IPART

Independent Pricing and Regulatory Tribunal
New South Wales

Maximum prices to connect, extend or upgrade a service for metropolitan water agencies

Sydney Water Corporation
Hunter Water Corporation
Central Coast Council

Draft Report
Water

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The Tribunal members for this review are:

Dr Peter J Boxall AO, Chair

Mr Ed Willett

Ms Deborah Cope

Inquiries regarding this document should be directed to a staff member:

Jean-Marc Kutschukian (02) 9290 8453

Alexandra Sidorenko (02) 9113 7769

Syvilla Boon (02) 9113 7767

Invitation for submissions

IPART invites written comment on this document and encourages all interested parties to provide submissions addressing the matters discussed.

Stakeholder submissions are due by 6 August 2018.

We would prefer to receive them electronically via our online submission form www.ipart.nsw.gov.au/Home/Consumer_Information/Lodge_a_submission.

You can also send comments by mail to:

Review of developer charges and backlog sewerage charges
Independent Pricing and Regulatory Tribunal
PO Box K35
Haymarket Post Shop NSW 1240

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If you would like further information on making a submission, IPART's submission policy is available on our website.

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1 Introduction

The Independent Pricing and Regulatory Tribunal (IPART or 'we') is conducting a review of developer charges and related charges levied by Sydney Water Corporation (Sydney Water), Hunter Water Corporation (Hunter Water) and the Central Coast Council (the Council) (formerly Gosford City Council and Wyong Shire Council, or the Councils).

We issued our most recent determination of Sydney Water and Hunter Water's developer charges in September 2000. We last determined Gosford City Council and Wyong Shire Council's developer charges in May 2013. Our determinations set the methodology for utilities to apply to calculate developer charges. Procedural requirements support the developer charges methodology under our 2000 and 2013 Determinations. These determinations can be found on our website.

Developer charges are upfront charges water utilities levy on developers to recover the costs of providing water, wastewater and/or stormwater infrastructure to new developments. The charges can ensure that existing customers do not face higher costs as a result of new development. They also signal the different costs of providing services to different locations and enhance the potential for competition in providing water and sewerage services to new developments.

In 2008, the NSW Government set water, sewerage and stormwater developer charges for Sydney Water and Hunter Water to zero. The Central Coast Council levies developer charges under our 2013 Determination.

We have reviewed the current methodology and procedural requirements for developer charges. Our draft decision is to largely maintain the current methodology, updating its procedural requirements to become more responsive. We have made a draft decision to preclude negative developer charges, and to allow voluntary opt-outs of the determination through bilateral agreements between utilities and developers.

We have made a draft decision to consolidate other capital charges, such as backlog sewerage charges and minor service extension charges, by applying a uniform methodology. We have introduced a new price for upgrading existing services for firefighting. The price would apply to existing properties that agree to fund the upgrade.

1.1 The current status of developer charges

The current developer charges determinations prescribe a net present value (NPV) methodology that water utilities must use to calculate their charges. This effectively calculates, on an 'equivalent tenement' (ET) basis, the cost of providing services to a new development above and beyond the retail (postage stamp) price revenue the utility will receive from customers in that area.[1]

1 'Equivalent tenement' is the measure of the demand a new development will place on the water and wastewater infrastructure compared to an average residential dwelling.

Box 1.1 provides a high-level summary of this methodology and the associated procedural requirements. Both elements are outlined in more detail in Chapters 2 and 3, respectively.

Box 1.1 Developer charges methodology and procedural requirements at a glance

A developer charge is a location-specific upfront charge that reflects the additional costs (capital and operating) of servicing that development area. The developer charge was designed to recover the difference between the system-wide average costs (reflected in the postage stamp price of the agency) and the costs of servicing the specific development area.

Methodology

Under IPART's 2000 Determination of developer charges for metropolitan water utilities (updated in 2013 for Gosford City Council and Wyong Shire Council), the basic formula for calculating the maximum developer charge for a new development area can be simplified as:[a]

$$\text{Developer charge} = \frac{\text{Net present value [capital costs + operating costs - revenue]}}{\text{Net present value [equivalent tenements]}}$$

Inputs in the formula are:

- **The capital costs**, including past, present and future capital expenditure, required to service the development area (shared or allocated between the particular development and other customers).
- **The operating costs** expected to be incurred in servicing the new development area.
- **The forecast revenue** from servicing customers within the new development area, based on postage stamp retail prices (usage and service charges).
- **Equivalent tenements**, representing the demand the new development will place on the water and wastewater infrastructure compared to an average residential dwelling.
- **Discount rate(s)** to calculate present values, explained in Chapter 2.

Procedural requirements

Our 2000 and 2013 Determinations of developer charges set out **procedural requirements**. These require the regulated water utilities to:

- Develop a **Development Servicing Plan (DSP)** for each service area, satisfying minimum content requirements (including the DSP area, demographic information, capital works, standard of service, and calculation of developer charges).
- Publicly **advertise** and **exhibit** a draft DSP for at least 30 days and consider stakeholder submissions. The Urban Development Institute of Australia (UDIA), the Housing Industry of Australia (HIA) and any relevant developers and landowners are to be informed.
- Forward the DSP to IPART for **registration**, informing us of any submissions lodged during the exhibition period. IPART then registers the DSP.
- **Review** DSPs and developer charges every five years or as required by IPART. All elements of the DSP should be reviewed. Developer charges are constant in real terms between the DSP reviews.
- Use a calculation spreadsheet that has been **approved by IPART**.

a This is a simplified representation of the methodology described in Chapter 2.

Source: IPART, *Sydney Water Corporation, Hunter Water Corporation, Gosford City Council, Wyong Shire Council Developer Charges from 1 October 2000, Determination No. 9, 2000*, September 2000; IPART, *Gosford City Council and Wyong Shire Council Developer Charges, Determination No. 1, 2013*, May 2013.

To date, we have determined a **methodology** for fixing maximum developer charges for the following reasons:

- A consistent and transparent approach to setting developer charges was needed to ensure efficiency and certainty for developers.
- Determining prices for each development area would require IPART and the water utilities to expend considerable time and resources. This could delay developments and impose significant regulatory costs.
- Prescribing a methodology enables the water utilities to establish new DSPs as they are required.

1.1.1 Zero developer charges have applied in Greater Sydney and the Hunter region since 2008

In 2008, the NSW Government set water, sewerage and stormwater developer charges for Sydney Water and Hunter Water to zero. This was facilitated by a direction from the Treasurer to Sydney Water and Hunter Water under section 18(2) of the *Independent Pricing and Regulatory Tribunal Act 1992* (NSW) (the IPART Act) (see Appendix F). This direction applies to developments that fall within the utilities' brownfield areas under existing DSPs and greenfield areas under Growth Servicing Plans[2], known as 'in-sequence' development.

Since 2008, prudent and efficient growth expenditure to service 'in-sequence' development has been added to Sydney Water and Hunter Water's notional revenue requirements. It has been recovered through their respective periodic (retail) prices to all customers.

For development that occurs ahead of the NSW Government's planned release of land, also known as 'out-of-sequence' development, Sydney Water requires developers to initially fund and construct works. In most cases, Sydney Water establishes a payment regime to a developer as lots are developed. The timing and scale of payments Sydney Water makes to the developer vary, depending on the progress of the development of lots, number of connections to Sydney Water's system and how far out of sequence the development is occurring. 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. In these circumstances, Hunter Water will cover some costs for upsizing.[3] The funding of 'out-of-sequence' development by Sydney Water and Hunter Water is discussed in more detail in Appendix C.

1.1.2 The Central Coast Council continues to levy developer charges

The NSW Government's 2008 decision to set water, sewerage and stormwater developer charges to zero does not apply to the Central Coast Council, which levies these charges consistent with our 2013 Determination.

In 2013, we updated our determination of developer charges for Gosford City Council and Wyong Shire Council (now the Central Coast Council), to ensure that the parameters used to

2 Sydney Water, *Growth Servicing Plan for 2017 to 2022*, at https://www.sydneywater.com.au/web/groups/publicwebcontent/documents/document/zgrf/mdq2/~edisp/dd_046979.pdf, 2017, accessed on 5 June 2018.

3 Hunter Water, *Funding and Delivery of Growth Infrastructure Standard*, January 2018, p 7.

calculate developer charges remain current. We limited our 2013 review to updating discount rates, the average consumption measure and the Consumer Price Index (CPI) indexation factor. We also removed the cap on Wyong Shire Council's developer charges.[4]

In this review, at a minimum, we proposed to update Sydney Water and Hunter Water's determination to ensure it is consistent with the approach taken for the Central Coast Council, and that its parameters are up to date. However, we have not limited our investigation to updating parameters. We sought stakeholder comment on all aspects and components of the current methodology and associated procedural requirements for setting maximum prices for connecting new services to new developments – referred to as developer charges – for water, wastewater and stormwater services. Recycled water developer charges are not part of this review, as discussed below.

1.1.3 Recycled water developer charges are not part of this review

The NSW Government's 2008 decision to set water, sewerage and stormwater developer charges to zero does not apply to Sydney Water and Hunter Water's recycled water developer charges.

In 2006, we made a determination of recycled water developer charges for Sydney Water, Hunter Water and the Central Coast Council.[5] The methodology is similar to that for water, sewerage and stormwater services. The determination also allows for recognising the avoided costs of water and sewerage associated with recycled water schemes and was accompanied by guidelines[6] on regulating recycled water prices.

However, developer charges for recycled water are outside the scope of this review. We will examine these charges when we review our 2006 Guidelines on regulating recycled water prices. We expect to conduct the review in 2018-19.

1.1.4 Developer charges apply in NSW and beyond

For context, we note that in addition to Sydney Water, Hunter Water and the Central Coast Council, NSW local water utilities (LWUs) also levy water and sewerage developer charges. However, these charges are outside our regulatory remit. Rather, the NSW Department of Primary Industries (DPI Water) has issued developer charges guidelines that apply to LWUs.[7] These guidelines are based on the NPV approach outlined in our 2000 Determination and 2013 Determination, but provide a more flexible methodology that is

4 IPART, *Gosford City Council and Wyong Shire Council – Review of calculation parameters for developer charges, Final Report*, May 2013, p 3.

5 IPART, *Pricing arrangements for recycled water and sewer mining – Sydney Water Corporation, Hunter Water Corporation, Gosford City Council and Wyong Shire Council, Final Report*, September 2006, pp 37-42.

6 IPART, *Pricing arrangements for recycled water and sewer mining – Sydney Water Corporation, Hunter Water Corporation, Gosford City Council and Wyong Shire Council, Final Report*, September 2006, pp 77-82.

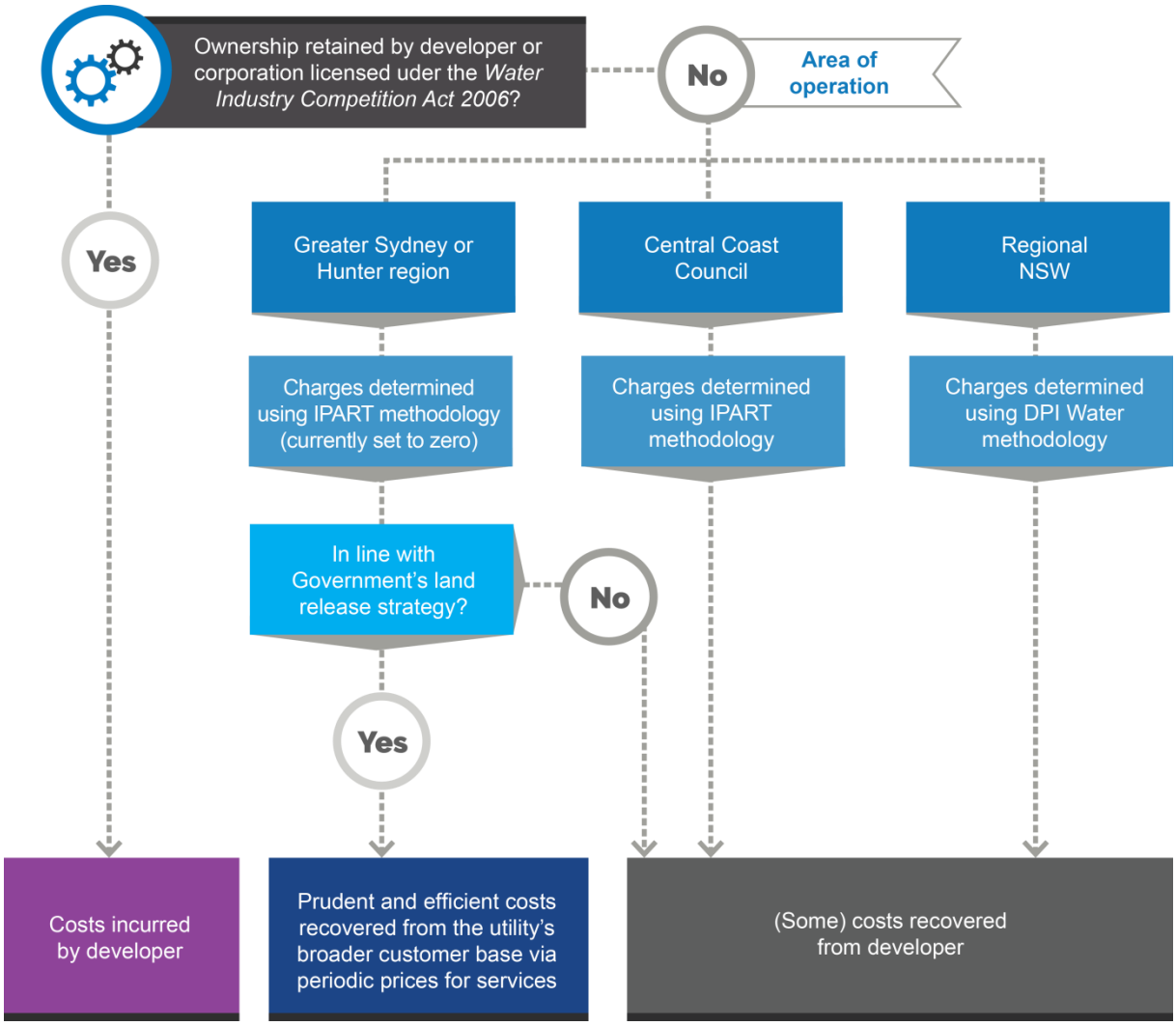
7 NSW Department of Primary Industries, *2016 Developer Charges Guidelines for Water Supply, Sewerage and Stormwater*, at http://www.water.nsw.gov.au/__data/assets/pdf_file/0011/663698/2016-Developer-Charges-Guidelines.pdf, 2016, accessed on 18 August 2017.

appropriate for use by LWUs (which may have access to more limited data) (see Appendix D).[8]

We note that zero developer charges in Greater Sydney and the Hunter region are unique, as developer contributions of some kind are applied elsewhere in NSW and in all other Australian jurisdictions (see Appendix E). However, the policy on developer charges in Greater Sydney and the Hunter area is a matter for the NSW Government and not part of this review.

Figure 1.1 provides an overview of the water developer charges regime in NSW, reflecting the Government's 2008 direction in relation to Sydney Water and Hunter Water.

Figure 1.1 Funding of water and wastewater infrastructure for new developments in NSW



Source: Adapted from IPART, NSW Planning System Review – IPART Submission on the Green Paper, September 2012, p 13.

8 IPART, *Review of Water Supply, Sewerage and Stormwater Developer Charges Guidelines – Final Report to the Minister,* September 2007, pp 1-2.

1.2 What does this review include?

This review has considered a number of charges that relate to or use similar methodologies, which are:

- our current methodology for developer charges for connecting a new service to new developments, set under the 2000 Determination and the 2013 Determination
- our methodology for backlog sewerage charges (connecting a new service to existing properties), set under the 1997 Determination and the 2006 Determination (discussed below), and
- our methodology for minor service extension charges (connecting a new service to existing properties), set under Sydney Water's 2016 Determination of periodic prices (discussed below).

We consider that these methodologies could be made consistent as they all relate to the costs of making a new connection to the system. Our draft decision is to replace all these current determinations with a single determination of maximum prices to connect, extend or upgrade a service for metropolitan water utilities. This will mean that the determination is up to date, applies to all utilities and all charges consistently, and can be used by all utilities if the NSW Government changes the 2008 direction. This also ensures consistent parameters, discount rates and CPI are applied to the connection charges under our review.

In October 2017 we released our Issues Paper for the review. [9] Our consultation on the Issues Paper led us to the following draft decisions:

- We have introduced **new terminology** that recognises common features of various connection charges under our review. We have made a draft methodology to set maximum prices for:
  - connecting a new service to a new development – former developer charges
  - connecting a new service to an existing property – former backlog sewerage charges or minor service extension (MSE) charges, and
  - upgrading an existing service to an existing property – a new price discussed in Chapter 5.
- Our draft methodology is based on the current **developer charges methodology**, which remains theoretically sound, subject to:
  - updating its parameters to ensure ongoing currency
  - amending it to preclude negative prices, and
  - making its procedural requirements more flexible and responsive.
- The current NPV methodology for calculating the costs of a new connection is appropriate to developer charges and backlog sewerage/ service extension charges alike.
  - **Backlog sewerage charges** set under our current determinations recover some of the costs associated with constructing reticulated sewerage systems in previously unsewered areas. This is essentially connecting a new service to an existing property.

9 IPART, *Review of developer charges and backlog sewerage charges for metropolitan water agencies* – Issues Paper, October 2017 (referred to as the 'IPART Issues Paper').

- **Service extension charges**, namely Sydney Water's minor service extension charge (under the 2016 Determination of periodic prices) and Hunter Water's proposed major service connection charge (proposed in its 2015-16 price review), also relate to the costs of extending a service to existing properties.
- **The methodology** for determining the cost of connecting a new service to an existing property should be the same as that for connecting a new service to a new development.
- **Connection prices** calculated using this methodology would be set within a DSP, according to the procedural requirements. These connection prices should include the cost of both existing and new assets servicing the area (on an incremental cost basis).

- However, we recognise there may be cases where the cost of connection should be shared between developers (or connecting customers in the case of existing properties) and other parties.
  - For example, positive environmental or health externalities might justify allocating only a share of the costs to the connecting customer (through charges).
  - We propose that these departures from the standard methodology are assessed on a case-by-case basis.
- Our draft methodology can accommodate a new type of charge to upgrade an existing service to an existing property to increase water flow and pressure to facilitate firefighting, noting that:
  - We proposed this charge in response to the submission from Fire and Rescue NSW and took into account stakeholder comments.
  - The proposed charge is based on a marginal approach to capital costs,[10] as existing customers have contributed to funding existing assets through periodic prices.
- Our draft decision is to maintain the annuity payment option to extend or upgrade a service to an existing property, to manage customer impacts and affordability.
- Our draft decision is to grandfather all charges levied under our current determinations to ensure that these schemes are funded and fair to the schemes' participants.
- Our draft decision is to present charges for service extensions and upgrades as a composite charge. That is:
  - A total charge is presented as a sum of a developer charge before the extension or an upgrade (calculated on an incremental cost basis), and a charge for the extension or upgrade (calculated on a marginal cost basis).
  - This presentation would enable utilities to charge on a marginal cost basis for an extension or upgrade while the zero developer charge policy applies.
  - In turn, this would ensure that service extensions or upgrades can be funded by connecting customers, on a voluntary basis and regardless of the policy on developer charges.

10 Under a 'marginal", or forward-looking, approach to capital costs, only the capital expenditure on **new** assets specific to servicing the new, extended or upgraded services would be included in calculating the capital charge component of the relevant connection charge (see Chapter 2).

- We note that:
  - Where large-scale service extensions or upgrades can be used by new developments, a new or revised DSP must be made according to procedural requirements. This means that the costs of the extension or an upgrade will be shared between existing properties using this extension or an upgrade, and new developments.
  - The price set within a DSP which includes an upgrade should list a connection price for a new development on an incremental cost basis, and a connection price for an existing property on a marginal cost basis. This is because the existing properties have been contributing to the costs of existing assets through periodic prices.
- Our draft decision is to suspend a requirement to review DSPs while the NSW Government policy on zero developer charges applies, and to allow an up to 18-month transition period if the policy is removed. During this transition period, developer charges would continue to be zero.
- We also consulted on Sydney Water's new Developer Direct (SWDD) charge launched in July 2017 for customers undertaking small to medium development. SWDD includes quoting for construction work that relates to connecting a property to the water and sewerage network.
  - Stakeholder submissions raised concerns that SWDD may not be competitively neutral. In this report, we have outlined the complaints mechanism for competitive neutrality.
  - Our draft decision is to defer regulating construction services provided under SWDD to the 2020 Sydney Water periodic price review.

1.3 How are we undertaking this review?

We are conducting this review under section 11 of the IPART Act. We are reviewing the existing developer charges methodologies and associated procedural requirements, taking into account the views of, and impacts on, all stakeholders.

Under the IPART Act, we are required to consider a broad range of issues, including social, environmental and utility-specific concerns. In particular, section 15 of the IPART Act (see Appendix A) requires us to consider matters including:

- consumer protection – such as protecting consumers from abuses of monopoly power in terms of prices, pricing policies and standards of service; ensuring standards of quality, reliability and safety of the relevant services; and taking into account the social impact of decisions
- economic efficiency – greater efficiency in the supply of services to reduce costs to consumers; and the need to promote competition
- financial impacts – such as the appropriate rate of return on public sector assets, including dividend requirements; and the impact of pricing on agencies' borrowing, capital and dividend requirements, and

- environmental protection – such as the need to maintain ecologically sustainable development via appropriate pricing policies; and consideration of demand management and least-cost planning.

In addition, we are to examine any other matters we consider relevant.

1.4 How can stakeholders provide input to this review?

We released our Issues Paper in October 2017 and received submissions from Sydney Water, Hunter Water and the Central Coast Council in December 2017. We gave other stakeholders the opportunity to comment on those submissions by January 2018. We held a public hearing on 6 March 2018, giving all stakeholders further opportunity to provide input to this review.

We invite all stakeholders and interested parties to make written submissions to this Draft Report and Draft Determination for reviewing developer charges (water, wastewater and stormwater services) and other related charges for metropolitan water utilities. We also seek comment on the Excel spreadsheet template for calculating developer charges. Utilities can use the template voluntarily, to facilitate transparency. Details on how to make a submission can be found on page iii.

We will consider all submissions before making our Final Determinations and publishing the Final Report in October 2018. Table 1.1 provides an indicative timetable for the review. We will update this timetable on our website, as the review progresses.

Table 1.1 Timetable for the review of developer charges (water, wastewater and stormwater services)

Milestone	Timeframe
Issues Paper released	24 October 2017
Utilities' submissions on the Issues Paper received	11 December 2017
Public submissions on Issues Paper and utilities' submissions received	22 January 2018
Public hearing held	6 March 2018
Release Draft Determination and Draft Report	25 June 2018
Receive submissions on Draft Determination and Draft Report	6 August 2018
Release Determination and Final Report	October 2018

Note: These dates are indicative only.

1.5 Structure of this Draft Report

This Draft Report explains the process we followed while conducting the review, our approach to the pricing methodology, and the key issues we considered in making these decisions.

It sets out our draft decisions and reasoning, and is structured as follows:

- Chapter 2 discusses our draft methodology for determining maximum prices for new connections to new developments – our developer charges methodology.
- Chapter 3 discusses the procedural provisions in the Draft Determination.

- Chapter 4 considers our draft decision on maximum prices for new connections to existing properties – formerly backlog sewerage charges and minor service extension charges.
- Chapter 5 looks at new prices to upgrade an existing service to facilitate firefighting.
- Chapter 6 discusses our approach to Sydney Water Developer Direct.

All dollar figures quoted in this Draft Report are in $2017-18, unless stated otherwise.

We have outlined the draft decisions we are seeking stakeholder comment on in each chapter. For convenience, we have listed these draft decisions below. Stakeholders are also welcome to provide input on any other issues they consider relevant to our review.

1.6 List of draft decisions for stakeholder comment

Methodology to set prices for new connections to new developments [1]

1 Maintain the key features of the 2000 methodology, which calculates capital charges, minus the reduction amount, per equivalent tenement (ET), on a net present value (NPV) basis. 15

Capital charges [2-7]

2 Maintain our current approach of calculating capital charge components separately for pre-1996 and post-1996 assets. 20

3 Maintain our current approach to: 21

– exclude pre-1970 assets from the capital charge calculation 21

– not limit the period of inclusion of assets yet to be commissioned, and 21

– the criteria for exceptions to asset inclusion. 21

4 Maintain our current approach to including headworks assets regardless of their ownership or funding arrangements. 26

5 Exclude the Sydney Desalination Plant's assets from headworks assets for Sydney Water. 31

6 Maintain our current approach to apportion shared assets between DSP areas using expected utilisation based on ETs. 31

7 Maintain our current approach to valuing assets already commissioned on a Modern Engineering Equivalent Replacement Asset (MEERA) basis, and assets yet to be commissioned on an estimated efficient costs basis. 32

The ‘reduction amount’ [8]

8 Maintain our current approach to the reduction amount component of developer charges, which relates to postage stamp revenues and location-specific operating costs, for a period of 30 years. 35

Discount rates [9-12]

9 Maintain the current differential application of discount rates to pre-1996 and post-1996 assets. 36

10 Maintain the discount rates for pre-1996 assets at: 36

– the real pre-tax rate of 3% for Sydney Water and Hunter Water, and 36

– the real pre-tax rate of 0% for the Central Coast Council. 36

11 Update the discount rates for post-1996 assets and for the reduction amount to the utility’s real pre-tax WACC referred to in the Final Report accompanying the prevailing periodic price determination. 36

12 Not to apply a WACC adjustment once the developer charges are calculated. 38

Equivalent tenements (ETs) [13-14]

13 Maintain the annual consumption of an average residential dwelling as our measure of an equivalent tenement (ET). 39

14 Update the ET value with the consumption for an average residential dwelling referred to in the Final Report accompanying the prevailing periodic price determination. 40

Prices cannot be negative [15]

15 Amend the methodology so that if the calculated price is negative, it is set to zero. 40

Voluntary opt-outs are permitted [16]

16 Allow utilities and developers to opt-out of the determination through bilateral agreements, subject to ring-fencing of unregulated costs. 44

Procedural requirements around development servicing plans (DSPs) [17-24]

17 Maintain the current DSP content requirement, with minor amendments. 47

18 Maintain the current requirement to exhibit, advertise and consult on DSPs, with minor amendments. 48

19 Require a DSP review once every five years, however, this requirement can be shortened, extended or waived, as approved or directed by IPART. 49

20 Suspend the DSP review requirement while the NSW Treasurer's direction on zero developer charges is in place. 50

21 Provide for a transition period of up to 18 months to apply in the event that the Government's nil developer charges policy is removed, and set maximum prices to zero until the end of that period, or until the relevant utility complies with the relevant procedural requirements set out in the determination, whichever occurs earliest. 51

22 Maintain our current role in approving the calculation spreadsheet and registering the DSP. 51

23 Release a template spreadsheet that utilities can use, on a voluntary basis, to calculate developer charges. 52

24 Maintain our current approach of not prescribing how the DSP areas are set. 52

Price indexation factor [25]

25 Update the CPI indexation factor for annual adjustments to prices between DSP reviews, to March-on-March quarter CPI, ABS all groups eight capital cities. 54

Methodology to set prices for new connections to existing properties [26-31]

26 Apply a uniform methodology to set maximum prices for a new service connection to an existing property. 63

27 Grandfather existing backlog sewerage and minor service extension charges calculated and applied on an annuity basis under our: 66

– 1997 and 2006 Determinations of backlog sewerage charges, and 66

– 2016 Determination of retail prices for Sydney Water. 66

28 Maintain the annuity payment option for providing a new service to existing properties. This annuity is based on: 67

– the discount rate set to the utility's real pre-tax WACC referred to in the Final Report accompanying the prevailing periodic price determination, and 67

– the annuity period of up to 20 years. 67

29 Calculate prices when the service becomes available. The CPI indexation factor applies to prices for connection at a later date (March-on-March quarter CPI, ABS all groups eight capital cities). 67

30 Not to apply any WACC adjustment once the charge is calculated. 67

31 Make procedural requirements proportionate to the size of the scheme: 69

– Large-scale (township level) service extension schemes require making or reviewing a DSP, following the standard procedural requirements. 69

– Small scale extension schemes do not attract any specific procedural requirements and are subject to an ex-post review. 69

Methodology to set prices for service upgrade to existing properties [32-36]

32 Set the price for upgrading an existing service to existing properties, on a marginal cost basis. 74

33 Provide the annuity payment option for a voluntary upgrade of existing services to existing properties. This annuity is based on: 75

– The discount rate set to the utility's real pre-tax WACC referred to in the Final Report accompanying the prevailing periodic price determination. 75

– The annuity period of up to 20 years. 75

34 Calculate prices when the upgraded service becomes available. The CPI indexation factor applies to prices for connection at a later date (March-on-March quarter CPI, ABS all groups eight capital cities). 75

35 Not to apply any WACC adjustment once the charge is calculated. 76

36 Not to impose any procedural requirements for upgrading services for firefighting, subject to an ex-post review. 76

Sydney Water's Developer Direct [37]

37 Defer regulating SWDD's construction services until the 2020 Sydney Water price review. 80

1.7 List of draft recommendations for stakeholder comment

1 We recommend the NSW Government's social policy objectives and Community Service Obligations be provided through a contestable process. 66

2 New connections to new developments – developer charges methodology

Our 2000 and 2013 Determinations of developer charges were based on a methodology, accompanied by procedural steps the utilities follow in applying this methodology to calculate developer charges.

Our draft decision is to maintain the current developer charges methodology, which remains theoretically sound. However, our draft decision is to update the parameters of the methodology and amend the methodology to preclude negative prices.

In our Issues Paper, we sought stakeholder comment on key issues and questions associated with the methodology and its elements. We received and considered stakeholder views on:

- the capital costs in the methodology, including which assets to include and how to apportion those costs to each development area, and
- other elements of the methodology, including the forecast period for assessing revenues and operating costs (to calculate the **reduction amount**), discount rates and projected equivalent tenements (ETs).[11]

This chapter provides the reasons for our draft decisions relating to the methodology. In Chapter 3, we discuss our draft decisions on the procedural steps that accompany the methodology.

2.1 Summary of our draft decisions on methodology

We have introduced new terminology that recognises common features of various connection charges under our review. We have maintained the core features of the methodology under our 2000 Determination of developer charges (referred to as '**the 2000 methodology**'), while updating its parameters to ensure their ongoing currency. The following outlines this approach, its key elements and our response to stakeholder submissions.

In summary, our draft decision is to:

- maintain the current net present value (NPV) methodology, which includes the capital cost components and the reduction amount, and is based on ETs
- update the parameters of the methodology to ensure its ongoing currency
- maintain the current approach to the capital cost component
- maintain the current approach to the reduction amount

11 'Equivalent tenement' is the measure of the demand a new development will place on the water and wastewater infrastructure compared to an average residential dwelling. For a full definition of an ET, see Schedule 5 clause 3 of the Draft Determination.

- maintain the differential application of discount rates
- maintain average consumption as the measure of an ET, and
- amend the current approach to ensure that developer charges cannot be negative.

2.2 We have maintained our approach to setting the methodology

Our draft decision is to:

1 Maintain the key features of the 2000 methodology, which calculates capital charges, minus the reduction amount, per equivalent tenement (ET), on a net present value (NPV) basis.

The 2000 methodology calculates developer charges as the capital cost attributable to the development area, less the future operating position (surplus or deficit) expected to be earned from the utility's periodic charges to its retail customers in the development area. The methodology uses a net present value (NPV) approach, which allows costs and revenues to be reconciled to a single value by discounting them to today's dollars.

Box 2.1 shows the 2000 methodology for calculating developer charges. The methodology calculates the developer charge per ET in a Development Servicing Plan (DSP) area as:

- the present value (PV) of the capital costs of the existing and future assets used to service the development area
- less the PV of the future net operating surplus (or deficit) expected from providing the services to the development area – also called the **reduction amount**, and
- divided by the PV of the number of equivalent tenements in the development area.

Box 2.1 The 2000 methodology for developer charges

The developer charge per equivalent tenement is calculated as follows:

$$DC = \frac{K_1}{L_1} + \frac{K_2}{L_2} - \frac{NPV(R_i - C_i)}{L_3} \; for \; i = years \; 1, \ldots, n$$

Where:

DC – developer charges per equivalent tenement

K_1 – the capital charge for the pre-1996 assets which will serve the Development Servicing Plan (DSP) area calculated on an NPV basis, discounted at rate r_1 from 1 January 1996

K_2 – the capital charge for the post-1996 assets which will serve the DSP area calculated on an NPV basis, discounted at rate r_2

L_1, L_2, L_3 – the present value of the number of equivalent tenements in the DSP area, or to be developed in the DSP area, calculated at discount rate r_1, r_2, r_3 respectively

R_i – the future periodic revenues expected to be received from new customers in the DSP area in each year *(i)*

C_i – the future expected annual operating, maintenance and administration costs of providing services to new customers in the DSP area in each year *(i)*

r_i – the discount rate to be used in the calculation of the net present value of pre-1996 assets

r_2 – the discount rate to be used in the calculation of the net present value of post-1996 assets

r_3 – the discount rate to be used in the calculation of the net present value of expected revenues and costs

n – is 30 years from the date of review of the developer charge as required by the 2000 Determination. It is the forecast period for the assessment of expected revenues and costs.

Source: IPART, Developer Charges Determination No 9, 2000, Schedule 4.

2.2.1 The current methodology remains sound

Utilities and other stakeholders conceptually supported the current methodology. Stakeholder submissions indicated that the methodology remains 'theoretically sound'[12] and 'fit for purpose.'[13] However, the Central Coast Council submitted that "additional changes can be made to improve transparency and enhance economic development".[14]

In its submission, the Water Services Association of Australia (WSAA) stated:

> The elegance of IPART's method is that it explicitly seeks to recover the shortfall between the costs of servicing growth and the 'profits'.[15]

12 Sydney Water's submission to IPART Issues Paper, December 2017, p 7.
13 Hunter Water's submission to IPART Issues Paper, December 2017, p 35; Housing Industry Association's submission to IPART Issues Paper, January 2018, p 3.
14 Central Coast Council's submission to IPART Issues Paper, December 2017, p 5.
15 Water Services Association of Australia's submission to IPART Issues Paper, January 2018, p 6. 'Profits' relate to the reduction amount – see Box 2.1.

> The robust conceptual grounding of IPART's developer charges method is its strength: it offers location specific charges that are designed to overcome the lack of signals provided by postage stamp pricing.[16]

Stakeholders representing the development industry were concerned that our review of the developer charges methodology is linked to a reversal of the Government policy of zero developer charges.[17] Developers support zero developer charges, for obvious reasons. The water services industry supports cost-reflective developer charges, considering that a well-designed system of developer charges and contributions is an important element for funding growth.[18] Without a developer charging framework, the additional costs of new growth would have to be recovered through charging existing customers for water and wastewater services.[19] We note that zero developer charges in Greater Sydney and the Hunter region are unique, as developer contributions of some kind are applied elsewhere in NSW and in all other Australian jurisdictions (see Appendix E). However, the policy on developer charges in Greater Sydney and the Hunter area is a matter for the NSW Government and not part of this review.

2.2.2 Setting a methodology rather than fixing prices continues to be the best approach

Our 2000 Determination set a methodology instead of fixing individual prices for each DSP area. We considered that applying the methodology provided the required balance of flexibility and prescription for utilities to produce accurate, consistent, transparent and timely developer charges. This also facilitates consideration by the utility of alternative sources of supply and best servicing solutions (see discussion later in this chapter).

The rationale for determining the methodology rather than fixing prices continues to be valid and is discussed in the following section.

Fixing individual developer charges would increase administrative burden

If we were to fix a developer charge for each DSP, there would be unworkable delays given the large number of DSPs to be assessed using our standard consultation process. Timely determinations of DSP-specific charges might not be possible.[20]

Setting benchmark developer charges would be inefficient under postage stamp retail prices

In its submission, Sydney Water provided examples of alternative options for setting developer charges, including a capped charge, a postage stamp charge, a developer charge

16 Water Services Association of Australia's submission to IPART Issues Paper, January 2018, p 5.
17 Housing Industry Association's submission to IPART Issues Pape, January 2018, p 1; Urban Development Institute of Australia's submission to IPART Issues Paper, January 2018, p 2.
18 Water Services Association of Australia's submission to IPART Issues Paper, January 2018, p 3.
19 Water Services Association of Australia's submission to IPART Issues Paper, January 2018, p 6.
20 At the last review in 2006-07, there were 75 DSPs for Sydney Water and 77 DSPs for Hunter Water. See IPART, *Review of developer charges and backlog sewerage charges for metropolitan water agencies – Issues Paper*, October 2017, p 32.

offset, voluntary agreements, allocating costs to beneficiaries of more stringent environmental standards and developer charges with a minimum contribution.[21]

A capped developer charge would limit the price to connect a new service to some specified maximum (a 'cap'). A benchmark developer charge would be set using a reference to charges raised by other utilities, or charges by the same utility in different locations. In both cases charges would be set for a specific region, which could be as narrow as a DSP area or as broad as the utility's entire area of operation.

We consider that a broad-based benchmark developer charge would produce inefficient outcomes because it would not be cost-reflective. It would either be:

- too high for genuinely low cost developments (where the capital charge and operating costs were low), or
- too low for high cost development areas (where the capital charge and operating costs were high).

The price signal would be distorted and developments in the low cost areas would effectively be cross-subsidising inefficient developments in high cost areas.

Setting a benchmark developer charge for the whole area of operation would constitute a postage stamp charge. Such charges would not reflect the different costs of servicing different areas, and therefore would not send efficient signals to the market. This could mean development and the supply network is expanded to higher cost areas, at the expense (or instead) of lower cost areas. A stakeholder recognised that capping or having a common level of developer charges, together with postage stamp retail prices, created opportunities for cherry-picking.[22]

Our draft decision is that setting the methodology to calculate location-specific developer charges continues to be the best approach. We have considered Sydney Water's proposal for unregulated agreements, and have accepted this by allowing for the utility and its customer to opt-out of our determination of connection charges if both parties can reach agreement. The opt-out provision is discussed later in this chapter.

2.3 Utilities support the parameters update

The methodology in the 2000 Determination relies on several key parameters set to a fixed value. These parameters are:

- the real discount rate for pre-1996 assets and associated ETs
- the real discount rate for post-1996 assets and associated ETs
- the real discount rate for the expected net revenues, costs and associated ETs
- the annual water consumption for an average residential customer both as the measure of an ET and as an input in the calculation of the reduction amount, and
- a forecast horizon for expected new revenues and costs.[23]

21 Sydney Water's submission to IPART Issues Paper, December 2017, pp 16-17.
22 IPART, Developer Charges public hearing transcript, 6 March 2018, p 34.
23 IPART, Developer Charges Determination No 9, 2000, Schedule 5.

In 2013, we made a new determination to replace parts of the 2000 Determination for the Central Coast Council. The 2013 Determination updated the parameter values for both Gosford City Council and Wyong Shire Council (the Councils, now constituting the Central Coast Council).[24]

In our 2013 Determination, we decided to:

- keep the real discount rate for pre-1996 assets for the Councils unchanged at 0%
- update the real discount rate for post-1996 assets from 7% to the Councils' pre-tax weighted average cost of capital (WACC) referred to in the Final Report accompanying the prevailing periodic price determination
- update the average customer consumption value with the consumption for an average residential customer referred to in the Final Report accompanying the prevailing periodic price determination, and
- keep the forecast horizon for expected new revenues and costs unchanged at 30 years.[25]

These changes ensured that key parameters for the Central Coast Council remained up to date and consistent with the prevailing retail price determinations.

The 2013 Determination for the Councils also updated the CPI indexation factor, in line with the CPI we applied in our periodic retail price determinations. That is, annual CPI adjustments to developer charges between DSP reviews is calculated using the March-on-March quarter CPI, all groups eight capital cities, as published by the Australian Bureau of Statistics (ABS).

In our Issues Paper, we proposed, at a minimum, the same changes to the 2000 Determination for Sydney Water and Hunter Water as we made to the 2013 Determination of developer charges for the Councils. Such changes would ensure that the developer charges methodology that applies to all utilities is up to date and is consistent with the utilities' prevailing retail price determinations. This would be important if developer charges in Greater Sydney and the Hunter region are reinstated.[26]

24 IPART, *Gosford City Council and Wyong Shire Council Developer Charges, Determination No. 1, 2013*, May 2013.

25 IPART, *Gosford City Council and Wyong Shire Council Developer Charges, Determination No. 1, 2013*, May 2013.

26 In 2008, the Government directed Sydney Water and Hunter Water to set developer charges for 'in-sequence' development to zero; see Chapter 1 and Appendix C.

Utilities expressed their support for updating parameters of the methodology in line with the changes made in our 2013 Determination for the Central Coast Council. The utilities submitted additional proposals regarding elements of the methodology. Our response to these proposals, other stakeholders' views, and the reasons for our draft decisions are presented in the remainder of this chapter.

2.4 We have maintained the current approach to the capital cost component

This section discusses our current approach to the capital cost component of the developer charges methodology, the views of stakeholders and our draft decisions. It includes:

- The categories of assets:
  - 'pre-1996 assets' commissioned prior to 1 January 1996
  - 'post-1996 assets' commissioned on or after 1 January 1996 or those that are yet to be commissioned
- the assets to include in capital costs
- apportioning shared assets, and
- the value of assets included in capital costs.

2.4.1 We have maintained the distinction between pre-1996 and post-1996 assets

Our draft decision is to:

2 Maintain our current approach of calculating capital charge components separately for pre-1996 and post-1996 assets.

The methodology in the 2000 Determination has two capital charge components: pre-1996 and post-1996 assets. A lower discount rate (the 'holding cost') applies to pre-1996 assets.

At the time, we decided to define assets based on whether they were commissioned before or after the developer charges methodology was introduced – that is, 1 January 1996. Before then, developer charges were not necessarily cost-reflective.

Defining assets as 'pre-1996' or 'post-1996' allowed us to avoid the difficulty arising from using the terms 'existing assets' and 'future assets'. For example, when a DSP is originally prepared, an asset may be classified as a future asset. At a subsequent DSP review, the asset may be an existing asset. Applying different discount rates for existing and future assets could result in an asset achieving a lower return following a review.[27] Providing a firm time anchor to distinguish the assets where the lower discount rate (rate of return) should apply solved this problem.

The reasons for maintaining the lower discount rate for pre-1996 assets are discussed later in this chapter. Hunter Water and the Central Coast Council supported applying a lower discount rate to pre-1996 assets. Sydney Water proposed an alternative option, which we

27 IPART, *Review of developer charges and backlog sewerage charges for metropolitan water agencies – Issues Paper*, October 2017, pp 12-13.

have decided at this stage not to accept. This option and the reasons for our draft decisions are discussed in the following section on capital costs.

To enable differential application of discount rates, our draft decision is to maintain the current division of assets into pre-1996 and post-1996 assets.

2.4.2 We have maintained our current approach to asset inclusion

Our draft decision is to:

3 Maintain our current approach to:

- exclude pre-1970 assets from the capital charge calculation
- not limit the period of inclusion of assets yet to be commissioned, and
- the criteria for exceptions to asset inclusion.

Under the 2000 Determination (and the 2013 Determination for the Councils), each development should pay for the capacity of the **existing** and **future** assets that it uses or will use.

By including capital costs for existing assets in the capital charge, the methodology under our 2000 Determination relies on an incremental cost approach (see Box 2.2 below)

Thus, the costs of existing assets are shared between existing and new customers to the degree that the new customers use the existing assets.

In our Issues Paper, we sought comment on whether the current approach to capital costs in the developer charges determinations is reasonable. The key features of our 2000 Determination are to:

- use an incremental cost approach to including capital costs
- exclude pre-1970 assets
- include headworks assets regardless of who owns these assets, and
- use a Modern Engineering Equivalent Replacement Asset (MEERA) valuation for existing assets.

Sydney Water proposed an alternative option, which was to:

- include all assets regardless of when they were commissioned
- change the methodology used for asset valuation for existing assets from MEERA to the disaggregated Regulatory Asset Base (RAB) values, or the Depreciated Optimised Replacement Cost (DORC) values if the disaggregated RAB values are not available
- use a single discount rate – the prevailing WACC – for all assets, and
- use its Cost Allocation Methodology (CAM) to apportion the costs of assets between DSP areas and to establish the disaggregated RAB values of assets.[28]

In the following section, we discuss the views of Sydney Water and other stakeholders.

28 Sydney Water's submission to IPART Issues Paper, December 2017, pp 8-9, 19, 24-27.

We have maintained the incremental cost approach to include both existing and new assets

In our Issues Paper, we sought comment on our preliminary position to maintain the incremental cost approach to capital costs, which included both existing and new assets in the capital charge. We considered that using a marginal cost (ie, forward-looking) approach to capital costs could put new entrants at a competitive disadvantage compared to Sydney Water or Hunter Water. The new entrant would need to invest in new water and/or wastewater infrastructure. It would also need to charge for these assets to recover the cost of the investment. Setting developer charges on a marginal cost basis would give the incumbent an advantage at the expense of dynamic efficiency gains associated with new entrants and competition for providing water and wastewater services to new development areas.[29] Box 2.2 below outlines what we mean by 'incremental' and 'marginal' cost, and the differences between these two approaches.

Box 2.2 'Incremental' vs 'marginal' approach to capital costs

In our Issues Paper we introduced the concept of an **incremental vs marginal cost approach** to the assets included in the calculation of the capital charge component of developer charges.

- By allowing capital costs of pre-commissioned (existing) assets into the capital charge, the 2000 methodology relies on an **incremental cost approach**.
  - The costs of existing assets are thus shared between existing and new customers, and between new customers in different development areas, to the degree that the new customers use the existing assets.
  - We refer to this approach as 'incremental', as opposed to average, because it recognises both the temporal aspect (eg, existing customers vs new developments), and the geographic aspect (eg, system average costs of servicing existing customers, and location-specific costs of servicing a regional cohort of new customers).
- Under a **marginal cost approach**, developer charges would be forward-looking and cover only the explicit capital expenditure incurred on new assets in providing service to a particular development.
  - The new developments would not share the costs of existing assets, which would be considered sunk costs.
  - Using a 'marginal' cost (ie, forward- looking) approach to capital costs would shift the weight from existing to new assets.
  - A marginal cost approach would lead to lower developer charges where there is excess existing infrastructure capacity.
  - While providing a short-term signal for the lowest cost connection, the marginal cost approach puts new entrants at a competitive disadvantage to incumbent utilities. This affects dynamic efficiency.

Source: IPART, *Review of developer charges and backlog sewerage charges for metropolitan water agencies – Issues Paper*, October 2017, p 16.

Hunter Water and the Central Coast Council supported our current incremental cost approach. We note that the NSW Local Water Utilities (LWUs) apply a similar approach,

29 IPART, *Review of developer charges and backlog sewerage charges for metropolitan water agencies – Issues Paper*, October 2017, p 16.

levying developer charges under DPI Water's guidelines.[30] Other states in Australia have adopted similar principles.[31]

In the following sections, we provide additional analysis of the issues relating to proposed alternative approaches.

We have maintained the current list of exceptions to asset inclusion

Under the 2000 Determination, the main criterion for including an asset in a DSP is a nexus (ie, close connection) between the development and the assets. All assets or parts of assets that service a development area must be included in the calculation of a developer charge, **except**:

- that part of an asset provided for a reason other than to service growth (eg, to accommodate amendments to environmental legislation)
- that part of an asset that services other DSP areas (ie, assets must be apportioned between DSP areas)
- the capacity of an asset that was made available by changes in land use patterns, or by changes in average demand
- any asset that was unreasonably oversized relative to system and capacity requirements, based on available demographic data at the time it was commissioned
- any asset commissioned before 1 January 1970
- assets funded by developers and transferred free of charge to the agency, and
- assets or parts of assets without a nexus to the development they are intended to serve.[32]

Pre-1970 assets continue to be excluded from the capital costs

In our first determination of developer charges in 1995, we argued that it was not appropriate to charge developers for some assets because:

- a change in land use may mean the service capacity of existing assets far exceeds their uses, and
- assets such as very old dams continue to contribute service capacity long after their construction costs have or should have been recovered.[33]

Excess capacity will most commonly exist in infill development of long-established areas. From the outset, our methodology was designed to generate price signals in favour of infill

30 NSW Department of Primary Industries, *2016 Developer Charges Guidelines for Water Supply, Sewerage and Stormwater*, at http://www.water.nsw.gov.au/__data/assets/pdf_file/0011/663698/2016-Developer-Charges-Guidelines.pdf, 2016, accessed on 18 August 2017.

31 For example, see: Essential Services Commission, *Guidance paper – new customer contributions*, August 2012, p vii, http://www.esc.vic.gov.au/document/water/25905-new-customer-contributions-guideline-paper/, accessed on 26 September 2017. The pricing principles require developers to meet the incremental costs that they impose on the water business when they connect to the water, sewerage or recycled water networks less the incremental revenues earned from the new customers.

32 IPART, *Sydney Water Corporation, Hunter Water Corporation, Gosford City Council, Wyong Shire Council Developer Charges from 1 October 2000, Report No. 9, 2000*, September 2000, pp 15-16.

33 Government Pricing Tribunal, *Sydney Water Corporation Prices of Developer Charges for Water, Sewerage and Drainage Services, Report No 9*, December 1995, p 7.

development, as against continued urban sprawl (ie, in favour of areas where there is excess capacity).[34]

In our 2000 Determination, we continued to exclude pre-1970 assets from the capital charge calculation. However, we clarified that the cost of augmenting a pre-1970 asset could be included (but not the cost of the whole asset).[35]

Both Hunter Water and the Central Coast Council supported the current exclusion of pre-1970 assets.[36] However, Sydney Water argued that all assets with a nexus to the development should be included in the developer charge calculation. According to Sydney Water, limiting the asset inclusion period would not be appropriate as the typical asset life is 100 years.[37] Sydney Water proposed a cost allocation method that would remove the need to make arbitrary distinctions, such as 'pre-1970 assets' or 'a DSP date minus 30 years'.[38]

We consider it appropriate to continue excluding pre-1970 assets, taking into account the following considerations:

- any revenues from servicing new developments more than 30 years into the future would have been heavily discounted and would have been unlikely to have affected the decision to build the asset or its size
- any legacy assets unreasonably oversized at the time of commissioning or funded by third parties, and their holding costs, should not be included in an efficient capital charge, and
- it would be difficult to establish the nexus between an investment decision made before 1970 and the contemporary development, and
- incorporating such assets in a consistent way would increase data requirements, both in terms of capital costs and the historical ETs.

Post-1970 assets with a nexus to development continue to be included

In our Issues Paper, we consulted on whether there were reasons to modify the period of exclusion of assets from the current 'pre-1970 assets' to those commissioned prior to 30 years from the time of the DSP review.

Sydney Water's proposal to include all assets with a nexus to a development supports not limiting the inclusion period for existing assets.[39] Having said that, it proposes to value assets based on RAB values, with its RAB established in 2000 using a discounted cash flow analysis (which effectively wrote down the value of many of its older assets). However, other utilities are unlikely to be in a position at this stage to assign RAB values to individual assets.

34 Government Pricing Tribunal, *Sydney Water Corporation Prices of Developer Charges for Water, Sewerage and Drainage Services, Report No 9*, December 1995, p 7.
35 IPART, *Sydney Water Corporation, Hunter Water Corporation, Gosford City Council, Wyong Shire Council Developer Charges from 1 October 2000, Report No. 9, 2000*, September 2000, p 16.
36 Hunter Water's submission to IPART Issues Paper, December 2017 p 36; Central Coast Council's submission to IPART Issues Paper, December 2017, p 5.
37 Sydney Water's submission to IPART Issues Paper, December 2017, p 20.
38 Sydney Water's submission to IPART Issues Paper, December 2017, p 9.
39 Sydney Water's submission to IPART Issues Paper, December 2017, p 20.

Hunter Water supported limiting the period of inclusion of post-1970 to 30 years back from the time of the DSP review (ie, a 30-year rolling window).[40] Hunter Water argued that such an approach would shift the weight in the capital charge formula from the existing towards forward-looking assets. However, as asset lives are generally longer than 30 years, this approach would exclude a large share of assets still servicing developments that are not yet fully funded.

The Central Coast Council supported the current inclusion period, considering the approach appropriate.[41] The Council estimated that the current methodology, which excludes pre-1970 assets, excludes about 25% of its asset base. If the period of inclusion is reduced to 30 years, the Council estimated that it would exclude a little over 50% of its asset base from the calculation of developer charges.[42]

Without a strong reason to deviate from the current period for including assets, our draft decision is to maintain our existing approach.

We have maintained not limiting the period of inclusion of future assets

The 2000 methodology does not have a cut-off date for including assets yet to be commissioned, to calculate developer charges.

In our Issues Paper, we sought comment on possible reasons to limit the inclusion period for future assets and, if so, the appropriate periods (eg, 5 or 10 years).

The Central Coast Council proposed a rolling 10-year period for future capital costs, while supporting a 30-year horizon for demand projections.[43] Hunter Water also supported a period of 10 years for including uncommissioned assets in DSPs when they are supported by a growth plan or other appropriate documentation.[44] However, Sydney Water supported not limiting the period for including future assets.[45] It stated that incremental costs should be calculated over a period that aligns with its growth planning or asset utilisation horizons (currently 30 years). Where prudence and efficiency can be demonstrated, any future costs should be included in the calculation.[46]

We note that, the accuracy of capital cost forecasts diminishes with a longer forecast horizon. In practice, utilities have used 5 to 10-year projections for capital expenditure where forecasts are reasonably robust. Five-yearly reviews of DSPs would provide an opportunity to adjust the forecast and improve the quality of projections, thus supporting the status quo of not limiting the period for including assets not yet commissioned.[47]

Our procedural requirements allow developers to scrutinise the forecast costs of assets not yet commissioned. A dispute resolution process is in place if a developer and a utility disagree on the level of charges. A regular review of a DSP ensures the accuracy of its

40 Hunter Water's submission to IPART Issues Paper, December 2017, p 36.
41 Central Coast Council's submission to IPART Issues Paper, December 2017, p 6.
42 IPART, Developer Charges public hearing transcript, 6 March 2018, p 10.
43 Central Coast Council's submission to IPART Issues Paper, December 2017, p 6.
44 Hunter Water's submission to IPART Issues Paper, December 2017, p 36.
45 Sydney Water's submission to IPART Issues Paper, December 2017, p 22.
46 Sydney Water's submission to IPART Issues Paper, December 2017, p 22.
47 IPART, Developer Charges public hearing transcript, 6 March 2018, p 25.

inputs. Based on these considerations, our draft decision is to maintain our current approach of not limiting the period for including assets not yet commissioned.

2.4.3 Headworks are included regardless of ownership or funding arrangements

Our draft decision is to:

4 Maintain our current approach to including headworks assets regardless of their ownership or funding arrangements.

The 2000 and 2013 Determinations include the cost of headworks infrastructure attributable to a new development area in the calculation of developer charges.[48] Hunter Water and the Central Coast Council own their headworks and support including headworks costs in developer charges.[49]

Sydney Water does not own all of its headworks, but it supports including headworks in principle. It agrees that there are advantages to specifying a separate headworks charge, to allow a like-for-like comparison of the costs of centralised and decentralised solutions.[50] When developer charges last applied in the Greater Sydney area, Sydney Water produced a separate DSP covering developer charges for headworks infrastructure.[51] Its other major works (such as water and sewerage pumping stations, service reservoirs, large water mains and sewer carriers), reticulation and lead-in works were covered under separate system or development-specific DSPs.

In its submission, Sydney Water stated:

> If Sydney Water's developer charges recover a headworks component, there is the potential for the RAB to be over-deducted, as the capital costs related to that development were not incurred by Sydney Water, and the pass through of such headworks costs (from WaterNSW) would likely be captured under annual operating costs.[52]

Sydney Water does not support the deduction of the headworks component of the developer charge from its RAB, if it does not own these headworks. It also perceives advantages in maintaining the current situation of recovering headworks costs through postage stamp prices rather than a separate charge.[53]

WaterNSW also opposes including headworks costs in Sydney Water's developer charges, as its total costs (both operating and capital) are passed through as an operating expenditure into Sydney Water's cost base and recovered through Sydney Water's prices.[54]

Stakeholders' comments are likely based on the implicit assumption that Sydney Water must transfer funds to WaterNSW for the component of Sydney Water's developer charges

48 The term 'headworks' means significant assets at the end of water, sewerage and drainage systems that provide services to two or more DSP areas. Water headworks can include a system of dams, major storage reservoirs, major pumping stations and mains, water treatment works, sewage treatment plants, ocean outfalls and major mains.

49 Hunter Water's submission to IPART Issues Paper, December 2017, p 36; Central Coast Council's submission to IPART Issues Paper, December 2017, p 6.

50 Sydney Water's submission to IPART Issues Paper, December 2017, p 22.

51 Sydney Water, *Development Servicing Plan – Developer Charges for Headworks Infrastructure*, 2001, p 7.

52 Sydney Water's submission to IPART Issues Paper, December 2017, p 23.

53 Sydney Water's submission to IPART Issues Paper, December 2017, p 23.

54 WaterNSW's submission to IPART Issues Paper, January 2018, p 1.

associated with headworks owned by WaterNSW. In the following section, we demonstrate that this does not have to be the case.

When Sydney Water collects and keeps the headworks portion of the developer charge, its customers are compensated for carrying the spare capacity of the headworks that will service growth. This is the same treatment as that of Sydney Water's own assets. WaterNSW's efficient costs are not affected and are still subject to a cost pass-through.

We note that currently developer charges are set to zero; hence, all growth expenditure – including headworks, other capital costs and any additional operating expenditure to service growth – is borne by the broader customer base (see Box 2.3 on the relationship between developer charges and periodic prices).

Box 2.3 What is the relationship between developer charges and periodic prices?

Full cost recovery is one of our key pricing principles

- The total efficient cost of providing a new development with water-related services should be recovered through a combination of periodic charges and developer charges.
- The two pricing processes are linked so that, for the same level of cost recovery, higher developer charges will result in lower periodic prices (and vice versa).

IPART sets periodic prices using the building block approach

- We determine a water agency's overall revenue requirement, which consists of efficient operating costs and a return on, and of, efficient capital costs. The revenue requirement is recovered from customers through usage and fixed periodic charges.
- Periodic prices are linked to developer charges through the Regulatory Asset Base (RAB) - the value of the water agency's assets on which it earns allowances for a return on and of its assets through periodic prices. Under IPART's approach to periodic price setting, all capital expenditure (for the existing system and for growth) is added to the RAB. However, the RAB is adjusted downwards over time by the amount of developer charges revenue received from developers. Since periodic prices depend on the size of the RAB, the collection of developer charges by the water agencies results in lower periodic prices in a future period (holding average operating costs constant).

Water utilities set developer charges using IPART's determined methodology

- The developer charges methodology calculates the value of the capital costs per ET of assets serving a particular development area, less the net operating surplus water agencies earn from periodic charges from the customers or ETs in the development area. The operating surplus is calculated from periodic charge revenue and operating costs. This avoids 'double dipping' for the capital charge component of the developer charge.
- The calculation of developer charges requires a value for periodic prices to calculate the operating surplus and, in turn, periodic prices require a value for developer charges to calculate the developer charges revenue to deduct from the RAB.

Source: IPART analysis.

How headworks charges work in practice

In making the 2000 Determination, we decided that all headworks should be included in the Development Servicing Plan (DSP), regardless of whether they are owned by the agency.

We reached this decision because excluding the Sydney Catchment Authority's[55] assets from Sydney Water's charges would distort the latter's charges in relation to other agencies. Hunter Water and the Central Coast Council included the costs of headworks in calculating their developer charges.[56] The same rationale applies today.

Before developer charges were set to zero in 2008, Sydney Water recovered its WaterNSW costs through a combination of developer charges and periodic prices. At that time, the then Sydney Catchment Authority's costs were also passed through into Sydney Water's prices.[57]

We note that including headworks costs in Sydney Water's developer charges would not affect the regulatory cost pass-through of WaterNSW's costs into Sydney Water's prices. When Sydney Water levies developer charges for headworks costs, at the next review of Sydney Water's periodic prices we would reduce Sydney Water's RAB by the amount of its developer charges revenue. This would result, all other things equal, in lower periodic prices to Sydney Water customers in subsequent price periods. WaterNSW would stay indifferent as its costs and revenues are not affected.

Sydney Water would also be indifferent about whether it receives a new development's share of headworks costs as an upfront capital charge (with a lower RAB and hence lower periodic prices in future periods) or as higher periodic prices (due to a higher RAB).[58]

Box 2.4 presents an example of how the headworks charges for WaterNSW's assets would work in calculating Sydney Water's developer charges.

55 The former Sydney Catchment Authority is now part of WaterNSW.

56 IPART, *Sydney Water Corporation, Hunter Water Corporation, Gosford City Council, Wyong Shire Council Developer Charges from 1 October 2000, Report No. 9, 2000*, September 2000, p 16.

57 IPART, *Review of prices for Sydney Water Corporation's water, sewerage, stormwater and other services from 1 July 2008*, Determination No 1 2008, and Final Report, June 2008.

58 In this discussion, we ignore the effects on timing of cash flows, tax allowances and the accounting positions of these utilities. IPART, *Review of developer charges and backlog sewerage charges for metropolitan water agencies – Issues Paper*, October 2017, pp 18-19.

Box 2.4 Treatment of headworks under our methodology – why ownership does not matter

There are two approaches to dealing with headworks assets in a DSP:

1. Treating headworks assets **like any other asset** included in a DSP, ie:

- **assign a portion** of the headworks to a DSP, based on expected utilisation
- calculate the **capital charge** (that includes headworks in K_1 or K_2)
- calculate the **reduction amount** *R-C*, where:
  - postage stamp **revenue** *R* includes, among other things, the efficient capital and operating costs of the headworks (either directly, if owned by the utility, or via a cost pass-through if owned by someone else)
  - location-specific **operating costs** *C* include the operating costs of headworks and other (non-headworks) assets. To avoid double-counting, the headworks operating costs in the formula should be pure operating costs net of capital costs. Thus,
    - if system average headworks operating costs and the location-specific headworks operating costs are the same, they cancel each other out in calculating *R-C*
    - any difference between system average and location-specific headworks operating costs is added to the developer charge, on an NPV basis. This is the same treatment of excess operating costs, for headworks and non-headworks assets alike, and
- calculate the resulting **developer charge** for a DSP.

2. Calculating **a separate headworks capital charge** per ET, in a 'headworks DSP', to be added to the capital charge calculated for a DSP which includes relevant non-headworks assets. In this case:

- to avoid double-counting, the 'headworks DSP' should calculate the capital charge only, ignoring the reduction amount
- the headworks capital charge should be added to the capital charge for the non-headworks assets in those DSPs that share these headworks, and
- the reduction amount *R-C* should be applied fully at the (non-headworks) DSP level, as discussed above.

Source: IPART analysis.

Treatment of finance leases and other funding arrangements under our methodology

The Central Coast Council noted in its submission that the current methodology does not address developer charges for infrastructure services funded under Build Own Operate (BOO) and Build Own Operate Transfer (BOOT) arrangements. The Council proposed that the methodology address this issue.[59]

Funding under BOO and BOOT arrangements can appear as operating or finance leases on utilities' balance sheets. For example, Sydney Water has contractual arrangements with the owners or operators of water filtration plants at Prospect, Macarthur, Illawarra and Woronora for the filtration of bulk water.[60] Lease payments can be treated as operating expenditure or capitalised, depending on the accounting treatment of the financial arrangements.

59 Central Coast Council's submission to IPART Issues Paper, December 2017, p 6.
60 *Sydney Water Annual Report 2016-17*, p 103.

In our 2016 periodic review of Sydney Water prices, instead of passing through finance lease payments as operating expenditure, we decided to value Sydney Water's finance leased assets and added this value to the RAB.[61] Our operating cost allowance excluded any capital and interest payments associated with these finance leases; thus, they reflected pure operating costs.[62] Including the residual value of the assets in the RAB means that Sydney Water can earn an appropriate rate of return on the asset, and that it has a depreciation allowance that reflects the economic value and life of the asset.[63] Our approach in our 2016 Determination for Sydney Water reflected our view that assets used to provide a monopoly service should be treated consistently, regardless of their ownership or funding arrangements.

Under our draft methodology, assets provided under finance lease arrangements should be treated in a similar way to assets owned by a utility. The return on and of these assets and the (system average) efficient operating costs should be included in periodic prices. Location-specific operating costs in a DSP area should include the pure operating costs of using these assets to service the area (similar to the example presented in Box 2.4). The calculation of the capital charge component should include the assets servicing the development under the finance lease arrangements. Assets are to be valued at MEERA, as discussed in the previous section.

Expenditure under operating leases is currently treated as an operating cost, which would be netted out in the reduction amount.

We understand that under Australian Accounting Standard AASB 16 'Leases,' effective from 1 January 2019, the accounting treatment of operating lease payments will change. We will consider if this affects our current regulatory treatment of operating leases at the next periodic price reviews. Operating costs under our developer charges methodology would reflect this decision.

Similarly, we will decide how to treat a particular BOO or BOOT arrangement in a periodic price review. If we decide to treat it as a finance lease, it will be treated like any other asset for the developer charge calculation.

Under our draft methodology, the current treatment of funding arrangements can be summarised as follows:

- For assets under a finance lease:
  - the assets are included in the capital charge
  - the pure operating costs net of any capital costs, *C*, are used to calculate the reduction amount *R-C*, and
  - the total costs of these assets are recovered through a combination of periodic prices and developer charges.
- For assets under an operating lease:
  - the assets are not included in the capital charge

61 IPART, *Review of prices for Sydney Water Corporation from 1 July 2016 to 30 June 2020 – Final Report*, June 2016, p 121.
62 IPART, *Review of prices for Sydney Water Corporation from 1 July 2016 to 30 June 2020 – Final Report*, June 2016, p 73.
63 IPART, *Review of prices for Sydney Water Corporation from 1 July 2016 to 30 June 2020 – Final Report*, June 2016, p 122.

- the efficient costs of the lease have been allowed to pass through into postage stamp prices, *R*
- the costs under an operating lease are included in *C* as a location-specific operating cost, and
- these costs net out in the reduction amount *R-C*, provided that location-specific costs are not substantially different from average costs.

Sydney Desalination Plant's assets would not be treated as headworks

Our draft decision is to:

5 Exclude the Sydney Desalination Plant's assets from headworks assets for Sydney Water.

In our Issues Paper, we noted that the assets of the Sydney Desalination Plant (SDP) could be treated the same way as WaterNSW's headworks assets serving Greater Sydney. However, SDP's assets are different from WaterNSW's headworks assets. SDP's primary role is drought response, whereas WaterNSW operates at all times and caters for future growth.[64]

Given SDP's role in responding to drought rather than being a permanent water supply source, we consider that under current operating rules, SDP's assets would not pass the 'nexus to development' test. As none of SDP's costs would be recoverable through developer charges, all of its costs should be recovered from the general customer base through periodic prices.

Because SDP's costs are included as pure operating costs in both the revenue and cost components of the reduction amount in the developer charges formula, they cancel each other out and do not affect the resulting developer charges for Sydney Water.

Hypothetically, if SDP were a permanent water supply source, its costs would need to be treated similarly to other headworks costs.

2.4.4 Shared assets continue to be apportioned using ETs

Our draft decision is to:

6 Maintain our current approach to apportion shared assets between DSP areas using expected utilisation based on ETs.

Assets or parts of assets must be apportioned so that only the costs attributable to a particular development area are recovered from that area's developer charge. Apportionment is needed where:

- an asset is built for a dual purpose; for example, to meet higher environmental standards and to service growth areas
- an asset is replaced and the new asset services both existing and new developments, and

64 IPART, *Review of developer charges and backlog sewerage charges for metropolitan water agencies – Issues Paper*, October 2017, pp 18-19.

- an asset services more than one DSP area.

Under our current 2000 methodology, the capital charge for an asset that services several DSP areas should be apportioned to a DSP area based on its share of total expected utilisation of this asset. Expected utilisation would be based on the forecast ETs and average consumption in the relevant DSP areas. Hunter Water and the Central Coast Council supported continuing to apportion assets across DSPs, using the ET measure. Hunter Water considers that costs should be allocated to DSPs based on ETs, using a transparent process.[65] The Central Coast Council considers that the current methodology based on ET is appropriate. The Council would prefer that, as far as practicable, a standard definition of ET is used. However, it acknowledges that developing a standard definition and having a third party keep it up to date would be problematic.[66]

Sydney Water proposes that we consider not prescribing the unit of measurement for apportioning costs, and instead adopt a principles-based approach, giving utilities the flexibility to choose what is appropriate for their business, eg, a cost allocation methodology (CAM).[67] Sydney Water considers that this should give developers and other stakeholders sufficient information to assess the reasonableness of the developer charge in each DSP area.[68]

We have decided at this stage to not accept Sydney Water's alternative approach for the following reasons:

- This approach would impose additional data requirements in terms of developing a CAM. Sydney Water is more progressed than other utilities in this area, at least in the short to medium term.
- This approach would not be suitable for the Central Coast Council which does not have a similar CAM. We note that the Central Coast Council is the only metropolitan utility currently levying developer charges for water and sewerage services. Hunter Water and the Central Coast Council supported the current methodology, with amendments, which are discussed below. Hunter Water also does not have a similar CAM.
- We note that Sydney Water does not currently have a CAM for all services in its area of operations.

Given the lack of uniformly better alternatives and the predominant stakeholder support for the current apportionment of assets based on expected utilisation by ETs, our draft decision is to maintain the current approach.

2.4.5 MEERA valuation of assets to calculate capital charges

Our draft decision is to:

7 Maintain our current approach to valuing assets already commissioned on a Modern Engineering Equivalent Replacement Asset (MEERA) basis, and assets yet to be commissioned on an estimated efficient costs basis.

65 Hunter Water's submission to IPART Issues Paper, December 2017, p 36.
66 Central Coast Council's submission to IPART Issues Paper, December 2017, p 6.
67 Sydney Water's submission to IPART Issues Paper, December 2017, pp 24-25.
68 Sydney Water's submission to IPART Issues Paper, December 2017, pp 9, 24.

Under our 2000 Determination, assets already commissioned (both pre-1996 and post-1996) must be valued on a MEERA basis. Future assets are valued on an estimated efficient costs basis – which is effectively MEERA.

In our Issues Paper, we recognised that if existing assets are revalued periodically at their MEERA values for calculating developer charges, the return to agencies may be different to the return from the value of their original investment inflated to today's dollars.

As a MEERA valuation is likely to exceed an asset's book value, periodic revaluations of assets to reflect contemporary MEERA values would lead to higher developer charges.[69] As a result, when the amount received via developer charges is deducted from the water agency's RAB, the reduction can exceed the current regulatory value of the appropriate share of an existing asset. The consequence would be lower future periodic prices for existing customers (see Box 2.3 above for an outline of the relationship between developer charges and periodic charges). The Issues Paper asked if it was still appropriate to use MEERA to value existing assets.

Hunter Water supported continuing to use MEERA to value assets, which would ensure that the cost of assets covered by developer charges reflects the most efficient asset combination to provide the service.[70] The Central Coast Council also supported using MEERA to value assets.[71]

Sydney Water proposed:

- using disaggregated RAB values for existing assets, if available, to ensure consistency with periodic charges, and so that developers do not pay more than their fair share of the costs to service their development
- using the DORC when disaggregated RAB values are not available[72], and
- using its CAM to estimate the cost contribution for existing assets in a developer charge, and to apportion assets to DSPs.[73]

Sydney Water is required to develop a CAM for its wastewater systems declared under the *Water Industry Competition Act 2006* (the WIC Act). We understand that its CAM, once finalised, would allow the estimation of notional Regulatory Asset Base (RAB) values for all existing assets. Sydney Water suggests that these estimated RAB values be used in the developer charges calculation, replacing existing methods for including existing assets and ensuring that developers pay their fair share of costs.[74]

We consider that departing from MEERA valuations and calculating capital charges using regulatory values would not be desirable from a competitive neutrality perspective. Lower developer charges generated by RAB valuations would hand the incumbent an advantage while disadvantaging a potential competitor in the market to service a new development (eg, a *Water Industry Competition Act 2006* (WICA) licensee).

69 IPART, *Review of developer charges and backlog sewerage charges for metropolitan water agencies – Issues Paper*, October 2017, p 20.
70 Hunter Water's submission to IPART Issues Paper, December 2017, p 37.
71 Central Coast Council's submission to IPART Issues Paper, December 2017, p 7.
72 Sydney Water's submission to IPART Issues Paper, December 2017, p 25.
73 Sydney Water's submission to IPART Issues Paper, December 2017, pp 9, 24.
74 Sydney Water's submission to IPART Issues Paper, December 2017, p 15.

A MEERA valuation of assets encourages competition

In our submission to the Harper Review of competition policy, we stated that the ability of large, government-owned incumbent water utilities to cross-subsidise their provision of services to new development areas impedes more extensive competition for water markets.[75] Removing developer charges has created an additional barrier to competitive entry in areas of postage stamp pricing.[76]

We have decided at this stage to not accept Sydney Water's alternative approach because setting capital charges based on regulatory asset values might have negative implications for competition to supply new developments. We consider MEERA to be an appropriate method for valuing existing assets because it:

- ensures that developer charges encourage competition by providing an even footing for alternative servicing solutions (eg, by WICA licensees)
- enables developer charges to be compared across utilities, and
- is used by NSW local water utilities in calculating developer charges, with reference values available for water, sewerage and stormwater infrastructure.[77]

We note that the MEERA approach has the support of Hunter Water and the Central Coast Council.

When making our 2000 Determination, we recognised that cost-reflective charges can play a role in encouraging efficient development decisions on an inter-urban as well as intra-urban scale.[78] This is an additional argument for having a consistent approach to asset valuations when utilities calculate developer charges.

We also note that compared to other utilities, Sydney Water appears to be more advanced in developing its CAM to allocate RAB values to specific assets. We understand its CAM is designed to bridge the disconnect between the RAB (which has been set at a line-in-the-sand valuation) and individual assets listed in its Fixed Asset Register (which we understand are subject to periodic revaluation on a MEERA basis). We also understand that Sydney Water has not developed a CAM for all its services and geographic locations, at this stage.

Our current approach is effectively the Optimised Replacement Cost (ORC) approach to asset valuation for the developer charge calculation. The method involves a two-step process in which:

- MEERA values are used to estimate the full capacity current value of an asset, then
- the MEERA value is optimised by removing any excessive capacity in the existing asset.

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75 IPART, *Opportunities for further reform: IPART's submission to the Competition Policy review – Issues Paper*, June 2014, p 15.

76 IPART, *Opportunities for further reform: IPART's submission to the Competition Policy review – Issues Paper*, June 2014, p 18.

77 Department of Primary Industries, NSW Office of Water, *NSW Reference Rates Manual - Valuation of Water Supply, Sewerage and Stormwater Assets*, June 2014.

78 IPART, *Sydney Water Corporation, Hunter Water Corporation, Gosford City Council, Wyong Shire Council Developer Charges from 1 October 2000, Report No. 9, 2000*, September 2000, p 16.

This optimisation is undertaken following the checklist approach to including assets in the calculation for the developer charge. This optimisation of the MEERA value effectively results in ORC values being included in the calculation. We consider that setting developer charges at DORC would not encourage competition. This is because depreciated value is below the non-depreciated value of assets that would be required to be built by a potential competitor.

2.5 We have maintained the current approach to the reduction amount

Our draft decision is to:

8 Maintain our current approach to the reduction amount component of developer charges, which relates to postage stamp revenues and location-specific operating costs, for a period of 30 years.

The 'minus' component of the developer charges formula is the reduction amount, which is equal to the present value of the net operating position (net 'profits'), arising from the utility servicing the new development. The net operating position is the difference between the postage stamp retail price revenue and location-specific operating costs over a 30-year period, in present value terms.

When capital costs and the reduction amount are combined, the developer charge effectively equals, on an NPV basis, the total cost of connecting new customers (both capital and ongoing operating costs specific to the development area), **less** the utility's retail (postage stamp) price revenue from servicing the new customers. That is, the higher the location-specific operating costs are, the higher the resulting developer charge.

We note that operating costs in a new development area could be higher or lower than system average costs. Previously, when DSPs were regularly reviewed – before the introduction of zero developer charges in Sydney and the Hunter region – the operating costs in a number of them increased between reviews.[79] The higher developer charges would reflect differences in either capital or operating costs, or both. This was in line with the objective of developer charges being cost-reflective and ensuring that each new development area only paid for its own costs.

Under the 2000 and 2013 Determinations, projected revenue depends on the prevailing retail price determination. When calculating the net operating position, water utilities use the relevant retail price applied to an average customer's consumption in the relevant customer class.

Sydney Water and Hunter Water supported the current approach to the reduction amount.[80] The Central Coast Council also agreed in principle with the current approach, but suggested reducing the forecast period for operating costs, capital costs and revenue to 10 years. It also argued that the operating cost allowance should include operating costs on assets free of charge (AFOC) and costs of bringing assets to legislated standards.[81]

79 IPART, *Review of developer charges and backlog sewerage charges for metropolitan water agencies – Issues Paper*, October 2017, p 22.

80 Sydney Water's submission to IPART Issues Paper, December 2017, pp 26-27; Hunter Water's submission to IPART Issues Paper, December 2017, p 37.

81 Central Coast Council's submission to IPART Issues Paper, December 2017, p 7.

In response to the issues raised in the Central Coast Council's submission, we note that:

- Reducing the period for calculating the reduction amount would shift the developer charge away from the cost-reflective level. We consider that a 30-year period remains appropriate and is supported by other utilities.
- Our standard practice is to consider all efficient costs directly incurred by a regulated business in relation to AFOC when setting the notional revenue requirement using the building block approach. Operating costs related to AFOC would be reflected in the postage stamp price revenue and/or location-specific operating costs in the DSP area.
- Any part of an asset provided for a reason other than servicing growth (eg, to accommodate changes in legislated standards) is exempt from the calculation for developer charges. A nexus to the development cannot be established in this case. However, under our draft methodology, any asset yet to be commissioned would need to comply with the new standards and the capital costs of this asset would be included in the capital charge component.

2.6 We have maintained the differential application of discount rates

Our draft decision is to:

9 Maintain the current differential application of discount rates to pre-1996 and post-1996 assets.

10 Maintain the discount rates for pre-1996 assets at:

- the real pre-tax rate of 3% for Sydney Water and Hunter Water, and
- the real pre-tax rate of 0% for the Central Coast Council.

11 Update the discount rates for post-1996 assets and for the reduction amount to the utility's real pre-tax WACC referred to in the Final Report accompanying the prevailing periodic price determination.

In the developer charges methodology, discount rates are used to convert past and future costs and revenues into current values.

Under the 2000 Determination, the hard-coded discount rates for NPV calculations were set at:

- 3% for pre-1996 assets for Sydney Water and Hunter Water
- 0% for pre-1996 assets for the former Gosford City Council and Wyong Shire Council
- 7% for post-1996 assets for all utilities, and
- 7% for calculating the present value of the expected net revenues and costs.

The levels under the 2000 Determination were chosen for the following reasons:

- At the time, we decided that the utilities did not expect a full commercial return from developer charges before we introduced our methodology in 1996.[82]

82 The real discount rate on future expenditures and benefits was 9%, compared to the rate of 3% applied to past expenditures. See Government Pricing Tribunal (GPT), *Sydney Water Corporation Prices of Developer Charges for Water, Sewerage and Drainage Services, Report No 9*, December 1995, p 7.

- The 7% real pre-tax discount rate for post-1996 assets reflected a commercial return in 2000.

In 2013, we replaced part of the 2000 Determination for both Gosford City Council and Wyong Shire Council (now the Central Coast Council).[83]

We decided to:

- keep the real discount rate for pre-1996 assets for the Councils unchanged at 0%
- update the real discount rate for post-1996 assets from 7% to the Councils' pre-tax WACC referred to in the Final Report accompanying the prevailing periodic price determination[84], and
- update the real discount rate for the expected net revenues and costs from 7% to the Councils' pre-tax WACC referred to in the Final Report accompanying the prevailing periodic price determinations.[85]

In our Issues Paper, we sought comment on whether the discount rates for Sydney Water and Hunter Water should be reviewed in line with the changes we made in the 2013 Determination of developer charges for the Councils. That is, rather than hard-coded discount rates, we proposed using the real pre-tax WACC in the Final Report accompanying each utility's prevailing periodic price determination.

We consider the WACC to be an appropriate discount rate. We now use a real post-tax WACC in our periodic price determinations because we explicitly provide a tax allowance for the utilities we regulate when calculating their notional revenue requirement.

Developer charges are calculated on a pre-tax basis and should be discounted at the pre-tax WACC. We consider it appropriate to apply the real pre-tax WACC established in each water utility's prevailing price review, to discount real pre-tax cash flows (capital costs and net operating position) and ETs.

In our Issues Paper, we sought comment on whether it was still appropriate to distinguish between pre-1996 and post-1996 assets, and to apply differential discount rates (holding costs) to these asset classes. Our preliminary approach was to continue to apply a lower discount rate to pre-1996 assets. In line with our 2013 Determination for the Councils, the discount rate for pre-1996 assets for Sydney Water and Hunter Water would remain unchanged from the value set for these utilities in our 2000 Determination (that is, 3% real pre-tax).

Hunter Water and the Central Coast Council supported the current approach of using different discount rates for pre-1996 and post-1996 assets. Hunter Water supports a 3% real pre-tax rate for pre-1996 assets and proposes updating the discount rate to the prevailing WACC for post-1996 assets, and expected revenues and costs.[86] The Central Coast Council

83 IPART, *Gosford City Council and Wyong Shire Council Developer Charges, Determination No. 1, 2013*, May 2013.
84 IPART, *Gosford City Council and Wyong Shire Council Developer Charges, Determination No. 1, 2013*, May 2013.
85 IPART, *Gosford City Council and Wyong Shire Council Developer Charges, Determination No. 1, 2013*, May 2013.
86 Hunter Water's submission to IPART Issues Paper, December 2017, p 35.

supported the current approach (applying 0% to its pre-1996 assets and the prevailing WACC to its post-1996 assets).[87]

Sydney Water proposed an alternative, which would apply the prevailing pre-tax WACC to all assets.[88] This is linked to its proposal to value assets at their regulatory (RAB) value. Sydney Water's alternative proposal was a package of issues. As discussed earlier in this chapter, we did not accept those parts of Sydney Water's proposal (such as including all assets at their regulatory value) that would justify applying a single discount rate.

We recognise that differential discount rates reflect that the investment decisions pre-corporatisation were not always made on a commercial basis. To take account of this in the 2000 Determination, instead of applying some reduction to the value of pre-1996 assets, we decided to apply a lower WACC to these assets. The rationale for this decision still applies.

2.6.1 Developer charges would not be subject to WACC adjustment mechanism

Our draft decision is to:

12 Not to apply a WACC adjustment once the developer charges are calculated.

In our periodic price reviews, we usually decide on the WACC to be used in establishing the notional revenue requirement. We have recently modified this approach to allow an ex-post true-up of the cost of debt (see Box 2.5).

Box 2.5 IPART WACC adjustment mechanism

In our recent review of the WACC methodology, we have decided to:

- update the cost of debt annually over the regulatory period, using a trailing average approach
- determine on a case-by-case basis whether to:
  - update prices to reflect the updated cost of debt annually, or
  - use a regulatory true-up in the notional revenue requirement for the next period, and
- make this decision as part of our periodic price review process.

Where we decide to use a true-up, we will:

- use the initial WACC as the discount rate for calculating the true-up, and
- pass the calculated true-up through to prices at the beginning of the next period.

Source: IPART, *Review of our WACC method – Final Report*, February 2018, p 5.

The Central Coast Council proposed that the WACC (used as a discount rate to calculate developer charges for a DSP) be adjusted following the same method used in the periodic price review.

87 Central Coast Council's submission to IPART Issues Paper, December 2017, p 8.
88 Sydney Water's submission to IPART Issues Paper, December 2017, p 28.

The Council:

> considers that more flexibility should be included if there has been a material change in the fiscal environment subsequent to the determination.[89]

We consider that the proposal is technically not feasible, because:

- the WACC is locked in for the duration of the DSP plan (currently, five years)
- the WACC is applied as a discount factor to a range of inputs, including capital costs and revenues (based on prevailing prices), for the period of 30 years
- any adjustments to the WACC would require the NPV model to be recalculated and the level of charge to be re-established
- the level of charges would no longer be valid if the NPV basis was constantly revised, and
- any refunds due to, or recoverable from, developers would be difficult and costly to administer. Administrative costs would likely outweigh the materiality of the refund.

As discussed earlier, utilities' services to new developments are funded through a combination of developer charges and periodic prices. Making WACC adjustments in a periodic price review should be sufficient to properly compensate the utility. Annual adjustments to calculated developer charges (above CPI indexation) would add complexity without materially changing the way the utility is compensated. If, instead of chasing up past developers to collect or distribute the refund, the adjustment was applied to the developer charges after the DSP review, an inter-generational issue would arise. New developers would face the costs of compensating, or receiving refunds from, the cohort of developers that contributed to the DSP during the past period.

The materiality of the adjustment is likely to be low. An annual adjustment to prices, due to an updated cost of debt, and the resulting update in the discount factor, would move in the same direction, likely offsetting each other in the **reduction amount** component of the formula. The effect of a WACC adjustment would be more pronounced in the capital charge component of the formula. However, the discrepancy due to the WACC adjustment in the PV of asset values, and hence capital charges, would be addressed in rolling forward the RAB to the beginning of the next regulatory period (provided the capital costs of new assets included in the DSP, and prudent and efficient capital costs accepted in the RAB, are the same). With regular reviews of DSPs, there is little merit in adding the complexity of a WACC adjustment to the developer charges methodology. Any adjustments should be addressed in periodic price reviews.

Our draft decision is not to include a WACC adjustment provision in the methodology for developer charges.

2.7 We have maintained the measure of an equivalent tenement (ET)

Our draft decision is to:

13 Maintain the annual consumption of an average residential dwelling as our measure of an equivalent tenement (ET).

89 Central Coast Council's submission to IPART Issues Paper, December 2017, p 8.

14 Update the ET value with the consumption for an average residential dwelling referred to in the Final Report accompanying the prevailing periodic price determination.

Our current determinations use the concept of the ET, which is defined as:

> … the demand a development will place on the infrastructure in terms of the water consumption and discharge for an average residential dwelling.

Under the 2000 Determination, the annual demand for a single residential dwelling for each utility was a hard-coded parameter.[90] This was replaced in the 2013 Determination for the Central Coast Council with the consumption of an average residential customer, which is referred to in the Final Report accompanying the prevailing periodic price determination.[91]

In our Issues Paper, we considered that establishing a developer charge on a per ET basis has worked reasonably well. We sought comment on other potential measures of demand.

Sydney Water supports maintaining average consumption as an appropriate measure for an ET.[92] Hunter Water considers that the ET measure is generally acceptable but could be modified to include peaking factors. However, Hunter Water recognises the trade-off between a technically more correct approach that includes peaking factors and the availability of data.[93] The Central Coast Council considers that an ET is appropriate and proposes standardising the measure.[94] However, it also recognises that developing a standard definition and having a third party keep it up to date would be problematic.[95]

Our draft decision is to maintain the current ET measure as the annual consumption of an average residential customer, based on the prevailing periodic price review.

2.8 We have precluded negative prices

Our draft decision is to:

15 Amend the methodology so that if the calculated price is negative, it is set to zero.

The Water Services Association of Australia (WSAA) commented that while our 2000 methodology has a number of strengths, its major weakness when it previously operated in Sydney was that it generated negative developer charges across significant parts of the city.[96]

Negative developer charges arose in Sydney city and coastal DSPs, especially for sewerage. This was due to the large operating surplus to service these areas compared to the system average costs, which offset the capital charge, drawing it to below zero. However, in practice, zero charges applied in those instances.

90 Under the 2000 Determination Schedule 5, average consumption values were 240 kilolitres for Sydney Water, 210 kilolitres for Hunter Water, 207 kilolitres for Gosford City Council, and 205 kilolitres for Wyong Shire Council.
91 IPART, *Gosford City Council and Wyong Shire Council Developer Charges, Determination No. 1, 2013*, May 2013.
92 Sydney Water's submission to IPART Issues Paper, December 2017, pp 29-30.
93 Hunter Water's submission to IPART Issues Paper, December 2017, p 38. The peaking factor is the ratio of the maximum flow to the average daily flow in a system.
94 Central Coast Council's submission to IPART Issues Paper, December 2017, pp 8-9.
95 Central Coast Council's submission to IPART Issues Paper, December 2017, p 6.
96 Water Services Association of Australia's submission to IPART Issues Paper, January 2018, p 3.

Negative prices result from postage stamp prices (of servicing all customers) and location-specific costs (of servicing new customers). Postage stamp pricing implies that customers in the areas with low servicing costs subsidise customers in higher cost areas. In making the decision to preclude negative developer charges, we have exercised our judgment and assigned the benefits of establishing new connections in low cost areas (reflected in a negative price under the current methodology), to customers rather than to developers.

Our draft decision is to amend the methodology and set maximum prices at zero when the price would otherwise be negative.

2.9 We have considered other issues

In our Issues Paper, we consulted on other potential issues relating to the developer charges methodology, such as:

- customer impacts
- whether there are any implications for our developer charges methodology relating to wholesale customers or other WICA licensees, and
- developer charges for stormwater.

During the consultation on our Issues Paper, stakeholders raised several new issues, including:

- how the current methodology fits with the Integrated Water Cycle Management (IWCM) approach
- the possibility of unregulated agreements between large developers and utilities, and
- whether the developer charges methodology can enable the funding of infrastructure augmentation to facilitate firefighting capacity.

The later issue (establishing prices to upgrade water services to higher water flow and pressure standards, to facilitate firefighting) is discussed in Chapter 5. The remaining issues are covered below.

2.9.1 Our draft methodology keeps the Central Coast Council neutral

Our draft methodology effectively maintains the methodology that the Central Coast Council currently applies to calculate its water and sewerage developer charges. There will be no implications from the draft methodology for the level of developer charges in the Central Coast Council. The only implication would be due to the change in parameters when the new periodic prices are calculated. These would be due to external factors and not to our draft decision on the methodology.

We consider there is no impact on general price inflation from our draft methodology.

2.9.2 Our draft methodology does not disadvantage wholesale customers or other WICA licensees

This review is of developer charges levied by metropolitan public water utilities - Sydney Water, Hunter Water and the Central Coast Council.

However, since the *Water Industry Competition Act* commenced in 2008, developers and end-use customers in new development areas can also be serviced by utilities other than Sydney Water, Hunter Water or the Central Coast Council. These utilities, licensed under WICA, often purchase 'wholesale' water and/or sewerage services from Sydney Water or Hunter Water to on-sell to end-use customers in new developments in Sydney and the Hunter region.

In 2017, we completed our first review of Sydney Water's and Hunter Water's wholesale prices.[97] Our Final Report included the following pricing decisions:

- Non-residential retail prices should apply to water and sewerage services that are not on-sold to end-use customers and only used to supply a wholesale customer's recycled water scheme.[98]
- Retail-minus prices should apply to water and sewerage services that are on-sold, with the minus based on the costs a 'reasonably efficient competitor' would incur in providing services from the point of wholesale purchase to end-use customers.
- Wholesale prices should also reflect prudent and efficient 'net facilitation costs' where these are not reflected elsewhere in wholesale prices or recovered by Sydney Water and Hunter Water via another funding mechanism.

Facilitation costs are additional costs or cost savings incurred by Sydney Water or Hunter Water (referred to as wholesale service providers) in supplying a wholesale customer. For example, Sydney Water and Hunter Water may save costs if a wholesale customer's recycled water production defers a scheduled augmentation. These cost savings would result in negative facilitation costs and hence in lower wholesale prices. Alternatively, wholesale service providers may incur costs if the network needs to be upgraded to provide services to a wholesale customer. As such, there could be positive facilitation costs, resulting in higher wholesale prices.

We also decided that facilitation costs relating to augmentation of Sydney Water's or Hunter Water's network to supply a wholesale customer should reflect the current status of the policy on developer charges. As Sydney Water's and Hunter Water's developer charges are currently set to zero for 'in-sequence' development, prudent and efficient growth expenditure is funded through their retail prices. To reflect this, facilitation costs would not include any additional augmentation costs related to development that would otherwise be subject to a zero developer charge and funded through Sydney Water's or Hunter Water's retail prices.

Under the current developer charges policy, facilitation costs would range from zero for 'in-sequence' development to the full cost of augmentation for an 'out-of-sequence' development outside the growth servicing plan.

Stakeholders expressed the general perception that our developer charges methodology does not negatively affect WICA licensees.[99] Positive, cost-reflective developer charges

97 IPART, *Prices for wholesale water and sewerage services – Sydney Water Corporation and Hunter Water Corporation*, Final Report, June 2017.

98 The wholesale price review considered two services supplied to wholesale customer's recycled water schemes: drinking water top-up; and disposal of recycled water waste.

99 Sydney Water's submission to IPART Issues Paper, December 2017, p 10; Hunter Water's submission to IPART Issues Paper, December 2017, p 39.

encourage private sector entry and competition in the provision of water and wastewater services to new developments.[100]

We consider that our draft methodology promotes efficient new entry and competition in the water, wastewater and stormwater services market. In particular, it ensures that maximum prices for new developments to connect to the public utility supply system are set in a competitively neutral way. Under our proposed approach to pricing extension and service upgrades to existing properties (Chapter 4 and Chapter 5, respectively), the competitive neutrality principle also prevails.

2.9.3 Our draft methodology applies to declared stormwater services

Our 2000 Determination of developer charges applies to extending the monopoly services to the new developments, providing the new properties with new connections. To the degree stormwater (drainage) services are declared monopoly services for a metropolitan water utility, they are covered by our draft methodology.

2.9.4 Our draft methodology is consistent with the IWCM approach

Some stakeholders were concerned about the timeliness of our review, given that Infrastructure NSW's recycled water review is continuing and in light of the benefits of IWCM.[101] Sydney Water submitted that any change to the developer charges methodology should not inadvertently reduce the potential for IWCM approaches to enhance the liveability of growing cities in NSW.[102]

IWCM recognises the links between recycled water, wastewater and stormwater. Our current regulatory position is to ring-fence recycled water schemes operated by Sydney Water, Hunter Water and the Central Coast Council. Recycled water is excluded from this review of the methodology for developer charges.

However, we note that our 2006 Determination of recycled water developer charges applies a similar methodology, with the main difference being that it recognises avoided costs (as a cost reduction or offset) resulting from recycled water schemes.[103] Our aim is to create a regulatory framework (and pricing signals) that promote the efficient delivery of water, wastewater and stormwater services to customers.[104]

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100 Hunter Water's submission to IPART Issues Paper, December 2017, pp 19-21.

101 Flow Systems' submission to IPART Issues Paper, January 2018, p 1; Housing Industry Association's submission to IPART Issues Paper, January 2018, p 2; Urban Development Institute of Australia's submission to IPART Issues Paper, January 2018, p 2.

102 Sydney Water's submission to IPART Issues Paper, December 2017, p 5.

103 IPART, *Pricing arrangements for recycled water and sewer mining – Sydney Water Corporation, Hunter Water Corporation, Gosford City Council and Wyong Shire Council, Determinations and Final Report,* September 2006.

104 We note that the Government's direction to set zero developer charges in Greater Sydney and the Hunter region does not apply to recycled water. By virtue of non-zero developer charges, connecting to recycled water infrastructure is not on an equal footing with alternative service solutions that involve water, wastewater or stormwater.

We will examine recycled water developer charges in a separate review in 2018-19, which will be informed by Infrastructure NSW's current review of recycled water.[105]

2.9.5 Our draft methodology allows sophisticated developers to opt out

Our draft decision is to:

16 Allow utilities and developers to opt-out of the determination through bilateral agreements, subject to ring-fencing of unregulated costs.

In its submission to our Issues Paper, Sydney Water commented that the current developer charges determination does not specifically allow developers to enter into voluntary agreements to deliver additional infrastructure that may benefit their development and/or the wider community.

Sydney Water is particularly interested in working with developers to ensure that current and future stormwater infrastructure delivers as much benefit as possible to the wider community. It highlighted that we already allow unregulated agreements (the 2017 wholesale determination and the 2016 retail price determination). It argued that voluntary agreements could allow a utility and a developer to deliver infrastructure at a higher standard than that which might be considered prudent and efficient for the purposes of our regulated prices. It recognises that changes in costs resulting from any unregulated pricing agreements with developers would need to be ring-fenced.[106]

Stakeholders support voluntary agreements

Sydney Water's proposal is supported by UDIA, which supports unregulated agreements for larger proponent-led developments that are likely to be integrated with recycled water solutions.[107] UDIA would be less inclined to support unregulated agreements for a state-led development on a smaller scale (eg, 100- or 200-lot subdivisions), where efficiencies from an unregulated agreement would not be achievable.[108]

Hunter Water conceptually supports allowing unregulated agreements that result in a win-win situation. For example, large customers could take their services in a slightly different manner and avoid incurring operating costs or capital costs, which could then be passed into the agreed price. Hunter Water commented that unregulated agreements would be consistent with competition, which was partly introduced to encourage innovation. They would also be consistent with encouraging public water utilities to meet their customers' needs, and understand what developers want, and then meeting those demands.[109]

105 Note that methodology and procedural requirements under our 2006 Determination of recycled water developer charges are consistent with the 2000 Determination of developer charges for water, wastewater and stormwater, with additional recognition of avoided costs in the former.
106 Sydney Water's submission to IPART Issues Paper, December 2017, p 18.
107 IPART, Developer Charges public hearing transcript, 6 March 2018, p 21.
108 IPART, Developer Charges public hearing transcript, 6 March 2018, p 21.
109 IPART, Developer Charges public hearing transcript, 6 March 2018, pp 25-26.

Voluntary agreements need to be properly ring-fenced to avoid cross-subsidies

A stakeholder raised concerns about the potential effect of unregulated agreements on competition. The current system of no developer charges favours incumbent utilities rather than competitors. If there is competition and unregulated agreements are allowed, an incumbent is most likely to offer charges at the lower end of the range to capture the market if the remainder of its costs are recovered through periodic prices from its wider customer base. There is concern an incumbent utility could volunteer to set its charges very low and undercut the market.[110]

Our draft decision is to allow the utilities and developers to opt-out of our determination of developer charges, through bilateral agreements and subject to the appropriate ring-fencing of costs. The charges raised under these agreements would also be subject to ex-post review during periodic price reviews or at other times, as directed by IPART.

Our preliminary view is that to prevent anti-competitive levels of unregulated charges and any cross-subsidy between the existing customers and the unregulated developer charges, the utilities would be required to:

- Ensure that the unregulated developer charges reflect the full efficient cost of providing the service, based on MEERA valuations and an incremental (as opposed to marginal) cost approach.
- Ensure that unregulated developer charges costs and revenues are clearly identified and ring-fenced and, as part of their submission to the periodic price review, report unregulated charges and revenues against what regulated charges and revenues would have been and explain the differences.

110 IPART, Developer Charges public hearing transcript, 6 March 2018, pp 27-28.

3 Procedural requirements for new connections to new developments

Our 2000 Determination includes procedural requirements that accompany the developer charges methodology. The same procedural requirements continue to apply to the Central Coast Council under the 2013 Determination.

The core procedural requirement for utilities is to prepare and exhibit a development servicing plan (DSP). The DSP for a particular development area contains all inputs and parameters to calculate prices to connect a new service to a new development (ie, developer charges) for this area. Procedural requirements for utilities making, reviewing and consulting on DSPs aim to ensure sufficient transparency and scrutiny around the calculation of developer charges.

In our Issues Paper, we sought comment on the current procedural requirements, particularly how to enhance them. This chapter outlines our draft decisions on procedural requirements.

3.1 Summary of our draft decisions on procedural requirements

The utilities' and some other stakeholder[111] submissions and stakeholder comments at the public hearing confirmed that procedural requirements continue to be appropriate. To date, the combination of the methodology and procedural requirements has fared well in balancing transparency, scrutiny and administrative burden on the water utilities and their customers (developers). Stakeholders proposed three amendments to the current requirements, which are to:

- provide more flexibility for the DSP review period
- suspend the requirement to review DSPs while the NSW Government's zero developer charges policy for Sydney Water and Hunter Water applies, and
- introduce a transition period to comply with the determination if and when the zero developer charges policy is removed.

We have accepted stakeholder proposals and decided to make these amendments to the procedural requirements.

We have also decided to maintain, with minor amendments, the current procedural provisions relating to:

- the format and content of DSPs
- advertising, publicly consulting and registering DSPs, and
- the dispute resolution process.

111 Housing Industry Association's submission to IPART Issues Paper, January 2018, p 3.

Our draft decisions on the procedural requirements and our consideration of stakeholder views are outlined in further detail below.

3.2 Development servicing plans (DSPs) remain the core requirement

Our draft decision is to:

17 Maintain the current DSP content requirement, with minor amendments.

Under our 2000 Determination, utilities must prepare and adopt DSPs for each service area. The Determination specifies the format and content of DSPs. The DSP requirements in the 2000 Determination are aimed at enhancing transparency and scrutiny around developer charges, and assisting developers in understanding the cost of service provision and in deciding where to undertake land development.

The 2000 Determination specifies that DSPs should include information on:

- land use planning
- the extent of the DSP area, including the basis on which boundaries have been established
- the services required over the development period
- estimates of future capital and operating costs
- standards of service to be provided to customers and asset design parameters
- estimates of future lots, dwellings and ETs, including demographic assumptions
- the timing of works and expenditures relating to anticipated development and demographic assumptions
- assets, including total asset capacity in ETs (if applicable)
- the calculated developer charge per ET and the basis on which it is calculated
- how the calculated developer charge compares with the existing charge, and
- other DSPs where there is an overlap or co-usage of assets, including the number of ETs served by assets shared by several DSPs.

The utilities' submissions generally supported the current requirements.[112] Our draft decision is to maintain the current requirements, with minor amendments. For example, we have included a new requirement to specify which system or systems (water supply, sewerage or drainage) the DSP relates to. We consider that the current requirements still meet the objectives of achieving transparency by enabling scrutiny by developers without imposing undue administrative burden. Because we set the methodology and not the actual prices, it is important that DSPs contain sufficient information to support the calculation of prices using our methodology.

112 Central Coast Council's submission to IPART Issues Paper, p 11; Hunter Water's submission to IPART Issues Paper, December 2017, p 4; Sydney Water's submission to IPART Issues Paper, December 2017, pp 11, 33.

3.3 We require utilities to exhibit, advertise and consult on DSPs

Our draft decision is to:

18 Maintain the current requirement to exhibit, advertise and consult on DSPs, with minor amendments.

To comply with our 2000 Determination, utilities must advertise and exhibit a DSP for each service area. A utility is required to:

- exhibit a draft DSP for at least 30 working days before adopting it
- consider stakeholder submissions before finalising the DSP
- advertise the date when a DSP is to be made or reviewed and the start date of the exhibition period
- inform the Urban Development Institute of Australia (UDIA), the Housing Industry of Australia (HIA), and any relevant developers and landowners of the start date of the exhibition period at least 10 working days before that start date, and
- forward the DSP to us for registration, informing us of any submissions lodged during the exhibition period and its responses to the submissions. We will then register the DSP.

The utilities' submissions generally supported the current approach.[113] However, Hunter Water comments that the need for the degree of specificity regarding DSP content might have to a large degree dissipated. Utilities are becoming increasingly customer-oriented. Hunter Water noted that its capital works programmes are included in the published Growth Plans.[114]

Our draft decision is to maintain the current requirement, with minor amendments. For example, we have updated references to repealed legislation and modernised the procedural requirements to take advantage of the internet. The current DSP content requirements appear to work well for the Central Coast Council, where developer charges are active. The rationale of providing the developers with the opportunity to scrutinise the prices still holds. The DSP content requirement ensures that the inputs into calculation of developer charges are clearly specified and can be verified by developers. For any disagreements, there is a dispute resolution process for developers to follow, as discussed below.

3.4 The current dispute resolution process

The current dispute resolution process remains in place, which we support.

The IPART Act sets out a process for resolving disputes in applying a methodology in an IPART determination such as the developer charges methodology.

113 Central Coast Council's submission to IPART Issues Paper, December 2017, p 11; Hunter Water's submission to IPART Issues Paper, December 2017, p 4; Sydney Water's submission to IPART Issues Paper, December 2017, pp 11, 32-33.

114 Hunter Water's submission to IPART Issues Paper, December 2017, p 17.

Developers can view and, if necessary, forward any complaints about the charges to the utility during the 30 working days of the exhibition period.[115] Under section 31 of the IPART Act, a customer (in this case, a developer) who is dissatisfied with the way in which a water utility applies the methodology in our determination may complain to the utility. The Chief Executive Officer of the utility must review any complaint (or delegate someone to conduct a review). If the customer is still dissatisfied, they can require that the matter go to arbitration. The arbitrator is appointed by agreement between the customer and the water utility, and both equally share the costs of arbitration.[116]

There were no stakeholder submissions opposing the current dispute resolution provisions. We consider that the arbitration process provides an administratively efficient option for developers to resolve any disputes with the utility.

3.5 We have made the DSP review requirement more responsive

The 2000 Determination requires utilities to review their DSPs only once every five years, or as we require. After the review, water utilities must publicly exhibit their draft DSPs for at least 30 working days before adopting the charges.

The utilities' submissions indicated that the current requirement could be improved. Stakeholders proposed amending the current DSP review requirement to make it more flexible, including:

- more frequent reviews of DSPs if required, and having an option to defer a DSP review, with our approval, and
- removing the requirement to review DSPs while the zero charges policy applies.

We have considered stakeholders' views and a discussion of our draft decisions follows.

3.5.1 'Once and only once in 5 years' requirement has been made more flexible

Our draft decision is to:

19 Require a DSP review once every five years, however, this requirement can be shortened, extended or waived, as approved or directed by IPART.

The Central Coast Council proposed coordinating the timing of its review of developer charges with its price submission for periodic water and sewerage charges. This would require changing the current five-year frequency of DSP reviews, to align them with the period of the retail price determination. The Council also proposed allowing more frequent reviews of DSPs (ie, more often than once every five years) if there were material changes to DSPs. It also argued that it would be desirable to provide an option to defer a review of DSPs if a price review was deferred. It argued that adopting such an approach would reduce the need for repeated operating and capital costs forecasts. A common forecast would be used for both developer charges and pricing determinations. This would improve transparency for customers and developers in setting costs at a common time.[117]

115 2000 Determination, Schedule 3, clause B.
116 If the parties cannot agree on the appointment of the arbitrator, one party can apply to the Supreme Court to appoint an arbitrator.
117 Central Coast Council's submission to IPART Issues Paper, December 2017, p 14.

Hunter Water supported this proposal, seeing merit in incorporating greater flexibility into the review period; for example, by allowing more than one DSP review within the five-year window, with our approval.[118]

In practice, the timing of DSP reviews and price reviews does not perfectly align. After reviewing DSPs, water utilities must publicly exhibit their draft DSPs for at least 30 working days before adopting the charges. The final prices and other parameters (such as the weighted average cost of capital (WACC) and average residential consumption) become available when we release our Final Report and determination of periodic prices. These parameters can then be used as inputs in a draft DSP, which is then subject to the exhibition requirement. As a result, new DSPs may not be available on the commencement date of a new price determination.

However, this consideration does not undermine the stakeholders' arguments for allowing more frequent reviews of DSPs, which could coincide with price reviews. Likewise, if we approved deferring a price review, a request to defer a DSP review could also be lodged. If the parameters and inputs of a DSP materially changed, the utility could ask us to approve its early review.

Our draft decision allows more flexibility in the frequency of DSP reviews, subject to our approval or direction. This change would reduce the administrative burden on utilities and allow for more accurate inputs into DSPs.

3.5.2 DSP review requirement is suspended while the zero charges policy applies

Our draft decision is to:

20 Suspend the DSP review requirement while the NSW Treasurer's direction on zero developer charges is in place.

Hunter Water requested that we add review clauses to the determination to reflect the 'inactive' status of developer charges for Sydney Water and Hunter Water. Hunter Water understands that strictly applying the 2000 Determination would require it to review, exhibit and register DSPs in its entire area of operations every five years. It requested that we consider amending the current determination to make it explicit that utilities do not have to update DSP information while the Treasurer's direction on setting developer charges to zero is in place.[119]

Applying this provision should not affect the Central Coast Council, which is not subject to the zero developer charges policy.

Our draft decision is to accept Hunter Water's proposal to suspend the obligation to update DSPs while the zero charges policy applies. We consider this a practical measure to save administrative costs and ensure ongoing compliance with our determination.

118 Hunter Water's submission to IPART Issues Paper, December 2017, p 17.
119 Hunter Water's submission to IPART Issues Paper, December 2017, p 17.

3.6 We have allowed a transition period to reactivate the determination

Our draft decision is to:

21 Provide for a transition period of up to 18 months to apply in the event that the Government's nil developer charges policy is removed, and set maximum prices to zero until the end of that period, or until the relevant utility complies with the relevant procedural requirements set out in the determination, whichever occurs earliest.

Hunter Water proposed a 12 to 18-month transition period to implement an updated determination following any NSW Government decision to reactivate developer charges.[120]

We consider this a reasonable request, given the large number of DSPs that have not been reviewed since 2006-07. Even with the potential consolidation of DSPs into zonal charges, a significant administrative effort would be required to produce new DSPs.

Our draft decision is to accept Hunter Water's proposal to allow an 18-month transition period, which would be a reasonable length of time to make and review DSPs if the zero developer charges policy were to be reversed. Our draft decision is that during the transition period, zero maximum charges would apply for Sydney Water and Hunter Water. Prices at any level other than zero during the transition would be arbitrary. A delayed step increase in price would allow the developers to incorporate the future charges in their business planning decisions.

This provision will not affect the Central Coast Council, which is not subject to the zero developer charges policy.

3.7 Our approach to regulating DSP areas remains light-handed

Our draft decision is to:

22 Maintain our current role in approving the calculation spreadsheet and registering the DSP.

Under the 2000 Determination, we approve the calculation spreadsheet a water utility uses to calculate developer charges.[121]

Once a water utility has adopted a DSP, it must forward it to us to include in our register of DSPs for the metropolitan water utilities we regulate.[122] When it forwards a DSP, the utility must inform us of its responses to all of the submissions lodged during the exhibition period.[123]

We also supply water utilities with the CPI multiplier they must use to inflate their developer charges each year. Developer charges are kept constant in real terms between DSP reviews (see section on CPI indexation of prices below).

120 Hunter Water's submission to IPART Issues Paper, December 2017, p 18.
121 2000 Determination, Schedule 2, clause C.
122 IPART, *Water Registers – Government utility licensing development servicing plans*, https://www.ipart.nsw.gov.au/Home/Industries/Water/Legislation-registers/Government-Utility-Licensing-Development-Servicing-Plans, accessed on 5 June 2018.
123 2000 Determination, Schedule 3, clause D.

We consider this approach continues to provide an appropriate level of IPART scrutiny. Developers, who are most directly impacted by developer charges, play the primary role in scrutinising the charges. We also decided to provide additional guidance to the utilities and developed a template spreadsheet that utilities can use on a voluntary basis.

3.7.1 We have released a template spreadsheet to improve transparency

Our draft decision is to:

23 Release a template spreadsheet that utilities can use, on a voluntary basis, to calculate developer charges.

In its submission, Sydney Water proposed that we develop a standard Excel spreadsheet or model for utilities to use to calculate developer charges. Such a template could enhance transparency and accountability, while reducing administrative burden.[124] Hunter Water did not see significant benefits of standardising calculation worksheets.[125] The Central Coast Council commented that additional administrative requirements would increase costs.[126]

Our draft decision is to provide additional guidance to utilities and to develop a template spreadsheet that utilities can use on a voluntary basis. This template accompanies our Draft Report.

3.7.2 Utilities continue to establish DSP areas

Our draft decision is to:

24 Maintain our current approach of not prescribing how the DSP areas are set.

Our 2000 Determination set a methodology for calculating developer charges for each DSP area. Our current determinations do not prescribe how to set DSP areas. In our Issues Paper we outlined that Sydney Water and Hunter Water have a large number of DSPs that have not been reviewed since 2007: 75 and 77, respectively. Without consolidation, they would need to revise all these DSPs if developer charges were reintroduced. In addition, new DSPs would need to be prepared and adopted for new development areas that have emerged since 2006.[127]

Developer charges should signal the location-specific costs of development; however, there is a balance. If DSP areas are too small, the administrative costs of the developer charges regime may be too high and there may be undue price variations between areas and even, over time, within an area. On the other hand, if DSP areas are too large, costs could be averaged across disparate areas, lowering administrative costs but nullifying the price signal. Our current approach is to not prescribe how to set DSP areas; therefore, utilities can balance cost-reflectivity and administrative costs.

124 Sydney Water's submission to IPART Issues Paper, December 2017, p 34.
125 Hunter Water's submission to IPART Issues Paper, December 2017, p 41.
126 Central Coast Council's submission to IPART Issues Paper, December 2017, p 11.
127 IPART, *Review of developer charges and backlog sewerage charges for metropolitan water agencies* – Issues Paper, October 2017, p 32.

3.7.3 Future consolidation of DSPs towards a zonal approach is likely

Some of the utilities have indicated they would prefer to aggregate DSPs into wider areas (ie, to adopt a more zonal approach to developer charges).[128]

In 2014, the Central Coast Council consolidated its DSPs from 23 to three.[129] According to the Council, this amalgamation has reduced administrative costs and allowed a timely sharing of costs between developers within the same DSP. The Council's water supply system is interconnected, running as a single system; however, its sewerage system is geographically disconnected. The Council considers that the proposed single level of developer charges encourages economic development and has the support of developers.[130]

In its submission, Hunter Water stated that DSP boundaries should be set taking into account price signalling, administrative efficiency and transparency, while providing certainty for developers and sufficient flexibility to reflect different circumstances.[131] Hunter Water considers that it may optimise its DSPs from 18 to six for water, and from 59 to 19 for wastewater.[132] It plans to confirm its preferred approach to developer charges – after consulting developers and other stakeholders – closer to the time when charges are reactivated.[133]

Sydney Water's proposed principles for establishing DSP areas were based on taking into account the incremental costs of servicing an area, minimising administrative costs and vesting risk with the party best able to manage it.[134]

Based on the utilities' submissions and comments at the public hearing, some degree of consolidation is likely to occur at the next round of setting DSP areas and calculating developer charges.

3.7.4 Our regulatory involvement is appropriately balanced

All utilities agree that our current light-handed approach to regulating developer charges, and our not having a role in setting DSP areas, continues to be appropriate.

Hunter Water submitted that the reasons we allow public water utilities the flexibility to set DSP boundaries still apply: the utilities' engineering expertise allows them to establish the correct boundaries that preserve the asset nexus; and consultation on exhibited DSPs safeguards against excessive amalgamation.[135]

Sydney Water supports the status quo and considers that we should continue our oversight role and register DSPs.[136]

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128 IPART, Developer Charges public hearing transcript, 6 March 2018, pp 4-5; Hunter Water's submission to IPART Issues Paper, December 2017, p 12.
129 IPART, *Review of developer charges and backlog sewerage charges for metropolitan water agencies – Issues Paper*, October 2017, p 32.
130 Central Coast Council's submission to IPART Issues Paper, December 2017, pp 10-11.
131 Hunter Water's submission to IPART Issues Paper, December 2017, p 39.
132 Hunter Water's submission to IPART Issues Paper, December 2017, p 12.
133 Hunter Water's submission to IPART Issues Paper, December 2017, p 12.
134 Sydney Water's submission to IPART Issues Paper, December 2017, pp 11, 32.
135 Hunter Water's submission to IPART Issues Paper, December 2017, p 40.
136 Sydney Water's submission to IPART Issues Paper, December 2017, pp 11, 32.

The Central Coast Council considers that our current role is appropriate and sees no reason for us to become more involved.[137]

The utilities' view was supported by other stakeholder submissions. WSAA commented that making the methodology operational reveals some of its limitations, most of which relate to the method's data intensity.[138]

> Paradoxically, the effort to improve the accuracy of developer charges increases rather than decreases the chance of them being challenged.
>
> A methodology that relies on specifying exactly what infrastructure is going to be built at what time in a defined [DSP] area [is] more open to challenge by developers as future forecasts will never be completely accurate.[139]

We agree that a balance must be achieved between signalling the location-specific costs of development and the administrative costs of maintaining many DSP areas. With too many disaggregated areas, there may be undue price variations between areas and even, over time, within an area. On the other hand, if DSP areas are too large, costs could be averaged across disparate areas, lowering administrative costs but nullifying the price signal. Utilities are best positioned to establish DSP areas and to consult with their customers and developers on an area and the charges. Under our Draft Determination, we continue to not prescribe how DSPs areas are determined.

3.8 We have made the CPI indexation of prices consistent

Our draft decision is to:

25 Update the CPI indexation factor for annual adjustments to prices between DSP reviews, to March-on-March quarter CPI, ABS all groups eight capital cities.

Our 2000 Determination used an annual average measure of inflation based on four quarter-on-quarter values of the Consumer Price Index (CPI), as the weighted average of eight capital cities published by the Australian Bureau of Statistics (ABS).

Our 2013 Determination for Gosford City Council and Wyong Shire Council updated the CPI adjustment factor from the annual average measure to our standard March-on-March quarter CPI index, using the same ABS series. This measure is now used as an inflation adjustment factor in our determinations of retail prices for the water utilities we regulate.

In our Issues Paper, we sought comment on whether the indexation factor should be consistent between our determinations. We also consulted on whether CPI indexation is appropriate for the Central Coast Council's developer charges.

All utilities supported consistent indexing across our determinations, and the proposed March-on-March quarter CPI indexation consistent with the indexation of retail prices.[140] Greater consistency of CPI indexation between our determinations would eliminate the

137 Central Coast Council's submission to IPART Issues Paper, December 2017, p 11.
138 Water Services Association of Australia's submission IPART Issues Paper, January 2018, p 8.
139 Water Services Association of Australia's submission IPART Issues Paper, January 2018, p 9.
140 Sydney Water's submission to IPART Issues Paper, December 2017, p 28; Hunter Water's submission to IPART Issues Paper, December 2017, p 40; Central Coast Council's submission to IPART Issues Paper, December 2017, p 11.

confusion and the possibility of an error of applying a CPI index from a 'wrong' determination to escalate a particular price expressed in real terms.

4 New connections to existing properties – prices to extend services

Backlog sewerage and minor service extension (MSE) charges recover some of the capital costs associated with connecting existing (rather than new) properties to the water or sewerage system of a utility. These charges apply, for example, where a property had relied on a septic tank but can now connect to the reticulated sewerage system.

Extending sewerage services to backlog customers benefits these customers through direct cost savings from no longer needing to maintain on-site sewerage systems, such as septic and pump-out systems, greater amenity and increases in property value.

Connecting existing properties to the sewerage system can also benefit the broader community (ie, it can result in external benefits or positive externalities). For example, extending sewerage services to backlog properties can reduce pollution in receiving waterways.

In our Issues Paper, we recognised that significant capital investment is required to construct backlog sewerage schemes for existing communities.[141] Given that most backlog communities are likely to be both small and isolated from existing infrastructure, the costs per property are likely to be relatively high. This raises questions about affordability and how much customers are willing to pay for the service.

The potential for a new development in a backlog area to help co-fund extending the infrastructure might also be limited by topography or planning rules. Backlog sewerage services have been therefore often funded through a combination of charges paid by backlog customers, the broader water and sewerage customer base, and/or Government contributions.

This chapter presents the current regulatory regime for backlog sewerage and minor service extension charges, and discusses our decisions for the draft determination. Our draft position is as follows:

- The net present value (NPV) methodology for calculating the costs of a new connection (discussed in Chapter 2) is appropriate for both developer charges and backlog sewerage/service extension charges. In the first instance, the price for connecting a new service to an existing property would be set using the same methodology as the price for connecting a new service to a new development.
- While the costs of a new connection are the same, they can be shared differently between the connecting customers and the broader customer base, depending on the externalities arising from these connections. Our draft approach is to assess these departures from the standard charges on a case-by-case basis, either at a periodic price review or in a scheme-specific review requested by a utility.

141 IPART, *Review of developer charges and backlog sewerage charges for metropolitan water agencies – Issues Paper*, October 2017, p 36.

- Maximum prices for a service extension can be presented as a composite charge, or as a sum of two components:
  - a price to connect a new service to a new development, calculated for a Development Servicing Plan (DSP) area on an incremental cost basis, plus
  - a price to build an extension to the connecting (backlog) property in this DSP area, calculated on a marginal cost basis.
- This approach would enable utilities to charge on a marginal cost basis for extending a service while the zero developer charges policy applies.

This chapter explores the current regulatory regime, stakeholder views on the regime and our draft decision to apply the methodology for establishing the maximum price for a new connection (discussed in Chapter 2). Our default position is that the methodology would apply both to new developments and existing properties, unless there were special considerations, which would be assessed on a case-by-case basis.

4.1 Multiple methodologies for backlog sewerage charges currently apply

In July 1997, we determined a methodology for fixing backlog sewerage capital contributions for backlog customers for Sydney Water, Hunter Water, Wyong Shire Council and certain properties in the Gosford City Council area.[142]

In 2006, we reviewed the 1997 Determination and updated the methodology for backlog sewerage charges for Gosford City Council. The 2006 Determination applies to backlog customers who had not previously contributed to a sewerage financing scheme. Our 1997 Determination continues to apply for other backlog customers of the former Gosford City Council.

The above means that **three** different methodologies are currently used to calculate the maximum backlog sewerage charge:

- two for properties[143] in the former Gosford City Council area of the Central Coast Council that are either:
  - Priority Sewerage Program (PSP) properties, or
  - non-PSP properties, and
- one for properties serviced by Sydney Water, Hunter Water and the remaining properties in the Central Coast Council's area of operations.

The key aspects of the methodologies are set out in Box 4.1.

142 In the mid-1970s, Gosford City Council established a regional sewerage scheme that continued until the mid-1990s. This scheme applied to a defined area where the Council planned to eventually provide water and sewerage services. For a 20-year period, property owners within this area paid 'sewerage loan charges' on the assumption that they would eventually be connected to the system. While the sewerage financing scheme area covered the majority of the Gosford area of operations, there were some remote communities which were not included. These included; Fishermans Parade at Daleys Point, Mooney Mooney, Cheero Point, Little Wobby, Bar Point, Patonga Creek, and areas within Bensville, Empire Bay and South Kincumber. These properties were the subject of the backlog sewerage determination.

143 Backlog properties within the former Gosford City Council area did not contribute to a sewerage financing scheme.

Sydney Water, Hunter Water and the Central Coast Council

Our 1997 Determination set the maximum backlog charge at the lesser of:

- $3,000 per property, and
- 25% of the total net capital cost per property of the backlog works.[144]

This methodology means that water utilities fund at least 75% of the net capital costs of backlog works, typically through higher bills to their broader customer base; that is, most of the capital costs of a given backlog scheme are funded by other customers.

Backlog customers in the former Gosford City Council area of the Central Coast Council

Our 2006 Determination for Gosford City Council updated the methodology, which meant that certain backlog customers paid a greater share of the cost of the backlog scheme.

Our 2006 methodology applies to customers who had not previously contributed to a Gosford City Council sewerage funding scheme. The following maximum backlog charges are set for:

- **PSP areas:** $5,400, **plus** 67% of the remainder of the capital costs (net of subsidies), and
- **non-PSP areas:** the full cost level (equal to a developer charge).

Unlike our 1997 methodology, the 2006 Determination allocates most of the costs to backlog customers, with a lower amount of the costs spread across the broader customer base.

144 IPART, *Pricing of Backlog Sewerage Services – Sydney Water Corporation, Gosford City Council, Hunter Water Corporation, Wyong Shire Council Determination No 4 1997*, July 1997, p 3.

Box 4.1 Current methodologies for calculating backlog sewerage contribution charges

Sydney Water, Hunter Water and some backlog customers within the Central Coast Council

The 1997 Determination of backlog sewerage services for metropolitan water utilities sets the formula for calculating the maximum backlog sewerage capital contribution charge (BSCC) as:

$$BSCC = \max\left(\frac{25\%\ of\ K}{N}, \$3{,}000\ nominal\right)$$

Inputs on the formula are:

- $BSCC$ – backlog sewerage capital contribution charge
- K – actual capital cost of sewerage infrastructure attributed to the backlog properties
- N – total number of existing properties in the backlog area

Former Gosford City Council area of the Central Coast Council

Under our 2006 Determination of Gosford City Council's backlog sewerage services (for backlog customers who had not previously contributed to a sewerage financing scheme)[a], we set two different methodologies, depending on whether a property was in a designated PSP area.

Non-PSP properties

The formula for calculating the Non-PSP Contribution Charge, $NPCC$, is the same as that for calculating developer charges under our 2000 Determination:

$$NPCC = \frac{K_1}{L_1} + \frac{K_2}{L_2} - \frac{NPV\ (R_i - C_i)}{L_3}\ for\ i = years\ 1, \dots, n$$

This methodology sets maximum contribution charges, which recover the full capital costs of a backlog sewerage scheme, including recognising the capital component of future recurrent bills.

PSP properties

The formula for calculating the PSP Area Contribution Charge, $PACC$, recognises the positive environmental and social benefits of the works, flowing to the wider community.

$$PACC\ =\ Initial\ Fixed\ Contribution\ (IFC)\ up\ to\ \$5{,}400 + \frac{PV\left(k_{net\ of\ subsidies}\right) - PV(IFC\ \times\ Lots)}{PV(Lots)} \times\ 0.67$$

a For backlog customers within the former Gosford City Council who had previously contributed to a sewerage financing scheme, the 1997 Determination continues to apply.

Source: IPART, *Pricing of Backlog Sewerage Services – Sydney Water Corporation, Gosford City Council, Hunter Water Corporation, Wyong Shire Council Determination No 4 1997,* July 1997; IPART, *Sydney Water Corporation, Hunter Water Corporation, Gosford City Council, Wyong Shire Council Developer Charges from 1 October 2000, Determination No 9 2000*, September 2000; IPART, *Pricing of Backlog Sewerage Services for Gosford City Council, Determination No 1 2006*, February 2006.

A separate methodology applies for Sydney Water's minor service extension charges

We set a methodology to determine the minor service extension (MSE) charge in Sydney Water's 2016 Determination. The charge applies when Sydney Water extends a sewerage system and/or water supply system to a property (that is not connected but is capable of being connected) at the owner's request. Sydney Water's MSE charge recovers the cost of the capital investment to extend the water or sewerage system to a property or group of properties.

We note that the current MSE methodology is based on a 'marginal' capital cost approach (ie, it does not include the capital costs of existing assets the connecting customer will use after the extension is built).

The current MSE charge methodology mirrors the methodology for calculating developer charges and is as follows:

$$MSE = \left[\frac{PV(K) - PV(R - C)}{PV(S)}\right]$$

Where:

- *MSE* - minor service extension charge
- *K* - capital cost
- *R* - revenue from customers served by the MSE
- *C* - operating costs of servicing MSE customers, and
- *S* - equivalent tenements (ETs) served by the MSE.

In its submission to our Issues Paper, Sydney Water noted the significant administrative effort required to implement MSEs.[145] It proposed a simpler, more administratively efficient approach of charging a flat rate per ET that seeks to connect. Sydney Water did not oppose including MSEs in the developer charges determination, as long as it did not create the impression that the charge would be set to zero for existing properties wishing to connect.[146]

In principle, when a new service is connected to an existing property, the utility's existing customers should be compensated for carrying the spare capacity of the asset that has enabled the extension of the service. In addition, connecting customers should compensate existing customers for any additional capital or operating costs arising from these connections. This principle underpins our draft developer charges methodology (discussed in Chapter 2). Existing customers of a utility should be indifferent about whether capacity is provided to a new development or is used to extend a service to an existing property. The incremental cost approach to capital costs should apply in both cases. Pricing at marginal capital cost (as is currently the case with MSE) would also put potential new providers of water and wastewater services at a competitive disadvantage, and thus would be inconsistent with promoting competition and the dynamic efficiency gains associated with such competition.

Based on our communications with Sydney Water, about 6,000 properties in the Greater Sydney area could request an MSE at some point in future. These properties are currently not connected while services are available in the area. The timing of any potential request for connection is uncertain. These properties would be affected by the proposed change in the method for calculating the charge.[147]

145 Sydney Water's submission to IPART Issues Paper, December 2017, p 38.
146 Sydney Water's submission to IPART Issues Paper, December 2017, p 38.
147 Email communication with Sydney Water, 13 April 2018.

Hunter Water's proposed major service connection charge would be accommodated

Hunter Water has a small number of existing properties in areas with sewerage services that are not connected to its network. These properties are typically non-residential and have an on-site sewerage treatment system.

In our 2015-16 review of Hunter Water's periodic retail prices, the utility proposed a methodology for calculating charges for connecting existing properties to its sewerage system, rather than setting a specific price (or prices). This methodology was based on our 2000 Determination of developer charges (with some amendments).[148] Hunter Water noted that, given the size and characteristics of some of these properties, it may need to augment its sewerage system to connect them to its network.[149]

In its submission to our Issues Paper, Hunter Water stated that it could see merit in applying a major services connection charge to existing properties if the NSW Government were to reinstate developer charges.[150]

Our draft decision would enable Hunter Water to levy its major service extension charge on a marginal cost basis while the zero developer charges policy applies.

4.2 Our current determinations may set charges below cost-reflective levels

Our current backlog sewerage determinations (1997 Determination for Sydney Water, Hunter Water and the Central Coast Council, and the 2006 Determination for some areas in the former Gosford City Council) set charges that may be below cost-reflective levels. Hunter Water agreed with this point in its written response to our Issues Paper.[151] It stated that the customer cap of $3,000, or 25%, does not reflect the actual costs of backlog sewerage connections, which are $55,000 on average per connected lot.[152] Hunter Water further noted:

> There may be instances where a majority of existing property owners in a township or village are prepared to fund a substantial share of the capital costs of a backlog sewerage scheme. In those circumstances, IPART's determination … should not prohibit an arrangement that allows those property owners to voluntarily fund a contribution that exceeds $3,000 per property.[153]

At the public hearing, the Public Interest Advocacy Centre (PIAC) made similar comments:

> We certainly agree that the areas most in need would need to have some sort of cost relief, and we strongly suggest that needs to be a means-tested approach. So the people who cannot afford to pay for their own solutions are the ones who are actually getting the benefit from that reticulation being extended to them. For people who can afford to pay for it themselves, who are more likely to benefit from the improved value of their property, and so on, in having that sewerage attached, it is quite fair that they should be able to pay.[154]

148 Hunter Water, *Submission to IPART on prices to apply from 1 July 2016*, June 2015, pp 87-88.
149 IPART, *Review of developer charges and backlog sewerage charges for metropolitan water agencies* – Issues Paper, October 2017, p 39.
150 Hunter Water's submission to IPART Issues Paper, December 2017, p 42.
151 Hunter Water's submission to IPART Issues Paper, December 2017, p 31.
152 Hunter Water's submission to IPART Issues Paper, December 2017, p 31.
153 Hunter Water's submission to IPART Issues Paper, December 2017, p 31.
154 IPART, Developer Charges public hearing transcript, 6 March 2018, p 44.

The level of customer contribution and caps provided in the current determinations is not adequate for funding backlog services without socialising the costs across a wider customer base.

4.3 Backlog sewerage charges are not applied uniformly across utilities

Not all utilities charge their customers backlog sewerage charges. Where charges do apply, not all properties pay these charges. The following sections provide more details about each utility's charging practices.

4.3.1 Sydney Water does not levy backlog sewerage charges

Since 2000, the NSW Government has agreed to fund the cost of customers connecting in PSP areas.[155] Sydney Water's earlier PSP customers were funded by Community Service Obligations (CSOs), set as a $3,000 contribution as per the capped charge in the 1997 Determination.[156] In 2011, the Minister directed Sydney Water to accelerate the PSP and provided Sydney Water with funding of $6,000 per dwelling, exceeding the cap set in the 1997 Determination.

Sydney Water has delivered the backlog sewerage program and the PSP on behalf of the NSW Government. Six areas listed in its Operating Licence remain to be connected. Three of these areas – Austral (50 lots), Menangle (100 lots) and Menangle Park (120 lots) – are likely to be connected when the surrounding areas are serviced over the next 10 years.[157]

Sydney Water does not levy backlog sewerage charges. Currently, it is neither constructing nor waiting to construct backlog or PSP schemes under its capital program.[158]

4.3.2 Hunter Water's approach depends on the type of property connecting to the sewerage system

In 2012, Hunter Water implemented its *Provision of backlog sewer services policy*.[159] The NSW Environment Protection Authority (EPA) helped the utility establish its priorities and the benefits of a backlog sewerage program.[160] The following outlines the differences in the way it applies the policy for townships and villages compared to urban infill areas:

- Once Hunter Water has established the priorities for backlog sewerage schemes for **townships and villages**, it makes a case to the NSW Government for funding to cover connecting customers' contributions to the schemes, seeks the Minister's direction to carry out the schemes and applies to recover any remaining costs in its pricing submission to IPART.[161] It has:

155 Sydney Water's submission to IPART Issues Paper, December 2017, p 35.
156 Sydney Water's submission to IPART Issues Paper, December 2017, p 36.
157 Sydney Water's submission to IPART Issues Paper, December 2017, p 36
158 Sydney Water's submission to IPART Issues Paper, December 2017, p 35.
159 Hunter Water's submission to IPART Issues Paper, December 2017, p 29.
160 Hunter Water's submission to IPART Issues Paper, December 2017, p 25.
161 Hunter Water's submission to IPART Issues Paper, December 2017, pp 29-30. The relevant Minister is the Minister for Energy and Utilities.

- the Environmental Improvement Charge (EIC) and a Clarence Town levy in place to recover the costs of its backlog sewerage programs from its broader customer base, and[162]
- a current backlog of 2,500 properties in 18 towns. The estimated connection costs exceed $130 million. With each lot costing between $25,000 and $85,000, the average cost is $55,000 per lot.[163]

- In **urban infill areas,** the environmental and health benefits of backlog services are localised. Some costs of the backlog schemes are recovered from connecting customers through charges set under IPART's 1997 Determination.
  - Hunter Water estimates there are 260 residential infill backlog properties.
  - Hunter Water cites a recent example of the application of the 1997 Determination is in Hickson Street, Merewether, Newcastle. The owners of the 12 connecting properties fully funded the backlog works over a 10-year period, under the periodic payment provision at Hunter Water's prevailing cost of debt.[164]

4.3.3 The Central Coast Council levies backlog sewerage charges

The Central Coast Council currently levies backlog charges in Cockle Bay towns and Mooney Mooney Chero Point.[165] These are levied under the 2006 Determination, which states that benefitting property owners pay the majority of the costs after subsidies are applied. Any remaining costs are spread among the wider customer base.

4.4 We have applied a uniform methodology to set prices for a new service connection

Our draft decision is to:

26 Apply a uniform methodology to set maximum prices for a new service connection to an existing property.

We have introduced new terminology that recognises common features of various connection charges under our review. The developer charges methodology discussed in Chapter 2 allows the utilities to calculate maximum prices for connecting new services to new developments. Our draft decision is to standardise our approach to regulating the price of connecting a new service, whether to a new development or to an existing property (formerly referred to as backlog or service extension charges). We consider that the methodology for setting maximum prices for a new connection discussed in Chapter 2 should apply in this case. We have streamlined our regulation of capital connection charges, bringing them under the single new determination.

This approach provides consistency for residents living in these areas, addressing the concerns raised by the Housing Industry Association in its submission to our Issues Paper.[166]

162 Hunter Water's submission to IPART Issues Paper, December 2017, p 41.
163 Hunter Water's submission to IPART Issues Paper, December 2017, p 27.
164 Hunter Water's submission to IPART Issues Paper, December 2017, p 30.
165 Central Coast Council's submission to IPART Issues Paper, December 2017, p 11.
166 Housing Industry Association's submission to IPART Issues Paper, January 2018, p 3.

Applying the standard methodology ensures that all connection charges are cost-reflective. Our draft methodology (based on an incremental cost approach) would lead, all other things being equal, to higher charges if compared to the backlog sewerage charges under our current determinations.

4.4.1 There may be situations that justify lower connection prices to existing properties

While we determine the maximum price for backlog sewerage charges through our determinations, utilities may seek approval to depart from this methodology. This may occur, for instance, where environmental or public health benefits justify a lower price for properties connecting to a sewerage system. We refer to these environmental or public health benefits as **positive externalities**.

At the public hearing, NSW Health emphasised the importance of sewerage services to public health.[167] PIAC spoke at the public hearing about the environmental and health benefits of sewerage.[168] PIAC emphasised the importance of considering these benefits when determining who should pay the cost of connecting to the sewerage system, while also taking into account people's ability to pay.[169]

For example, we received a submission from Newcastle City Council that referred to Hunter Water levying an annual EIC to fund the Wyee backlog scheme.[170] This submission argued in favour of extending the funding arrangements to the township of Hexham, which is located in an environmentally sensitive area. Newcastle City Council nominated connecting Hexham to the sewerage system as an environmental and public health priority, which NSW Health and the NSW EPA both endorsed.[171]

In the above example, Hunter Water (and the other utilities we regulate) would be able to charge lower connection prices to the connecting properties and recover these costs from either its broader customer base or the NSW Government (through contributions or as a shareholder of the state-owned utilities), by seeking approval:

- from IPART at a periodic price review (eg, the scheduled 2020 Hunter Water retail price review)
- by applying to IPART for a scheme-specific review, or
- from the NSW Treasurer under section 18(2) of the IPART Act.

167 IPART, Developer Charges public hearing transcript, 6 March 2018, p 42-43.
168 IPART, Developer Charges public hearing transcript, 6 March 2018, p 44.
169 IPART, Developer Charges public hearing transcript, 6 March 2018, p 44.
170 Hunter Water levies an EIC ($38.37 per annum in $2015-16) on properties in its area of operation connected to, or for which a connection is available to, the sewerage system. This charge contributes to the cost of providing sewerage to backlog areas. These costs are also partly funded through NSW Government CSO payments. In November 2014, the NSW Government announced that the township of Wyee was to be connected to Hunter Water's sewerage network, with the costs funded through the EIC levied on Hunter Water's sewerage customers ($23.6 million) and a NSW Government contribution ($2.4 million). In our 2016 Determination of Hunter Water's prices, we accepted its proposal to extend the EIC beyond its original sunset date to cover the costs of providing backlog sewerage services to Wyee. Our view in the 2013 Determination was to abolish the EIC in 2019. However, in 2016, we considered it appropriate to extend the EIC in line with Hunter Water's proposal, given the Government's announcement in relation to Wyee. See IPART, *Review of prices for Hunter Water Corporation from 1 July 2016 to 30 June 2020* – Final Report, June 2016, pp 118-120.
171 City of Newcastle's submission to IPART Issues Paper, January 2018, pp 1-2.

At each of the above points, the utility could seek approval to charge less than the maximum price determined by the methodology in this determination, for connecting a property or a defined group of properties (eg, by DSP area). This could take effect through IPART setting a new determination for these properties (to replace this determination, for those properties), or the NSW Treasurer providing the utility with approval to charge less than the maximum price determined by IPART (per section 18(2) of the IPART Act).

A decision would then need to be made whether the difference between the utility's costs of providing the connection and the charges actually levied to connecting customers is recovered from:

- the broader water and wastewater customer base, via periodic prices to be determined by IPART at the next periodic price review, and/or
- the broader NSW community, via a NSW Government contribution (either a direct contribution or a contribution as shareholder of the state-owned utilities).

Generally, we favour a funding approach based on the following hierarchy:

- In the first instance, we prefer that the **impactor to pay** (ie, the party that created the need to incur the cost should pay).
- If that is not possible, the **beneficiary** should pay (with the direct beneficiary paying before the indirect beneficiary), although the impactor and the beneficiary are sometimes the same.
- As a last resort, **taxpayers** should pay.[172]

Applying this principle, we consider that:

- A connecting customer, as an impactor, should pay the full cost of the connection. However, if it is not appropriate or possible to levy the full charge on connecting customers (eg, because of affordability or a social policy objective), there may be a case to move to the next level of the funding hierarchy – the beneficiary (first direct, then if that is not possible, indirect beneficiaries).
- If the utility's broader customer base benefits from extending the connection, there may be a case to include the relevant costs in retail (periodic) prices, to be funded by the broader customer base (or even potentially geographic segments of the broader customer base, for example).
- On the other hand, if the benefits are realised by the broader community or environment, there may be a case for the NSW Government to fund these costs (or a share of these costs) on behalf of the broader community.

The flexibility of this approach would address the concerns of the Central Coast Council, which argued that the current cost-sharing methodology renders the cost to connect unaffordable for many potential users. Three of the Council's proposed schemes (Patonga Creek, Little Wobby and Bar Point) did not go ahead due to a lack of customer support in these areas, meaning the benefits to the wider community from these schemes were not

172 IPART, *Review of Rural Water Cost Shares for WaterNSW and Water Administration Ministerial Corporation – Issues Paper*, April 2018, pp 10-11.

realised. The outcome may have been different if the costs to connecting customers were lower.[173]

If necessary, the allocation of costs of extending a sewerage service to existing properties can be considered on a case-by-case (or area-by-area) basis, to justify any proposed lower share of costs borne by the connecting properties and the lower level of charges.

The Central Coast Council[174], Sydney Water[175] and PIAC[176] all proposed more flexibility in sharing the connection costs with the broader community.

4.5 We have grandfathered existing backlog sewerage and minor service extension charges

Our draft decision is to:

27 Grandfather existing backlog sewerage and minor service extension charges calculated and applied on an annuity basis under our:

- 1997 and 2006 Determinations of backlog sewerage charges, and
- 2016 Determination of retail prices for Sydney Water.

Our decision to grandfather existing charges ensures that customers making annuity payments for backlog sewerage under the existing determinations will have the certainty of knowing that their payments will continue for the remainder of the annuity period. Utilities also benefit from this approach, as they can rely on their existing forecasts for annuity payments.

Our approach ensures administrative simplicity and stability, as existing schemes will not have to be converted to a new regulatory framework.

4.6 We recommend that NSW Government funding for Community Service Obligations be contestable

IPART draft recommendation

1 We recommend the NSW Government's social policy objectives and Community Service Obligations be provided through a contestable process.

We recommend that the provision of CSOs to achieve NSW Government social policy objectives (eg, relating to the provision of backlog sewerage services) should be **contestable**, to facilitate innovation and efficient market solutions.

In our submission to the Harper Review of competition policy, we stated that there should be competition for the market for providing non-commercial services and meeting community service obligations relating to water (eg, universal service obligations). That is, when governments are procuring these services, they should call for competitive bids or

173 Central Coast Council's submission to IPART Issues Paper, December 2017, p 12.
174 Central Coast Council's submission to IPART Issues Paper, December 2017, p 12.
175 Sydney Water's submission to IPART Issues Paper, December 2017, p 35.
176 IPART, Developer Charges public hearing transcript, 6 March 2018, pp 44-45.

expressions of interest from the market, rather than automatically requiring public water utilities to provide them (or granting them the right to do so). In such circumstances, a public water utility could bid or be a public sector comparator (and default supplier).[177]

We recommended that "CSOs be clearly defined and funded and available to all suppliers in the market".[178]

If the NSW Government provides subsidies or grants directly to a utility to fund the capital costs of extending services (eg, to fund backlog services), these grants **should not be deducted from the capital costs** used in the developer charges calculation formula. This would assist with calculating the appropriate total cost of an extension and the capital connection charge per equivalent tenement (ET).

If assets to service a backlog area or extension could service a new development, they should be added to the corresponding DSP area and included in the developer charge.

Any subsidies would then apply to eligible connecting customers after calculating the full charge. Assuming they are not eligible for a subsidy, new developments connecting to an extension would pay the full connection charge (that is, the charge before any subsidy).

4.7 We have maintained the annuity payment option for providing a new service to existing properties

Our draft decision is to:

28 Maintain the annuity payment option for providing a new service to existing properties. This annuity is based on:

- the discount rate set to the utility's real pre-tax WACC referred to in the Final Report accompanying the prevailing periodic price determination, and
- the annuity period of up to 20 years.

29 Calculate prices when the service becomes available. The CPI indexation factor applies to prices for connection at a later date (March-on-March quarter CPI, ABS all groups eight capital cities).

30 Not to apply any WACC adjustment once the charge is calculated.

Our 1997 Determination and 2006 Determination of backlog sewerage charges provided two payment options for backlog customers, which were:

- a single upfront payment, or
- an annual or quarterly payment, over a period of up to 20 years.

In calculating the amount of the annual or quarterly payment, both determinations specify that it be based on an amortisation method. The interest rates to be used in deriving the annual or quarterly payments are:

177 IPART, *Opportunities for further reform: IPART's submission to the Competition Policy Review Issues Paper*, June 2014, p 15.

178 IPART, *Opportunities for further reform: IPART's submission to the Competition Policy review Issues Paper*, June 2014, p 5.

- 1997 Determination – NSW Treasury Corporation's 10-year bond rate, and[179]
- 2006 Determination – Commonwealth Government Securities' 10-year bond rate.[180]

Stakeholders indicated support for the annuity payment option. Under this option, customers in existing properties pay a fixed amount each year over a period of up to 20 years for the costs of connecting to the sewerage system. Sydney Water[181], Hunter Water[182], the Central Coast Council[183] and PIAC[184] all agreed with providing this option, indicating that, for customers, it was more affordable than paying a lump sum at the time of connection.

Because water utilities provide the funding to the customer, our draft decision is that the discount rate should match the utility's opportunity cost of capital. Therefore, the WACC established in the water utility's prevailing retail price review is an appropriate discount rate for calculating an annual backlog charge.[185] Stakeholders agreed that the annuity should be calculated at the same WACC rate we applied in the price determination for the relevant utility.[186]

The charge would not be adjusted once calculated (ie, periodic WACC adjustments would not apply). Our draft decision not to include an in-period WACC adjustment provision is consistent with the decision we made for the developer charges methodology (see Chapter 2).

As for other capital charges, we consider these charges should be indexed using movements in CPI. Our preferred approach is to use the Australian Bureau of Statistics' (ABS) March-on-March quarter CPI, all groups eight capital cities, from the time the service is available.

Our draft decision on prices for connecting a new service to existing properties is summarised in Box 4.2.

179 IPART, *Pricing of Backlog Sewerage Services*, *Sydney Water Corporation, Gosford City Council, Hunter Water Corporation, Wyong Shire Council, Determination No 4.1 1997,* July 1997, p 3.
180 IPART, *Pricing of Backlog Sewerage Services for Gosford City Council, Determination No 1 2006*, February 2006, p 6.
181 Sydney Water's submission to IPART Issues Paper, December 2017, p 35.
182 Hunter Water's submission to IPART Issues Paper, December 2017, p 42.
183 Central Coast Council's submission to IPART Issues Paper, December 2017, p 13.
184 IPART, Developer Charges public hearing transcript, 6 March 2018, pp 52-53.
185 The annuity charge would be calculated at the pre-tax WACC referred to in the Final Report accompanying the prevailing periodic price determination for the relevant utility, in force at the time when the charge is calculated.
186 Sydney Water's submission to IPART Issues Paper, December 2017, p 35; Hunter Water's submission to IPART Issues Paper, December 2017, p 42; Central Coast Council's submission to IPART Issues Paper, December 2017, p 13.

Box 4.2 Methodology for maximum prices for a new connection to an existing property

The maximum price for connecting a new service to an existing property, per equivalent tenement (ET), is calculated as follows:

If a DSP has been made or reviewed, to include the assets for extension

- the relevant extension assets are included in K_2
- a price to connect a new service, DC, is calculated using the formula outlined in Chapter 2:

$$DC = \frac{K_1}{L_1} + \frac{K_2}{L_2} - \frac{NPV(R_i - C_i)}{L_3} \; for\; i = years\; 1, \dots, n$$

If a DSP has not been made or reviewed, to include the assets for extension

- the relevant extension assets are not included in K_2
- A price to connect a new service to an existing property is calculated as

  $DC + DC'$, where

$$DC' = \frac{K_4}{L_4} - \frac{NPV(C_i - C_i')}{L_4} \; for\; i = years\; 1, \dots, n$$

is the costs of extending services to existing properties, calculated on a marginal cost basis.

In this case,

- K_4 – the present value of estimated efficient capital costs of the extension
- L_4 – the present value of the number of ETs in the service extension area within the DSP that will use the extension (including both new developments and existing properties), calculated at discount rate $r_4 = r_3$.
- C_i' – the estimated future operating, maintenance and administration costs expected to be spent on customers serviced by the service extension
- C_i – the estimated future operating, maintenance and administration costs of servicing these customers at the cost prevailing in the DSP area before the extension.
- When the zero developer charges policy is in place, $DC = 0$ and only DC' is payable.
- If and when the zero developer charge policy is removed, $DC + DC'$ would be payable until such time that a DSP is reviewed to include the extension (with a nexus to development).

4.8 We have minimised the reporting burden for small-scale schemes

Our draft decision is to:

31 Make procedural requirements proportionate to the size of the scheme:

- Large-scale (township level) service extension schemes require making or reviewing a DSP, following the standard procedural requirements.
- Small scale extension schemes do not attract any specific procedural requirements and are subject to an ex-post review.

Our draft approach is to not impose additional procedural requirements for small-scale service extensions – today's equivalent of brownfield backlog schemes.[187]

We are seeking to minimise administrative burden on utilities by making procedural requirements proportionate to the materiality of the scheme.

For township-level service extension schemes, the utility should establish or renew a DSP and follow the procedural requirements outlined in Chapter 3.

We will review those connection charges not subject to procedural requirements, including those raised under service extension schemes, as part of the expenditure review at the next periodic price review.

187 Our Draft Determination does include a definition of scale of the scheme, however, Schedule 4 clause 1 of the Draft Determination requires each agency to be reasonably satisfied that it has in place a sufficient number of DSPs, and DSPs that cover a sufficient aggregate area, to meet present demand for Determination Services and expected medium-term growth in demand for Determination Services.

5 Prices for upgrading existing services for firefighting

This chapter outlines our draft decision to set a methodology for a new price for upgrading existing services to existing properties. We reached this decision after considering submissions in response to our Issues Paper and discussion at our public hearing.

Our draft methodology can accommodate a new type of charge to upgrade an existing service to an existing property to increase water flow and pressure to facilitate firefighting.

This chapter outlines the current gaps in the regulatory regime on water flow and pressure for firefighting, stakeholder views on the issue, and our proposed approach. Our draft decision is aimed at encouraging 'win-win' outcomes by providing a mechanism for utilities, developers and existing property owners to fund the required upgrade of the infrastructure. Our approach can enable funding of the upgrade, on a voluntary basis, independently from the application of the Government policy on developer charges.

5.1 Upgrading water flow and pressure for firefighting

The sections below outline issues associated with upgrading water flow and pressure for firefighting, including our consideration of these issues to date.

Section 5.2 then explains how we propose to address this issue in this review of developer and other connection charges.

5.1.1 New development may impact time to respond to fires

Fire & Rescue NSW (FRNSW) lodged a submission about water flow and water pressure for firefighting as a result of new developments. It stated that FRNSW's operational effectiveness is directly linked to the availability of water in and from reticulated water supplies. It said that most multi-unit developments are built on brownfield sites with existing water infrastructure. By comparison, detached dwelling developments are typically built on greenfield areas with new water infrastructure.[188] FRNSW's submission focused on the issue of ageing water infrastructure serving multi-unit developments.

FRNSW stated:

> Because of the differing fire hydrant provisions detailed in the NCC [National Construction Code], almost all multi-unit developments will need to incorporate the cost of a fire hydrant system into their overall development costs. On the other hand, all detached housing developments will not. In relation to the total cost of the fire hydrant system borne by a multi-unit development and the subsequent cost attributed to each unit, two factors will determine this cost: the size of the development; and the pressure and flow characteristics of the nearest available town main.

188 Fire & Rescue NSW's submission to IPART Issues Paper, January 2018, p 3.

> Where the pressure and flow characteristics of an existing town main are identified as not being able to provide the required pressure, the required flow, or both, to a fire hydrant system, the cost to install a fire hydrant system can increase significantly through the requirement to provide on-site pumps or on-site tanks and pumps. Instances where the nearest available town main has been unable to provide the required pressure or flow are now being seen with increasing regularity by FRNSW.[189]

FRNSW concluded that the funding model for water infrastructure should be reviewed to provide for upgrading existing water infrastructure.[190]

Firefighting capacity was also discussed at the public hearing. FRNSW stated that there may be a case for upgrading water mains rather than requiring individual properties to install fire hydrant systems, or tanks and pumps, on site:

> The silly situation at the moment is that you may find, for instance, in a street with half a dozen buildings may be paying $100,000 to $200,000 in costs to upgrade, which greatly exceeds at the time the cost of the upgrade in the main. That would be [a] far more efficient way of doing it because it benefits all consumers on the street.[191]

In addition, FRNSW said there may be situations where the existing water main accommodates some but not all proposed developments on a street. This leads to some developers paying more than others for firefighting capacity:

> The first developer may find that they can get what they require from the main on that street, but the greater drawing on that particular main may mean that the second or third developers may still use it, but the fourth developer may incur the $200,000 charge to meet the building code requirements that the other developers did not have to meet.[192]

5.1.2 Localised upgrades may be the best approach

At the public hearing, Sydney Water and FRNSW acknowledged they had signed a memorandum of understanding (MoU) and were examining how to best address this issue.[193] Sydney Water cautioned against providing a generic solution to the issues FRNSW raised, warning that doing so could be more expensive than providing localised solutions.[194] Sydney Water indicated that it was working with Waverley Council on a case study.[195] FRNSW supported a localised approach.[196]

Hunter Water indicated that it does not have the same level of brownfield developments as Sydney Water. But it does have legacy issues with existing developments not meeting the increasingly stringent standards for water pressure and flow.[197] Hunter Water stated that the cost of upgrading all water mains to meet new requirements was significant:

> If we were to have a blanket requirement across our whole area of operations, that would cost well over $100 million to get those mains to that standard, which would put significant upward pressure on household bills.[198]

189 Fire & Rescue NSW's submission to IPART Issues Paper, January 2018, p 6.
190 Fire & Rescue NSW's submission to IPART Issues Paper, January 2018, p 11.
191 IPART, Developer Charges public hearing transcript, 6 March 2018, p 66.
192 IPART, Developer Charges public hearing transcript, 6 March 2018, p 67.
193 IPART, Developer Charges public hearing transcript, 6 March 2018, p 67.
194 IPART, Developer Charges public hearing transcript, 6 March 2018, p 67
195 IPART, Developer Charges public hearing transcript, 6 March 2018, p 71.
196 IPART, Developer Charges public hearing transcript, 6 March 2018, p 72.
197 IPART, Developer Charges public hearing transcript, 6 March 2018, p 72.
198 IPART, Developer Charges public hearing transcript, 6 March 2018, p 72.

Hunter Water stated that it was looking forward to working with FRNSW to identify the most efficient solutions for each area.[199]

5.1.3 FRNSW has raised water flow and pressure issues with us before

FRNSW has recommended to our current review of water utilities' performance indicators that we collect further information on water pressure and flows.[200] It reiterated its view that providing large infrastructure solutions may be more efficient than upgrading individual premises or developments.[201] Structured Project Management (Australia) Pty Ltd supported this view in its submission.[202] This company is currently assisting with preparing strata plans for two developments in North Bondi to ensure they meet the firefighting requirements under the Building Code of Australia (BCA). The estimated cost to meet the requirements is more than $400,000 for each site.[203]

In our Draft Report for our review of water utilities' performance indicators, we have not recommended a performance indicator for water flow and pressure. In our view, FRNSW and the metropolitan water utilities should address this issue under bilateral agreements; MoUs could facilitate this process. There is no regulatory requirement for the water utilities to provide water for firefighting purposes. Under the BCA, the owners of certain classes of building are responsible for providing firefighting water. However, this responsibility is not always clearly defined and the owners of some classes of building face no such obligations.[204]

We considered this issue in our 2015 review of Sydney Water's operating licence and in our 2017 review of Hunter Water's operating licence.[205] Following these reviews, Sydney Water and Hunter Water are obliged under their licences to use best endeavours to develop and maintain an MoU with FRNSW, and to comply with the MoU.

In our 2015 review of Sydney Water's operating licence, we also made the following recommendation:

> That the Government undertake a comprehensive review examining firefighting water capacity requirements within NSW. This review should identify any "regulatory gaps" or necessary improvements to regulatory arrangements. It should also examine water distribution network solutions and other options to enhance water availability for firefighting.[206]

199 IPART, Developer Charges public hearing transcript, 6 March 2018, p 72.
200 Fire & Rescue NSW's submission to IPART's Review of water utility performance indicators Issues Paper, March 2018, pp 9-10.
201 Fire & Rescue NSW's submission to IPART's Review of water utility performance indicators Issues Paper, March 2018, pp 9-10.
202 Structured Project Management (Australia)'s submission to IPART's Review of water utility performance indicators Issues Paper, March 2018.
203 Structured Project Management (Australia)'s submission to IPART's Review of water utility performance indicators Issues Paper, March 2018, p 2.
204 Australian Building Codes Board, *National Construction Code*, Volume One and Two, 2014.
205 IPART, *Sydney Water Corporation Operating Licence End of Term Review – Report to the Minister*, May 2015; IPART, *Review of the Hunter Water Corporation Operating Licence 2017-2022* - Final Report, May 2017.
206 IPART, *Sydney Water Corporation Operating Licence End of Term Review – Report to the Minister*, May 2015, p 21.

5.2 We have set prices for a voluntary upgrade of an existing service

Our draft decision is to:

32 Set the price for upgrading an existing service to existing properties, on a marginal cost basis.

As we outlined in the Final Report for our 2015 review of Sydney Water's operating licence, finding the appropriate approach to meeting pressure and flow required for firefighting is a broad issue. It is influenced by the actions of a number of government agencies, including local councils, planning authorities and developers. In the absence of a NSW Government review of this issue, we have included a **voluntary mechanism** in our capital charges determination in this review, to be used when the relevant parties agree. This approach provides flexibility to implement local solutions.

5.2.1 Upgrade of an existing service is voluntary and priced at marginal cost

We consider that our regulatory framework should not prevent efficient outcomes. There is no provision for Sydney Water and other utilities at the moment to recover the cost of infrastructure upgrades to increase water flow and pressure from the impactors (new multi-storey developments in brownfield areas) and/or the beneficiaries (both developments and existing properties).

Our draft decision is to set a methodology to calculate a charge for upgrading existing services to existing properties. This would facilitate the funding of an efficient solution to improve firefighting capacity where the relevant parties agree.

We propose calculating the charges according to whether the property is existing or part of a new development (see Box 5.1). In summary:

- Where the owners of an **existing property**, or a group of owners of existing properties, agree to pay a capital charge to increase firefighting capacity, the charge should be based on marginal cost.
  - The charge would only relate to increasing the capacity of water assets for firefighting, and not to the costs of existing assets, because the owners already pay for existing assets through their periodic prices.
- In contrast, **new developments** would pay a capital charge using the incremental cost approach.
  - The charge would include the costs of existing assets as well as the cost of the upgrade.
  - While zero developer charges apply and the DSPs have not been reviewed or updated, our draft determination would allow utilities to levy the upgrade charges to new developments on a marginal cost basis. New developments and existing properties (who agreed to fund the upgrade) would contribute equally to the costs of infrastructure upgrades for firefighting, per ET.
  - Should the zero developer charges policy be reversed, a DSP would be remade to calculate a new developer charge, which would include the new development's share of the costs of existing assets, the costs of new assets to

service the new development, and the cost of providing water pressure and flow capacity for firefighting.

Box 5.1 Methodology for maximum prices to upgrade an existing service

The maximum price to upgrade the existing service, per equivalent tenement (ET), is calculated as follows:

$$\widetilde{DC} = \frac{K_5}{L_5} - \frac{NPV\left(C_i - \widetilde{C_i}\right)}{L_5} \; for\; i = years\; 1, \ldots, n$$

where

- K_5 – the present value of estimated efficient capital costs of the upgrade
- L_5 – the present value of the number of ETs in the service upgrade area within the DSP that will use the upgrade (including both new developments and existing properties that agreed to contribute to the cost of upgrade), calculated at discount rate $r_5 = r_3$.
- $\widetilde{C_i}$ – the estimated future operating, maintenance and administration costs expected to be spent on customers serviced by the service upgrade
- C_i – the estimated future operating, maintenance and administration costs of servicing these customers at the cost prevailing in the DSP area before the upgrade

For existing properties, only new assets and augmentation costs are to be included in the marginal capital charge K_5, because these ETs have already been contributing to the costs of existing assets through periodic prices of the service before its augmentation. The charge for existing properties is $\widetilde{DC}$.

For new developments, in the area where an upgrade has been made available, the charge is a standard developer charge (before the upgrade) **plus** a marginal capital charge; that is,

$$DC + \widetilde{DC},$$

where DC is calculated using the formula outlined in Chapter 2:

$$DC = \frac{K_1}{L_1} + \frac{K_2}{L_2} - \frac{NPV(R_i - C_i)}{L_3} \; for\; i = years\; 1, \ldots, n$$

When a DSP is remade to include the cost of the service upgrade, the relevant assets would then be included in K_2, and a price to connect a new service, *DC,* would include the cost of upgrade.

5.2.2 Annuity payment option for existing properties will facilitate take-up

Our draft decision is to:

33 Provide the annuity payment option for a voluntary upgrade of existing services to existing properties. This annuity is based on:

- The discount rate set to the utility's real pre-tax WACC referred to in the Final Report accompanying the prevailing periodic price determination.
- The annuity period of up to 20 years.

34 Calculate prices when the upgraded service becomes available. The CPI indexation factor applies to prices for connection at a later date (March-on-March quarter CPI, ABS all groups eight capital cities).

35 Not to apply any WACC adjustment once the charge is calculated.

Our draft decision is to apply the annuity payment option to upgrade a service by an existing property, to manage customer impacts and affordability. This draft decision is in line with our approach to providing funding options to existing property owners to pay for the connection of a new service. Provision of the annuity payment option to existing property owners has been supported by stakeholders (see Chapter 4).

As with the other capital charges, we consider the charges for this new service should be indexed using CPI. Our preferred approach is to use the ABS's March-on-March quarter, eight capital cities, All groups CPI, from the time the service is available.

Our draft decision not to include a WACC adjustment provision is consistent with the decision we made for the developer charges methodology (see Chapter 2).

5.3 We have minimised procedural burden for funding upgrades

Our draft decision is to:

36 Not to impose any procedural requirements for upgrading services for firefighting, subject to an ex-post review.

Our draft decision is not to impose any additional procedural requirements on the application of the methodology for calculating prices for service upgrades to existing properties, to facilitate firefighting. When DSPs are remade to include upgraded assets, these updated DSPs would be subject to our standard procedural requirements discussed in Chapter 3. While the zero developer charges policy applies, funding for infrastructure upgrades can still be provided, on a voluntary basis, by existing properties.

In our view, FRNSW and the relevant water utility are best placed to determine where pressure and flow are inadequate for firefighting and whether augmenting a water main would be more efficient than installing on-site solutions at individual properties. When the two agencies have determined the best action, the utility could use our methodology to calculate the charges for upgrading existing water infrastructure.

The charges would be voluntary - that is, existing properties cannot be forced to pay for the upgrade. New in-sequence developments, under the zero developer charges policy, cannot be forced to pay the developer charge. However, the developers might choose to pay for an upgrade voluntarily, to avoid more costly options to comply with the BCA.

To secure funding of an upgrade, the relevant water utility, local council, affected property owners, developers and FRNSW would have to coordinate their efforts. Given the voluntary nature of the proposed arrangements, negotiations with the existing property owners and developers are best managed by the utilities on a commercial basis, to avoid potential free-riding.

It is important for the utility to secure funding for an upgrade before commencing the upgrade. New developments making use of the upgrade would share in funding the upgrade through developer charges (if the zero developer charges policy is removed). Once

the upgrade is built, water flow and pressure will increase for all users along the upgraded main, including the existing properties that did not contribute to the costs of the upgrade.

We will review charges for service upgrades as part of the expenditure review at the next periodic price review.

6 Other charges - Sydney Water Developer Direct

During this review, we examined the services offered through Sydney Water Developer Direct™ (SWDD) to understand their nature and decide on IPART's pricing role in relation to them. Four stakeholders lodged submissions relating to SWDD and we discussed SWDD at the public hearing. We provide further details in this chapter.

6.1 SWDD provides application and construction services for customers

Sydney Water launched SWDD in July 2017. Developers of small to medium sized developments can use SWDD to obtain a Section 73 Compliance Certificate (**Section 73 certificate**) instead of engaging a **Water Servicing Coordinator** (**WSC**). Developers cannot independently apply for a Section 73 certificate, which confirms they comply with Sydney Water's requirements for providing adequate water, wastewater and stormwater services for a new subdivision or development.

6.2 Stakeholders raised concerns with the SWDD

We received a submission from a WSC, which queried the amount Sydney Water charges for SWDD:[207]

> The upfront charge of $495.03… and the hours allowed to complete this part of the process… is [a] totally inadequate estimate.

Stakeholders also commented on SWDD at the public hearing, noting that SWDD is not required to meet the same level and standards as WSCs and their concerns with the competitive neutrality of SWDD.[208] For example, stakeholders indicated:

- WSCs are required to provide drawings generated in AutoCAD, which requires an expensive software licence, but SWDD is not required to do so, and
- SWDD is not required to have the same inspection regime as WSCs.

At the public hearing, Sydney Water stated that it was diligent about making sure the regulated area of its business does not subsidise SWDD. It also said it abides by the same standards as WSCs.[209]

Since the public hearing, we have met with Sydney Water. At that meeting, Sydney Water reiterated that it developed SWDD to improve competition in the market and thus outcomes for its customers, who had complained about the fees charged by WSCs for small to medium developments. Sydney Water confirmed that its contractors performing SWDD services do not submit AutoCAD-generated drawings to Sydney Water. Sydney Water's view is this is

207 North Western Surveys' submission to IPART Issues Paper, 22 January 2018.
208 IPART, Developer Charges public hearing transcript, 6 March 2018, pp 59-60, 62-63.
209 IPART, Developer Charges public hearing transcript, 6 March 2018, pp 60-61.

not necessary, as it has contractual arrangements in place which ensure that the drawings it receives from its contractors are of the appropriate standard and quality.

Sydney Water stated that it randomly inspects all construction work (including SWDD work) to ensure the quality of that construction. But, because of the risk-mitigation inherent in its contractual arrangements, Sydney Water does not require certification from its contractors providing construction services as part of SWDD. Sydney Water indicated that:

> [T]here is no need for one staff member to provide evidence to another staff member that works completed are adequate for the Section 73 certificate to be issued. It is the same staff member who is responsible for the case throughout. So works are only 'certified' as being adequate at the final step when the Section 73 certificate is issued.[210]

6.2.1 We will examine Sydney Water's ring-fencing of SWDD at the next Sydney Water price review

We set charges for Sydney Water's regulated services based on the assumption that all costs and revenue associated with its unregulated services are ring-fenced from its regulated businesses. This approach ensures Sydney Water's regulated customers do not subsidise the costs of providing its unregulated services, which would enable it to under-cut other providers of the unregulated service. This ensures that customers of regulated services pay for only the efficient costs of these services.

In 2020, we will undertake the next pricing investigation for Sydney Water. As part of this price review, we will examine Sydney Water's ring-fencing of SWDD and other unregulated businesses. This will determine if Sydney Water is cross-subsidising its provision of SWDD services through the charges it levies for regulated services.

6.2.2 There is an established process to lodge a competitive neutrality complaint

Competitive neutrality is the principle that where government competes with private business, it should do so on an equal footing. In other words, government agencies should not enjoy any net competitive advantage simply as a result of their public sector ownership. Competitive advantages include non-price advantages. For example, non-price related advantages might include government business administrators having access to information used in performing statutory functions to which their private sector competitors do not have access. Other non-price advantages include the government business having less stringent procedural requirements compared with their private sector competitors, or the use of statutory resources to promote the commercial business.[211]

The procedure for competitive neutrality complaints is outlined in Box 6.1 below. The NSW Government assigned IPART partial responsibility for investigating and reporting on competitive neutrality complaints. More information can be found on our website.

210 Minutes from meeting with Sydney Water and IPART, 3 May 2018.

211 Victorian Competition and Efficiency Commission, *Final Report: Competitive neutrality complaint investigation of plumbing services provided by South East Water Limited,* December 2010, p 3.

Box 6.1 Procedure for competitive neutrality complaints

The NSW Government Policy Summary of the Competitive Neutrality Complaints Handling Mechanism states that:

- Prior to lodging a formal complaint, complainants should first discuss their concerns with the NSW Government business involved.
- Complainants are obliged to first lodge their complaint with the NSW Government business involved.
- Generally, NSW Government businesses should respond in writing within four weeks of receiving a complaint.
- If complainants are not satisfied with the response, they may request that the Premier refers their complaint to IPART for investigation.

Further information can be found on IPART's website.

Source: NSW Government, *Policy Summary of the Competitive Neutrality Complaints Handling Mechanism,* January 2002, pp 17-20.

6.3 We will defer regulation of construction services provided by SWDD

SWDD issues a fixed-price quote to developers for **construction services** if the Notice of Requirements includes construction. A developer may accept the quote or organise their own construction services.

Our draft decision is to:

37 Defer regulating SWDD's construction services until the 2020 Sydney Water price review.

Section 11(1) of the IPART Act requires us to determine maximum prices for government monopoly services supplied by Sydney Water and other specified government agencies. The *Independent Pricing and Regulatory Tribunal (Water, Sewerage and Drainage Services) Order 1997* (the Order) lists the services declared by the NSW Premier to be government monopoly services. Construction services offered under SWDD are government monopoly services under paragraph 3(e) of the Order, which declares "services supplied in connection with the provision or upgrading of water supply and sewerage facilities for new developments" to be "government monopoly services".

We do not agree with Sydney Water's submission that these services are ancillary services.[212] In effect, Sydney Water is stating that the services fall within paragraph 3(f) of the Order: "ancillary and miscellaneous customer services for which no alternative supply exists and which relate to the supply of services of a kind referred to in paragraphs (a)-(e) of this Order."

Submissions by Sydney Water[213], the Water Services Association of Australia (WSAA)[214] and Hunter Water[215] do not support IPART regulating the price of construction services provided by Sydney Water under SWDD, as they consider the market for these services to

212 Sydney Water's submission to IPART Issues Paper, December 2017, p 41.
213 Sydney Water's submission to IPART Issues Paper, December 2017, pp 45-46.
214 Water Services Association of Australia's submission to IPART Issues Paper, January 2018, p 9.
215 Hunter Water's submission to IPART Issues Paper, December 2017, p 43.

be competitive. If IPART were to regulate the price of these services, Sydney Water's view was that it should do so based on a pricing methodology rather than a maximum price because of the significant variation between jobs.[216]

We note that Sydney Water's website lists 27 WSCs and more than 150 contractors for minor works.[217] This suggests customers have a choice of suppliers for construction services offered through SWDD.

Our draft decision is to defer regulating construction services provided under SWDD to the 2020 Sydney Water price review, when we will set prices for its water and sewerage services. This will enable us to examine the costs of delivering construction services when we engage our expenditure consultants to review Sydney Water's costs.

216 Sydney Water's submission to IPART Issues Paper, December 2017, p 46.

217 Sydney Water, *Lists*, at https://www.sydneywater.com.au/SW/plumbing-building-developing/developing/providers/lists/index.htm, accessed on 7 June 2018.

Appendices

A Matters to be considered under section 15 of the IPART Act

In making determinations, IPART is required under section 15 of the IPART Act to have regard to the following matters (in addition to any other matters IPART considers relevant):

a) the cost of providing the services concerned

b) the protection of consumers from abuses of monopoly power in terms of prices, pricing policies and standard of services

c) the appropriate rate of return on public sector assets, including appropriate payment of dividends to the Government for the benefit of the people of New South Wales

d) the effect on general price inflation over the medium term

e) the need for greater efficiency in the supply of services so as to reduce costs for the benefit of consumers and taxpayers

f) the need to maintain ecologically sustainable development (within the meaning of section 6 of the *Protection of the Environment Administration Act 1991*) by appropriate pricing policies that take account of all the feasible options available to protect the environment

g) the impact on pricing policies of borrowing, capital and dividend requirements of the government agency concerned and, in particular, the impact of any need to renew or increase relevant assets

h) the impact on pricing policies of any arrangements that the government agency concerned has entered into for the exercise of its functions by some other person or body

i) the need to promote competition in the supply of the services concerned

j) considerations of demand management (including levels of demand) and least cost planning

k) the social impact of the determinations and recommendations

l) standards of quality, reliability and safety of the services concerned (whether those standards are specified by legislation, agreement or otherwise).

Table A.1 outlines the sections of the report that address each matter.

Table A.1 Consideration of section 15(1) matters by IPART

Matters under section 15(1)	Draft Report reference
a) the cost of providing the services	Chapter 2 sections 2.4, 2.5 Chapter 4 sections 4.2, 4.4
b) the protection of consumers from abuses of monopoly power	Chapter 2 sections 2.4, 2.9 Chapter 6
c) the appropriate rate of return and dividends	Chapter 2 section 2.6
d) the effect on general price inflation	Chapter 2 section 2.9
e) the need for greater efficiency in the supply of services	Chapter 2 sections 2.4, 2.9 Chapter 4 section 4.6 Chapter 5 section 5.1
f) ecologically sustainable development	Chapter 4 section 4.1
g) the impact on borrowing, capital and dividend requirements	Chapter 2 section 2.4
h) impact on pricing policies of any arrangements that the government agency concerned has entered into for the exercise of its functions by some other person or body	n/a
i) need to promote competition	Chapter 2 sections 2.4, 2.9 Chapter 4 section 4.6 Chapter 6
j) considerations of demand management and least cost planning	Chapter 2 section 2.4
k) the social impact	Chapter 2 section 2.9 Chapter 4 section 4.4
l) standards of quality, reliability and safety	Chapter 5

B Developer charges in the Central Coast Council

Wyong Shire Council

In 2014, the former Wyong Shire Council released an updated DSP. It was prepared using the methodology in our 2000 Determination and the parameters detailed in our 2013 Determination (for Central Coast Council). The updated DSP defined the former Wyong Shire Council Local Government Area (LGA) as a single DSP area for water and wastewater. Previously, the former Wyong Shire Council operated with 12 district DSPs. Within these DSPs, there were multiple precincts with their own DSP for water and wastewater charges.

Table B.1 Previous structure of DSPs within the former Wyong Shire Council's districts

Wyong Shire Council DSP district/area	Number of water DSPs within district	Number of wastewater DSPs within district
DSP 1 – Wyong	7	7
DSP 2 - Southern Lakes District	10	7
DSP 3 - The Entrance District	1	3
DSP 5 - The Ourimbah District	7	3
DSP 6 - The Toukley District	1	3
DSP 7A - Warnervale / Wadalba	1	2
DSP 7 - The Gorokan District	3	7
DSP 8 - The San Remo Area	3	3
DSP 9 - The Budgewoi Area	1	1
DSP 10 - The Lake Munmorah Area	4	2
DSP 11 - The Mannering Park Area	1	1
DSP 12 - The Gwandalan and Summerland Point Area	2	2

Note: In their 2014 DSP, the former Wyong Shire Council defined their LGA as a single DSP area for water and wastewater.
Source: Wyong Shire Council, *Development Servicing Plan - Water Supply and Sewerage*, April 2014, pp 1-4.

The former Wyong Shire Council and Gosford City Councils jointly owned and managed a water supply headworks scheme. This resulted in uniform water headworks charge pricing applicable to both former Council areas.[218]

Prior to Wyong Shire Council agglomerating its DSPs into a single plan in 2014, there were 12 separate DSPs covering 41 pricing areas for water, and 41 areas for wastewater. The average developer charge for water was $5,506, with charges ranging from $1,834 to $16,359.[219] The average wastewater developer charge was $2,742, with charges ranging from $867 to $7,093. The average combined water and wastewater developer charge was

218 Wyong Shire Council, *Development Servicing Plan – Water Supply and Sewerage*, April 2014, p 4.
219 Simple arithmetic average across 41 pricing areas. See IPART, *Review of developer charges and backlog sewerage charges for metropolitan water agencies* – Issues Paper, October 2017, p 49.

$8,248.[220] We note that there was a significant variation in the level of developer charges for both water and wastewater within the entire Wyong Shire Council area.

Following the adoption of the 2014 DSP, the combined water and wastewater developer charge for all developments within the former Wyong Shire Council became $8,978 ($3,747 for water and $5,231 for wastewater).[221] Any geographic variation of developer charges was removed.

Gosford City Council

In 2014, the former Gosford City Council released two DSPs, a redevelopment and city centre plan. Historically, there were a number of DSPs within the former Gosford City Council LGA. However, in 2012, the former Council made a decision to agglomerate 11 DSPs into a Redevelopment DSP and a City Centre DSP, from 2013-14 onwards.[222]

Table B.2 Actual developer charges for the Gosford City Council's DSPs

Combined water and wastewater charge	2013-14	2014-15
DSP	$/ET	$/ET
City Centre	6,825	6,790
Redevelopment	3,871	3,416

Note: All figures are in $2017-18.

Source: Gosford City Council, *Gosford City Centre - Development Servicing Plan - Water and Sewer*, April 2014, p 3; Gosford City Council, *Redevelopment - Development Servicing Plan - Water and Sewer*, April 2014, p 3.

220 IPART, Review of developer charges and backlog sewerage charges for metropolitan water agencies – Issues Paper, October 2017, p 50.
221 Wyong Shire Council, *Development Servicing Plan – Water Supply and Sewerage*, April 2014, p 1.
222 Gosford City Council, *Redevelopment – Development Servicing Plan – Water and Sewer,* April 2014, p 16.

C Sydney Water and Hunter Water's policy for funding growth

Sydney Water's policy for in-sequence development

Sydney Water will fund the infrastructure for development in line with Sydney Water's Growth Servicing Plan or in brownfield areas.

Sydney Water's policy for out-of-sequence development

If development is to occur outside Sydney Water's Growth Servicing Plan, the developer must enter into a commercial agreement with Sydney Water. The developer will then fund the construction and transfer the works to Sydney Water. Sydney Water provides a repayment system, which varies depending on how out of line the development is to the Growth Servicing Plan. If the development is not on the Growth Servicing Plan, not in a NSW Government program or has no planning status, there is no repayment of the costs of delivering the infrastructure.[223]

Hunter Water's policy

Hunter Water does not typically refer to development as being either 'in-sequence' or 'out-of-sequence'.[224] The *Funding and Delivery of Growth Infrastructure Manual* and *Funding and Delivery of Growth Infrastructure Standard* set out Hunter Water's approach to funding capital works that support urban growth in the Lower Hunter. Hunter Water released these documents in January 2018 following consultation on its previous policy on funding growth related infrastructure.

Hunter Water always requires the developer to fund and deliver the minimum reticulation assets within the development.[225] Its funding policies for connection assets depend on the timing of the development ie, whether the land is shown as a new development areas within Hunter Water's Growth Plan within the next five, ten years or beyond ten years. Connection assets are those assets that are outside the development and connect the development to Hunter Water's trunk infrastructure. [226]

Hunter Water will pay the cost of connection assets in a staged manner when development is within five to ten years according to the Growth Plan. When development is beyond ten years, Hunter Water will not pay the cost of connection assets, unless the developer is

223 Sydney Water, *Growth Servicing Plan for 2017 to 2022,* at https://www.sydneywater.com.au/web/groups/publicwebcontent/documents/document/zgrf/mdq2/~edisp/dd_046979.pdf, 2017, accessed on 5 June 2018, pp 7-8.

224 This is because previously, the NSW Government did not have a plan of priority development for the Lower Hunter area. There is now the *Hunter Regional Plan 2036*. Hunter Water correspondence to IPART, August 2016.

225 Hunter Water, *Funding and Delivery of Growth Infrastructure Standard*, January 2018, p 4.

226 Hunter Water, *Funding and Delivery of Growth Infrastructure Standard*, January 2018, p 3.

required to upsize these assets for future or adjoining developments. In these circumstances, Hunter Water will pay the marginal costs for upsizing the connection assets.[227]

Hunter Water takes a similar approach for reticulation assets. Where reticulation assets are increased to service adjoining or nearby development, Hunter Water will pay for the full cost of these larger assets when development is within five to ten years. When development is beyond ten years, Hunter Water will not pay the cost of reticulation assets, unless the developer is required to upsize these assets for future or adjoining developments. In these circumstances, Hunter Water will pay the marginal costs for upsizing the reticulation assets.[228]

227 Hunter Water, *Funding and Delivery of Growth Infrastructure Standard*, January 2018, p 7.
228 Hunter Water, *Funding and Delivery of Growth Infrastructure Standard*, January 2018, p 7.

D Developer charges for Local Water Authorities in NSW

The Department of Primary Industries' Water division (DPI Water) released an updated version of the Guidelines for calculating the maximum applicable developer charge applicable to local water utilities (LWUs). The approach is based on the NPV approach adopted by IPART for the metropolitan water utilities.

NPV is a standard tool for making investment decisions and is widely accepted and understood. The fundamental principle of the NPV approach is that the investment in assets for serving a development area is fully recovered from the development, through a combination of up-front charges (developer charges) and periodic charges.

The NPV approach allows future costs and revenues to be reconciled to a single value by discounting them to today's dollars. It also takes account of the upfront infrastructure costs related to a development, the ongoing costs of servicing the development and the additional revenues from periodic charges as the number of customers being serviced by a LWU increases.

The NPV methodology for LWUs has been simplified for ease of calculation and adoption. The result of this is that the Guidelines provide several options that LWUs may use when calculating their developer charges.

Box D.1 Brief overview of changes in the 2016 DPI Water Guidelines for LWUs

DPI Water has outlined the key changes since the 2002 Guidelines. They include:

- New provisions related to the registration, exhibition and review of DSP documents.
- New provisions related to dispute resolution.
- Modifications to the provision of assets to be included in the capital charge calculation:
  - Including existing assets less than 30 years old.
  - Including future assets that are required within 10 years of the DSP.
  - Including the future renewal cost of assets planned within 10 years if a renewal asset is older than 30 years and has been excluded from capital charge.
- Amendments included to value future assets on the basis of MEERA cost.
- Modifications to the capital charge calculation methods:
  - The Return on Investment (ROI) factor method was removed.
  - NPV spreadsheet method applies to all LWUs.
- A change to the calculation method for weighted average capital charge to calculate on the basis of percentage of Present Value of new ETs instead of percentage of growth.
- Modifications to the reduction amount calculation method.
- Modifications to the NPV of annual bills method.
- Provisions for capping developer charges.
- Provisions on disclosure of cross-subsidies.

Source: NSW Department of Primary Industries, *2016 Developer Charges Guidelines for Water Supply, Sewerage and Stormwater*, June 2016, pp ix-xiv,.http://www.water.nsw.gov.au/__data/assets/pdf_file/0011/663698/2016-Developer-Charges-Guidelines.pdf, accessed on 24 August 2017.

In reviewing and recommending improvements to the 2002 Guidelines, IPART identified a set of broad objectives that developer charges should aim to achieve. These include:

- Full cost recovery: developer charges should reflect the full efficient costs of providing water-related infrastructure to new developments.
- Effective price signalling: developer charges should send effective price signals about the costs of development in different locations.
- Appropriate risk sharing: developer charges should appropriately share the risks of development between LWUs and the developers.
- Equity: developer charges should equitably share the costs of development between developers, LWUs and existing ratepayers.
- Simplicity, transparency and consistency: developer charges should be set through a method that is simple for LWUs to administer, is transparent to all interested parties, and can be implemented consistently.[229]

229 IPART, *Review of Water Supply, Sewerage and Stormwater Developer Charges Guidelines – Final Report to the Minister,* September 2007, p 4.

Table D.1 Summary of 2016 Developer Charges Guidelines for Local Water Utilities

Parameters	2016 DPI Guidelines for LWUs	Does it align with IPART Draft Determination?
Discount rate for pre-1996 assets	3%	Yes – based on Draft Determination for Sydney Water and Hunter Water. The discount rate for Central Coast Council is 0%.
Discount rate for post-1996 assets	5%	No – applicable rate for utilities is the prevailing WACC as per the Draft Determination.
Assets to be included	There must be a nexus between the development and the assets serving the development. Can include dams, pumping stations, water treatment works, trunk mains and service reservoirs.	Yes – consistent with Draft Determination
Inclusion of headworks	Capital charge is calculated for water supply headworks serving the development	Yes – consistent with Draft Determination
Time window for existing assets	Assets less than 30 years old	No – pre-1970 assets are excluded
Time window for future assets	Assets planned within next 10 years	No – Draft Determination does not set a timeframe
Valuation of assets	MEERA	Yes – consistent with Draft Determination
Capital charge	NPV or ROI (for LWUs with under 2,000 properties for either water or sewerage) NPV: Capital Charge = PV of capital cost / PV of ETs	Yes – NPV approach is consistent with Draft Determination
Reduction amount	NPV of annual bills (similar to IPART method) or simplified NPV of annual bills (n= 30 in both cases)	Yes – NPV approach is consistent with Draft Determination
Reticulation	Exclude	N/A – Draft Determination does not make a provision for reticulation

Source: NSW Department of Primary Industries, *2016 Developer Charges Guidelines for Water Supply, Sewerage and Stormwater*, http://www.water.nsw.gov.au/__data/assets/pdf_file/0011/663698/2016-Developer-Charges-Guidelines.pdf, June 2016, accessed on 25 August 2017; IPART, *Sydney Water Corporation, Hunter Water Corporation, Gosford City Council, Wyong Shire Council Developer Charges from 1 October 2000, Determination No. 9, 2000*, September 2000.

E Developer charges in other Australian jurisdictions

This appendix provides a brief overview of developer charges in other Australian jurisdictions. All other Australian jurisdictions levy developer charges for new customers connecting to the existing water, sewerage and recycled water networks.

Victoria

The Essential Services Commission regulates the pricing of water services for consumers within Victoria. Water corporations levy developer charges when new customers connect to the existing water, sewerage and recycled water networks. These developer charges are called new customer contributions (NCCs).

Prior to 2012, the Essential Services Commission set uniform scheduled charges and prescriptive rules for NCCs. Between 2011 and 2012, the Essential Services Commission undertook a review of the NCCs framework in place at the time. This review responded to water corporations and developer concerns about the opaqueness of the regime. The Essential Services Commission developed a new, principles-based NCCs framework that came into effect on 1 July 2013.[230]

The new NCCs framework does not set prices and prescriptive rules. Rather, it provides a set of minimum pricing principles that water corporations must adhere to.[231] The pricing principles require developers to meet the incremental costs they impose on the water business when they connect to the water, sewerage or recycled water networks less the incremental revenues earned from the new customers. This approach ensures that NCCs are cost-reflective and the benefits of new connections are shared between new and existing customers.[232]

This framework clarifies each of the key participant's roles. The Essential Services Commission will assess and approve the pricing principles, any standardised charges and negotiation framework of each water corporation. Water corporations are required to negotiate NCCs with developers in accordance with the approved pricing principles and negotiating frameworks. Developers will have recourse to the Victorian Civil and Administrative Tribunal (VCAT) for dispute resolution.[233]

Australian Capital Territory

In the Australian Capital Territory, Icon Water provides water and sewerage services. In December 2017, the Independent Competition and Regulatory Commission (ICRC) published the Water and Sewerage Capital Contributions Code (the Code).[234] This came

230 Essential Services Commission, *Guidance paper – new customer contributions*, August 2012, p vi.
231 Essential Services Commission, *Guidance paper – new customer contributions*, August 2012, p vi.
232 Essential Services Commission, *Guidance paper – new customer contributions*, August 2012, p vii.
233 Essential Services Commission, *Guidance paper – new customer contributions*, August 2012, p vi.
234 Icon Water, *FAQs Water and Sewerage Capital Contributions (WSCC) Code*, December 2017, p 1.

into effect for all development approvals lodged after 1 January 2018 and changed the charges that developers pay for new water and sewerage infrastructure.[235]

Before this new Code was developed, there was inequity in the way costs were recovered when a development triggered a water or sewerage asset augmentation. If a developer triggered an upgrade to infrastructure, the developer was required to pay for the full cost of new water and sewerage infrastructure. This rule applied no matter the development size. Developers which built before or after an upgrade did not pay any contribution.[236]

The Water and Sewerage Capital Contributions Code governs what charges developers pay. Icon Water will fund 50% of water and sewerage infrastructure, with the remaining shared between all developers through the charge. Out of precinct shared assets do not fall under the Code and are fully funded by the developer.[237]

Developers will also need to fund the cost of reticulation or small assets, typically at a street level that relate to connections to houses that are part of a development.[238]

South Australia

In South Australia, SA Water provides water and wastewater services across South Australia. The Essential Services Commission of South Australia (ESCOSA) does not regulate developer charges or contributions. Rather, the developer contributions are subject to the relevant National Water Initiative Pricing Principles and additional ESCOSA pricing principles.[239]

SA Water sets developer contributions on a case by case basis, based on estimated efficient costs for the new investment, reduced to reflect the benefits other customers receive from the investment. The costs include the incremental costs of the new infrastructure (such as the cost of the materials and labour to undertake the work) and an allocation of fixed costs for the service. Revenue from developer contributions is offset against SA Water's drinking water and sewerage retail capital expenditure so there is no over-recovery of these costs.[240]

Queensland

In Queensland, water and sewerage connections are made through local water service providers, which differ according to geographic area.

The legislation that oversees developer charges is the *Planning Act 2016*, the *Planning Regulation 2017* and the *South-East Queensland Water (Distribution and Retail Restructuring) Act 2009*. Water service providers may require developers to pay relevant and reasonable

235 Icon Water, *Water and Sewerage Contributions Code*, at https://www.iconwater.com.au/developers-and-renovators/capital-contributions/capital-contributions-code-calculator.aspx, accessed on 26 April 2018.
236 Icon Water, *FAQs Water and Sewerage Capital Contributions (WSCC) Code*, December 2017, p 1.
237 Icon Water, *FAQs Water and Sewerage Capital Contributions (WSCC) Code*, December 2017, p 3.
238 Icon Water, *FAQs Water and Sewerage Capital Contributions (WSCC) Code*, December 2017, p 3.
239 SA Water, *Developer contributions 2017-18 pricing policy statement,* at https://www.sawater.com.au/__data/assets/pdf_file/0009/165258/2017-18-Developer-Contributions-Pricing-Policy-Statement.pdf, accessed on 26 April 2018.
240 SA Water, *Developer contributions 2017-18 pricing policy statement,* at https://www.sawater.com.au/__data/assets/pdf_file/0009/165258/2017-18-Developer-Contributions-Pricing-Policy-Statement.pdf, accessed on 26 April 2018, p 2.

charges towards the capital costs of infrastructure in order to meet the demand placed on trunk infrastructure networks by their development.[241] The maximum charges for trunk infrastructure are outlined in the legislative framework.

Water service providers are authorised to do either or both of the following for development approvals in relation to trunk infrastructure:

- adopt, by resolution, charges for development infrastructure and levy charges in accordance with the resolution, and
- impose particular conditions for relevant and reasonable development infrastructure.[242]

Water service providers are also authorised to impose particular conditions for non-trunk infrastructure within a development.[243]

Tasmania

TasWater provides water and sewerage services across Tasmania.[244] The Tasmanian Economic Regulator sets the prices for TasWater.[245]

Developer charges apply to all new developments. Developer charges are made up of three components – works internal to the development, works external to the development and headworks charges for existing capacity in a system consumed by the development. From 1 July 2015, the Tasmanian Government indicated that spare capacity in the system (ie, headworks) would be made available to developers at no charge. From 31 March 2016, this exemption no longer applies.[246]

Northern Territory

The Power and Water Corporation provides water and sewerage services across the Northern Territory. The Utilities Commission of the Northern Territory regulates the prices for water and sewerage services in the Northern Territory.[247]

Developers are required to contribute towards the costs of extending and upgrading water and sewerage networks in the Northern Territory. Capital contributions are levied by Power and Water through the Water and Sewerage System Extension Policy (WASSEP).

241 Sunshine Coast Council, *Infrastructure charges for development fact sheet*, at https://www.sunshinecoast.qld.gov.au/Development/Fees-and-Infrastructure-Charges, accessed on 2 May 2018.

242 Queensland Department of Infrastructure, Local Government and Planning, *A snapshot of the Planning Act 2016*, July 2016, at https://www.dilgp.qld.gov.au/resources/planning/better-planning/snapshot-of-planning-act-2016.pdf, accessed on 3 May 2018, p 11.

243 Queensland Department of Infrastructure, Local Government and Planning, *A snapshot of the Planning Act 2016*, July 2016, at https://www.dilgp.qld.gov.au/resources/planning/better-planning/snapshot-of-planning-act-2016.pdf, accessed on 3 May 2018, p 11.

244 TasWater, *Who is TasWater?*, at https://www.taswater.com.au/About-Us/Who-is-TasWater-, accessed on 26 April 2018.

245 Office of the Tasmanian Economic Regulator, at http://www.economicregulator.tas.gov.au/water, accessed on 26 April 2018.

246 TasWater, *2015-18 Price and Service Plan*, at https://www.taswater.com.au/Your-Account/Price---Service-Plan, accessed on 26 April 2018, pp 86-87.

247 Utilities Commission, *Pricing,* at http://www.utilicom.nt.gov.au/WaterAndSewerage/Pages/Pricing.aspx, accessed on 26 April 2018.

Power and Water is consulting on a new framework for developer charges to update the WASSEP. This is because the charges set through the WASSEP only recover about half of the true cost of developer capital works. The remainder is subsidised by the general community via water and sewerage service tariffs.[248] The WASSEP was also designed for "greenfield" development and does not reflect the current nature of development in the Northern Territory, especially around issues inherent with infill development.

The new proposed capital contribution supplement aims to better reflect capital works costs associated with developers involved in development activity and provide a simplified, transparent framework to minimise the impact on other network users.[249]

248 PowerWater, *Water and Sewerage Network Capital Contributions,* at https://www.powerwater.com.au/networks_and_infrastructure/water_services/water_and_sewerage_network_capital_contributions_supplement, accessed on 26 April 2018.

249 PowerWater, *Water and Sewerage Network Capital Contributions,* at https://www.powerwater.com.au/networks_and_infrastructure/water_services/water_and_sewerage_network_capital_contributions_supplement, accessed on 26 April 2018.

F Treasurer's letter under section 18(2) setting zero developer charges

NEW SOUTH WALES

TREASURER

Mr Kevin Young
Managing Director
Hunter Water Corporation
36 Honeysuckle Drive
NEWCASTLE NSW 2300

Contact: M White
Telephone: (02) 9228 4266

18 DEC 2008

Dear Mr Young

I am writing in regard to the Government's decision to abolish immediately Sydney Water and Hunter Water's developer charges for water, wastewater and stormwater services.

This decision results in developer charges lower than would be charged under the current methodology determined by the Independent Pricing and Regulatory Tribunal. Such an outcome requires the Treasurer's approval under Section 18(2) of the *Independent Pricing and Regulatory Tribunal Act 1992*.

Consistent with the Government's developer charge policy, I approve zero developer charges for water, wastewater and storm water services under Section 18(2) of the *Independent Pricing and Regulatory Tribunal Act 1992*.

I note that developer charges will continue to be used to recover the cost of recycled water services to new developments. In addition, Sydney Water will retain the ability to recover from developers the cost of servicing development that is not consistent with planning policies or NSW's development program.

Yours sincerely

THE HON DAVID CAMPBELL MP
Acting Treasurer

G Glossary

1995 Determination	IPART, *Sydney Water Corporation Prices of Developer Charges for Water, Sewerage and Drainage Services*, Determination No. 9, December 1995
1997 Determination	IPART, *Pricing of Backlog Sewerage Services for Sydney Water Corporation, Gosford City Council, Hunter Water Corporation, Wyong Shire Council*, Determination No. 4.1, July 1997
2000 Determination	IPART, *Sydney Water Corporation, Hunter Water Corporation, Gosford City Council, Wyong Shire Council – Developer Charges from 1 October 2000*, Determination No. 9, September 2000
2000 methodology	Methodology for developer charges under the 2000 Determination
2006 Determination	IPART, *Pricing of Backlog Sewerage Services for Gosford City Council – Determination*, Determination No. 1, February 2006
2008 Government direction	In 2008, the NSW Government set water, sewerage and stormwater developer charges for Sydney Water and Hunter Water to zero, under section 18(2) of the IPART Act
2013 Determination	IPART, *Gosford City Council and Wyong Shire Council – Developer charges – Determination*, Determination No. 1, May 2013
ABS	Australian Bureau of Statistics
AFOC	Assets free of charge
Backlog sewerage service	The provision of an environmentally acceptable wastewater management service in urban and semi-urban areas by a water utility where that service is not currently provided
BASIX	Building and Sustainability Index

BCA	Building Code of Australia
BOO	Build Own Operate
BOOT	Build Own Operate Transfer
BSCC	Backlog Sewerage Capital Contribution Charge
Building block approach	IPART's standard methodology to establish notional revenue requirement
CAM	Cost Allocation Methodology
CSO	Community Service Obligation
DORC	Depreciated Optimised Replacement Cost
DPI Water	Department of Primary Industries Water responsible for the management of NSW's surface water and groundwater resources
DRC	Depreciated Replacement Cost
DSP	Development Servicing Plan
EIC	Environmental Improvement Charge
EPA	The NSW Environment Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1979* (NSW)
Equivalent tenement	The measure of the demand a new development will place on the water and wastewater infrastructure compared to an average residential dwelling
ET	Equivalent tenement
FRNSW	Fire & Rescue NSW
GPT	Government Pricing Tribunal
HIA	Housing Industry of Australia
Hunter Water	Hunter Water Corporation
In-sequence development	Development that occurs during the NSW Government's planned release of land and the water utilities DSP

IPART	Independent Pricing and Regulatory Tribunal of NSW
IPART Act	*Independent Pricing and Regulatory Tribunal Act 1992* (NSW)
Issues Paper	IPART, *Review of developer charges and backlog sewerage charges for metropolitan water agencies* – Issues Paper, October 2017
IWCM	Integrated Water Cycle Management
LGA	Local Government Area
LRMC	Long Run Marginal Cost
LWUs	Local Water Utilities
MEERA	Modern Engineering Equivalent Replacement Asset
MSE	Minor service extension
NCC	National Construction Code
NCCs	New customer contributions
Notional revenue requirement	Revenue requirement set by IPART that represents the efficient costs of providing a water utility's declared monopoly services
NPV	Net present value
ORC	Optimised Replacement Cost
The Order	The *Independent Pricing and Regulatory Tribunal (Water, Sewerage and Drainage Services) Order 1997*
Out-of-sequence development	Development that occurs ahead of the NSW Government's planned release of land and the water utilities DSP
PIAC	Public Interest Advocacy Centre
Post-1996 assets	Assets which were commissioned on or after 1 January 1996 or which are yet to be commissioned
Pre-1996 assets	Assets which were commissioned prior to 1 January 1996

PSP	Priority Sewerage Program
PV	Present Value
RAB	Regulatory Asset Base
ROI	Return on Investment
SCA	Former Sydney Catchment Authority (now part of WaterNSW)
SDP	Sydney Desalination Plant
State Water	State Water Corporation (now part of WaterNSW)
SWDD	Sydney Water Developer Direct™
Sydney Water	Sydney Water Corporation
UDIA	The Urban Development Institute of Australia
WACC	Weighted Average Cost of Capital
WaterNSW	WaterNSW is the organisation responsible for managing raw water supply across NSW by bringing together the Sydney Catchment Authority (SCA) and State Water Corporation (State Water) (at 1 January 2015)
WICA	*Water Industry Competition Act 2006* (NSW)
WSAA	Water Services Association of Australia
WSC	Water Servicing Coordinator