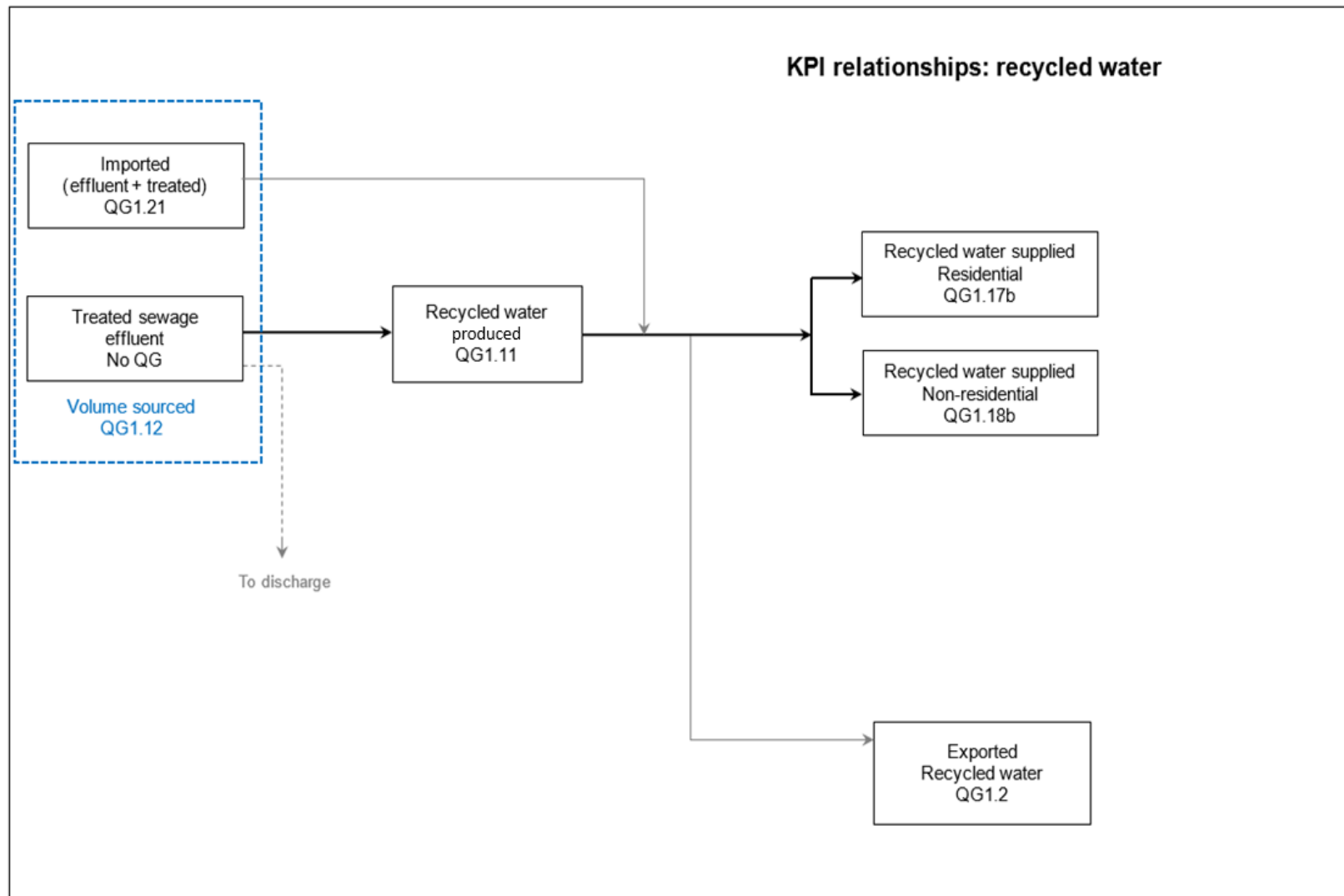


Figure 3: Recycled water schemes - relationship of the water balance KPIs



Appendix B Commonly used acronyms

Australian Accounting Standards Board (AASB): Indicators may reference an AASB code. The relating AASB standard is to be adhered to e.g. AASB12.

Australian Infrastructure Financial Management Guidelines (AIFMG): The AIFMG are published by the Institute of Public Works Engineering Australia. They provide consistent terminology and best practice approaches.

Build – Own – Operate – Transfer (BOOT): a form of project financing, wherein a private entity receives a concession from the private or public sector to finance, design, construct, and operate a facility stated in the concession contract.

National Performance Report (NPR): The NPR is the Commonwealth performance reporting and benchmarking framework. Matching indicators are referenced with their NPR code.

Queensland Government (QG): Indicators which are collected by the Queensland Government, currently reported through the Department of Local Government, Water and Volunteers (DLGWV).

Statewide Water Information Management (SWIM): SWIM is an online system for collecting, storing and reporting water service provider data. Matching indicators are referenced by their SWIM code.

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