



Water and Sewerage Capital Contributions Code

Guideline

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1 Introduction and Background

This guideline provides information on the Water and Sewerage Capital Contributions (WSCC) Code, Icon Water's methodology for calculating Equivalent Population (EP) multipliers and process for calculating the charge and guidance to assist developers in understanding the practical application of Capital Contribution Charges under 8.2 (1) and (2) respectively of the Water and Sewer Capital Contributions Code (the WSCC Code).

Prior to 2018, development (no matter how big or small) that triggered an upgrade of water and sewer assets was required to pay the full cost of new water and sewerage infrastructure.

The WSCC Code was introduced by the ICRC in 2018-2019 to address the inequity of one developer paying for infrastructure that benefited the local area. It was also designed to support the delivery of growth-related water and sewer infrastructure in Canberra. The core benefits and original drivers of the Code's funding arrangements included:

- Signalling economic impact: It provides a clear price signal to developers about the water and sewer infrastructure costs associated with their projects.
- Promoting equity: It ensures that new users share a reasonable portion of infrastructure costs compared to existing customers, aligning with the principle of "user pays."
- Reducing cross-subsidies: It minimises instances where existing water and sewerage customers bear the financial burden of new infrastructure needs.
- Preventing "last person standing" scenarios: It helps avoid situations where individual developers are left shouldering excess costs.
- Encouraging efficient growth: It minimises the risk of developing inefficiently sized capacity increments.
- Balancing cost recovery: It fairly distributes costs between developers and existing customers, promoting a sustainable funding model.

The Code does not increase Icon Water's overall revenues; rather, it balances the recovery of costs across our customer and developer base.

The ICRC undertook a review of the WSCC Code to ensure that the Code remained current and was operating as intended. On 1 September 2025, the commission released its final report and a revised WSCC Code.

1.1 Water and Sewerage Growth Infrastructure Investment

Canberra's water and sewerage network was established to provide sufficient capacity for Canberra's planned growth as envisaged in the strategic plans for the city, with a significant proportion of our assets built in the high growth and expansion periods of the 1960s and 70s, at the same time as some of Canberra's major districts (including Woden Valley, Belconnen, Weston Creek and Tuggeranong).

Icon Water's networks have served Canberra well in providing reliable and resilient water and sewerage services, but as we look toward the future, maintaining this quality of service will require increased infrastructure investment as Canberra grows to an expected 600,000 people by 2042, with ACT Government policy ambition to support this growth through increased density and its 70% infill development target.

The WSCC Code plays an important part in addressing the challenges of providing infrastructure to support this growth, providing needed funding for network upgrades and creating greater equity in the sources of that funding.

2 Network Capacity and Demand – WSCC Integration

The WSCC is designed to support Icon Water's investment in growth-related network augmentations which are based on increased demand from new developments and the existing and forecast capacity of Icon Water's networks. Calculation of network capacity and demand from new developments is impacted by a number of factors including, expected water and sewer service requirements, development area, development density and type, network lengths, number of connections and demand peaking factors.

These are used to make assessments on the long-term impact of new development types on the water and sewer networks following industry standard approaches included in Icon Water's supplements to the Water Service Association of Australia's (WSAA) technical design codes¹².

An example of this is shown below in figure 1, which outlines the components used for sewerage design, including sanitary flow from fixtures and appliances, ground water infiltration (GWI) and rainfall dependent inflow and infiltration (RDI), which combine to form the total design demand flows.

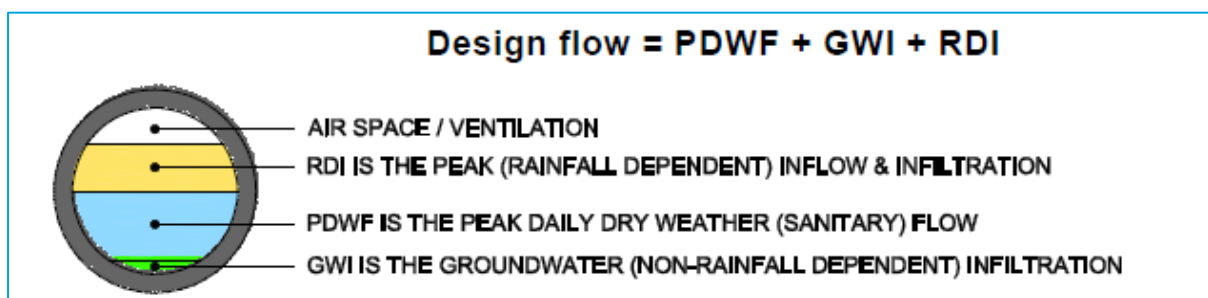


Figure 1. WSAA02 Sewerage Design Flow Components

Network demand and design calculations can be complex, so as part of development of the WSCC Code a number of options were considered for use as a proxy for the demand impact on the networks from new developments. To provide a balance between simplicity and economic equity and efficiency EP was approved by the ICRC as a proxy for the impact on the networks from new developments.

Whilst EPs are only one component of total demand; they were chosen to balance the competing economic principles of the code and minimising the need to create new or duplicate administrative systems by leveraging Icon Water's existing technical standard framework. This was supported by the relative simplicity of EP calculation and the fact that the majority of forecast network augmentation expenditure was for upgrades to the sewerage network.

¹<https://www.iconwater.com.au/sites/default/files/2025-10/STD-SPE-G-011%20WSA%2002%20Gravity%20Sewage%20Code%20Supplement.pdf>

² <https://www.iconwater.com.au/sites/default/files/2025-10/STD-SPE-G-011%20WSA%2002%20Gravity%20Sewage%20Code%20Supplement.pdf>

3 Equivalent Population (EP) and WSCC Operation

An EP is a water industry standard measure, used to represent the demand or loading that a development will have on the sewer network in terms of an average daily sewer discharge for an average person.

The Water Services Association of Australia (WSAA) defines EP as follows³:

Equivalent Population (EP) *The equivalent hypothetical residential population that would produce the same peak dry weather flow as that contributed by the area under consideration i.e. all zonings including residential, commercial and industrial*

Use of EP allows comparison of different development types, such as various residential or commercial uses to be converted into a consistent demand calculation for network design, planning and assessments. To calculate an average daily sewerage demand, the number of EP's are multiplied by a per person daily usage/contribution amount.

EP is a proxy for the impact on the networks from new developments. The EP multipliers used by Icon Water are based on the Water Services Association of Australia (WSAA) 02 Gravity Sewerage Code of Australia in Table 1 and adjusted to reflect local conditions and demand characteristics. This is informed by data from network gauging, demand assessment and demographic studies.

As outlined in the previous section, this is only one component of network demand and in practice, there is also significant variation in demand patterns across different areas. This reflects differences in demographics, dwelling types and sizes, water use patterns and the impacts of changing technologies over time. Whilst recognising this, the use of EP's is aimed at providing a standardised calculation approach to reflect expected potential demand impacts from customers.

3.1 Icon Water Local EP Calculation Methodology

As part of Icon Water's technical design standards, EPs are calculated using both national and local demand information. These are regularly reviewed and updated as part of technical standard updates where new information or data is available. Icon Water will review these standards following updates to population forecasts in 2026 and to meet requirements of the ICRC's 2025 WSCC Code review.

Local EP calculation typically involves collating network demand, development and demographic data from various sources such as:

- Network gauging
- Water meter data
- Census data
- ACT Government Population data
- Development information, types, sizes, location, uses
- Employment figures
- Institutional data from schools and universities
- ACT land-use and planning information.

Default factors and multipliers are sourced from national industry standards where local information is unavailable or insufficient. Further information about residential and non-residential population density is provided below.

Existing Residential Population Density

In recent decades, the trend for residential development densities have been reducing across the country as household formation changes, but these can be highly variable in new development areas and reflect longer term cycles that include social, economic and demographic factors. In the last few

³ WSAA 02, Gravity Sewerage Code of Australia - Version 3.3, page 40

decades, ACT government policy, changes in demographics and development types have also resulted in increased dwelling densities for all areas of Canberra. This has also included a move to significantly higher rates of unit and apartment living in the ACT, representing the vast majority of new developments in recent years.

Icon Water regularly updates its population projections to enable network capacity and planning to occur, the most recent update being completed in 2026. As part of this work, Icon Water looks at both the current and forecast population densities for different development and dwelling types as these form part of EP categorisation and factor calculation. This work also incorporates analysis of network gauging data and water usage data to compare different development types and per EP demands. Icon Water will use latest population density data to review EP currency with the changing development types in Canberra and update the EP multipliers by June 2028 in line with the next pricing regulatory cycle.

Existing Non-Residential Density

Similar to the residential population densities, Icon Water assesses the demand impacts from non-residential uses with available data. For shops and offices, this typically occurs by using winter water meter demand for these customers to isolate indoor demand without outdoor irrigation demand that typically only happens in warmer periods of the year. This usage is then converted into non-residential EP multipliers.

Commercial Uses

For shops and offices, these have been checked against buildings with known employee or occupant numbers to verify consistency in the average multiplier over time. Area calculations are also used, with default densities leveraging off occupancy standards for these use types.

Other commercial uses have been set using national industry multipliers and comparison with smaller local examples, once again checked against water uses.

Industrial Uses

Canberra does not have significant amounts of heavy or wet industry trades, so these typically rely on individual assessment where expected water demands are calculated and converted to applicable EP numbers.

Institutional Uses

Institutional uses include educational facilities from schools to universities of different sizes and composition. Icon Water uses student and staff counts along with water use to assess the appropriate EP multipliers for these uses.

The network demand, development and demographic data from various sources is then analysed to be able to determine usage categories and appropriate average EP factors within each category. The categorisation in the technical standards is designed to take a conservative engineering approach to the potential demand impact from individual development types at a local level where significant variability of usage exists.

3.2 Icon Water Standard Residential EP Categories

The current residential EP categories and multipliers in Icon Water's technical standard are shown below in table 3. For daily demand, the current per person daily contribution is set at 180L/EP/day.

Table 1. Icon Water Standard Residential EP Multipliers

Residential Dwelling Type	EP Multiplier (EP/dwelling)
Low Density (Detached dwellings, <25dwelling/Ha)	3.5
Medium Density (e.g. semi-detached, terrace, townhouses, 25-80 dwellings/Ha)	2.5
High Density (>80 dwellings/Ha)	2

Secondary dwellings

The 2025 WSCC Code introduced a cap of 2.5 EP for the secondary dwellings not exceeding 120m² (excluding the garage) to address the equity concerns about the EP calculation for secondary dwellings, particularly those on bigger blocks. Previously, secondary dwellings on blocks 800m² or smaller would incur a net increase of 1.5 EP while those built on blocks larger than 800m² would incur a net increase of 3.5 EP (the same as the EP multiplier applied to primary dwellings), regardless of the size of the secondary dwelling or the impact on the water and sewerage network.

3.3 Icon Water Standard Non-Residential EP Categories

The current non-residential EP categories and multipliers in Icon Water's technical standard are shown below in table 4.

Table 2. Icon Water Standard Non-Residential EP Multipliers

Usage Type	Unit	EP Multiplier
Commercial		
Shops and Offices	Per employee	0.3
	Gross lettable floor space (10,000m ²)	Default of 300 when further development specific information is not available
Public Visitor Buildings or Sport Spectator Facilities	Per Visitor	0.05
Restaurants and Clubs	Per Seat	0.1
Tourist or Hospital Accommodation	Per Bed	0.5
Industrial		
Dry Trades		As per commercial shops and offices

Wet Trades (water intensive industries)		On a case-by-case basis as determined by Icon Water
Institutional		
Schools and Educational Facilities	Per student or staff member	0.2

3.4 WSCC Operation

The WSCC operates over a rolling 20-year timeframe, dividing forecast network augmentation (Class 2) costs across the total forecast EP population growth for infill development in that period. Icon Water identifies the network upgrade requirements as part of network planning, which compares forecast growth to network capacities. These network upgrades form part of Icon Water’s wider capital investment program that is also subject to ICRC regulatory oversight. And Icon Water’s growth forecasts are currently used to provide expected EP growth for infill development areas subject to the code.

The WSCC charge is calculated by assessing a per EP cost for 50% of the total forecast Class 2 infrastructure costs, with the remaining 50% of funding being drawn from Icon Water revenue collected through existing customer bills.

Through each approved update to the WSCC Code charge, the financial model underpinning the code is reviewed and updated, currently rolling forward by one year. Infrastructure expenditure and growth numbers are updated, with the financial model automatically adjusting to balance the forecast infrastructure costs and collected funds over the 20-year period. In recognition of the uncertainty of inputs to the model, the risk of short-term over or under collection is automatically incorporated into the updated charge each year. This means that the risk and impact of changing growth forecasts or infrastructure costs is inherently incorporated into calculation of the WSCC Code charge. The overall functioning of the code and financial model is regularly reviewed as part of this process to identify opportunities for improvement.

At present, the supporting information is updated yearly, moving to five yearly update cycles from 2028 to create greater charging certainty for developers and ease of administration by Icon Water.

3.5 ICRC WSCC Review 2025 – EP Multipliers

As part of the ICRC’s WSCC Code review of 2025, the ICRC has included a requirement for a review of EP multipliers within each 5 year regulatory cycle so they are checked and maintain currency with changing development types. Icon Water has supported this and committed to conduct a review of EP multipliers within the current regulatory cycle 2023-2028, with implementation of any recommended updates by July 2028.

4 Practical application of the WSCC Code

4.1 Worked EP WSCC examples according to development type

The Icon Water website includes an [online calculator](#) to assist developers to estimate the WSCC charge for development.

The ICRC's WSCC 2025 sets out the calculation of Class 2 infrastructure charges using the following formula:

$$C2IC = (\text{net increase in EP}) \times C$$

Where:

'C2IC' is the Class 2 Infrastructure Charge for a Development inside a Precinct

'net increase in EP' is determined by the Utility

'C' is the Precinct Charge.

The residential and non-residential EP categories and multipliers are outlined in [Icon Water's technical standard](#) and shown in Tables 3 and 4.

To assist with understanding how the WSCC charge is calculated, some worked examples are provided below to demonstrate how the WSCC charge is calculated:

4.1.1 Knock down/rebuild single residential dwelling

No WSSC charge as there is no increase in demand.

4.1.2 Alterations and addition to dwelling

No WSSC charge as there is no increase in demand.

4.1.3 Secondary dwelling not exceeding 120m² (excluding the garage)

A secondary dwelling not exceeding 120m² (excluding the garage) is capped at a maximum of 2.5 EP.

Number of dwellings	EP multiplier	Total EP multiplier
Original – 1 primary dwelling	3.5	3.5
New – 1 additional secondary dwelling not exceeding 120m ² (excluding the garage)	2.5	6.0 (=3.5+2.5)
Net increase in EP		2.5 (=6.0-3.5)
WSCC charge (2026-2027)		\$920 x 2.5 = \$2,300

4.1.4 Dual occupancy on an 800m² block

Number of dwellings	EP multiplier per dwelling	Total EP multiplier
Original – 1 primary dwelling	3.5	3.5
New – 1 additional dwelling	3.5	7.0 (=3.5x2)
Net increase in EP		3.5 (=7.0-3.5)
WSCC charge (2026-2027)		\$920 x 3.5 = \$3,220

4.1.5 Triple occupancy on an 800m² block

Number of dwellings	EP multiplier per dwelling	Total EP multiplier
Original – 1 primary dwelling	3.5	3.5
New – 3 dwellings	2.5	7.5 (=2.5 x 3)
Net increase in EP		4 (=7.5-3.5)
WSCC charge (2026-2027)		\$920 x 4 = \$3,680

4.1.6 Townhouse development on 800m² block

Number of dwellings	EP multiplier per dwelling	Total EP multiplier
Original – 1 primary dwelling	3.5	3.5
New – 7 dwellings	2.0	14 (=2.0 x 7)
Net increase in EP		10.5 (=14-3.5)
WSCC charge (2026-2027)		\$920 x 10.5 = \$9,660

4.1.7 Commercial - shops and offices

Commercial - shops and offices with 5 new employees

Number of employees	EP multiplier	Total EP multiplier
Original EP	3.5	3.5
New – 5 employees	0.3	1.5 (=5 x 0.3)
Net increase in EP		-2 (=1.5 – 3.5)
WSCC charge (2026-2027)		No charge applicable

Commercial - shops and offices with 25 new employees

Number of employees	EP multiplier	Total EP multiplier
Original EP	3.5	3.5
New – 25 employees	0.3	7.5 (=25 x 0.3)
Net increase in EP		4 (=7.5-3.5)
WSCC charge (2026-2027)		\$920 x 4 = \$3,680

4.1.8 Other – wet trades (case by case)

There is no prescribed EP multiplier for wet trades (water intensive industries) as these trades can have a large and variable impact on the water and sewerage network. The EP for these trades are generally calculated on water consumption and usage patterns. Examples of such uses include data centres, car washes and laundries.

Usage	Wet Trade Water Use	Per EP Water Use** (L/EP/day)	Total EP
Existing Empty Site	0kL/day	180	0
Proposed Laundry	10kL/day	180	55.5 (=10,000/180)
Net increase in EP			55.5
WSCC charge (2026-2027)*			\$920 x 55.5 = \$51,060

*Total EP calculation for these types of businesses can vary depending on specific usage patterns and network impacts

** EP water use is 180L/EP/day based on daily per EP contribution the sewerage system. This is updated regularly based on actual usage data.

4.2 WSCC Code Process

The process and timeframes for development applications and assessment are dependent on the development project, its potential impact on our water and sewerage assets, complexity and quality of applications. The process guide below outlines the steps and links to follow for your development application:

1	<p>In-Principle Acceptance – Confirm application of Code and WSCC charge</p> <p>As a developer, submit your in-principle application. Icon Water will assess the application against the WSCC Code. If the Code applies to your development, you will receive a WSCC letter confirming this with your in-principle approval. Information about in-principle approval for your development type can be found at: Project applications and compliance Icon Water.</p> <p>Icon Water generally assesses submissions in the following timeframes*:</p> <ul style="list-style-type: none"> • Minor works: original submission & first resubmission within 10 business days, second resubmission and more within 15 business days • Major works – linear and complex: original submission & first resubmission within 15 business days, second resubmission and more within 20 business days. <p>You: Submit In-Principle submission Icon Water: Assess against WSCC Code and confirm WSCC charge in writing</p>
2	<p>Network Protection Compliance - Development Application or Building Application</p> <p>In-principle approval and confirmation of the WSCC charge for your development type is required before you can submit your Development Application (DA) or Building Application.</p> <p>Icon Water response timeframes to Development Applications are determined by the Territory Planning Authority. Icon Water’s assessment timeframes for Building Applications is 10 business days.</p>

You: Lodge your DA with the TPA or BA with Icon Water **Icon Water:** Check In-Principle acceptance and WSCC assessment

Detailed Design Acceptance – Confirm WSCC charge

Submit your Detailed Design. Icon Water will reassess against the WSCC Code and issue a WSCC letter confirming the WSCC charge along with your design acceptance. Information about detailed design acceptance for your development type can be found at: [Project applications and compliance | Icon Water](#).

3

Icon Water generally assesses submissions in the following timeframes*:

- Minor works: original submission & first resubmission within 10 business days, second resubmission and more within 15 business days
- Major works – linear and complex: original submission & first resubmission within 15 business days, second resubmission and more within 20 business days.

The WSCC charge is final, unless changes to the development or EP are made.

You: Submit Detailed Design submission **Icon Water:** Confirm WSCC charge in writing

Construction — Request Invoice

4

During construction, you can request a WSCC invoice at any time from Icon Water via email wsc@iconwater.com.au. Icon Water will send you a WSCC invoice within 5 business days of receiving your request.

You: Request the WSCC invoice from Icon Water **Icon Water:** Issue WSCC invoice within 5 business days of request

Connection – Pay invoice prior to connection

Payment of the WSCC invoice is required at least 10 business days prior to connection to the water and/or sewerage network.

5

Note: while not related to the WSCC code, payment of all development related invoices from Icon Water (including connection invoice) are required prior to connection.

You: Pay all development relevant invoices from Icon Water prior to connection **Icon Water:** Connects to the water and/or sewerage network

** Assessment timeframes depend on the complexity and quality of the submission*

Statement of decisions and review

You may request a written statement of decisions for any decision made under the WSCC Code and this will be provided within 20 business days. You may also request an internal review of any decision made by Icon Water under the WSCC Code.

If you are dissatisfied after the internal review, you have a right of review by the ACT Civil and Administrative Tribunal (ACAT) on (02) 6207 1740 or tribunal@act.gov.au.