

# TasWater: Developer Charges

## An assessment of options

Draft paper

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# Glossary

Capacity	The maximum amount of water and/or sewerage (in ETs, or kL/day) that TasWater infrastructure can transport, supply and/or treat)
Connection	Assets needed to connect developments to the existing network, most typically pipelines; also referred to as 'extension' (see below)
Contributed assets	Assets gifted to a water business
CSO	Community service obligation
Developer charges	Upfront charges imposed on developers as a condition of connection to a water business's water or sewerage network infrastructure
Distribution assets	Major shared assets used to distribute water across the network including distribution pipes, pump stations and intermediate storages
Efficiency	Different types of efficiency are: <ul style="list-style-type: none"><li>• allocative efficiency—where, given an initial allocation of scarce resources, production and consumption are optimal in the sense that no changes can be made that would increase the total welfare of the community</li><li>• productive efficiency—where goods and services are produced at the lowest possible cost</li><li>• dynamic efficiency—which refers to any aspect of economic efficiency with a time dimension—for example, the timely and profitable introduction of new products, services and cost-reducing innovation (allocation and management of risk are also important aspects of economic efficiency)</li></ul>
Equivalent Tenement	An Equivalent Tenement (ET) is a measure of the load a property places on the sewerage system. One ET is the sewage discharge from an average single residential house, under dry weather flows
ESC	Essential Services Commission
Expansion	The augmentation of (smaller) water infrastructure and/or sewerage infrastructure to accommodate the development of a property that cannot be catered for by a current water system's capacity and/or current sewerage system's capacity
Extension	The lengthening of water infrastructure and/or sewerage infrastructure to enable connection of unserviced land to a current water system and/or current sewerage system (connection)
Greenfield	Describes a development occurring in an undeveloped area

Headworks	Major works like dams, more significant reservoirs, treatment plants, main sewers and distribution assets like supply mains, distribution mains and associated pump system, but exclude reticulation pipework that connects properties to the headworks <sup>1</sup>
k/L	1,000 litres
Industry Act 2008	<i>Water and Sewerage Industry Act 2009</i> (Tas.)
Infill	Describes a development occurring in an already developed area
IPART	Independent Pricing and Regulatory Tribunal
MARR	Maximum allowed regulated revenue
OTTER	Office of the Tasmanian Economic Regulator
Out-of-sequence	Infrastructure that are required ahead of schedule
QCA	Queensland Competition Authority
Recurrent charges	Charges that are levied on a recurring basis on customers
Reticulation assets	Small network assets within a subdivision
Source assets	Assets that are used to source, treat and store water and include dams, bores, desalination plants and treatment plants
Sunk assets	Describes assets that have been funded and commissioned
TER	Tasmanian Economic Regulator
Unplanned development	Includes both new development and out-of-sequence developments inconsistent with the Growth and Capacity Plans
Works Internal	Any infrastructure that is internal within a subdivision, up to the property boundary (typically reticulation)
Works External	Infrastructure external to a proposed subdivision—including connection (extension), and minor (expansion) infrastructure directly linked to a proposed development (typically reservoirs, treatment plants and pump stations).
WSAA	Water Services Association of Australia

<sup>1</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

# 1. Executive summary

TasWater seeks to assess its current developer charging arrangements and to identify any scope for improvement.

This Options Paper assesses the current arrangements and alternative approaches against a range of criteria. The criteria reflect TasWater's responsibilities and are consistent with generally accepted pricing principles.

Two options have been identified for consideration. Option 1 excludes expansion and headworks augmentation from developer charges and allocates those costs to the broader customer base ('shared external works'). Option 2 builds on current arrangements to ('enhanced status quo') and allocates a greater proportion of the costs of expansion and headworks augmentations to developers compared with current arrangements.

## 1.1 Background

Developer charges are upfront charges imposed on developers as a condition of connection to a water business's water or sewerage network infrastructure.<sup>2</sup>

Developer charges represent one source of revenue available to TasWater to fund its activities. Other potential sources include recurrent charges, borrowings and direct government funding (in the past these have also included grants). Reticulation assets within subdivisions are gifted by developers.

TasWater has commissioned Marsden Jacob Associates (Marsden Jacob) to develop this options paper to assess the current and alternative approaches to developer charges to establish whether there is a case for any improvement/change.

Together with stakeholder consultation, this options paper will inform the position TasWater will seek to adopt for the purpose of the next regulatory period (PSP4).

TasWater is responsible for the provision of water and sewerage services in Tasmania, having assumed responsibility from three regional corporations in 2013. Many urban centres' assets are at or over their age or capacity limits or are not compliant with relevant standards.<sup>3</sup> In some instances, available spare capacity is evident but is being increasingly utilised.

Moreover, Tasmania's population and the demand for land have grown significantly in many areas. As a result:

- there is an increased requirement for additional infrastructure to support growth
- there is an increased requirement for the funding of the required infrastructure

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<sup>2</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

<sup>3</sup> TasWater, memorandum, 23 January 2020.

- concerns have been raised about developer charges potentially inhibiting growth and economic development, as spare capacity has been consumed under the current policy approach.

At recent forums held by TasWater in Hobart, Devonport and Launceston, there was a view that with the current approach to developer charges, existing spare capacity will soon be taken up in growth areas and there would be insufficient revenue to fund the necessary infrastructure.<sup>4</sup> Participants also commented that:

- something similar to what is commonly known as the 'headworks charge' should be re-introduced now that development is seen as 'booming'
- the absence of developer liability for such charges was giving an unfair advantage to the 'first movers' where there was spare capacity but a distinct disadvantage to those developing where there was no spare capacity
- any reintroduced model should be simple and understandable
- state government should lead on 'settlement strategy'—that is, where new areas are to be settled or existing areas expanded
- charges to developers should be lower for development in regional or greenfield areas that have lower levels of service.

Separately, previous customer engagement (for PSP3) found that, overall, 63 per cent of phone survey respondents supported cost sharing across the entire customer base for development-driven infrastructure upgrades.

## 1.2 The case for developer charges

Developer charging arrangements have been adopted in every jurisdiction in Australia.<sup>5</sup> Appropriate developer charging arrangements can:

- provide service providers and developers with a means to respond to the demand for land not met as part of planned developments
- provide service providers with the funds necessary to support such development
- signal the differences in the costs of providing services to different locations, thereby promoting development of those areas with the lowest cost
- enhance the potential for competition in providing water and sewerage services to new developments.<sup>6</sup>

## 1.3 Current arrangements

Current water and sewerage developer charges in Tasmania incorporate the costs of:

- reticulation (incurred by developers and gifted to TasWater)
- new infrastructure to enable connection of unserved land to a current system

<sup>4</sup> TasWater, *Economic Development Forums—Hobart, Devonport and Launceston*, summary report, 25 March 2019.

<sup>5</sup> IPART, *Maximum prices to connect, extend or upgrade a service for metropolitan water agencies*, final report, 2018.

<sup>6</sup> IPART, *Maximum prices to connect, extend or upgrade a service for metropolitan water agencies*, final report, 2018.

- some (smaller) infrastructure capacity required to accommodate the development of a property.
- Developer charges do not include the costs of existing spare capacity, larger expansion<sup>7</sup> assets and any headworks.

## 1.4 Criteria

Criteria have been developed for the purpose of assessing current arrangements and alternative approaches. These criteria reflect the requirements of the *Water and Sewerage Industry Act 2008* (Industry Act 2008) and the principle objectives of the *Water and Sewerage Corporation Act 2012*.

These criteria relate to:

- the availability of infrastructure to provide reliable and secure services
- recovery of efficient costs
- efficient pricing (including location and timing signals)
- minimising cross-subsidies
- addressing equity
- ensuring understanding in implementation
- administrative simplicity.<sup>8</sup>

The criteria also broadly align with traditionally regarded pricing principles that require prices to be cost-reflective and forward-looking, ensure revenue adequacy, promote sustainable investment, ensure regulatory efficiency and take account of public interest matters.<sup>9</sup>

Relevant to the assessment is the overall regulatory and revenue framework to apply over the next regulatory period (PSP4). State-wide uniform prices for service categories, often referred to as “postage stamp” pricing, are proposed to continue.

Other matters to consider are prevailing circumstances relating to expected growth, and any stakeholder insights from consultation.

## 1.5 Assessment of current arrangements

Under current arrangements, there are opportunities to respond to some unplanned developments, recover some of TasWater’s related costs and send some relevant pricing signals to developers and customers. However, past and current capital expenditure continue to prioritise necessary compliance and renewals due to a lack of funding following from constraints on recurrent charges, and the absence of charges for larger required infrastructure.

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<sup>7</sup> Expansion means the augmentation of (minor) water infrastructure and/or sewerage infrastructure to accommodate the development of a property that cannot be catered for by a current water system’s capacity and/or current sewerage system’s capacity.

<sup>8</sup> A similar range of criteria was adopted by Frontier Economics and include cost recovery, equity, funding, economic efficiency and risk sharing.

<sup>9</sup> QCA, *Statement of Regulatory Pricing Principles for the Water Sector*, 2000.

Identifiable priorities for improvements to current arrangements relate to:

- increasing funding for growth—recurrent and developer charges do not provide adequate funding to support planned or unplanned growth in many areas
- achieving efficient pricing—lack of full cost recovery suggests that more effective signals are required for the location and timing of infrastructure to ensure least cost service delivery. There is insufficient evidence to suggest that developer charges impede growth
- improving administrative arrangements—a range of concerns exist in relation to current arrangements, including the potential for ‘saw-tooth’ pricing, which could impede growth
- increasing transparency and clarity—to promote understanding and administrative simplicity.

Many stakeholders also have concerns about the fairness of current arrangements. There is currently no objective test of fairness, and there are various interpretations of the fairness of current arrangements.

Current arrangements distinguish between the following types of infrastructure<sup>10</sup>

- Work Internal (reticulation assets)
- Works External – Extension (connection assets)
- Works External – Expansion (smaller infrastructure such as sewage pump stations and emergency wet weather storage) to accommodate the development of a property that cannot be catered for by a current water or sewerage system’s capacity.

The costs of headworks are not included in developer charges – headwork refer to major works like dams, more significant reservoirs, treatment plants, main sewers and distribution assets. Related costs are not included in developer charges nor is there a separate headworks charge.

## 1.6 Options

A wide range of approaches to developer charges are adopted across Australian jurisdictions. These approaches mainly relate to the treatment of headwork costs. By assessing the various approaches against the defined criteria, the strengths and weaknesses of the various approaches can be determined (see section 5).

On the basis of the consideration of the criteria, two alternative options were chosen for more detailed assessment (see section 6).

Option 1 essentially seeks to be administratively simpler than current arrangements. Option 2 seeks to build on current arrangements to address to better address a range of identified shortcomings of current arrangements.

For both chosen options, it is proposed that reticulation and connection costs continue to be funded by developers, as is currently the case.

### Option 1: Shared external works

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<sup>10</sup> These terms are defined in the glossary (p. 4).

All planned external expenditure (including minor and significant infrastructure such as reservoirs, treatment plants, main sewers and distribution assets like supply mains, distribution mains and associated pump system)<sup>11</sup> required to meet compliance, renewals and forecast growth (consistent with relevant whole-of-government and regional and local plans) would be included in Growth and Capacity Plans.

Costs, including those related to previously installed undepreciated assets, and costs related to resourcing, data gathering and systems necessary for effective planning would be included in recurrent charges.

Reticulation and connection costs related to unplanned development are not incorporated in Growth and Capacity Plans—and therefore neither in recurrent charges—as they are not foreseeable. These would continue to be incurred by developers and gifted back to TasWater.

To reduce constraints on TasWater’s ability to manage costs associated with unplanned new developments, related costs would need to be incorporated in the regulatory asset base in the next regulatory period.

This option thus differs from the current developer charging arrangements in that unplanned augmentation of larger infrastructure capacity would not be absorbed in TasWater’s profits.

The main advantages of this option relative to the current arrangements are that it increases cost recovery (assuming price increase restrictions are not maintained in the long-term), is simple to administer and conforms with some stakeholders’ perception of fairness<sup>12</sup> (although other stakeholders may have a different perception).<sup>13</sup>

The main disadvantages are that, in the absence of location and timing signals, the approach fails to signal the least cost options for new development, does not specifically provide for cost recovery for out-of-sequence developments, and fails to allocate the risks associated with estimates of demand to relevant parties.

It is also more likely to put pressure on TasWater given current restrictions on annual recurrent charges. These restrictions include a freeze on prices for regulated services from 1 July 2019 to 30 June 2020, and for target tariffs to be no greater than 3.5 per cent commencing from 1 July 2020 until 30 June 2025 (or apply a lower price determination made by TER).<sup>14</sup>

## Option 2: Enhanced status quo

This option includes a range of measures to enhance the current developer charging framework. Under this option, costs related to all installed and planned external works would be incorporated into the Maximum Allowed Regulated Revenue (MARR) (as for the ‘shared external works’ option).

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<sup>11</sup> Note that this definition differs from that under current arrangements.

<sup>12</sup> PSP3 customer engagement found that overall, 63% of phone survey respondents supported cost sharing across the customer base for development-driven infrastructure upgrades.

<sup>13</sup> TasWater, *Economic Development Forums—Hobart, Devonport and Launceston*, summary report, 25 March 2019. Some stakeholders sought the re-introduction of some form of ‘headworks’ charge.

<sup>14</sup> TasWater, *Shareholder Letter of Expectations*, 27 September 2018.

Infrastructure associated with unplanned developments that is not incorporated in Growth and Capacity Plans would be recovered from developers.

This option includes:

- a low standardised charge for most unplanned developments. This charge could also be applied to planned developments to raise additional revenue to offset the cost of growth (but would need to be offset against costs relevant to the MARR).

In metropolitan Melbourne, minimum New Customer Contribution per lot charges are currently set at \$713.80 for each water and sewerage service. These charges are applied across City West Water, South East Water and Yarra Valley Water.<sup>15</sup> In ACT, a charge of \$1200 is levied on a per-Equivalent Population basis on all developments across a single precinct.<sup>16</sup>

- a principles-based charge—invoked by TasWater where significant commercial risks and locational/timing issues arise and allow for
  - out-of-sequence costs where development necessitates the acceleration of capital works relative to the timing in TasWater’s capital planning
  - unplanned incremental (forward-looking) new development costs related to directly attributable external works and would exclude any existing assets. All developers would pay the same amount per lot (adjusted for inflation), negotiated with the initial developer until the excess capacity is utilised. Revenues received from developers would be offset against the MARR in subsequent regulatory periods.

The main advantages of this option over current arrangements are that it would increase cost recovery thus promoting TasWater’s financial viability and providing funds to support growth, provide locational and timing signals to support the adoption of least cost developments and support the adoption of more sustainable responses to increased demand (where relevant). It most closely aligns with the views of the Water Services Association of Australia (WSAA), which generally considered that:

- developers need to pay their share to support the costs of servicing new development
- without developer charges, existing customers are paying for new customers.<sup>17</sup>

The main disadvantage of this option is its relative complexity. It also requires attention to several implementation issues.

Key implementation issues include:

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<sup>15</sup> Essential Services Commission, New Customer Contributions accessed 18 February 2020, <https://www.esc.vic.gov.au/water/codes-and-guidelines/new-customer-contributions-guiding-resources>.

<sup>16</sup> Independent Competition and Regulatory Commission, Regulated water and sewerage services prices 2018–23, accessed 18 February 2020, <https://www.icrc.act.gov.au/water-and-sewerage/regulated-water-and-sewerage-services-prices-201823>.

<sup>17</sup> WSAA, *Developer Charges Position Statement*.

- determining the basis and level of the standardised charge
- establishing the nature of the principles to be adopted. These would need to conform with TasWater’s statutory responsibilities and therefore should reflect the assessment criteria including adopting the NPV methodology and considering the incremental growth costs of the development
- clarifying definitions and relevant terminology to be adopted for elements of the developer charges
- establishing the nature of assets to be incorporated in forward-looking charges
- potentially increasing the length of the planning period to 30 years from the current 20 years
- putting in place an appropriate communications strategy to facilitate the new approach
- establishing a period of transition to the new approach
- determining which customers should pay for any principle-based developer charge and the length of time the charge is in place.

Implications of this option for key scenarios are that:

- larger greenfield residential, tourism and industry developments or complex infill developments would more likely require principles based negotiated charges reflecting their concerns and their expected complexity
- smaller greenfield or straight forward infill developments would only be subject to a standardised charge.

An overview of who funds which assets under the current arrangements and the two options – Shared external works and Enhanced status quo is outlined below.

Table 1: Overview of current arrangements and options

Key elements	Current arrangements	Shared external costs	Enhanced status quo
Cost of existing capacity	Incorporated in recurrent charges	Incorporated in recurrent charges	Incorporated in recurrent charges
Costs of planned expansions	Incorporated in recurrent charges	Incorporated in recurrent charges	Incorporated in recurrent charges
Reticulation costs (Works Internal)	Funded by developers	Funded by developers	Funded by developers
Connection costs (Work External - Extension)	Funded by developers	Funded by developers	Funded by developers
Small unplanned capacity augmentation (Works External – Expansion) <sup>18</sup>	Funded by developers	Incorporated in recurrent charges (in subsequent regulatory period)	Incorporated in recurrent charges (partly offset of standardised charge)

<sup>18</sup> Examples include sewage pump stations or emergency wet weather storage.

Key elements	Current arrangements	Shared external costs	Enhanced status quo
Large unplanned capacity augmentation (Headworks)	Absorbed in profits	Incorporated in recurrent charges (in subsequent regulatory period)	Depends on assessment of materiality of risks and on outcomes of principle-based negotiations. Incorporated in either recurrent charges or developer charges

The table below provides a summary of our assessment of the current arrangements and options against the key criteria.

Table 2: Assessment of current arrangements and options

Key criteria	Current arrangements	Shared external costs	Enhanced status quo
<b>Criterion 1:</b> Relevant infrastructure is available			
<b>Criterion 2:</b> Recover efficient costs			
<b>Criterion 3:</b> Achieve efficient pricing (including location and timing)			
<b>Criterion 4:</b> Minimise cross-subsidies			
<b>Criterion 5:</b> Justify equity considerations			
<b>Criterion 6:</b> Understand implementation			
<b>Criterion 7:</b> Simplify administration			

## 2. Context

TasWater's current developer charges policy has been largely unchanged from that of the previous regulatory period.

Significant capital expenditure is required to improve the compliance of infrastructure assets with relevant standards, renew existing assets and provide additional capacity to support current growth in population and meet the demand for new developments.

Current developer charging arrangements incorporate the costs of reticulation, connection to networks and some small capacity upgrades (expansion). They do not incorporate the costs of spare existing capacity required by new developments, nor the costs of augmenting larger works (headworks) where these result in excessive developer charges.

### 2.1 Changing circumstances

There is significant variation in the rate of population growth in Tasmania over time and between regions. High growth rates are being observed around major population centres (Hobart and Launceston and tourist areas). Population decline is occurring in some remote and regional towns.

In the past, water and sewerage sector infrastructure investment has largely been emergency-reactive on a local or regional basis and has been funded by borrowings, government loans, and/or national and state government grants.<sup>19</sup>

As a result, in some townships such as Orford, Triabunna, Swansea, Bicheno, and Coles Bay, assets are at or over their age or capacity, with many not compliant with standards.<sup>20</sup>

TasWater assumed responsibility for developer charges for water and sewerage services from the three formal regional corporations in 2013. In 2014, the state government funded a headworks waiver from 1 April 2014 through to 31 March 2016, as a lump sum reimbursement to TasWater that partially offset lost developer charges revenue. Prior to that, headworks charges were applied to recover the value of installed spare capacity within a water and sewerage network.

Consistent with its remit, TasWater has developed a long-term strategy for its water and sewerage systems and has commenced the development of capital works plans. Growth and Capacity Plans are being developed to supply services sustainably (65 per cent are currently completed and the remainder are due for completion by end of 2020), minimise the overall whole-of-life costs of any assets and minimise any detrimental social, economic or environmental effects.<sup>21</sup>

<sup>19</sup> TasWater, memorandum, 23 Jan 2020.

<sup>20</sup> TasWater, memorandum, 23 Jan 2020.

<sup>21</sup> TasWater, *Shareholder Letter of Expectations*, 27 September 2018.

TasWater's expectations of growth in the demand for water (based largely on population growth) has increased from 0.5 per cent over 2018 to 2021 (PSP3)<sup>22</sup> to 0.9 per cent over the period 2021-22 to 2024-25 (PSP4) and 0.3 per cent thereafter.<sup>23</sup>

Accompanying this higher rate of increase in demand, is an increase in the demand for new land for development, utilisation of existing spare capacity and the need for new capacity in certain areas.

The 20-year capital program, while largely driven by compliance and improvement drivers contains several projects with growth components.<sup>24</sup> Over 2020-2039, water projects with a growth component have been identified as potentially involving about \$130M and sewerage projects with a growth component are expected to total about \$1.1bn.<sup>25</sup>

Forecast (PSP4) capital expenditure is expected to increase over the next regulatory period from \$178 million in 2021-22 to \$222 million in 2022-23 and \$209 million in 2023-24 totalling about \$610 million.<sup>26</sup>

As the current approach to developer charges still reflects a focus on compliance and renewals, it is not expected to generate sufficient revenue to fund the infrastructure required to promote growth.<sup>27</sup>

## 2.2 Governance

TasWater's responsibilities relating to ensuring the delivery of water and sewerage infrastructure and related infrastructure services are defined in legislation.

TasWater is required to protect the long-term interests of customers and to provide for the safe, environmentally responsible, efficient and sustainable provision of reliable and secure water services and sewerage services to the Tasmanian community.<sup>28</sup> In doing so, TasWater is to:<sup>29</sup>

- be provided with a reasonable opportunity to recover efficient costs (cost recovery)
- achieve efficient pricing through two-part pricing and be allowed to vary prices between locations, regions or schemes to reflect the costs of servicing customers or classes of customers (efficient pricing)
- provide effective incentives to promote economic efficiency, reduce costs or otherwise improve productivity with respect to a regulated service (least cost service delivery)
- allow for a return to the regulated entity, on assets that are required in the provision of the regulated service to which that price relates, in accordance with section 68, subsection (1A) of the

<sup>22</sup> TasWater, *Price and Service Plan 3, 1 July 2018 to 30 June 2021*.

<sup>23</sup> TasWater, *Corporate Plan Assumptions FY2020/21 to FY2039/40*, November 2019.

<sup>24</sup> TasWater, *Asset Management Plan 2020-2039*.

<sup>25</sup> TasWater, *Asset Management Plan 2020-2039*.

<sup>26</sup> TasWater, *Corporate Plan Assumptions FY2020/21 to FY2039/40*, November 2019.

<sup>27</sup> TasWater, *Review of Developer Charges Approach*, 2019.

<sup>28</sup> Water and Sewerage Industry Act 2008.

<sup>29</sup> Water and Sewerage Industry Act 2008.

Water and Sewerage Industry Act (return on capital)

- to the extent that it is commercially and technically reasonable, reflect at least the costs that are directly attributable to the provision of the regulated service to that customer or class of customers (absence of cross-subsidies).

The requirement for efficient prices is further amplified in TasWater's principal objectives, being to:<sup>30</sup>

- efficiently provide water and sewerage functions in Tasmania
- encourage water conservation, the demand management of water and the re-use of water on an economic and commercial basis
- be a successful business and, to this end
  - operate its activities in accordance with good commercial practice
  - deliver sustainable returns to such of its members as are councils
  - deliver water and sewerage services to customers in the most cost-efficient manner.

For the forthcoming regulatory period (PSP4) TasWater seeks<sup>31</sup> to ensure that TasWater is permitted enough revenue to deliver its corporate plan, subsidiary plans and strategies, and position TasWater to deliver on its long-term strategic plan.

The Shareholder's Letter of Expectations of 27 September 2018 also requires TasWater to promote growth by adhering to settlement and regional land use strategies.

## 2.3 Current arrangements (PSP3)

TasWater's past and future costs of providing water and sewerage services are recovered through recurrent customer charges (in the form of fixed and variable recurrent charges levied on end customers)<sup>32</sup> and developer charges.

### 2.3.1 Recurrent charges

Under the prevailing arrangements (PSP3), recurrent customer charges incorporate the capital and operating costs consistent with capital plans (based on 10-year forecasts) and related operating costs as approved by the Tasmanian Economic Regulator (TER) for the three-year regulatory period.<sup>33</sup>

Under current arrangements,<sup>34</sup> TasWater is required to:

- freeze prices for regulated services from 1 July 2019 to 30 June 2020

<sup>30</sup> Water and Sewerage Corporation Act 2012.

<sup>31</sup> TasWater: *Developer Charges—Economic Development Forum Feedback*; Water Services Association of Australia (WSAA), *Developer Charges Position Statement*, 2019.

<sup>32</sup> Frontier, *Developer Charges Investigation*, final report, March 2014.

<sup>33</sup> Office of the Tasmanian Economic Regulator (OTTER), *2018 Water and Sewerage Price Determination Investigation*, final report, 2018.

<sup>34</sup> TasWater, *Shareholder Letter of Expectations*, 27 September 2018.

- develop a future price profile for regulated water and sewerage services with annual price increases for target tariffs to be no greater than 3.5 per cent commencing on 1 July 2020 until 30 June 2025 (or apply a lower price determination made by TER)
- transition customers who are currently significantly below target tariffs to ensure that those customers reach the target tariffs by 1 July 2020 without significant price shocks.

### 2.3.2 Developer charges

For the purpose of the current regulatory period (PSP3), TasWater’s current developer charges arrangements apply to existing and new developments/use approved by a relevant planning authority, and where TasWater decides to provide water and/or sewerage services.

A summary of current arrangements appears in Table 3.

Table 3: Summary of current developer charging arrangements

	Sufficient Capacity	Insufficient Capacity
Works Internal	Developer pays all costs	Developer pays all costs
Works External - Extension	Developer pays costs of extension required for the development	Developer pays costs of extension required for the development
Works External - Expansion	Not applicable	Developer pays cost of expansion required for the development

Source: TasWater<sup>35</sup>

Notes: Extension means the lengthening of water infrastructure and/or sewerage infrastructure to enable connection of unserviced land to a current water system and/or current sewerage system (connection). Expansion means the augmentation of (minor) water infrastructure and/or sewerage infrastructure to accommodate the development of a property that cannot be catered for by a current water system’s capacity and/or current sewerage system’s capacity.

For new developments that do not connect to TasWater’s existing systems (that is, isolated developments), all costs are paid by the developer, but TasWater may contribute where there are strategic benefits.

The developer pays for new infrastructure classified as Works External (expansion) if the assets are small and TasWater do not have plans to increase system capacity.

Costs that are not included in developer charges are:

<sup>35</sup> TasWater, accessed 25 January 2020, <https://www.taswater.com.au/Development/Developer-Charges/Developer-charges>.

- costs related to existing spare capacity, as utilisation of this capacity is considered to benefit existing customers by reducing fixed costs (and to reflect that it had been constructed, in some cases many years ago<sup>36</sup>)
- incremental costs related to treatment plants and bulk pipelines to support new development where TasWater chooses to absorb such costs from profits to avoid excessive charges<sup>37</sup>
- headworks costs relating to source assets and significant distribution assets. Prior to 1 July 2015, a headworks charge did apply and required the payment of cash by developers for proportional costs of the capacity consumed of existing headworks infrastructure and/or the expansion of the capacity required as a result of a property development.<sup>38</sup>

It is noted that a statutory revenue limit is imposed under the Industry Act which provides for TasWater to earn (only) a commercial return (known as the weighted average cost of capital (WACC)) on new assets (purchased or constructed after 1 July 2009) and a 3 per cent legislated return on equity on existing assets transferred before 1 July 2011.<sup>39</sup>

### Assessment of Works External

Charges for Works External required for a development are assessed by TasWater on a case-by-case basis. A developer will only pay *works external* costs directly attributable to servicing their specific development.

TasWater provides details of the works required to service a proposed development (including mains connection costs) relating to any extension or expansion to a developer. The total works can then be independently costed by the developer.<sup>40</sup>

### Strategic opportunities

Where, in assessing a proposed development, TasWater considers any strategic opportunities are presented, TasWater can fund any marginal cost over and above the cost of assets required to service the proposed development. The developer only pays the costs required for the development (in terms of the assets required to support the development).<sup>41</sup>

### Rezoning, planning and development applications

<sup>36</sup> TasWater, *Review of Developer Charges Approach*, 2019.

<sup>37</sup> TasWater, *Review of Developer Charges Approach*, 2019.

<sup>38</sup> TasWater, *Developer Charges Guideline: Assessment of Developments in Accordance with PSP2*, internal use.

<sup>39</sup> TasWater, *Prices and Services Plan 2015–18*.

<sup>40</sup> Taswater, accessed 25 January 2020, <https://www.taswater.com.au/Development/Developer-Charges/Developer-charges>.

<sup>41</sup> Taswater, accessed 25 January 2020, <https://www.taswater.com.au/Development/Developer-Charges/Developer-charges>.

Under current charging arrangements, developers are required to provide detailed information relating to land and property development and where necessary may meet with councils. Details of relevant information and applications are available from TasWater.<sup>42</sup>

## 2.4 Forthcoming regulatory period (PSP4)

For the purpose of the forthcoming regulatory period PSP4, TasWater seeks to assess the current and potential approaches against the requirements of the *Water and Sewerage Industry Act 2008* (Industry Act 2008) and the WSAA Developer Charges Position Statement, and the following performance criteria:

- Enable development now and in the future, in line with the objectives of TasWater under the *Water and Sewerage Corporation Act 2012*.
- Reflect TasWater's costs to support growth.
- Be understandable for customers and developers.
- Be simple to administer.

Another outcome being sought is to establish an improved approach that supports current and future growth in the state by funding the right water and sewerage infrastructure at the right time.<sup>43</sup>

State-wide postage stamp pricing for customer charges is intended to be maintained into PSP4. TER previously noted that TasWater's arguments for retaining state-wide postage stamp pricing did not demonstrate in detail that the cost of implementing pricing zones would outweigh the benefits but noted that detailed regional information is not available and would be costly to acquire.<sup>44</sup>

### Objective and outcomes

TasWater has advised that the key objectives for this review are to:

- articulate the case for improvement/change to the current developer charging arrangements
- recommend an improved/new approach to current developer charging arrangements for TasWater.<sup>45</sup>

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<sup>42</sup> See TasWater, accessed 25 January 2020, <https://www.taswater.com.au/Development/Land-and-Property-Development>.

<sup>43</sup> TasWater, *Review of Developer Charges Approach*, 2019.

<sup>44</sup> OTTER, *2018 Water and Sewerage Price Determination Investigation*, final report, 2018.

<sup>45</sup> TasWater, *Request for Tender*, 13 November 2019.

## 3. Criteria

Based on TasWater’s statutory responsibilities and the requirements of the current remit, a range of criteria have been established to assess current arrangements and alternative approaches.

These criteria relate to the availability of infrastructure to provide reliable and secure services; recover efficient costs; achieve efficient pricing (including location and timing signals); minimise cross-subsidies; address equity; ensure understanding in implementation; and simplify administration.<sup>46</sup>

### 3.1 Approach

The key challenge for TasWater is to ensure a suitable developer charges regime is in place that addresses the challenges of increasing growth in a way that conforms with TasWater’s statutory responsibilities and the overarching regulatory framework (including the revenue framework) proposed for PSP4. Of relevance in terms of the regulatory arrangements, is the government’s intent to maintain state-wide postage stamp prices for recurrent charges.

Criteria responding to these considerations form the basis for assessing the current arrangements and alternative approaches with the potential to improve current arrangements.

Not all the criteria are complementary or of equal weighting—and trade-offs are often required and need to be considered in the context of emerging circumstances.

### 3.2 Efficient and sustainable provision of reliable and secure services

In protecting the long-term interest of customers, TasWater is required to provide for safe, environmentally responsible, efficient, sustainable, reliable and secure water and sewerage services to the Tasmanian community.<sup>47</sup>

#### 3.2.1 Planning and growth

In delivering water and sewerage services, TasWater prepares long-term infrastructure plans for a forthcoming regulatory period. These plans are based on 20-year forecasts that align with whole-of-government planning processes. The assessments incorporate requirements to meet compliance standards and renewals and most recently, some growth.

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<sup>46</sup> A similar range of criteria was adopted by Frontier Economics, which includes cost recovery, equity, funding, economic efficiency and risk sharing.

<sup>47</sup> Water and Sewerage Industry Act 2008.

During any regulatory period, it can be expected that market circumstances may change as the demand for developed land and infrastructure services responds to a wide range of trends and factors.

These unplanned requirements can relate to previously unplanned new developments or out-of-sequence infrastructure requirements. Arrangements are therefore required to service such unexpected or previously unplanned services if TasWater is to meet its obligation to provide sustainable services.

**Criterion 1:** *TasWater should have in place arrangements to ensure the availability of infrastructure to ensure reliable and secure water and sewerage services, including the means to address unplanned infrastructure (either for unexpected new or out-of-sequence developments).*

### 3.3 Cost recovery

Under the Industry Act 2008, a regulated entity is to be provided with a reasonable opportunity to recover efficient costs.<sup>48</sup>

There is no direction to TasWater to underwrite growth by charging less than full cost recovery, effectively subsidising the provision of infrastructure services. The TER has noted that it is not responsible for industry or economic development.<sup>49</sup>

Indeed, in promoting growth, TasWater is specifically required to ensure that its pricing and costing regime reflects the relative cost of the service or solution being provided.<sup>50</sup>

#### 3.3.1 Financial viability

In the absence of government payments such as grants or community service obligations (CSOs) or a capacity to borrow, full cost recovery through charges is required to ensure the long-term financial viability of a regulated entity.

#### 3.3.2 Funding growth

Cost recovery is achieved when all costs incurred and related to operating and funding new growth are recovered through recurrent charges, developer charges, government payments, borrowing or gifting of assets. Sufficient funding is then available for planned infrastructure.

A water business's capital and operating costs—including the costs of new investment necessary to fund sustainable growth—could be recovered entirely through recurrent charges and shared by all stakeholders as suggested during surveys conducted for PSP3. Alternatively, all infrastructure costs related to growth (past, present and future) could be recouped through developer (or headworks), charges as suggested in feedback received from the developer forums.<sup>51</sup>

<sup>48</sup> Water and Sewerage Industry Act 2008.

<sup>49</sup> OTTER, *2018 Water and Sewerage Price Determination Investigation*, 2018.

<sup>50</sup> TasWater, *Shareholder Letter of Expectations*, 27 September 2018.

<sup>51</sup> TasWater, *Economic Development Forums—Hobart, Devonport and Launceston*, summary report, 25 March 2019.

In most jurisdictions, however, recurrent charges recover part of the operating and capital costs and other costs partly through developer charges.<sup>52</sup>

### 3.3.3 Return on regulated assets

TasWater can receive a return on capital and can do so either through customer charges or developer charges (within the constraints of the statutory revenue limit).

It is noted that, while the incorporation of a cost of capital is generally accepted, the choice of a pricing structure or form of regulation impacts the allocation of risk, and to the extent that risk is non-diversifiable, it will affect the value of the firm's cost of capital.

### 3.3.4 Risks

The key risks associated with recurrent charges and the means for addressing such risks are outside the scope of this review.

Key risks associated with funding unplanned developments include the development not proceeding (and assets being left stranded); new customers not taking up lots as expected; or customers not remaining for a significant part of the assets' economic lives (e.g. where a resort or industrial customer seeks to connect to a small-town supply system).<sup>53</sup>

If such risks are allocated to those parties most able to manage them, costs are typically minimised and the financial risks to service providers (such as TasWater) are reduced. Developers are best able to manage risks associated with individual developments.

An upfront developer charges regime can provide an important source of funds for new investments necessary to meet unplanned growth and reduce the need for utilities to borrow for the additional infrastructure required.<sup>54</sup>

**Criterion 2:** *Developer charging arrangements must recover all efficient costs (including a return on regulated assets) associated with unplanned development (unless other appropriate arrangements are in place, such as CSOs, grants or borrowing).*

## 3.4 Efficient pricing and incentives

TasWater is required to ensure efficient pricing and provide effective incentives to promote economic efficiency, reduce costs or otherwise improve productivity with respect to a regulated service.<sup>55</sup> Efficient pricing is to be achieved by:

- separately charging and recovering fixed costs and variable costs (that is, via two-part pricing for water services)
- reflecting the costs of servicing customers or classes of customers in different locations, regions or

<sup>52</sup> Water Services Association of Australia (WSAA), *Developer Charges Position Statement*, 2019.

<sup>53</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

<sup>54</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

<sup>55</sup> Water and Sewerage Industry Act 2008.

schemes (that is, locational pricing).

There are three types of economic efficiency (allocative, productive and dynamic)<sup>56</sup> that are relevant to pricing.<sup>57</sup> Attention to these considerations would suggest quite complex and location-specific tariff structures.

Many jurisdictions across Australia, including Tasmania, however, apply postage stamp pricing (for recurrent charges) and do not charge higher prices to customers in new growth areas.<sup>58</sup>

The costs of servicing growth, particularly in greenfield sites, are generally considered to be significantly higher than the costs of servicing existing areas. Water and wastewater revenue recovered from new customers is thus typically less than that required to cover the cost of adding them to the network in the area to which they apply.<sup>59</sup>

### 3.4.1 Location and time specific charges

Developer charges can overcome, at least partially, the lack of signals provided by state-wide postage stamp pricing<sup>60</sup> by:

- signalling to developers (and ultimately homebuyers) the water infrastructure cost implications of the locational and timing aspects of their investment/purchasing decisions
- providing appropriate signals to water users of the short and long-term implications of their water consumption decisions
- reflecting differences in costs between locations—to promote efficient patterns of urban development.<sup>61</sup> Most desirably these should align with state-level settlement plans and strategies.

As a result, overall costs of development are kept at a minimum and promote growth where a market for land exists at relevant prices.

In some jurisdictions, more than the cost of forward-looking or incremental costs associated with augmentation of capacity have been included:

- The ESC of Victoria has provided for developer charges to include an allocation of historical costs (going back up to five years) that the regulated business has prudently prebuilt in expectation of future growth.
- New South Wales (NSW) local government water utilities have been required to include in headworks charges the costs of existing assets deemed to service new developments.

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<sup>56</sup> These terms are defined in the Glossary.

<sup>57</sup> QCA, *Statement of Regulatory Pricing Principles*, 2013.

<sup>58</sup> WSAA, *Developer Charges and Backlog Sewerage Charges for Metropolitan Water Agencies 2017*.

<sup>59</sup> WSAA, *Developer, Charges and Backlog Sewerage Charges for Metropolitan Water Agencies 2017*.

<sup>60</sup> WSAA, *Developer, Charges and Backlog Sewerage Charges for Metropolitan Water Agencies 2017*.

<sup>61</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

Such an approach is consistent with the Council of Australian Governments (COAG) pricing principles (Principle 8), which state that developer charges should reflect the investment in both new and existing assets required to serve a new development and have regard to the manner in which ongoing water usage and service availability charges are set.<sup>62</sup>

However, inclusion of such costs could inefficiently discourage development by increasing the costs associated with new developments, reduce the opportunity to recoup or lower fixed costs<sup>63</sup>, and result in double charging if already incorporated in recurrent charges.

It needs to be recognised that locational and out-of-sequence charges may however be difficult to implement, as they require detailed levels of data (see sections 3.7 and 3.8 below).

### 3.4.2 Sustainable responses

Any under-recovery of infrastructure costs will tend to promote investment in the related infrastructure. This can, however, result in a bias towards new infrastructure and a failure to utilise (unsubsidised) lower cost infrastructure options that may otherwise be more sustainable.

Such sustainable options may include less rainfall-dependent infrastructure (recycling), demand management or environmentally friendly responses.

Where full costs are to be incorporated in developer charges, the associated marginal external costs (and benefits) can be difficult to estimate.<sup>64</sup>

**Criterion 3:** *Individual developer charges should reflect only identifiable costs associated with certain unplanned developments.*

## 3.5 Cross-subsidies

The customer classes adopted for the purpose of PSP3 are differentiated between water and sewerage services and according to quality of service.

TER reviewed TasWater's proposed customer classes for the third regulatory period and considered that they reflect the differential cost of providing regulated services to customers in each class.<sup>65</sup>

State-wide postage stamp pricing represents a government policy of acceptance of at least historical cross-subsidies between locations.

Nevertheless, should there be material locational differences in costs between areas utilising existing capacity and new developments requiring additional infrastructure augmentation, the government may choose to ensure these differences are evident to achieve the government's settlement priorities. Thus, options which more clearly identify such cost differences in the future are favoured.

**Criterion 4:** *Developer charges need to minimise cross-subsidies between customer categories adopted for PSP4 and between locations where necessary to support the government's settlement priorities.*

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<sup>62</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

<sup>63</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

<sup>64</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

<sup>65</sup> OTTER, *2018 Water and Sewerage Price Determination Investigation*, final report, 2018.

## 3.6 Equity

It is necessary to consider equity issues (essentially ‘fairness’), so that TasWater can protect the long-term interests of customers.

### 3.6.1 Different concepts

Considerations of ‘fairness’ can involve concepts such as:<sup>66</sup>

- universal access and affordability
- the treatment of new customers compared with existing customers
- the allocation of costs for long-lived infrastructure assets over time so that incumbent customers do not have to pay for expenditure associated with new customers (intergenerational equity)
- similar treatment of parties in similar circumstances and, correspondingly, different treatment of parties in different circumstances.

Users of infrastructure are likely to perceive significant unexpected increases in price as unfair, if the increases are a result of increased costs related to unexpected increases in demand by new users.<sup>67</sup>

In some instances:

- efficient prices can be described as ‘fair’, as they reflect the cost to society of producing a good or service. Lowering prices would imply that the beneficiary is not paying a fair share. Prices above cost imply that the producer is receiving a benefit at the expense of the consumer
- the ‘user pays’ or ‘impactor pays’ principle can also be considered ‘fair’, consistent with the proposition that the costs to be incurred relate to the party that causes them to be incurred.<sup>68</sup>

There is, however, no objective standard of ‘fairness’. What was fair yesterday may be unfair today. What is deemed unfair by one group of customers may be regarded as eminently proper by another.<sup>69</sup>

### 3.6.2 Trade-offs

There are also trade-offs between equity consideration and other criteria. For example, it is often considered that essential services such as water and sewerage should be available to customers on similar prices, no matter where they live—however, this will involve cross-subsidies, which, from an economic perspective, are considered inefficient.

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<sup>66</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

<sup>67</sup> QCA, *Statement of Regulatory Pricing Principles*, 2013.

<sup>68</sup> QCA, *Statement of Regulatory Pricing Principles*, 2013.

<sup>69</sup> QCA, *Statement of Regulatory Pricing Principles*, 2013.

### 3.6.3 Generally accepted norms

Equity concerns can be addressed through CSOs. Where these are not issued, relevant norms of equity, considered to be generally accepted,<sup>70</sup> are that:

- individuals in similar circumstances should be treated equally and individuals in different circumstances should be treated differently, taking due account of their different circumstances (often referred to as horizontal and vertical equity)
- the least well-off members of the community should be provided with assistance from the broader community.

### 3.6.4 Housing affordability

Related to ‘fairness’ is a consideration that higher developer charges may affect housing affordability.<sup>71</sup>

Because developers know that they will pay a developer charge, they will typically pay less for rezoned land than they would if there were no developer charges. Developer charges thus capture part of the increase in land value when land is rezoned to higher value residential uses. As such, developer charges do not generally place significant pressure on housing prices or affordability. This conclusion is supported conceptually and by more recent Australian empirical research, which found no evidence that developer charges increase the price of new dwellings.<sup>72</sup>

If these charges exceed the value uplift in raw land, then developers cannot afford to pay more than the value of the land in its existing use—and this will constrain the supply of viable development land.<sup>73</sup> The lack of further development in these circumstances represents an ‘efficient outcome’—that is, that further development is not warranted.

**Criterion 5:** *Any departure from economically efficient outcomes for equity reasons will need to be justified. CSOs and generally accepted norms (vertical and horizontal equity, recognition of the lesser ability of some groups to pay higher prices) can provide a reference point for such considerations.*

## 3.7 Understandable for customers and developers

Whether a developer charges regime is understandable, depends on:

- the transparency of arrangements
- the replicability of the outcomes
- the stability and predictability of arrangements.<sup>74</sup>

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<sup>70</sup> QCA, *Statement of Regulatory Pricing Principles*, 2013.

<sup>71</sup> WSAA, *Developer Charges Position Statement*.

<sup>72</sup> WSAA, *Developer Charges Position Statement*.

<sup>73</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

<sup>74</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

In practice, the more information that is required, the more arrangements change, and the more complex the approach to calculating contributions, the less likely that customers or developers will understand the charge and its calculation. Indeed, such concerns were a key driver for the waiver of the headworks charge in 2014.

### 3.7.1 Works Internal

The nature of costs directly attributable to a development (Works Internal) is typically quite evident. Requiring connecting parties (e.g. developers) to install and/or pay for local reticulation assets is generally transparent and replicable. These arrangements have been in place for three regulatory periods.

### 3.7.2 Works External and headworks

The link between a development and the costs of connection to the existing grid (Work External – Extension) is typically quite clear.

Where servicing of a new development requires the immediate augmentation of a specific pipeline or pumping station in a location (Works External – Expansion), the causal link between the new development and the associated cost of capacity required is also relatively strong. These causal links are likely to be stronger in relation to greenfield development than for infill development.<sup>75</sup>

However, establishing the link for augmentation of bulk pipelines and water supply sources (headworks) to new customers, can be difficult to achieve (and therefore difficult to understand by customers).

- Only forward-looking marginal or incremental costs for new customers are relevant to sending locational signals. Determining the least cost of augmenting the system to service only additional customers may be open to conjecture.
- If installed (sunk) capacity is excluded from developer charges, the lumpiness of infrastructure may mean that, at a time of little spare network capacity, the next development is forced to pay a high price reflective of the imminent need for new investment. If investment then takes place and prices fall, subsequent developers may be required to pay only minimal charges. Knowing this, all developers may defer their investment decisions to avoid being the party who ‘triggers’ the requirement for more infrastructure and is forced to pay the initial high price. This could create inefficient delays to developments.<sup>76</sup>
- Where installed assets are to be included and there is excess capacity a question arises as to:
  - how the assets associated with this excess capacity should be valued where there are economies to scale

<sup>75</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

<sup>76</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

- whether the existing assets are largely depreciated and/or were originally funded by contributions from government.<sup>77</sup>

Another issue is to consider whether developer charges should incorporate the costs associated with non-growth assets.

**Criterion 6:** *Implementation of developer charges requires transparent, replicable and stable arrangements, whereby relevant costs can be readily measured and attributed to the new development.*

### 3.8 Be simple to administer

The level of detail of data required to generate accurate unambiguous efficient location-specific or out-of-sequence charges may not be available. Depending on the approach adopted, it may entail having past capital expenditure and details of future capital expenditure, operating costs and development rates available on a consistent basis.<sup>78</sup>

Flexibility is also required for utilities to accelerate or delay their capital plans in response to changes in the market. Yet this could render a set charge 'inaccurate' over time. The method could create a tension with the desire for flexible and adaptive capital investment plans.<sup>79</sup>

**Criterion 7:** *Any developer charge regime should be simple to administer and reflect the nature of available information (while promoting improvements in the availability of information necessary to achieve more optimal outcomes).*

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<sup>77</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

<sup>78</sup> WSAA, *Developer Charges and Backlog Sewerage Charges for Metropolitan Water Agencies 2017*.

<sup>79</sup> WSAA, *Developer Charges and Backlog Sewerage Charges for Metropolitan Water Agencies 2017*.

## 4. Assessment of current arrangements

There are many elements of the current developer charging arrangements that are consistent with relevant criteria and pricing principles. Priorities requiring attention include:

- increasing funding for growth—recurrent and developer charges do not provide adequate funding to support planned or unplanned growth in many areas
- achieving efficient pricing—lack of full cost recovery suggests that more effective signals are required for the location and timing of infrastructure to ensure least cost service delivery
- improving administrative arrangements—a range of concerns exist relating to current arrangements including the potential for ‘saw-tooth’ pricing which could impede growth
- increasing transparency and clarity to promote understanding and administrative simplicity.

There is no evidence to suggest that developer charges under current arrangements are too high to impede growth.

### 4.1 Introduction

The nature of the current developer charging arrangements is outlined in section 2. In addition to the assessment of current arrangements against the criteria established in section 3, below are the priority areas considered to warrant improvement.

### 4.2 Relevance of developer charges

Of the about \$1 billion revenue to be raised by TasWater over the current regulatory period (PSP3):

- developer charges were expected to raise payments of about \$0.5 million per annum
- gifted assets averaged about \$17.2 million per annum (these reflect the arrangements relating to internal works components of developer charges).

Developer charge arrangements over PSP3 are estimated to have accounted for about 7 per cent of revenue (were headworks charges to continue to apply).

### 4.3 Assessment

Current developer charge arrangements, when assessed against the defined criteria:

- provide an opportunity for TasWater to respond to unplanned developments including new and out-of-sequence projects (consistent with criterion 1)

- recover the cost of reticulation and connection (consistent with criterion 2)
- require reticulation and connection costs and some smaller augmentation of installed capacity to be provided or funded by developers. This arrangement promotes the adoption of least cost service provision (consistent with criterion 3)
- provide some locational and timing signals (consistent with criterion 3).

Details of the assessment are outlined in Table 4.

Table 4: Assessment of current developer charging arrangements

Criteria	Assessment
<b>Criterion 1:</b> Respond to unplanned developments	<p>Infrastructure that is required to support growth is the subject of Growth and Capacity Plans — 65 per cent of systems, including those with the highest rates of growth, currently have plans, with all plans expected to be completed by the end of 2020.</p> <p>The availability of developer charges provides TasWater with the opportunity to respond to unplanned developments.</p>
<b>Criterion 2:</b> Recover (unplanned) efficient costs	<p>Concerns about current constraints on funding infrastructure to support growth were expressed by Infrastructure Tasmania, which noted that an overarching ‘program delivery model’ is required.<sup>80</sup></p> <p>TasWater’s planned infrastructure costs are recovered in recurrent charges<sup>81</sup> — except to the extent that details are not available from previous water service providers, costs depreciated or grant-funded.</p> <p>Developer charges do not currently recover the cost of all unplanned infrastructure costs incurred for developers, as TasWater:</p> <ul style="list-style-type: none"> <li>• excludes existing spare capacity.</li> <li>• does not generally incorporate the costs of larger infrastructure in developer charges but, rather, these are absorbed in profits.</li> </ul> <p>As a result, TasWater does not have sufficient revenue from charges to fund unplanned growth. Much capital expenditure necessary for growth is not incorporated in Growth and Capacity Plans as this may breach government-imposed constraints on increases in revenue.</p> <p>In the absence of full cost recovery from charges, greater reliance on formal CSO arrangements may be necessary to provide TasWater with greater certainty of fund flows to support investment in growth assets.</p> <p>The necessary arrangements are already available. That is, a shareholder may propose a project which if, considered by TasWater to be</p>

<sup>80</sup> Infrastructure Tasmania, *Accelerated infrastructure investment delivery in Tasmania’s water and sewerage sector*, July 2017.

<sup>81</sup> At this stage, there is no data to suggest that the recurrent charges would exceed the limitations relating to prices over PSP3 and PSP4.

Criteria	Assessment
	<p>uncommercial, the shareholder may offer to fund directly or seek third party funding to support.<sup>82</sup></p> <p>Direct funding was previously put in place, for example, between 1 April 2014 and 31 March 2016, when the state government compensated TasWater for certain headworks costs that were incurred but that could not be charged to developers.<sup>83</sup></p> <p>The statutory revenue limit, the limit on the return on capital, borrowing restrictions, the interest cover ratio, and the price cap imposed by the government suggest there are restrictions on the ability of TasWater to borrow for planned and unplanned developments.</p>
<p><b>Criterion 3:</b> Achieve efficient pricing</p>	<p>Current developer charging arrangements do not fully reflect the locational and out-of-sequence costs of unplanned developments as a result of the under-recovery of unplanned revenues.</p> <p>Because some costs are not fully recovered, a bias is created towards investment in networks and significant source assets, rather than other more sustainable responses— such as encouraging water conservation, demand management of water, and potentially the re-use of water (one of TasWater’s primary statutory objectives).</p> <p>At this juncture, there is no evidence to suggest that current developer charges would be so high as to reduce growth in demand for new developments. Neither is there any evidence to suggest that such charges would limit the supply of land available for development by exceeding the value uplift in raw land (see the discussion of value capture in section 3). TasWater has no authority to subsidise further growth.</p>
<p><b>Criterion 4:</b> Minimise cross-subsidies</p>	<p>The customer classes adopted for the purpose of PSP3 are differentiated between water and sewerage services, and according to quality of service, and have been accepted by the TER.</p> <p>It is unlikely that current arrangements relating to augmentation of capacity reflect differences in costs to service customer groups.</p>
<p><b>Criterion 5:</b> Justify equity considerations</p>	<p>There are no evident departures from full cost reflectivity based on equity (other than the exclusion of the costs of augmentation of some larger infrastructure to avoid higher charges, which might impede growth).</p> <p>The absence of developer liability for some charges has been seen to be giving an unfair advantage to the ‘first movers’ where there was spare capacity, and a distinct disadvantage to those developing where there was no spare capacity.<sup>84</sup></p> <ul style="list-style-type: none"> <li>• Conversely, the community may perceive fairness as achieved as first responders will provide an earlier supply of newly developed land at lower cost.</li> </ul> <p>Contrary to current arrangements, it is relevant to note that the PSP3</p>

<sup>82</sup> TasWater, *Shareholders’ Letter of Expectations*, 27 September 2018.

<sup>83</sup> TasWater, *Headworks Waiver (1 April 2014 to 31 March 2016)*, information sheet.

<sup>84</sup> TasWater, *Economic Development Forums—Hobart, Devonport and Launceston*, summary report, 25 March 2019.

Criteria	Assessment
	<p>customer engagement found that, overall, 63% of phone survey respondents supported cost sharing across the entire customer base for development-driven infrastructure upgrades.<sup>85</sup></p> <ul style="list-style-type: none"> <li>It is arguable also, however, that the capacity to pay of new customers for land is higher than that of other Tasmanians (including parties from interstate). This would suggest that higher developer charges would be more equitable.</li> </ul>
<p><b>Criterion 6:</b> Understand implementation</p>	<p>TER previously approved direct payment of or gifting of assets associated with Works Internal and Works External as consistent with the pricing principles—as this approach recovers the costs of servicing a development.<sup>86</sup></p> <ul style="list-style-type: none"> <li>There is nevertheless a lack of transparency about which Works External are funded by the developer. Substantial discretion is exercised by TasWater to determine what costs will be absorbed in profits.</li> <li>The absence of existing capacity may mean that, at a time of little spare network capacity, the next development is forced to pay a high price reflective of the imminent need for new investment.</li> <li>If investment then takes place, subsequent developers may only be required to pay minimal charges. As a result, developers may defer their investment decisions to avoid being the party who ‘triggers’ the requirement for more infrastructure and is forced to pay the initial high price. This could result in prices rising and then falling and perhaps rising again (‘saw tooth’ pricing). This could create inefficient delays to developments.<sup>87</sup> Attention to these arrangements is necessary.</li> <li>Various parties have commented that: <ul style="list-style-type: none"> <li>the role of developer charges had never been clearly communicated and their role and basis for calculation was not well understood</li> <li>builders and developers are not afforded the level of transparency and clarity that should accompany the raising of these charges. It stated that the total cost of these charges is not fully detailed until after the investor has already expended significant funds to obtain a planning permit from the relevant authority.<sup>88</sup></li> </ul> </li> </ul> <p>Should a headworks charges be re-applied other past concerns related to:</p> <ul style="list-style-type: none"> <li>the community and developers not understanding the difference between developer charges and headworks charges</li> <li>few people understanding the method of calculation</li> <li>lack of understanding of the terminology adopted including to ‘zonal dollar charge per Equivalent Tenement’, capacity to be consumed in perpetuity, assessing the value of the capacity being consumed and deducting it from the net present value of the net revenues derived</li> </ul>

<sup>85</sup> TasWater, *Review of Developer Charges Approach*, 2019.

<sup>86</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

<sup>87</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

<sup>88</sup> Frontier Economics, *Developer Charges Investigation*, final report’, March 2014.

Criteria	Assessment
	from development. <sup>89</sup>
<b>Criterion 7: Simplify Administration</b>	<p>There are significant shortfalls in the availability of information relating to legacy infrastructure,<sup>90</sup> spare capacity and the relevance of plans for further capacity augmentation at the local level, necessary to support accurate estimates of locational signals.</p> <p>Other issues have been identified to include that:</p> <ul style="list-style-type: none"> <li>• headworks charges should be identifiable, and funds raised should be accountable to be spent on upgrades rather than absorbed in operational costs</li> <li>• the primary concern is whether the level of charges applied is the correct amount and consistently applied.<sup>91</sup></li> </ul>

## 4.4 Priorities for improvement

### 4.4.1 Growth and capacity plans and recurrent charges

Completion of Growth and Capacity Plans is an essential prerequisite to achieving appropriate developer charges. Such plans should identify all infrastructure necessary to accommodate whole-of-government, regional and local plans for the relevant period. Relevant costs would be recouped in recurrent charges.

Should Growth and Capacity Plans exclude foreseeable infrastructure requirements, then their costs either will not be recouped through recurrent charges, or they may be ‘shifted’ to developer charges as such infrastructure becomes required for new developments (unless absorbed in TasWater’s profits).

### 4.4.2 Improvements to current regulatory arrangements

The assessment of current arrangements suggests that priority needs to be given to:

- increasing funding for growth—recurrent and developer charges do not provide adequate funding to support planned or unplanned growth (see criterion 2)
- achieving efficient pricing—lack of full cost recovery suggests that more effective signals are required for the location and timing of infrastructure to ensure least cost service delivery. There is insufficient evidence to suggest that developer charges impede growth (see criterion 3)
- improving administrative arrangements—a range of concerns exist relating to current arrangements including the potential for ‘saw-tooth’ pricing which could impede growth (see criterion 6)
- increasing transparency and clarity to promote understanding and administrative simplicity. Key issues relate to the definition of headworks and the discretion afforded to TasWater to ‘absorb’ certain costs (see criterion 7).

<sup>89</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

<sup>90</sup> TasWater, *Economic Development Forums—Hobart, Devonport and Launceston*, summary report, 25 March 2019.

<sup>91</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

## 5. Assessment of alternative approaches

The most effective approaches that promote cost recovery and the adoption of least cost infrastructure solutions are:

- more complex to implement (the net incremental cost, out-of-sequence and principles-based approaches)
- inconsistent with some stakeholders' perceptions of equity (though we note there are many perspectives on what constitutes fairness and there is no objective test of what constitutes equity).

Drawing on this assessment, two broad options are outlined in section 6 as a basis for consideration—a 'shared external works' option and an 'enhanced status quo' option. The former is administratively simple and reflects some stakeholder views of fairness,<sup>92</sup> but not necessarily others consulted as part of recent forums.<sup>93</sup> The latter effectively addresses most criteria, including better locational and timing signals, and incorporates elements of other approaches that reduce complexity. More complex elements would be applied only in specific circumstances.

### 5.1 Introduction

A wide range of alternative approaches to developer charges are identifiable in jurisdictions across Australia.<sup>94</sup> A summary assessment of the performance of these alternative approaches against the various criteria is in 5 below.

### 5.2 Shared external works

This approach involves incorporating all planned headworks and unplanned external costs in recurrent charges together with the costs related to previously installed undepreciated assets.

This differs from current arrangements in that currently the costs of some unplanned expansions are funded by the developer, whereas under this approach all infrastructure costs would be borne by TasWater and be passed onto the broad customer base.

The more significant implications relevant to TasWater of such an approach are:

- **full cost recovery** (consistent with criterion 2), as infrastructure costs would be incorporated in

<sup>92</sup> Many stakeholders consulted by TasWater (63% of phone survey respondents) have expressed a view that the costs of growth infrastructure should be shared across the entire customer base for development-driven infrastructure upgrades. In the absence of an objective test of fairness, other stakeholders may have alternative views (see section 4).

<sup>93</sup> TasWater, *Economic Development Forums—Hobart, Devonport and Launceston*, summary report, 25 March 2019. Some stakeholders sought the reintroduction of some form of 'headworks' charge.

<sup>94</sup> See in particular Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

recurrent charges (in the current or future regulatory period). This would improve financial viability and funding available for growth. The absence of out-of-sequence charges would impose a financing cost on TasWater for bringing forward the associated works and would be passed on to customers

- **relatively low locational signals** (conflicts with criterion 3), as new development-related infrastructure costs would be incorporated in state-wide postage stamp recurrent charges
- **perception of fairness** (ambiguous in respect of criterion 5) in so far as it is consistent with the view in the PSP3 phone survey with 63 per cent of respondents supporting cost sharing across the entire customer base for growth infrastructure upgrades. However this view was not consistent with the views of stakeholders in recent forums which favoured the introduction of some form of headworks charge
- **clear and simple administration** (consistent with criteria 6 and 7). The approach removes the need to allocate costs to developments. It would therefore be simple, transparent and easily understood. It would avoid the costs associated with administering registries and accounting frameworks needed to allocate costs between locations and over time.

Further details of this option are outlined in section 6.

### 5.3 Net incremental cost approach

Under this approach, the headworks charges would be set to recover from developers the incremental net cost they impose on the system. The Independent Pricing and Regulatory Tribunal (IPART) includes a share of existing and sunk growth-related assets.

The headworks charges calculation would be based on the net incremental cost approach applied by IPART.<sup>95</sup> The approach is also consistent with the Essential Services Commission (ESC) 'New Customer Contributions' framework currently applied by Victorian water businesses, and the framework applied in the Australian Capital Territory (ACT).

The calculation takes into account the cost 'attributable' to the development less the future operating surpluses (or deficits) expected to be earned from recurrent charges paid by customers in the development area using their net present value (NPV). This methodology establishes maximum developer charges.<sup>96</sup>

Nevertheless, funding arrangements can differ between service providers—for example, Sydney Water establishes a payment regime to a developer as lots are developed. Hunter Water requires developers to fund assets for developments outside its 10-year growth plan, unless the upsized assets can be used by future or adjoining developments.<sup>97</sup>

The more significant implications relevant to TasWater of such an approach are:

- **full cost** recovery by developer charges (consistent with criterion 2), as headworks costs are all

<sup>95</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

<sup>96</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

<sup>97</sup> IPART, *Maximum prices to connect, extend or upgrade a service for metropolitan water agencies*, final report, 2018.

incorporated

- **a disincentive for developers to take advantage of existing capacity** (conflicts with criterion 3), as a result of the inclusion of sunk assets in headworks charges.<sup>98</sup> The merits of the approach depend on whether it provides an accurate forward-looking signal for future infrastructure costs, given the difficulties in allocating future source costs precisely to many customers
- **acceptance of the use of a net incremental cost methodology in the past** (consistent with criterion 6) by the TER in regulatory decisions.<sup>99</sup> Nevertheless, when it was applied pre-PSP2, TasWater experienced difficulties in achieving acceptance of this approach
- **increased administrative complexity** (in conflict with criterion 7) involving the application of the formulae and resolution of a number of issues—such as changing of areas serviced by certain assets over time<sup>100</sup>, and record-keeping related to maintaining separate asset bases to monitor and record expenditure associated with the different classes of asset used in the calculation. However, the approach is well-understood from a technical perspective and has been applied in New South Wales.<sup>101</sup>

A major identified weakness relates to its previous application in Sydney where it generated zero developer charges across significant parts of the city. WSAA considered this to be a failure of the method to capture relevant infrastructure costs rather than the absence of such costs. WSAA also considered that it could be overcome by setting a minimum developer charge as part of the method.<sup>102</sup>

## 5.4 Out-of-sequence costs only

This approach limits the scope of headworks charges to the out-of-sequence forward-looking costs attributable to new development. The best measure of the costs associated with bringing forward the works program is the difference between the NPV of undertaking the works as originally planned and the NPV of undertaking the works at the time required by the developer.

The difference between these two NPV values represents the cost incurred by a service provider in reprioritising its work program to facilitate out-of-sequence development. This approach forms one element of the 'New Customer Contributions' framework currently applied by Victorian water businesses and accepted by the ESC.

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<sup>98</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

<sup>99</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

<sup>100</sup> One means of addressing such concerns would be to adopt a line-in-the-sand approach as adopted in NSW. This approach involves drawing a 'line in the sand' at a point in time and treating all headworks assets commissioned prior to that point in time as sunk and excluded from any subsequent headworks charge. The approach would effectively mean that at the point in time at which the line in the sand is drawn, headworks charges would only reflect future costs and would therefore be forward-looking in nature.

<sup>101</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

<sup>102</sup> WSAA, *Developer Charges and Backlog Sewerage Charges for Metropolitan Water Agencies 2017*.

This option is based on the assumption that all growth is planned for, and that in effect, the service provider is responsible for the orderly cost minimising expansion of its water and sewerage network in order to service planned growth. Under this option, the costs associated with orderly growth of the network are recovered over time through recurrent charges on its customer base, rather than through headworks charges on developers.<sup>103</sup>

The more significant implications to TasWater of such an approach are that it:

- **requires effective Growth and Capacity Plans** that provide a reference point to assess charges
- **removes responsiveness to market opportunities** (in conflict with criterion 1), as there is no provision to accommodate new developments (other than for out-of-sequence) investment. However, sunk assets are excluded from the charge, and as such, the approach avoids disincentivising developers from utilising existing capacity
- **allows timely development** (consistent with criterion 3) if unplanned developments could incorporate out-of-sequence arrangements
- **provides better signalling than the net incremental cost approach** (consistent with criterion 3), as it excludes sunk assets from the developer charge and avoids disincentivising developers from using existing capacity<sup>104</sup>
- **avoids valuation issues** (consistent with criterion 7), as only forward-looking costs are required to be incorporated, thereby reducing the need for detailed historical records. Excluding sunk assets allows TasWater to avoid the complications associated with net incremental cost approaches such as the IPART net incremental cost methodology that requires managing a register of historical assets and allocations of capacity between headworks zones.<sup>105</sup>

Another advantage of this approach is that it would not require complex calculations relating to the apportionment of the costs attributed to existing assets. However, this approach would require a robust and detailed planning framework upon which expectations can be based for the timing of growth-related capital expenditure.<sup>106</sup>

## 5.5 Standardised uniform headworks charges

Under this approach, costs are allocated to developers on a state-wide or regional basis. A standardised headworks charge would apply in all development scenarios—irrespective of whether excess capacity were available or infill, and planned or unplanned.

This approach is premised on the assumption that some proportion of growth-related costs should be recovered upfront from developers, rather than over time through recurrent charges.

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<sup>103</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

<sup>104</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

<sup>105</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

<sup>106</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

This approach is applied in WA, where the headworks charge is the product of both a contribution factor and a standard infrastructure charge. The contribution factor could be a measure of capacity based on meter size and standard flow rates and the standard infrastructure charge is a standardised uniform headworks charge for both water and wastewater.<sup>107</sup>

Alternatively, this could be calculated using forecast growth-related headworks water and sewerage capital costs that would normally be recovered from recurrent charges.

This approach, which is applied in WA, excludes source assets from its cost calculation and also makes special allowances for development areas that are inherently more costly to service than others through the application of non-standard contributions.<sup>108</sup>

In metropolitan Melbourne, minimum New Customer Contribution per lot charges are currently set at \$713.80 for each water and sewerage service. These charges are applied across City West Water, South East Water and Yarra Valley Water.<sup>109</sup> In ACT, a charge of \$1200 is levied on a per-Equivalent Population basis on all developments across a single precinct.<sup>110</sup> In Western Australia, a standard water and wastewater infrastructure contribution is currently charged at \$5,579.<sup>111</sup>

The more significant implications to TasWater of such an approach are that it:

- **potentially recovers all costs** (consistent with criterion 2)—depending on the rates set. Depending on the level at which the charges are set, the approach may provide a significant and relatively predictable amount of revenue, which will allow a service provider to finance its activities<sup>112</sup>
- **charges cannot provide locational signals** (criterion 3)—average historical system-wide costs may not appropriately reflect forward looking costs. The Western Australian approach does, however, provide for the imposition of special allowances for development areas that are inherently more costly to service than others through the application of non-standard contributions.<sup>113</sup> The approach lacks the ability to send signals to out-of-sequence developments regarding the costs associated with bringing forward planned orderly development<sup>114</sup>
- **the approach is relatively simple** (consistent with criteria 6 and 7)—as it does not require detailed planning frameworks or complex administrative systems and is accessible via a website.<sup>115</sup>

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<sup>107</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

<sup>108</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

<sup>109</sup> Essential Services Commission, accessed 18 February 2020, <https://www.esc.vic.gov.au/water/water-prices-tariffs-and-special-drainage/water-tariffs/tariffs-victorian-water-businesses>.

<sup>110</sup> Independent Competition and Regulatory Commission, Regulated water and sewerage services prices 2018–23, accessed 18 February 2020, <https://www.icrc.act.gov.au/water-and-sewerage/regulated-water-and-sewerage-services-prices-201823>.

<sup>111</sup> Water Corporation, Infrastructure contributions, accessed 21 February 2020, <https://www.watercorporation.com.au/home/builders-and-developers/subdividing/fees-and-charges/infrastructure-contributions>.

<sup>112</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

<sup>113</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

<sup>114</sup> WSAA, *Developer Charges Position Statement*.

<sup>115</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

Variations to standardised charges could include:

- minimum charges as suggested by WSAA in response to the perceived shortcomings of zero charges in some instances<sup>116</sup>
- maximum charges adopted in Queensland. There may be unintended consequences of this approach in that should the maximum charge be too low, it may reduce the willingness of councils to permit development (in order to reduce the revenue risks associated with lumpy water and sewerage infrastructure services).

The relative merits of these variations depends largely upon the level at which charges are set relative to the actual level of infrastructure costs.

## 5.6 Principles-based approach

A principles-based approach would involve the establishment of a set of principles to guide the setting of headworks charges, which would then be negotiated on a case-by-case basis with developers.

The implications of the approach depend on the nature of the principles adopted. The implications for TasWater, would be:

- **increased flexibility for both TasWater and developers** to address significant opportunities (consistent with criterion 1) to progress unplanned developments and achieve cost-recovery
- **more appropriate location and timing signals** (consistent with criterion 3) if principles are set to focus on forward-looking costs
- **less certainty for developers** (conflicts with criterion 6). The approach may therefore add to the costs associated with implementing this approach (both for TasWater and developers).

As this approach would require a framework for the negotiations, it seems most suitable for large relatively more complex developments. The framework for negotiation would require to be established. It would need to address:

- the role and rights of TasWater, developers, appeals bodies, the TER and the legal framework
- the process for negotiation, arbitration (including minimum information provisions and arrangements for managing confidential information) and dispute resolution, and any related payments
- approved headworks pricing principles.

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## 5.7 Summary of findings

The key general outcomes from the assessment are that the most effective approaches that promote cost recovery (providing funding for growth) and provide incentives for the adoption of least cost infrastructure solutions (incorporating appropriate locational and timing signals) are:

- more complex to implement (the net incremental cost approach, out-of-sequence and principles-based approaches)
- inconsistent with some stakeholder perceptions of equity.

No single approach addresses all the identifiable shortcomings of current arrangements. However, there are many elements of these approaches that can be combined and adopted to respond to the concerns relating to current arrangements.

Two broad options – which address many of the concerns with the current approach are outlined in the next section.

1. A ‘shared external works’ option focuses on administrative simplicity and spreads the cost of growth across all customers.
2. An ‘enhanced status quo’ option builds on the current arrangements and incorporates elements of a number of approaches assessed above, to improve on TasWater’s current developer charge framework. This option includes:
  - a) incorporating planned infrastructure costs identified in Growth and Capacity Plans in recurrent charges
  - b) a standardised charge for most unplanned developments (and potentially planned developments)
  - c) principles-based negotiations for unplanned developments—invoked by TasWater where significant commercial risks and locational/timing issues arise.

These elements would recover all relevant infrastructure costs, provide effective signals for the location and timing of infrastructure, and promote understanding and administrative simplicity.

These options are discussed in further detail in section 6.

A summary assessment of the performance of all approaches against the criteria is in **Error! Reference source not found.**5 below.

Table 5: Summary of assessment of alternative approaches

	Current approach	Shared external works	Net incremental cost	Out-of-sequence (only)	Standard uniform headworks	Principles-based approach	Enhanced status quo
<b>Criterion 1:</b> Relevant infrastructure is available							
<b>Criterion 2:</b> Recover efficient costs							
<b>Criterion 3:</b> Achieve efficient pricing (including location and timing)							
<b>Criterion 4:</b> Minimise cross-subsidies							
<b>Criterion 5:</b> Justify equity considerations							
<b>Criterion 6:</b> Understand implementation							
<b>Criterion 7:</b> Simplify administration							

## 6. Options for consideration

Two options are highlighted for consideration. These respond to various concerns with the current arrangements – they are the ‘shared external works’ option and an ‘enhanced status quo’ option.

The ‘shared external works’ option would be administratively simpler but would fail to provide any locational or timing signals necessary to promote adoption of least cost infrastructure solutions. It would respond to some shareholders view that growth-related costs should be shared among all customers.

The ‘enhanced status quo’ option builds on the current arrangements by combining a number of approaches (described in section 5) that would better meet the objectives of the developer charging framework. This includes providing better signals for the location and timing of infrastructure to achieve efficient outcomes. It would address more recent stakeholder views that developers should contribute more to meeting the cost of headworks. However, this option would be more administratively complex.

### 6.1 Priority concerns

The assessment of current arrangements has found that of the areas that need to improve, the following should be prioritised:

- increasing funding for growth—recurrent charges and developer charges do not provide adequate funding to support anticipated growth
- achieving efficient pricing—more effective signals are necessary for the location and timing of infrastructure to ensure least cost service delivery
- improving administrative arrangements—to ensure that pricing signals promote growth
- increasing transparency and clarity—to promote understanding and administrative simplicity.

Common to both options is the need to complete Growth and Capacity Plans and recognition that TasWater’s responsibilities do not extend to subsidising infrastructure to achieve growth—rather, TasWater is responsible for ensuring sustainable and efficient service delivery.

Further, reticulation and connection costs are to be directly funded by developers under both options. The TER approved these as being consistent with the required pricing principles, because direct payment for or gifting of assets associated with works internal and works external represents a cost-reflective basis for recovering these elements of the costs of servicing a development.<sup>117</sup>

<sup>117</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

## 6.2 Options for consideration

Most approaches to developer charges that have been identified relate to the treatment of headworks charges. These approaches have various strengths and weaknesses.

To facilitate consideration, two options are detailed.

### 6.2.1 Option 1. Shared external works

Under this option, all planned infrastructure related to compliance, renewals and forecast growth (consistent with relevant whole-of-government and regional and local plans) would be included in Growth and Capacity Plans. Associated costs would be recouped under recurrent water and sewerage charges (together with costs related to any previously installed undepreciated existing assets).

Costs related to unplanned development are not incorporated in growth and capacity plans, as they are not foreseeable. These costs would need to be borne by TasWater until they are incorporated in the regulatory asset base in the next regulatory period. Costs would then be recovered from the general customer base.

This option differs from the current developer charging arrangements in that larger unplanned augmentation of capacity would not be absorbed in TasWater's profits. Further, the broad customer base, not developers, would pay for unplanned external and headworks costs.

Source and significant distribution assets, as well as excess capacity would be included in recurrent charges. The rationale for including them in recurrent charges is as follows:

- Source and significant distribution assets would be included, as many customers—both existing and new—will benefit from increased system capacity, reliability and security<sup>118</sup>, and their costs are difficult to attribute to a particular customer.
- Excess capacity (whether due to lumpiness or strategic reasons required by TasWater) is included, as it cannot be readily linked to any evident developer.

If TasWater is not able to carry unplanned costs until the next regulatory review, regulatory arrangements could be defined, under which such unplanned costs could be incorporated in the current regulatory period. These typically would include mechanisms for within-period adjustments and end-of-period reviews. End-of period reviews ensure that only prudent and efficient unplanned capital expenditure has been incorporated in the regulatory asset base.

The main advantages of this option are cost recovery (assuming no price increase restrictions in the long-term), administrative simplicity and conformance with some stakeholders' perception of fairness.<sup>119</sup>

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<sup>118</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

<sup>119</sup> Many stakeholders consulted by TasWater (63% of phone survey respondents) expressed the view that the costs of growth infrastructure should be shared across the entire customer base for development-driven infrastructure upgrades. Other stakeholders may have alternative views (see section 4).

The main disadvantages of the approach are that in the absence of location and timing signals it fails to signal the least cost options for new development, does not specifically provide for out-of-sequence developments, and fails to allocate the risks associated with estimates of demand to relevant parties. It would also more likely conflict with current price increase restrictions compared with the current approach.

### 6.2.2 Option 2. Enhanced status quo

There are many positive attributes of current arrangements, including that they have been in place for some time, are more familiar and therefore better understood, and are consistent with the TER's approvals. Many shortcomings have been identified in section 4 above.

Once Growth and Capacity Plans are completed, they will identify all relevant infrastructure requirements consistent with whole-of-government, regional and local planning. Under this option, all planned prudent and efficient headworks costs would be recouped from recurrent charges (as would the costs related to previously installed undepreciated existing assets).

Infrastructure associated with unplanned developments is not incorporated in Growth and Capacity Plans, as it is not foreseeable. Under this option unplanned infrastructure costs would be recouped through developer charges (including larger infrastructure costs).

It is proposed that this option would also include:

- a standardised per lot charge for most unplanned developments. This could also be applied to planned developments to raise additional revenue to contribute towards funding planned and unplanned growth (but it would need to be offset against costs relevant to the MARR)
- a principles-based charge—invoked by TasWater where significant commercial risks and locational/timing issues arise and allows for:
  - out-of-sequence costs where a developers' development necessitated the acceleration of capital works relative to the timing in TasWater's capital planning
  - unplanned incremental (forward-looking) new development costs, including for connection and directly attributable minor augmentations. To avoid deferring development until after excess capacity is incorporated in the asset base, all developers would pay the same amount per lot (adjusted for inflation) negotiated with the initial developer until the excess capacity is utilised. Revenues received from developers would be offset against the MARR in subsequent regulatory periods.

The main advantages of this option compared with the current approach are that it would potentially serve to:

- increase cost recovery
- provide increased funds to support growth
- provide locational and timing signals where material (including supporting the adoption of more

sustainable responses to increased demand (where relevant))

- cause developer contributions to be uniform (in real terms) between first movers and future developers that connect to the system
- reflect the views of stakeholders expressed in recent forums wherein support for a form of ‘headworks’ charge was expressed.<sup>120</sup>

It closely aligns with the views of the Water Services Association of Australia (WSAA), which generally considered that:

- developers need to pay their share to support the costs of servicing new development
- without developer charges, existing customers are paying for new customers<sup>121</sup> (and need to do so).

The proposal to only adopt principles-based negotiated approaches in circumstances where there are significant commercial risks for TasWater or, locational/timing risks, will reduce instances where the approach is applied. The proposal to adopt a low standardised charge (including for planned growth) will also be simpler to administer than seeking to apply location-based developer charges in all instances.

However, a number of implementation issues associated with this option would need to be addressed, some of which are outlined below.

### Standardised charge

The quantum of the standardised charge needs to be determined. To ensure that no inadvertent signals are sent, this should be set at a low level.<sup>122</sup>

### Principles-based charge

The principles-based approach would need to conform with TasWater’s statutory responsibilities.

### Definitions

Definitional issues that require attention include:

- the definition of headworks. Headworks infrastructure would include major source assets, bulk pipelines or treatment plants (the benefits of which are typically shared and less likely to be clearly linked to a proposed development) as opposed to the expansion of smaller infrastructure which is more likely to be directly linked to a proposed development. Any dispute regarding the link between an unplanned development and additional required headworks not able to be negotiated could be resolved by the TER at a subsequent regulatory review—providing an incentive for TasWater to only incorporate headworks costs that can be most objectively justified
- removal of the distinction of ‘larger’ and ‘smaller’ external infrastructure from terminology—such terminology was adopted to enable TasWater to exclude certain infrastructure from developer charges where TasWater considered that these might have significant implications for developer

<sup>120</sup> TasWater, *Economic Development Forums—Hobart, Devonport and Launceston*, summary report, 25 March 2019.

<sup>121</sup> WSAA, *Developer Charges Position Statement*.

<sup>122</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

charges. Rather, the more important distinction would be infrastructure that makes a significant commercial impact on TasWater or has material locational implications and that which does not.

### Calculating principle-based developer charges

The incremental cost minus incremental revenue methodology adopted by IPART and the ESC is conceptually accepted widely (absent the inclusion of existing capacity) as representing the best estimate of costs following from unplanned developments (new and out-of-sequence).

The methodology is also adopted in TasWater's assessment and prioritisation of capital expenditure. Detailed explanation of the methodology would be required, although developers involved in principles-based negotiations should understand the approach.

### Addressing data limitations

Given the diversity of approaches to developer charges adopted by previous water businesses in Tasmania, there seems to be a need to draw a line-in-the-sand to determine which assets should be incorporated in the asset base for recurrent charges.

As developer charges are intended to be forward-looking and reflect only future costs, this issue is not relevant to developer charges.

### Nature of assets to be included

A significant issue is determining what assets need to be incorporated into any principle-based charge and whether relevant data is available. For example, IPART<sup>123</sup> excludes:

- the part of an asset provided for a reason other than to service growth
- that part of an asset that services other areas
- the capacity of an asset that was made available by changes in land use patterns, or by changes in average demand
- assets funded by developers and transferred free of charge to the agency
- assets or parts of assets without a nexus to the development they are intended to serve.

Only growth assets required to support an unplanned development would be relevant.

### Planning period

Growth and Capacity Plans currently reflect a planning period of 20 years, while the lives of most assets substantially exceed such a period.

A longer planning period, such as 30 years would increase the asset base, increase cost recovery through recurrent charges and potentially reduce the need for unplanned investment, although the uncertainty related to longer-term forecasts need to be taken into account.

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<sup>123</sup> IPART, *Maximum prices to connect, extend or upgrade a service for metropolitan water agencies*, final report, 2018.

This matter would require agreement with the TER.

### Settlement patterns

In response to stakeholder suggestions that TasWater should adopt lower charges in regional or greenfield areas, TasWater has indicated that it will reflect regional strategies in infrastructure planning, but cannot favour one type of development (infill versus greenfield) or one area over another, as it is required to recover the costs of services by law.

TasWater also indicated that it is the Tasmanian Government's role to direct and incentivise development in particular areas.<sup>124</sup>

### Communication

Under this proposal, a developer charge would comprise four categories of costs— direct costs (reticulation and connection costs), out-of-sequence costs and a standardised network growth charge or principles-based negotiated charge.

To improve communication and introduce the new approach, suggestions were made to remove references to headworks and to refer to components according to their purpose. For example, as along the lines suggested by Frontier<sup>125</sup>, elements of developer charges could be referred to as:

- reticulation and connection contributions
- out-of-sequence network growth contributions
- standardised network growth contribution
- negotiated contributions.

### Transition

To change arrangements regarding developer charges, the necessary administrative arrangements and communication strategies would need to be put into place. A gradual transition for this purpose is proposed, with the new arrangements introduced:

- on a regional basis, consistent with the completion of Growth and Capacity Plans
- when relevant capabilities are accessed, methodological issues resolved and relevant data becomes available.

### Transparency

Stakeholders' confidence about the way funds raised through developer charges are used will be strengthened if the allocation of such funds is transparent.

We note that TasWater reports annually to OTTER on its capital investment and revenue, which is reported publicly as part of TER's State of the Water and Sewerage Industry report.

<sup>124</sup> TasWater, *Economic Development Forums—Hobart, Devonport and Launceston*, summary report, 25 March 2019.  
<sup>125</sup> Frontier Economics, *Developer Charges Investigation*, final report, March 2014.

Given that reprioritisation of projects can occur within a regulatory period, any proposal to allocate funds raised for particular projects only for such projects would need to be adopted with some flexibility.

### 6.3 Scenarios

In developing and assessing the options, three general scenarios in particular were considered:<sup>126</sup>

- infill development—a developer is seeking to connect a development in areas that are already developed and often involve a change in the use of land that has already been developed
- planned greenfield development—a developer is seeking to connect several residential lots, which is not ordinarily be expected to occur until some point in the future, in a pre-identified greenfield growth planning area
- unplanned development—a developer is seeking to connect a site outside of a pre-identified growth planning area for which TasWater has not anticipated the growth and has no pre-existing plans to service the growth.

In many instances, it can be expected that the costs of connecting to areas already developed (infill development) will be less than for greenfield and unplanned development sites, because access to pre-existing network infrastructure capacity is available. However, this is not necessarily the case. Other related costs of access through populated and developed areas and existing headworks capacity constraints may also be evident.

We note however, that:

- larger greenfield residential, tourism and industry developments and infill developments would more likely require principles-based negotiated charges—reflecting the complexity typically associated with such developments
- smaller greenfield developments and infill developments would only be subject to a (low) standardised charge, as these are typically smaller and less complex.

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<sup>126</sup> Frontier, *Developer Charges Investigation*, final report, March 2014.