

Independent Pricing and Regulatory Tribunal
New South Wales

Review of developer charges and backlog sewerage charges for metropolitan water agencies

**Sydney Water Corporation
Hunter Water Corporation
Central Coast Council**

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Invitation for submissions

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

Agencies' submissions are due by 11 December 2017. All other stakeholder submissions are due by 22 January 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

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Late submissions may not be accepted at the discretion of the Tribunal. Our normal practice is to make submissions publicly available on our website <www.ipart.nsw.gov.au> as soon as possible after the closing date for submissions. If you wish to view copies of submissions but do not have access to the website, you can make alternative arrangements by telephoning one of the staff members listed on the previous page.

We may choose not to publish a submission—for example, if it contains confidential or commercially sensitive information. If your submission contains information that you do not wish to be publicly disclosed, please indicate this clearly at the time of making the submission. IPART will then make every effort to protect that information, but it could be disclosed under the *Government Information (Public Access) Act 2009* (NSW) or the *Independent Pricing and Regulatory Tribunal Act 1992* (NSW), or where otherwise required by law.

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 (formerly Gosford City and Wyong Shire Councils).

IPART’s most recent determination of Sydney Water and Hunter Water’s developer charges was issued in September 2000. IPART last determined Gosford City Council and Wyong Shire Council’s developer charges in 2013. These determinations can be found on IPART’s website: www.ipart.nsw.gov.au.

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. They can ensure existing customers do not face higher costs as a result of new development, signal the different costs of providing services to different locations, and enhance the potential for competition in the provision of water and sewerage services to new developments.

1.1 The current status of developer charges

The current developer charges determinations prescribe a Net Present Value (NPV) methodology that water agencies 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.

A high level summary of this methodology, along with the current procedural requirements associated with it, is presented in Box 1.1. The methodology and procedural requirements 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 up-front charge that reflects the additional costs of servicing that development area. The developer charge was designed to recover the total difference between the average operating cost (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 and Wyong), the basic formula for calculating the maximum developer charge for a new development area can be presented as:

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

Inputs on 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** to calculate NPV, 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 (DSP area, demographic information, capital works, standard of service, 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**.

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 because:

- ▼ A consistent and transparent approach to setting developer charges was needed to ensure efficiency and certainty for developers.

- ▼ To determine prices for each development area would require considerable time and resources for both the water agencies and IPART. This could delay development and impose significant regulatory costs.
- ▼ Prescribing a methodology enables water utilities to establish new DSPs as they are required.

1.1.1 Some developer charges were set to zero in 2008

In 2008, the then 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 IPART Act (see Appendix F). This applies to development that falls within the water utilities' brownfield areas under existing Development Servicing Plans (DSPs), and greenfield areas under the Growth Servicing Plan,¹ also 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 and been recovered through their respective periodic (retail) prices to all customers.

For development that occurs ahead of the 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 will establish a payment regime to the developer as lots are developed. The timing and scale of payments made to the developer varies, 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 development outside the existing DSPs or approved capital program. The funding of out-of-sequence development by Sydney Water and Hunter Water is discussed in more detail in Appendix C.

1.1.2 Update to the Central Coast's developer charges in 2013

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 IPART's 2013 determination.

In 2013, we updated our determination of developer charges for Gosford and Wyong Councils (now the Central Coast Council), to change some of the parameters used in calculating developer charges. These changes included:

- ▼ Changing the discount rate for post-1996 assets from 7% (real) to be equal to the Council's pre-tax weighted average cost of capital (WACC) referred to in the Final Report accompanying the prevailing periodic price determination.²
- ▼ Changing the discount rate for the expected net revenues and costs from 7% (real) to be equal to the Council's pre-tax weighted average cost of capital (WACC) referred to in the Final Report accompanying the prevailing periodic price determination.³

¹ Sydney Water, *Growth Servicing Plan for 2014 to 2019*, July 2014.

² IPART, *Gosford City Council and Wyong Shire Council – Review of calculation parameters for developer charges, Final Report*, May 2013, p 3.

- ▼ Changing the consumption per annum for an average residential customer from the hard-coded values⁴ to be equal to the respective former councils' average customer consumption referred to in the Final Report accompanying the prevailing periodic price determination.⁵
- ▼ Removing the 85% cap on the former Wyong Council's developer charges.⁶

At a minimum, through this review we consider there is a case to update Sydney Water and Hunter Water's 2000 Determination of developer charges in a similar way, to ensure key values are up to date and (where relevant) consistent with the approach in the Central Coast.

1.1.3 Recycled water developer charges

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

In 2006, we made a determination of Sydney Water, Hunter Water and the Central Coast's recycled water developer charges.⁷ It is based on a methodology similar to the methodology for water, sewerage and stormwater services, but also allows for the recognition of avoided water and sewerage costs associated with recycled water schemes and was accompanied by Guidelines⁸ on the regulation of recycled water prices.

This determination is still current, as it was not affected by the Government's 2008 decision on other developer charges. However, developer charges for recycled water are outside the scope for this review. We will review these charges when we review our 2006 Guidelines on the regulation of recycled water prices, which we expect to do in 2018-19, after the Government's recently announced review into the barriers to cost-effective recycled water initiatives.⁹

1.2 What will this review include?

This review of **developer charges for water, sewerage and stormwater services** will provide us with an opportunity to:

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

⁴ Under the 2000 Determination, average water consumption values were 207 kilolitres and 205 kilolitres for Gosford Council and Wyong Council respectively.

⁵ IPART, *Gosford City Council and Wyong Shire Council – Review of calculation parameters for developer charges, Final Report*, May 2013, p 3.

⁶ IPART, *Gosford City Council and Wyong Shire Council – Review of calculation parameters for developer charges, Final Report*, May 2013, p 3.

⁷ 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.

⁸ 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.

⁹ The Hon Don Harwin MLC, Minister for Resources, Minister for Energy and Utilities, *Independent Review to save Water and Money*, Media Release, Friday 30 June 2017.

- ▼ Review and, where necessary, update the current ‘active’ developer charges determinations, being those that are being applied and not subject to the above-mentioned 2008 Government direction (ie, the Central Coast Council’s developer charges).
- ▼ Update all other developer charges determinations (including those that are currently ‘inactive’ and not being applied) to reflect our decisions on any required changes to these determinations. This will mean these determinations are up to date and (where relevant) consistent with the Central Coast determinations, in the event the Government decides to change the 2008 direction.

The review will also update our determinations of **backlog sewerage** capital contributions. These backlog sewerage charges recover some of the capital costs associated with constructing reticulated sewerage systems in previously unsewered areas.

We are also reviewing a number of capital charges that relate to or use similar methodologies to developer charges, including:

- ▼ Hunter Water’s potential **major service connection charge**: in the 2015-16 review of Hunter Water’s retail prices, Hunter Water proposed this charge, which we said we would consider in this 2017-18 review of developer charges.
 - This potential new charge would be for Hunter Water connecting existing, typically non-residential customers (who have previously had an onsite sewerage system) to its sewerage network.
- ▼ Sydney Water’s **minor service extension charges**, which is for a service provided by Sydney Water to extend the sewerage system or the water supply network to individual properties that are not connected.
- ▼ Sydney Water’s **new ‘Developer Direct’ charge**, which includes a quote for construction work related to connecting the property to the water and sewerage network.

Where appropriate, this review will provide an opportunity to consolidate and ensure consistency between the above-mentioned charges.

We will seek to ensure that, where appropriate, our methodologies for developer charges, backlog sewerage and related charges are based on consistent parameters, discount factors and CPI inflators.

1.3 Other developer charges

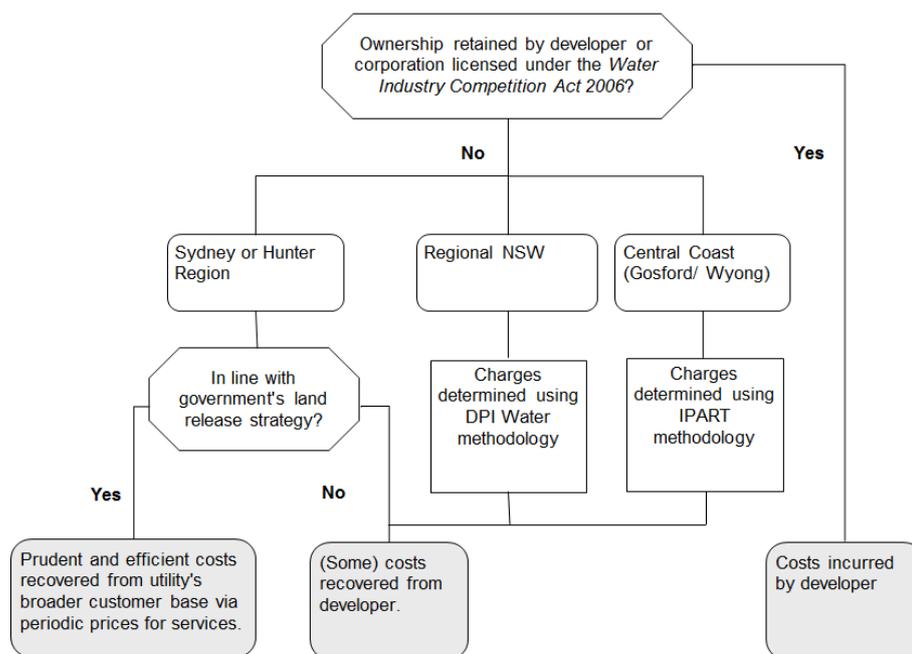
For context, we note that in addition to Sydney Water, Hunter Water and the Central Coast Council, NSW local water utilities (LWUs) also levy water and sewerage developer charges. However, these are outside the regulatory remit of IPART. Rather, the NSW Department of Primary Industries (DPI Water) has issued developer charges guidelines that apply to LWUs.¹⁰ These guidelines are based on the NPV approach outlined in our 2000 and 2013

¹⁰ 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.

Determinations, but provide a more flexible methodology suitable for use by LWUs (who may have access to more limited data).¹¹ See Appendix E for detail.

Figure 1.1 provides an overview of the water developer charges regime in NSW.

Figure 1.1 Funding of water and wastewater infrastructure for new development



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

1.4 How will we undertake this review?

We are conducting this review under section 11 of the *NSW Independent Pricing and Regulatory Tribunal Act 1992* (the IPART Act). We will review 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 agency-specific concerns. In particular, section 15 of the Act (see Appendix A) requires IPART to consider matters related to:

- ▼ consumer protection – protecting consumers from abuses of monopoly power; standards of quality, reliability and safety of the services concerned; social impact of decisions
- ▼ economic efficiency – greater efficiency in the supply of services; the need to promote competition

¹¹ IPART, *Review of Water Supply, Sewerage and Stormwater Developer Charges Guidelines – Final Report to the Minister*, September 2007, pp 1-2.

- ▼ financial viability – rate of return on public sector assets including dividend requirements; impact on pricing of borrowing, capital and dividend requirements of agencies, and
- ▼ environmental protection – promotion of ecologically sustainable development via appropriate pricing policies; consideration of demand management and least-cost planning.

In addition, IPART is to have regard to any other matters it considers relevant.

1.5 How can stakeholders provide input to this review?

We invite all stakeholders and interested parties to make written submissions to this review of developer charges (water, wastewater and stormwater services) and other related charges for metropolitan water utilities.

Submissions from Sydney Water, Hunter Water and the Central Coast Council on our Issues Paper are due by 11 December 2017, as we consider the consultation process will benefit if other stakeholders have the opportunity to comment on those submissions. All other stakeholder submissions are due by 22 January 2018. Details on how to make a submission can be found on page iii.

We will also hold a public hearing on 6 March 2018, to give stakeholders another opportunity to provide input to this review.

We will then release a Draft Report and Draft Determination in June 2018 and will invite further comments from stakeholders on these documents. We will consider all these comments before making our Final Determinations and publishing the Final Report in September 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
Release Issues Paper	24 October 2017
Utilities' submissions due on the Issues Paper	11 December 2017
Receive public submissions on Issues Paper and utilities' submissions	22 January 2018
Public hearing	6 March 2018
Release Draft Determinations and Draft Report	June 2018
Receive submissions to Draft Determinations and Draft Report	July 2018
Release Determinations and Final Report	September 2018

Note: These dates are indicative only.

1.6 Structure of this Issues Paper

This Issues Paper explains the process we will follow to conduct the review, the approach we will use to make our pricing methodology, and the key issues we will consider in making these decisions.

It also sets out our preliminary views on key issues related to the review, where we have them at this stage.

The Issues Paper is structured as follows:

- ▼ Chapter 2 outlines the developer charges methodology, and raises key issues or questions associated with this methodology
- ▼ Chapter 3 discusses the current procedural provisions in the developer charges determinations, and considers issues or questions associated with these provisions
- ▼ Chapter 4 considers backlog sewerage charges
- ▼ Chapter 5 looks at other, similar charges to developer and backlog charges, including Sydney Water’s minor service extension charge and Hunter Water’s proposed major service connection charge.

All dollar figures quoted in this Issues Paper are in \$2017-18, unless stated otherwise.

Each of the chapters above outlines the questions on which we particularly seek stakeholder comment. For convenience, these questions are also listed below. Stakeholders are also welcome to provide input on any other issues they consider relevant to our review.

1.7 List of issues for stakeholder comment

Current methodology and parameters [1-2]

- | | | |
|---|---|----|
| 1 | Does the current methodology remain fit for purpose in setting developer charges? | 15 |
| 2 | Should we update the parameters for the Sydney Water and Hunter Water developer charges methodology in line with the changes made in 2013 for Gosford and Wyong Councils (now the Central Coast Council)? | 15 |

Capital costs included in developer charges [3-9]

- | | | |
|---|---|----|
| 3 | Does inclusion of existing assets in the capital charge component of developer charges continue to be appropriate? If not, why and how should it be modified? | 17 |
| 4 | Would it be appropriate 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? | 17 |
| 5 | Would it be appropriate to limit the period of inclusion of future assets? If so, what is the appropriate period (eg 5 or 10 years)? | 17 |
| 6 | Is it appropriate to include the capital costs of headworks infrastructure assets in the calculation of developer charges if these assets are not owned by the utility? | 19 |
| 7 | How should the cost of assets that serve more than one DSP area be apportioned between DSP areas? | 19 |
| 8 | What information is considered necessary, but not currently provided by water utilities, to ensure that assets are apportioned correctly between DSP areas? | 19 |

-
- 9 Does MEERA continue to be appropriate to value existing assets, for the purpose of the developer charge determination? If not, how should existing assets be valued? 22

The ‘reduction amount’ [10]

- 10 The ‘reduction amount’ component of the developer charge formula takes into account postage-stamp revenues and location-specific operating costs for a period of 30 years. Does this approach continue to be appropriate? If not, how should it be modified? 22

Discount rates [11]

- 11 What discount rates should apply in the developer charges methodology? Is it still appropriate to distinguish between pre and post 1996 assets? 24

Equivalent tenements (ETs) and consumption forecasts [12-13]

- 12 Does our measure of ET continue to be appropriate for determining developer charges? If not, how could it be improved? 25
- 13 In line with the Central Coast Council determination, is it appropriate to update the annual consumption for an average residential customer of Sydney Water and Hunter Water, with average consumption values established in the water utility’s prevailing price determinations? 25

Implications of wholesale customers and WICA licensees [14]

- 14 What are the implications (if any) of wholesale customers and WICA licensees for the public water utilities’ developer charges methodology and determination? That is, do wholesale arrangements or the activities of WICA licensees mean the methodology and/or determination should be amended? If so, how and why? 26

Stormwater contributions [15-16]

- 15 In funding stormwater infrastructure for new development, how has each of the former Central Coast Councils (ie, Gosford and Wyong) distinguished between developer charges and development contributions under section 94 of the EP&A Act? 28
- 16 Is the distinction between stormwater services that Central Coast Council funds through developer charges and those funded via contributions under section 94 of the EP&A Act clear to developers and customers? If not, what should be done to improve the transparency of charges? 28

Determining DSP areas [17-18]

- 17 What principles or criteria should guide the determination of DSP areas? Are the developer charges in the consolidated DSPs for the Central Coast Councils cost-reflective? 32

- 18 What role, if any, should IPART play in determining or reviewing DSP areas (eg, should IPART be required to approve DSP areas)? 32

Price indexation factor [19]

- 19 Should the March-on-March CPI adjustment factor, as used in our retail price determinations, be applied to index developer charges over time? Or should a different indexation factor be applied in some instances, eg for the Central Coast Council? 34

Procedural requirements [20]

- 20 Do the current procedural requirements, including DSP content requirements and IPART's role in reviewing and registering DSPs, remain appropriate? 34

Backlog sewerage charges methodology and application [21-23]

- 21 What backlog sewerage charges are currently being levied by water utilities, and in what areas? Will they be required in future? 38
- 22 Do our current methodologies for backlog sewerage charges continue to be appropriate? If not, what is an appropriate methodology for determining backlog sewerage charges? 38
- 23 Should backlog customers continue to have the option of an upfront payment or annual charges? If so, is it appropriate to use the WACC established in the water utility's prevailing retail price review as the discount rate to calculate the annuity charges? 38

Other related capital charges [24]

- 24 Are there any other capital contribution charges that IPART should consider incorporating into this consolidated review of developer (and other capital contribution) charges? 39

Hunter Water's Major Service Connection Charge [25]

- 25 Is a major service connection charge warranted and, if so, how should this be determined? 40

Sydney Water's Minor Service Extension Charge [26-27]

- 26 Should the methodology for the minor service extension charge be set in Sydney Water's periodic price review or should it be set under this developer charges review? 40
- 27 Should we maintain the current methodology for determining the minor service extension charge, or make amendments to this methodology? Should this be applied by other water utilities (Hunter Water and the Central Coast Council)? 40

Sydney Water's Developer Direct [28]

- 28 If we were to regulate the price of construction services provided by Sydney Water under Developer Direct, how should these prices be determined? 41

2 Methodology to set developer charges

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

This chapter provides an overview of the current developer charges methodology, and raises key issues or questions associated with the methodology and its elements. We discuss and seek views on:

- ▼ the capital costs to be included in the methodology, including what assets to include and how to apportion capital costs to each development area
- ▼ other elements of the methodology, including the forecast period for the assessment of revenues and operating costs (to calculate the reduction amount), discount rates and projected Equivalent Tenements (ETs).¹²

We discuss the procedural steps that accompany the methodology in Chapter 3.

2.1 Developer charges are calculated using the NPV methodology

This section provides an overview of the current methodology for developer charges.

It identifies high level issues arising since our 2000 Determination. The subsequent sections explore components and parameters of the methodology in greater detail.

2.1.1 Our 2013 Determination updated key parameters for the Councils

The methodology in our 2000 Determination 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 existing methodology for calculating developer charges. The methodology calculates the developer charge per lot or ET (equivalent tenement) 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**
- ▼ divided by the PV of the number of equivalent tenements in the development area.

¹² 'Equivalent tenement' is the measure of the demand the new development will place on the water and wastewater infrastructure compared to an average residential dwelling.

Box 2.1 Current methodology for developer charges (2000)

The Developer Charge per Equivalent Tenement is calculated as follows:

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

Where:

DC – Developer Charges per Equivalent Tenement

K₁ – the Capital Charge for the Pre-1996 Assets which will serve the DSP Area calculated on an NPV basis discounted at rate r_1 from 1 January 1996

K₂ – the Capital Charge for the Post-1996 Assets which will serve the DSP Area calculated on an NPV basis discounted at rate r_2

L₁, L₂, L₃ – 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)

r₁ – the Discount Rate to be used in the calculation of the Net Present Value of Pre-1996 assets

r₂ – the Discount Rate to be used in the calculation of the Net Present Value of Post-1996 assets

r₃ – 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 Determination. It is the forecast period for the assessment of expected revenues and costs.

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

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 equivalent tenements (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 that enters the calculation of the reduction amount, and
- ▼ a forecast horizon for expected new revenues and costs.¹³

The 2000 Determination applies until it is replaced by a new determination. With time, some parameters of the determination require updating. This affected the Central Coast Councils, which continued to levy developer charges using our methodology. In 2013, we made a new determination to replace parts of the 2000 Determination for the Central Coast,

¹³ The 2000 Determination, Schedule 5.

which set new parameter values for both Wyong Council and Gosford Council (now the Central Coast Council).¹⁴ 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 Council's pre-tax 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
- ▼ keep the forecast horizon for expected new revenues and costs unchanged at 30 years.¹⁵

The benefits of the changes we made in the 2013 Determination for the Councils is that key parameters remain 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 for the weighted average of eight capital cities, as published by the Australian Bureau of Statistics (ABS).

2.1.2 Parameters for Sydney Water and Hunter Water should also be updated

As discussed in Chapter 1, in 2008 the Government directed Sydney Water and Hunter Water to set developer charges for 'in-sequence' development to zero.¹⁶ Developer charges can still be levied for development that occurs ahead of the Government's planned release of land, also known as 'out-of-sequence' development. In practice, developers fund the required infrastructure of 'out-of-sequence' development and transfer it to the water utility. The funding of out-of-sequence development by Sydney Water and Hunter Water is discussed in more detail in Appendix C.

At a minimum, we propose 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. Sydney Water and Hunter Water have not levied water, sewerage or stormwater developer charges since 2008, but such changes would ensure their developer charges methodologies remain up to date, consistent with their prevailing retail price determinations and consistent with the Central Coast Council's developer charges methodologies - which would be important if developer charges in Sydney and the Hunter are reinstated.

As part of this review, we will review the methodology and its parameters to ensure the methodology remains fit for purpose, and the parameters remain current for all utilities (ie, where relevant, the methodology refers to values in the prevailing price determinations). The following sections of this chapter consider key elements of the methodology in more

¹⁴ IPART, *Gosford City Council and Wyong Shire Council Developer Charges, Determination No. 1, 2013*, May 2013.

¹⁵ IPART, *Gosford City Council and Wyong Shire Council Developer Charges, Determination No. 1, 2013*, May 2013.

¹⁶ This applies to water, sewerage and stormwater developer charges.

detail, discuss the status quo, identify potential issues and raise questions for stakeholder comment.

IPART seeks comments on the following

- 1 Does the current methodology remain fit for purpose in setting developer charges?
- 2 Should we update the parameters for the Sydney Water and Hunter Water developer charges methodology in line with the changes made in 2013 for Gosford and Wyong Councils (now the Central Coast Council)?

2.2 Developer charges include the capital cost component

This section considers what capital costs to include in developer charges. This requires determining:

- ▼ which assets to include in capital costs
- ▼ how to apportion shared assets, and
- ▼ the value of assets included in capital costs.

In general, we consider the current approach to capital costs in the developer charges determinations is reasonable. It has been applied by the NSW Local Water Utilities, levying developer charges under DPI Water's guidelines.¹⁷ Similar principles have also been adopted by other States in Australia.¹⁸

2.2.1 Which assets to include in capital costs?

Under our 2000 and 2013 Determinations of developer charges, the main criterion for inclusion of an asset in the DSP is a nexus (ie, close connection) between the development and the need for the assets. All assets or parts of assets that service the 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 (see section on apportionment of assets)
- ▼ 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 prior to 1 January 1970
- ▼ assets funded by developers and transferred free of charge to the utility

¹⁷ 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.

¹⁸ 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.

- ▼ assets or parts of assets without a nexus to the development that they are intended to serve.¹⁹

Incremental or marginal costs?

By allowing capital costs of pre-commissioned (existing) assets into the capital charge, our methodology relies on an **incremental cost** approach. The costs of existing assets are thus shared between existing and new customers to the degree that the new customers use the existing assets.

Developer charges are intended to recover the efficient costs of infrastructure needed to service a new development area and signal the costs of development in different areas. It could be argued that this might be better achieved using a '**marginal**' cost (ie, forward-looking) approach to capital costs, which would shift the weight from existing to new assets.

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, rather than sharing the costs of existing assets that were commissioned much in advance of this development, and have become sunk costs. A marginal cost approach would lead to lower developer charges where there is excess infrastructure capacity, which would promote efficient investment.

However, in practice, it may be difficult to determine whether infrastructure capacity is 'excess' or provided to allow for growth and new development. Capital expenditure is 'lumpy' by nature, and it may be prudent and efficient for water utilities to include some excess capacity to cater for future growth when constructing assets, in a growing market. This means that for many developments, the water utility may have created capacity in existing assets to service that development or growth in general. The incremental cost approach, which includes a new development's share of both existing and new assets, equitably shares costs between different developments, and between existing customers and new customers.

A further consideration is that a marginal cost approach could put new entrants at a competitive disadvantage relative to Sydney Water or Hunter Water, if the new entrant was required to invest in new water and/or wastewater infrastructure. This could come at the expense of dynamic efficiency gains associated with new entry and competition for the provision of water and wastewater services.

Our preliminary position is to maintain the incremental cost approach, which includes both existing and new assets in the capital charge.

However, we seek stakeholder views on whether the current methodology strikes an adequate balance between historical and forward-looking assets in establishing the capital costs to service new development.

¹⁹ 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.

IPART seeks comments on the following

- 3 Does inclusion of existing assets in the capital charge component of developer charges continue to be appropriate? If not, why and how should it be modified?

Period for inclusion of assets

In our 2000 and 2013 Determinations, we excluded pre-1970 assets from the capital charge. We maintained that some assets, such as very old dams, continue to contribute service capacity long after their construction costs have or should have been recovered, and as such should not be included in the developer charge calculations.²⁰ However, we clarified that the cost of amplifying a pre-1970 asset can be included (but not the whole asset).²¹

Our 2000 decision resulted at that time in inclusion of:

- ▼ up to 30 years of past capital costs (evaluated using an approach discussed later in this section)
- ▼ future capital costs for an unspecified period, and
- ▼ 30 years of net operating position, which constitutes the reduction amount.

The current approach to the inclusion of assets in a DSP is weighted towards existing assets (that is, assets that have already been commissioned before the adoption of a DSP). If a DSP were to be reviewed in 2018 under the current 2000 Determination for Sydney Water and Hunter Water, or the 2013 Determination for the Central Coast Council, it would consider inclusion of up to 48 years of commissioned assets, and perhaps five years of future assets where forecasts are reasonably robust. We consider that limiting the period of inclusion of existing assets to 30 years prior to the time of the DSP adoption and review would achieve a better balance between existing and new assets.

While the 2000 and 2013 Determinations did not have a future cut-off date for new assets, in practice the period of inclusion of future assets is usually five years, or up to 10 years where there is a reasonable degree of certainty that the capital expenditure will be undertaken. We note that five-yearly reviews of DSPs align with the inclusion of five year projections of capital expenditure (see Chapter 3 on procedural requirements for details). We seek stakeholder comment on whether we should specify the period of inclusion of future assets.

IPART seeks comments on the following

- 4 Would it be appropriate 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?
- 5 Would it be appropriate to limit the period of inclusion of future assets? If so, what is the appropriate period (eg 5 or 10 years)?

²⁰ Government Pricing Tribunal, *Sydney Water Corporation Prices of Developer Charges for Water, Sewerage and Drainage Services, Report No 9*, December 1995, p 7.

²¹ 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.

Treatment of headworks capital costs

The 2000 and 2013 Determinations include the cost of headwork infrastructure attributable to the new development area in the calculation of developer charges. The term ‘headworks’ means significant assets at the end of water, sewerage and drainage systems that provide services to two or more DSP areas.²² 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.

Sydney Water, unlike some other metropolitan water utilities, does not own all headwork infrastructure. Major dams and associated infrastructure assets in the Greater Sydney area are owned by WaterNSW (which includes the former Sydney Catchment Authority). Sydney Water produced a separate DSP covering developer charges for headworks infrastructure.²³ Sydney Water’s other major works (such as water and sewerage pumping stations, service reservoirs, large water mains and sewer carriers), reticulation and lead-in works are covered under separate system or development-specific DSPs.

In making the 2000 Determination, we decided that all headworks should be included in the DSP, regardless of whether they are owned by the agency. We considered that exclusion of the Sydney Catchment Authority’s²⁴ assets from Sydney Water’s charges would distort Sydney Water’s charges in relation to other agencies. Hunter Water and the Central Coast Councils included the costs of headworks in calculating their developer charges.²⁵

WaterNSW (Greater Sydney) levies prices on Sydney Water to recover the costs of its bulk water services (headworks) to Sydney. Before developer charges were set to zero, Sydney Water recovered its WaterNSW costs through a combination of developer charges and periodic prices.

Our practice has been to reduce the water utility’s RAB, used to calculate periodic prices, by the level of developer charges revenue that it receives (see Box 2.2). Therefore, if Sydney Water were to levy developer charges for headwork 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.

In NPV terms, Sydney Water should be indifferent as to 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).²⁶

The assets of the Sydney Desalination Plant (SDP) could potentially be treated the same as WaterNSW’s headworks assets serving Greater Sydney. However, SDP’s assets are different

²² 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, section 13.1 Definitions.

²³ Sydney Water, *Development Servicing Plan – Developer Charges for Headworks Infrastructure*, 2001, p 7.

²⁴ Former Sydney Catchment Authority is now part of WaterNSW.

²⁵ 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.

²⁶ In this discussion, we ignore the effects on timing of cash flows, tax allowances and the accounting positions of these utilities.

from WaterNSW's headwork assets. SDP's primary role is drought response,²⁷ whereas WaterNSW operates at all times and caters for future growth. Given SDP's role in responding to drought rather than being a permanent water supply source, we consider its costs should be recovered from all customers through periodic prices and not included in developer charges.

We note that the DPI Water methodology for developer charges, as well as its report on benchmarking local water utilities' performance, includes capital costs for headwork infrastructure in determining the developer charge (see Appendix E).

IPART seeks comments on the following

- 6 Is it appropriate to include the capital costs of headworks infrastructure assets in the calculation of developer charges if these assets are not owned by the utility?

2.2.2 Apportionment of shared assets

Assets or parts of assets must be apportioned so that only the costs attributable to a particular development area are recovered from developer charges. 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 development
- ▼ an asset services more than one DSP area.

We raised issues related to apportionment of existing assets between current and future users when we discussed inclusion of existing assets (above).

The 2000 Determination stipulates that 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.

In submissions to the developer charges review suspended in 2008, developers raised concerns about the transparency of the apportionment of assets between DSP areas by water utilities.²⁸

IPART seeks comments on the following

- 7 How should the cost of assets that serve more than one DSP area be apportioned between DSP areas?
- 8 What information is considered necessary, but not currently provided by water utilities, to ensure that assets are apportioned correctly between DSP areas?

²⁷ SDP's drought response role is reflected in the Network Operator's Licence it holds under the Water Industry Competition Act 2006 (WIC Act) and in the Metropolitan Water Plan. SDP is to operate in drought response when the total dam storage level is below 60% (previously 70%) and continue to do so until the total dam storage level reaches 70% (previously 80%). NSW Government, *2017 Metropolitan Water Plan*, March 2017, pp 28-29; and NSW Government, *2010 Metropolitan Water Plan*, August 2010, p 36.

²⁸ Urban Development Institute of Australia (UDIA) NSW, Submission to IPART Issues Paper *Review of Developer Charges Methodology for Metropolitan Water Utilities*, February 2008, p 18.

2.2.3 Valuation of assets

The 2000 Determination requires assets already commissioned (both pre- and post-1996) to be valued on a Modern Engineering Equivalent Replacement Asset (MEERA) basis. Future assets are valued on an estimated efficient costs basis.²⁹

If existing assets are revalued periodically at their MEERA values for the purpose of calculating developer charges, then the return to agencies may be different to the return from the value of their original investment inflated to current day's dollars. As a MEERA valuation is likely to exceed an asset's book value, periodic revaluations of assets to reflect contemporary MEERA values could significantly increase developer charges. This can occur at a five-year review of a DSP (see Chapter 3 on procedural requirements).

As a result, when the amount received via developer charges is taken off 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 2.2 for an outline of the relationship between developer charges and periodic charges). Effectively, this would be a transfer of **costs** from existing customers to developers, and ultimately to purchasers of properties being developed. Developers would have funded in full a share of the MEERA value of an asset, when they may have received a depreciated asset, which will need to be serviced/replaced in future, funded by the entire customer base through periodic prices.

²⁹ By definition, the efficient cost for new assets is their MEERA value. MEERA is defined as the value of the asset calculated on the basis that the asset is constructed at the time of valuation in accordance with modern engineering practice and the most economically viable technology, which provides a similar utility to the existing asset in service.

Box 2.2 What is the relationship between developer charges and periodic charges?

Full cost recovery is one of our key pricing principles

- ▼ The total efficient cost of providing 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 charges 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 charges 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. 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 future period (assuming that the average operating costs do not change).

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. 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 charges to calculate the operating surplus and, in turn, periodic charges require a value for developer charges to calculate the developer charges revenue to deduct from the RAB.

Source: IPART analysis.

For an existing asset, the capital charge component of a developer charge can be thought of as the sale of the relevant share of the asset (servicing the new development area) from existing customers to developers.

We are currently consulting on our approach to treating asset disposals (including asset sales), introduced in our 2016 review of Sydney Water's periodic prices.³⁰ This approach reflects our view that when an asset is sold its identifiable **regulatory value** should be removed from the RAB. This is the value of the asset as it entered the RAB (if known), adjusted for the effect of depreciation and indexation.³¹

Under our asset disposals policy, when the value of a 'significant' asset³² as it entered the RAB is not known (ie, for assets purchased before the establishment in 2000 of the 'line-in-the-sand' value of the RAB), we will estimate its regulatory value based on:

³⁰ IPART, *Asset disposals policy consultation – Information Paper*, September 2017.

³¹ IPART, *Review of prices for Sydney Water Corporation from 1 July 2016 to 30 June 2020 - Final Report*, pp 117, 283-287.

³² The sale is significant where receipts from sale from the asset or class of assets accounts for more than 0.5% of the opening value of the RAB in the year in which the asset is sold. IPART, *Review of prices for Sydney Water Corporation from 1 July 2016 to 30 June 2020 - Final Report*, Appendix H, p 284.

- ▼ the ratio of the RAB to the depreciated replacement cost (DRC) at the time the RAB was established, multiplied by
- ▼ the sale value of the asset.

The 2000 Determination of developer charges sets an existing asset's value at its MEERA value, rather than its 'regulatory value'. Applying the regulatory value of the asset (if it could be identified) rather than its MEERA capital valuation would, in most instances, result in lower developer charges. However, a decision would need to be made on how to establish the regulatory value of pre-2000 assets when there is no sale value of the asset.

We note that local water utilities apply a MEERA valuation to existing assets under DPI Water's Guidelines for developer charges (see Appendix E).

IPART seeks comment on the following:

- 9 Does MEERA continue to be appropriate to value existing assets, for the purpose of the developer charge determination? If not, how should existing assets be valued?

2.3 Developer charge is reduced by revenue net of operating cost

The second component of the developer charges formula is the 'reduction amount,' which equals the net operating position of servicing the new development. The net operating position is the difference between postage-stamp retail price revenue and location-specific operating costs over a 30 year period, resulting from servicing the new development.

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 cost, the higher the resulting developer charge.

We note that operating costs in a new development area could be higher or lower than system-wide average costs. In the past, when DSPs were reviewed on a regular basis before the policy of zero developer charges in Sydney and Hunter applied, there was an increase in operating costs in a number of DSPs between reviews.³³ The higher developer charges would reflect differences in either capital or operating costs, or both. This would be in line with the objective of developer charges to be cost reflective and to ensure that each new development area only pays for its own costs.

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

IPART seeks comment on the following:

- 10 The 'reduction amount' component of the developer charge formula takes into account postage-stamp revenues and location-specific operating costs for a period of 30 years. Does this approach continue to be appropriate? If not, how should it be modified?

³³ UDIA, *A Review of SWC's Draft 2006 Developer Charges (submission)*, October 2006, p 5.

2.4 Discount rates

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

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

- ▼ the discount rate for pre-1996 assets was set at 3% for Sydney Water and Hunter Water
- ▼ the discount rate for pre-1996 assets was set at 0% for the former Gosford and Wyong Councils
- ▼ the discount rate for post-1996 assets for all utilities was 7%
- ▼ the discount rate to calculate the present value of the expected net revenues and costs was 7%.

The levels were chosen because:

- ▼ At the time, IPART decided that the utilities did not expect a full commercial return from developer charges prior to the introduction of IPART's methodology in 1996.³⁴
- ▼ 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 Wyong Council and Gosford Council (now the Central Coast Council).³⁵

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 Council's pre-tax WACC referred to in the Final Report accompanying the prevailing periodic price determinations³⁶
- ▼ update the real discount rate for the expected net revenues and costs from 7% to the Council's pre-tax weighted average cost of capital (WACC) referred to in the Final Report accompanying the prevailing periodic price determinations.³⁷

For this review, at a minimum, we propose the same changes to the 2000 Determination for Sydney Water and Hunter Water as we made in the 2013 Determination of developer charges for the Councils. That is, rather than hard-code discount rates, we would refer to a pre-tax WACC in the Final Report accompanying the utilities' prevailing periodic price determinations. We consider the weighted average cost of capital is an appropriate discount rate.

³⁴ 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.

³⁵ IPART, *Gosford City Council and Wyong Shire Council Developer Charges, Determination No. 1, 2013*, May 2013.

³⁶ IPART, *Gosford City Council and Wyong Shire Council Developer Charges, Determination No. 1, 2013*, May 2013.

³⁷ IPART, *Gosford City Council and Wyong Shire Council Developer Charges, Determination No. 1, 2013*, May 2013.

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 a real pre-tax WACC established in the water utility's prevailing price review, to discount real pre-tax cash flows (capital costs and net operating position) and ETs.

We also consider it appropriate 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 at 3% real.

IPART seeks comment on the following:

- 11 What discount rates should apply in the developer charges methodology? Is it still appropriate to distinguish between pre and post 1996 assets?

2.5 Developer charge is calculated for an Equivalent Tenement (ET)

Our 2000 and 2013 Determinations use the concept of equivalent tenement (ET), 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.³⁸ This was replaced in the 2013 Determination for the Central Coast Councils by the consumption of an average residential customer referred to in the Final Report accompanying the prevailing periodic price determination.³⁹

We consider that establishing a developer charge on a per ET basis has worked reasonably well. The benefits of any changes would need to be assessed against their costs. Issues to consider in relation to ETs are whether:

- ▼ **Average consumption** is the most appropriate measure of demand, as opposed to maximum (peak) or some other measure of consumption.⁴⁰ Average daily consumption can be readily established from the annual data reported by water utilities. Other measures of demand, including peak (maximum) consumption, would require daily data, which may not be readily available.
- ▼ The **number of future ETs** can be accurately established from the planning and demographic data.⁴¹ If the occupancy rate of dwellings is changing over time, the growth rate for dwellings could deviate from the population growth rate. However, any adjustments would be based on assumptions that would require justification.

³⁸ Under the 2000 Determination, 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, respectively.

³⁹ IPART, *Gosford City Council and Wyong Shire Council Developer Charges, Determination No. 1, 2013*, May 2013.

⁴⁰ Water, wastewater and stormwater assets are built according to a variety of demand requirements, such as instantaneous, peak day, average day and peak dry weather flow. Some DSPs refer to peak (maximum) demand in calculating ETs, eg Sydney Water, *Development Servicing Plan – Sutherland Water System*, 2001, p 31.

⁴¹ Under our 2000 and 2013 determinations, the water utilities must estimate the number of future ETs having regard to the latest demographics data published by the NSW Department of Urban Affairs and Planning (now the Department of Planning and Environment).

- ▼ The **multipliers** applied by water utilities to an ET by type of property/customer could be applied in a more consistent way. Currently, each water utility makes its own decision on the level of its multipliers, to reflect the demand on infrastructure created by a particular customer type.⁴²
- ▼ The **consumption forecasts** used in the methodology to calculate the 'reduction amount',⁴³ should be based on the average consumption established at the prevailing periodic price review. The change was implemented in the 2013 Determinations for the Central Coast.⁴⁴ We consider we should maintain this approach and apply it to Sydney Water and Hunter Water's developer charges determinations.

IPART seeks comment on the following:

- 12 Does our measure of ET continue to be appropriate for determining developer charges? If not, how could it be improved?
- 13 In line with the Central Coast Council determination, is it appropriate to update the annual consumption for an average residential customer of Sydney Water and Hunter Water, with average consumption values established in the water utility's prevailing price determinations?

2.6 Other issues for the review of methodology

In this section we consider two other potential issues relating to the developer charges methodology:

- ▼ Are there any implications of wholesale customers or other WICA licensees for our determination of the public water utilities' developer charges?
- ▼ Should developer charges for stormwater be treated differently from water and sewerage services?

2.6.1 Implications of wholesale customers or other WICA licensees?

This review is of developer charges levied by Sydney Water, Hunter Water and the Central Coast Councils.

However, since the *Water Industry Competition Act* (WICA) 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.

⁴² For example, in one of the DSPs, a residential dwelling with a density of 61-80 dwellings per Pure Net Hectare has an average day demand equivalent of 0.81 ET and a maximum day demand equivalent of 0.44 ET; and commercial development (suburban) has an average day demand equivalent of 36 ET per Pure Net Hectare, and a maximum day demand equivalent of 18 ET (Sydney Water, *Development Servicing Plan – Sutherland Water System*, 2001, p 31). These multipliers might differ across utilities and across DSPs.

⁴³ The 'reduction amount' is the revenue raised from the new customers, based on the system-average demand and postage stamp prices, minus the operating costs of servicing these customers.

⁴⁴ IPART, *Gosford City Council and Wyong Shire Council Developer Charges, Determination No. 1, 2013*, May 2013.

We have recently completed our first review of Sydney Water's and Hunter Water's wholesale prices.⁴⁵ 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.⁴⁶
- ▼ 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 price 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 plan.

If developer charges were set at a cost-reflective level, and levied on a wholesale customer by the wholesale service provider, facilitation costs would reflect the additional cost needed to supply the wholesale customer, over and above those recovered through developer charges.

IPART seeks comment on the following:

- 14 What are the implications (if any) of wholesale customers and WICA licensees for the public water utilities' developer charges methodology and determination? That is, do wholesale arrangements or the activities of WICA licensees mean the methodology and/or determination should be amended? If so, how and why?

⁴⁵ IPART, *Prices for wholesale water and sewerage services - Sydney Water Corporation and Hunter Water Corporation*, Final Report, June 2017.

⁴⁶ 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.

2.6.2 Application to stormwater

Our 2000 Determination of developer charges is made for public metropolitan water utilities - Sydney Water, Hunter Water, and the Central Coast Council (formerly Gosford and Wyong). Stormwater services are declared monopoly services for these public utilities.

Only some of Sydney Water's residential and non-residential water and wastewater customers are within its stormwater area (and are therefore also its stormwater customers).⁴⁷ Currently, Sydney Water's stormwater customers are levied a stormwater charge based on their property area size. Local councils, rather than Sydney Water, are the main provider of stormwater services in the Sydney Area. According to Sydney Water, this area covers 30 Local Government Areas, and generally includes the central business district and inner west of Sydney. It provides stormwater drainage services to around 548,000 residential and non-residential properties, which we estimate to represent around 28.6% of the 1.9 million properties that it supplies water services to.⁴⁸

Similarly, only some of Hunter Water's residential and non-residential water and sewerage customers are within its stormwater area (and are therefore also its stormwater customers). According to Hunter Water, it provides stormwater drainage services to about one quarter of its water customers.⁴⁹ Local councils, rather than Hunter Water, are the main provider of stormwater services in Hunter Water's area of operations.

The Central Coast Council has two distinct roles in relation to providing stormwater infrastructure, as it is a water supply authority as well as a local government council.

- ▼ As a **water supply authority** under section 306 of the *Water Management Act 2000*, it may impose a charge on developers for providing stormwater infrastructure to extend the network and headworks ('developer charge'). The same charging power is conferred on local councils, including the Central Coast Council, under section 64 of the *Local Government Act 1993*.
 - Our 2013 Determination sets the methodology for the Central Coast Council to calculate these developer charges.
- ▼ As a **local council**, when it approves new development, the council as consent authority can impose a levy under section 94 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) ('section 94 development contribution'). Section 94 contributions:
 - cover the cost of infrastructure needed to meet the extra demand arising from any new residential or commercial/industrial development
 - are calculated according to the relevant contributions plan, which sets out the transport, stormwater management and open space infrastructure that will be needed to meet the demand created by new residents and workers in the area.

⁴⁷ IPART, *Review of prices for Sydney Water Corporation from 1 July 2016 to 30 June 2020 - Final Report*, June 2016, p 180.

⁴⁸ IPART, *Review of prices for Sydney Water Corporation from 1 July 2016 to 30 June 2020 - Final Report*, June 2016, p 180.

⁴⁹ IPART, *Review of prices for Hunter Water Corporation from 1 July 2016 to 30 June 2020 - Final Report*, June 2016, p 123.

Since 2010, development contributions have been subject to a cap, but a recent Government decision will gradually remove the hard cap.⁵⁰ In the Central Coast Council (the former Gosford and Wyong LGAs), the cap on development contributions was \$20,000.⁵¹ Central Coast Council can now collect the full cost of local infrastructure (if costs are above \$20,000), including for stormwater management, once IPART has assessed whether the infrastructure and costs in the contributions plan are reasonable.

Section 94 development contributions are different from developer charges, but the distinction may not always be clear to developers and customers. IPART is interested in whether developers and/or customers recognise the distinction between stormwater developer charges that can be calculated by the Central Coast Council using our 2013 Determination of developer charges and section 94 development contributions which recover the costs of stormwater infrastructure to new development areas.

IPART seeks comment on the following:

- 15 In funding stormwater infrastructure for new development, how has each of the former Central Coast Councils (ie, Gosford and Wyong) distinguished between developer charges and development contributions under section 94 of the EP&A Act?
- 16 Is the distinction between stormwater services that Central Coast Council funds through developer charges and those funded via contributions under section 94 of the EP&A Act clear to developers and customers? If not, what should be done to improve the transparency of charges?

⁵⁰ In July 2017, the Government announced changes to the local contributions framework from 1 January 2018. The government has set threshold amounts matching the caps of \$20,000 or \$30,000 that currently apply (with transitional arrangements in force until 30 June 2020 which gradually increase the \$30,000 threshold to \$45,000 for some specified plans). Under the new system, councils will be able to charge the full contribution amount as a condition of development consent (ie, an amount above the threshold) after IPART has assessed that the plan contains only the reasonable cost of essential infrastructure. See NSW Planning & Environment, *Planning circular – Planning system: Changes to section 94 local infrastructure contributions, Circular PS17-002*, issued 27 July 2017.

⁵¹ No cap applied to remaining new development in The Entrance District and the Warnervale District Release Areas. See *Environmental Planning and Assessment (Local Infrastructure Contributions) Direction 2012*, p 6, and Central Coast Council, *Development Contributions*, <https://www.wyong.nsw.gov.au/building-and-development/development-contributions-section-94#anchor1>, accessed on 18 October 2017.

3 Procedural requirements to set developer charges

Our 2000 Determination includes procedural provisions that accompany the developer charges methodology. These procedural provisions continue to apply to the Central Coast Council, following the 2013 Determination of the Central Coast's developer charges, as the 2013 Determination only replaced elements of the 2000 Determination (mainly related to parameters in the NPV model, as discussed earlier in this Paper).

This chapter discusses the current procedural provisions in the developer charges determinations, and considers issues or questions associated with these provisions.

Water utilities are required to prepare and exhibit a Development Servicing Plan (DSP) that outlines how the developer charges for a particular area have been calculated in accord with the developer charges methodology, including the input values to this calculation.

These procedural provisions are aimed at ensuring there is sufficient transparency and scrutiny around the calculation of developer charges.

3.1 Current procedural provisions

Below we outline the current procedural provisions of the developer charges determinations, which relate to:

- ▼ the format and content of DSPs
- ▼ advertising, public consultation, registration and periodic review of DSPs.

We also discuss the current dispute resolution process.

3.1.1 Water utilities should ensure DSPs contain all required information

Under our 2000 Determination, agencies must prepare and adopt DSPs for each service area. The Determination specifies the format and content of DSPs. The DSP provisions in the Determination are aimed at enhancing the 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 Determination specifies that DSPs should include the following information:

- ▼ Land use planning information.
- ▼ 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 design parameters of assets.

- ▼ Estimates of future lots, dwelling, and equivalent tenements (ETs), including demographic assumptions.
- ▼ Timing of works and expenditures related to anticipated development and demographic assumptions.
- ▼ Detailed asset information, including total asset capacity in ETs (if applicable).
- ▼ The calculated developer charge per ET, and the basis on which it is calculated.
- ▼ Comparison of the calculated developer charge with the existing charge.
- ▼ A reference to other DSPs where there is overlap or co-usage of assets, including the number of ETs served by assets shared by several DSPs.

3.1.2 Water utilities should advertise and publicly consult on DSPs

To comply with our 2000 Determination of developer charges, agencies must advertise and exhibit a DSP for each service area. The water utility is required to:

- ▼ Exhibit a draft DSP for at least 30 working days before adoption.
- ▼ 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), any relevant developers and landowners of the start date of an exhibition period at least 10 working days before that start date.
- ▼ Forward the DSP to IPART for registration, informing us of any submissions lodged during the exhibition period and its responses to the submissions. We will then register the DSP.

3.1.3 Water utilities should review DSPs every 5 years

The 2000 Determination requires utilities to review their DSPs once, and only once, every five years or as required by IPART. After review, water utilities must publicly exhibit their draft DSPs for 30 working days before adoption of the charges.

Developers are able to view and, if necessary, forward any complaints about the charges to the utility during the 30 working day exhibition period. The utility must assess any complaint but if this process does not resolve the complaint then the developer can have the matter arbitrated before an independent arbitrator (see below).⁵²

3.1.4 IPART's role under the current Determination

Under the 2000 Determination, IPART reviews the calculation spreadsheet that a water utility uses to calculate developer charges.⁵³

⁵² Under section 31 of IPART Act.

⁵³ 2000 Determination, Schedule 2, clause C.

Once the utility has adopted the DSP, it must forward the DSP to IPART for registration. We keep the register of DSPs for metropolitan water utilities we regulate.⁵⁴

At the time of forwarding the DSP, the utility must inform IPART of any submissions lodged during the exhibition period and the utility's responses to the submissions.⁵⁵

We also supply water utilities with the Consumer Price Index multiplier they must use to inflate their developer charges each year. Developer charges are kept constant in real terms between DSP reviews.

3.1.5 Current dispute resolution process

Under the IPART Act, there is a process for resolving disputes regarding the application of the developer charges methodology.

Under section 31 of the IPART Act, a customer (developer in this case) 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 of the utility must review any complaint (or cause it to be reviewed). If the developer 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,⁵⁶ and the costs of arbitration are borne equally by the utility and the customer.

3.2 Issues arising from the current approach

We will review the above procedural provisions accompanying the developer charges methodology. We consider that, to date, the combination of the methodology and procedural provisions has fared well in balancing transparency, scrutiny and administrative burden on water utilities and their customers (developers).

Nevertheless, we seek comment on the current procedural provisions, particularly any views on how to enhance them. We therefore raise some potential issues and questions below.

3.2.1 The scale and number of DSPs: aggregation or disaggregation?

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.

Table 3.1 below outlines the number of DSPs by water utility (noting that Gosford and Wyong Councils have now merged to form the Central Coast Council). Gosford and Wyong

⁵⁴ IPART, *Water Registers – Government Utility licensing development servicing plans*, <https://www.ipart.nsw.gov.au/Home/Industries/Water/Legislation-registers>, accessed on 30 August 2017.

⁵⁵ 2000 Determination, Schedule 3, clause D.

⁵⁶ If the parties cannot agree on the appointment of the arbitrator, one party can apply to the Supreme Court to appoint an arbitrator.

Councils updated their DSPs in 2014, following our 2013 Determination. The former Wyong Council consolidated its 12 DSPs into a single DSP area for water and wastewater. The former Gosford Council consolidated its 11 DSPs into two DSPs (see Appendix D for detail on the Central Coast Council’s former and current DSPs and developer charges). We seek stakeholder comment on whether this consolidation is justified in that there are no discernible cost drivers to differentiate costs specific to locations within the consolidated DSP area(s).

In this context, we note that the policy of zero developer charges for Sydney Water and Hunter Water has resulted in a backlog of DSPs that have not been reviewed since 2007. If developer charges were to be reintroduced, without consolidation of DSPs, Sydney Water would need to revise 75 DSPs (Hunter Water, 77 DSPs). New DSPs would need to be prepared and adopted for the new development areas that have emerged since 2006. This would be a major task for the utilities involved.

Relative to the number of DSPs listed in Table 3.1, there may be instances where further disaggregation or aggregation is justified. For example, DSP areas sharing access to the same facilities may be candidates for consolidation – eg consolidation of DSPs within the same sewer network areas.

We do not currently prescribe how DSP areas should be determined. However, we now seek comment on whether we should introduce requirements or further guidance around the determination of DSP areas.

Table 3.1 Water utilities’ Development Servicing Plans registered with IPART

Agency	Registered Development Servicing Plans				Total	Date registered
	Water	Wastewater	Stormwater			
Sydney Water	42	32	1		75	2007
Hunter Water	18	59	0		77	2006
Gosford					2 ^a	-
Wyong					1	2014
Total					155	

^a DSPs to take effect from 1 July 2014, listed on Gosford City Council’s website, *Water and Sewer Development Requirements*, <http://www.gosford.nsw.gov.au/building-and-development/da-requirements/water-and-sewer-development-requirements>, accessed on 30 August 2017.

Note: Excludes recycled water.

Source: IPART, *Water Registers – Government Utility licensing development servicing plans*, <https://www.ipart.nsw.gov.au/Home/Industries/Water/Legislation-registers>, accessed on 30 August 2017. Note that Gosford Council has not registered its revised DSPs with IPART. IPART DSP Register lists 11 DSPs for Gosford (registered in 2006).

IPART seeks comment on the following

- 17 What principles or criteria should guide the determination of DSP areas? Are the developer charges in the consolidated DSPs for the Central Coast Councils cost-reflective?
- 18 What role, if any, should IPART play in determining or reviewing DSP areas (eg, should IPART be required to approve DSP areas)?

3.2.2 How should developer charges be indexed?

Our 2000 Determination uses 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) (see Appendix B).

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

As discussed in Chapter 4, our 1997 Determination of backlog sewerage charges uses the Sydney CPI as its inflation adjustment factor.

We consider that the CPI adjustment factor should be made consistent across our determinations of prices and charges for metropolitan water agencies.

Therefore, our preliminary view is that the CPI adjustment factor in the developer charges determinations (and backlog and related charges determinations – see Chapter 4) should be our standard March-on-March index.

Our recent technical paper on the discount rate for local council's development contributions recommended escalating the unit rate for section 94 development contributions annually at the same rate as the council's discount rate.⁵⁷ This approach was designed to minimise the council's risk that its financial holding costs would be increased where developers delayed their developments. Our recommended (nominal) rate was the council benchmark cost of debt, which is higher than CPI but lower than the (nominal) WACC.⁵⁸

Central Coast Council has dual roles as a local government and also as a supplier of water, wastewater and drainage (stormwater) services under the *Local Government Act 1993*. Its water, wastewater and stormwater services are ring-fenced from other council activities. Prudent and efficient capital costs of the Council's delivering its government monopoly services are included in the Council's RAB and thus in its retail prices. A commercial rate of return (ie, WACC) is earned on the water utility's RAB. For the Central Coast Council's water business, we propose to escalate developer charges using the CPI. Unlike the case with developer contributions under section 94 of the EP&A Act, the Central Coast Council does not face under-recovery risks for its water infrastructure financial holding costs because prudent and efficient capital costs are added to the RAB and recovered through periodic prices (developer charge revenue is then deducted from the RAB, as it is received – see discussion in Chapter 2). For this reason, for developer charges we consider it is not necessary to adopt the escalation approach used for section 94 development contributions.

⁵⁷ IPART, *Modelling local development contributions in a present value framework – Technical Paper*, February 2016, p 5.

⁵⁸ IPART, *Modelling local development contributions in a present value framework – Technical Paper*, February 2016, p 5.

IPART seeks comment on the following

- 19 Should the March-on-March CPI adjustment factor, as used in our retail price determinations, be applied to index developer charges over time? Or should a different indexation factor be applied in some instances, eg for the Central Coast Council?

3.2.3 Can we improve how DSPs are developed, reviewed and updated?

We aim to achieve an appropriate balance between minimising regulatory costs, delays and uncertainty, and ensuring the water utilities' developer charges are subject to suitable review and scrutiny.

With this in mind, we are seeking comments on whether the current DSP development and periodic review process, including public consultation, has worked well and whether there are any ways it could be improved.

For instance, we are interested in views on whether there are reasons to modify IPART's current role under the Determination.

One option, for example, may be for IPART to develop and publish a standard Excel template or model, for utilities to largely populate in calculating developer charges. This could enhance transparency and accountability, while also minimising administrative burden.

IPART seeks comment on the following

- 20 Do the current procedural requirements, including DSP content requirements and IPART's role in reviewing and registering DSPs, remain appropriate?

4 Methodology to set backlog sewerage charges

A backlog sewerage service is 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.

The provision of sewerage services can be important for the protection of the environment and the maintenance of public health. Some of the benefits of backlog sewerage projects are shared by the broader community, not just those whose properties are served.

In most cases, properties in backlog sewerage areas are already connected to a reticulated water supply system, with sewerage managed on-site. While developer charges apply to new developments or subdivisions, backlog sewerage charges recover part of the capital costs of constructing a new sewerage system to service existing properties. This typically applies where a community has never had a reticulated sewerage system before.

4.1 IPART Determinations of backlog sewerage charges

In July 1997, IPART determined a methodology for fixing backlog sewerage capital contributions for backlog customers in Sydney Water, Hunter Water and Wyong Shire Council and certain properties in Gosford City Council.⁵⁹

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

This means there are currently three different methodologies used to calculate the maximum backlog sewerage charge:

- ▼ One which covers properties in Sydney Water, Hunter Water and the Central Coast Council, and
- ▼ Two which cover other properties⁶⁰ in the former Gosford City Council area of the Central Coast Council
 - Non Priority Sewerage Program (PSP) properties, and
 - PSP properties.

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

⁵⁹ In the mid-1970s, Gosford City Council established a regional sewerage scheme which continued until the mid-1990s. This scheme applied to a defined area to which the eventual provision of water and sewerage services was planned at the time. For a 20-year period, property owners within this area paid 'sewerage loan charges' to help fund future schemes.

⁶⁰ Backlog properties within the former Gosford City Council area which had not contributed to a sewerage financing scheme.

Box 4.1 Current methodologies for calculating backlog sewerage contribution charges

Sydney Water, Hunter Water and some backlog customers within 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:

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

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 is the same as that for calculating developer charges under our 2000 Determination:

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

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 Contribution Charge recognises positive environmental and social benefits of the works, flowing to the wider community.

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

See Appendix B for more detail on the backlog sewerage charge methodologies.

^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 4.1 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.

4.2 How should backlog sewerage services be funded?

The construction of backlog sewerage schemes for existing communities requires significant capital investment. Given most backlog communities are likely to be both small and more isolated from existing infrastructure, the costs per property are likely to be relatively high. This raises questions around potential affordability and how much customers are willing to pay for the service.

There are potential savings and benefits to backlog customers arising from the construction of backlog sewerage schemes. Most, if not all, properties in backlog areas currently maintain on-site sewerage systems, such as septic and pump-out systems. Having access to a reticulated sewerage system would avoid the costs associated with on-site systems. Backlog properties may also experience increased property values and contribute to improved public health outcomes.

The wider community may also benefit from backlog schemes. This may be through improved environmental outcomes, such as reduced pollution in receiving waterways.

Sydney Water, Hunter Water and 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.⁶¹

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 - ie, most of the capital costs of a given backlog scheme is funded by other customers.

Generally, we favour a funding approach based on a hierarchy where:

- ▼ preferably the **impactor** should pay (with the impactor being the party that created the need to incur the cost)
- ▼ if that is not possible, the **beneficiary** should pay (direct beneficiaries before indirect beneficiaries) – although the impactor and the beneficiary can sometimes be one and the same, and
- ▼ as a last resort, **taxpayers** should pay.⁶²

In evaluating options to update the methodology in the 1997 Determination, we will consider a reasonable share of costs between backlog sewerage impactors and beneficiaries.

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

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

For backlog customers in PSP areas within the former Gosford City Council who had not previously contributed to a sewerage funding scheme, our 2006 methodology allows for customers to pay the first \$5,400, **plus** 67% of the remainder of the net capital costs. Unlike our 1997 methodology, this allocates most of the costs to backlog customers, with less of the costs spread across the broad customer base.

For non-PSP areas, the methodology is set to recover the full costs of the scheme, in line with our developer charges methodology.

⁶¹ 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.

⁶² IPART, *Review of funding framework for Local Land Services NSW – Draft Report*, September 2013.

We consider it timely to review and, where appropriate, update the backlog sewerage charges methodologies for Sydney Water, Hunter Water and the Central Coast Council.

IPART seeks comments on the following

- 21 What backlog sewerage charges are currently being levied by water utilities, and in what areas? Will they be required in future?
- 22 Do our current methodologies for backlog sewerage charges continue to be appropriate? If not, what is an appropriate methodology for determining backlog sewerage charges?

4.3 Customer payment options

Our 1997 and 2006 Determinations of backlog sewerage charges provided two payment options to a backlog customer, namely:

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

It is our preliminary view that backlog customers should continue to have the option of an upfront payment or an annual payment over a longer period.

In calculating the amount of the annual or quarterly payment, both the 1997 and 2006 Determinations specify that it be based on an amortisation method. The interest rates to be used in deriving the annual or quarterly payments are for the:

- ▼ **1997 Determination**, NSW Treasury Corporation 10-year bond rate⁶³
- ▼ **2006 Determination**, Commonwealth Government Securities 10-year bond rate.⁶⁴

Our preliminary view is that because it is the water utility that is providing the funding option to the customer, the discount rate should match the utility's opportunity cost of capital. We consider that the weighted average cost of capital (WACC) established in the water utility's prevailing retail price review is an appropriate discount rate in calculating the annual backlog charge.

IPART seeks comments on the following

- 23 Should backlog customers continue to have the option of an upfront payment or annual charges? If so, is it appropriate to use the WACC established in the water utility's prevailing retail price review as the discount rate to calculate the annuity charges?

⁶³ 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.

⁶⁴ IPART, *Pricing of Backlog Sewerage Services for Gosford City Council, Determination No 1 2006*, February 2006, p 6.

5 Other related capital contributions

There are other existing or proposed charges that are similar in scope and calculation to a capital contribution (or developer) charge. These include Hunter Water's potential major service connection charge, Sydney Water's minor service extension charge, and Sydney Water's charges associated with its 'Developer Direct' services.

We will consider whether these, as well as any other proposed changes, should be incorporated into our determination of metropolitan water developer (and other capital contribution) charges.

IPART seeks comment on the following:

- 24 Are there any other capital contribution charges that IPART should consider incorporating into this consolidated review of developer (and other capital contribution) charges?

5.1 Hunter Water's major service connection charge

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

In our 2015-16 review of Hunter Water's periodic retail prices, Hunter Water proposed a methodology, based on IPART's 2000 developer charges determination (with some amendments), for calculating charges for connecting existing properties to its sewerage system rather than a specific price (or prices).⁶⁵

Hunter Water noted that, given their size and characteristics, connection of some of these properties to its network may require augmentation to its sewerage system.

In response, we noted in our 2016 Final Report that we would consider the major service connection charge in a future consolidated review of developer charges and backlog sewerage services for metropolitan water utilities.

We also noted that as part of this review, we will need to better understand and consider:

- ▼ Hunter Water's current practice for charging these customers and the numbers and types of customers requesting connection, and likely to request connection in the future.⁶⁶
- ▼ The potential impact of Hunter Water's proposed methodology on different types of customers and the size of potential upfront connection charges.
- ▼ How customers in a similar situation are charged by other metropolitan water utilities.

⁶⁵ Hunter Water, *Submission to IPART on prices to apply from 1 July 2016*, June 2015, pp 87-88.

⁶⁶ At the time of Hunter Water's submission to our 2015-16 price review, existing properties which connect to Hunter Water's sewerage system were charged according to IPART's 2000 Developer Charges determination (Hunter Water email to IPART, 28 July 2015).

We seek stakeholder views on whether a separate major service connection should be levied by Hunter Water and other water utilities (Sydney Water and the Central Coast Council) and, if so, the appropriate methodology for determining this charge.

IPART seeks comment on the following:

25 Is a major service connection charge warranted and, if so, how should this be determined?

5.2 Sydney Water's minor service extension charge

Sydney Water's 2016 Determination sets a methodology to determine the minor service extension charge. The minor service extension (MSE) charge applies to a service provided by Sydney Water on the request of property owner to extend the sewerage system and/or the water supply system to their property (that is not connected but is capable of being so).

Sydney Water's MSE charge recovers the cost of capital investment to extend the water or sewerage system to a property or group of properties. Whereas we understand that Hunter Water's proposed major service connection charge does not necessarily require any extension of the system, but may necessitate an augmentation at certain points within the existing system.

This 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 cost of serving MSE customers
- ▼ S = Equivalent tenements served by MSE.

We are seeking stakeholders' comments on whether the methodology for the minor service extension charge should be considered as part of this consolidated review of developer and other capital charges, or whether it should continue to be set under Sydney Water's periodic price determination.

IPART seeks comment on the following:

26 Should the methodology for the minor service extension charge be set in Sydney Water's periodic price review or should it be set under this developer charges review?

27 Should we maintain the current methodology for determining the minor service extension charge, or make amendments to this methodology? Should this be applied by other water utilities (Hunter Water and the Central Coast Council)?

5.3 Sydney Water's 'Developer Direct'

In early 2017, Sydney Water launched a new service known as Sydney Water Developer Direct (SWDD). We understand that developers of small to medium developments can use SWDD to obtain their Section 73 Compliance Certificate (**Section 73 certificate**) instead of engaging a **Water Service Coordinator (WSC)**. Developers cannot apply for a Section 73 certificate on their own. A Section 73 certificate confirms that a developer meets Sydney Water's requirements to adequately service a new subdivision or development with water, wastewater and stormwater services.

We understand that SWDD is only available for complying developments.

According to Sydney Water's website, an application through SWDD costs \$495.03. It includes the following **application services**:

- ▼ an assessment of an applicant's building plans and development application
- ▼ a design sketch
- ▼ a Notice of Requirements if the applicant needs to construct something
- ▼ a fixed price quote for any construction work outlined in the Notice of Requirements, and
- ▼ a Section 73 certificate and full Building Plan Approval once all requirements have been met.

A developer may then organise **construction services** separately or accept Sydney Water's quote.

Charges for some of the above-mentioned **application services** are currently regulated under Sydney Water's 2016 Determination (as ancillary and miscellaneous charges), while others are unregulated services.

We are looking into the services offered through SWDD in order to understand the nature of the services and decide on IPART's pricing role in relation to them.

[IPART seeks comments on the following](#)

- 28 If we were to regulate the price of construction services provided by Sydney Water under Developer Direct, how should these prices be determined?



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).

B Current 'developer charges'-like methodologies

Table B.1 Summary of current IPART methodologies

Review	Methodology	Parameters	Comment
Developer charges Sydney Hunter Gosford Wyong (2000 Determination)	$DC = \frac{K_1}{L_1} + \frac{K_2}{L_2} - \frac{NPV(R_i - C_i)}{L_3}$	<p>for $i = 1, \dots, n$; $n = 30$ years $K_1 =$ capital charge for pre-1996 assets (NPV) $K_2 =$ capital charge for post-1996 assets (NPV) $L_i =$ NPV(ET) under real discount rate r_i $r_1 = 3\%$ (Sydney, Hunter), 0% (Gosford, Wyong) $r_2 = r_3 = 7\%$ (all) Inflated by CPI (average) 5-year frequency of DSP review</p>	Existing assets with nexus to development. Assets more than 30 years remote (pre-1970) are excluded. Lower interest rate for pre-1996 assets to reflect non-commercial nature of original investment/ sunk cost.
Developer charges Gosford Wyong (2013 Determination – updated the 2000 Determination for Councils)	<i>as above</i>	<p>$r_1 = 0\%$ (Gosford, Wyong) $r_2 = r_3 =$ real pre-tax WACC (Gosford, Wyong) Inflated by CPI (March on March, All Capitals Quarterly Index) $\Delta CPI_1 = \left(\frac{CPI_{\text{March } year_n}}{CPI_{\text{March } year_{n-1}}} \right) - 1$</p>	
Backlog sewerage (1997 Determination) Sydney Hunter Gosford Wyong (1997 Determinations 4.1 and 4.2)	$BSCC = \max\left(\frac{25\% \text{ of } K}{N}, \$3,000 \text{ nominal}\right)$	<p>$BSCC =$ backlog sewerage capital contribution charge $K =$ actual capital cost of sewerage infrastructure attributed to the backlog properties $N =$ number of existing properties in backlog areas Inflated by CPI (Sydney Quarterly Index)^a $\Delta CPI = \left(\frac{CPI_{\text{Jun}, year_n} + CPI_{\text{Sep}, year_n} + CPI_{\text{Dec}, year_n} + CPI_{\text{Mar}, year_{n+1}}}{CPI_{\text{Jun}, year_{n-1}} + CPI_{\text{Sep}, year_{n-1}} + CPI_{\text{Dec}, year_{n-1}} + CPI_{\text{Mar}, year_n}} \right) - 1$</p>	Externalities to environment and public health justify sharing of capital costs with wider community. BSCC is paid either as a one-off connection charge or as a special backlog sewerage annual charge, to recover costs over 20 years, discount rate is T-Corp 10-year bond rate at time of

<p>Backlog sewerage Gosford (2006 Determination) – replaced the 1997 Determination 4.2 for Gosford</p>	<p>Charges depend on whether property falls into Priority Sewerage Program (PSP) area</p> <p>For non-PSP property: as per Developer Charges determination (2000 or as varied) methodology and parameters</p> <p>For PSP property, PSP Area Contribution Charge</p> <p>PACC = $IFC + \frac{PV(k-k \times CTWSS - PSP) - PV(IFC \times Lots)}{PV(Lots)} \times 0.67$</p>	<p>PACC = PSP Area Contribution Charge for backlog sewerage properties in a PSP area</p> <p>IFC = An initial fixed amount up to a maximum of \$5,400 (in \$2006-07). This amount of \$5,400 is to be indexed by CPI each year</p> <p>PV = Present Value</p> <p>k = Capital Cost of the backlog sewerage scheme before the application of subsidies</p> <p>CTWSS = the amount of subsidy under the Country Towns Water Supply and Sewerage (CTWSS) Program expressed as a decimal of the capital cost</p> <p>PSP = the amount of the subsidy to be made available under Priority Sewerage Program</p> <p>Lots = number of lots in a PSP Backlog Sewerage Scheme Area</p> <p>Discount rate = 6.1% (real pre-tax)</p> <p>Inflated by CPI (All Capitals Index)</p> <p>$\Delta CPI = \frac{CPI_{Jun,year_n} + CPI_{Sep,year_n} + CPI_{Dec,year_n} + CPI_{Mar,year_{n+1}}}{CPI_{Jun,year_{n-1}} + CPI_{Sep,year_{n-1}} + CPI_{Dec,year_{n-1}} + CPI_{Mar,year_n}} - 1$</p>	<p>availability of sewerage services.</p> <p>Special contributions for Priority Sewerage Program Areas.</p> <p>Provision to contribution charge in quarterly payments over 20 years. Discount rate is T-Corp 10-year bond rate at time of connection.</p>
<p>Sydney Water minor service extension charge (Sydney Water retail price determination 2016 – Schedule 8)</p>	<p>$P_0 = \left[\frac{PV(K) - PV(R-C)}{PV(S)} \right]$</p>	<p>K = total capital cost of the Minor Service Extension to which schedule 8 applies</p> <p>R = the estimated future revenue to be derived in a given year from the provision of a Minor Service Extension to the owners of the Properties capable of being connected to the Water Supply System or Sewerage System, following a Minor Service Extension.</p> <p>C = estimated future operating, maintenance and administration costs expected to be spent on customers serviced by the Minor Service Extension.</p> <p>S = so much of equivalent tenement that Sydney Water estimates is attributable to connections in</p>	<p>Minor Service Extension means a service provided by Sydney Water to extend the Sewerage System and/or the Water Supply System to Properties which are not connected to the Sewerage System and the Water Supply System where the owners of those Properties (which are capable of being connected) request to be connected to the Sewerage System and/or the Water</p>

		each of the years following a Minor Service Extension Discount rate = 5.9%	Supply System.
Hunter Water major service connection (proposed in 2016 review)	Hunter Water proposed a methodology, based on IPART's 2000 developer charges determination (with some amendments), for calculating charges for connecting existing properties to its sewerage system rather than a specific price (or prices).		

^a In 1997, IPART used the Sydney Consumer Price Index for CPI calculations, we now use the All Capitals Consumer Price Index.

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 or the NSW Government's Metropolitan Development Program 2010-11,⁶⁷ there is no repayment of the costs of delivering the infrastructure.⁶⁸

Hunter Water's policy

Hunter Water does not typically refer to development as being either 'in-sequence' or 'out-of-sequence'.⁶⁹ If development occurs outside of Hunter Water's DSP or capital expenditure program, the developers are required to fund the infrastructure for the new development and transfer ownership of the asset to Hunter Water. In some cases, Hunter Water may repay a share of the cost if subsequent developments make use of that infrastructure.⁷⁰

Hunter Water has proposed changes to its policy on funding growth-related infrastructure. Under this proposal, similar to Sydney Water's scheme, a developer may enter into an agreement with Hunter Water, who will repay the efficient costs incurred in delivering the infrastructure. If a development is not in Hunter Water's Growth Plan⁷¹ (i.e. beyond 10 years), there would be no agreement and the developer would be required to fund the infrastructure (and transfer the asset).⁷²

⁶⁷ The Metropolitan Development Program (MDP) was the NSW Government's 10 year dwelling supply forecast for Sydney. The Department of Planning and Environment's, *A Plan for Growing Sydney*, 2014 supersedes the MDP document.

⁶⁸ Sydney Water, *Growth Servicing Plan July 2014 – June 2019*, July 2014, pp 5-7.

⁶⁹ 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.

⁷⁰ Hunter Water, *Investing in Growth Infrastructure for the Lower Hunter – Consultation Paper*, May 2017, pp 7-9.

⁷¹ Hunter Water has proposed releasing an annual *Growth Plan* to provide information on future growth.

⁷² Hunter Water, *Investing in Growth Infrastructure for the Lower Hunter – Consultation Paper*, May 2017, pp 14-17.

D Developer charges in Central Coast Council

Wyong Council

In 2014, the former Wyong 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 Council Local Government Area (LGA) as a single DSP area for water and wastewater. Previously, the former Wyong Council operated with 12 district DSPs. Within these DSPs, there were multiple precincts with their own DSP for water and wastewater charges.

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

Wyong 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 Council defined their Local Government Area (LGA) as a single DSP area for water and wastewater.

Source: Wyong Shire Council, *Development Servicing Plan - Water Supply and Sewerage*, April 2014.

The former Wyong Shire 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.⁷³

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 (in \$2017-18).⁷⁴ The average wastewater developer charge was \$2,742, with charges ranging from \$867 to \$7,093 (in \$2017-18). The average combined water and wastewater developer charge was \$8,248 (in \$2017-18). We note that there was a significant variation in the level of

⁷³ Wyong Shire Council, *Development Servicing Plan – Water Supply and Sewerage*, April 2014, p 4.

⁷⁴ Simple arithmetic average across 41 pricing areas.

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 Council became \$8,978 (\$3,747 for water and \$5,231 for wastewater, in \$2017-18).⁷⁵ Any geographic variation of developer charges was removed.

Gosford Council

In 2014, the former Gosford Council released two DSPs, a redevelopment and city centre plan. Historically, there were a number of DSPs within the former Gosford LGA however; in 2012, the former council made a decision to agglomerated 11 DSPs into one redevelopment DSP from 2013-14 onwards.⁷⁶

Table D.2 Actual Developer Charges for the Gosford Council's DSPs per single lot

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 have been inflated to \$2017-18.

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

⁷⁵ Wyong Shire Council, *Development Servicing Plan – Water Supply and Sewerage*, April 2014, p 1.

⁷⁶ Gosford City Council, *Redevelopment – Development Servicing Plan – Water and Sewer*, April 2014, p 16.

E Developer charges for Local Water Authorities

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 E.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. Available at 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.⁷⁷

Table E.1 Summary of 2016 Developer Charges Guidelines for Local Water Utilities

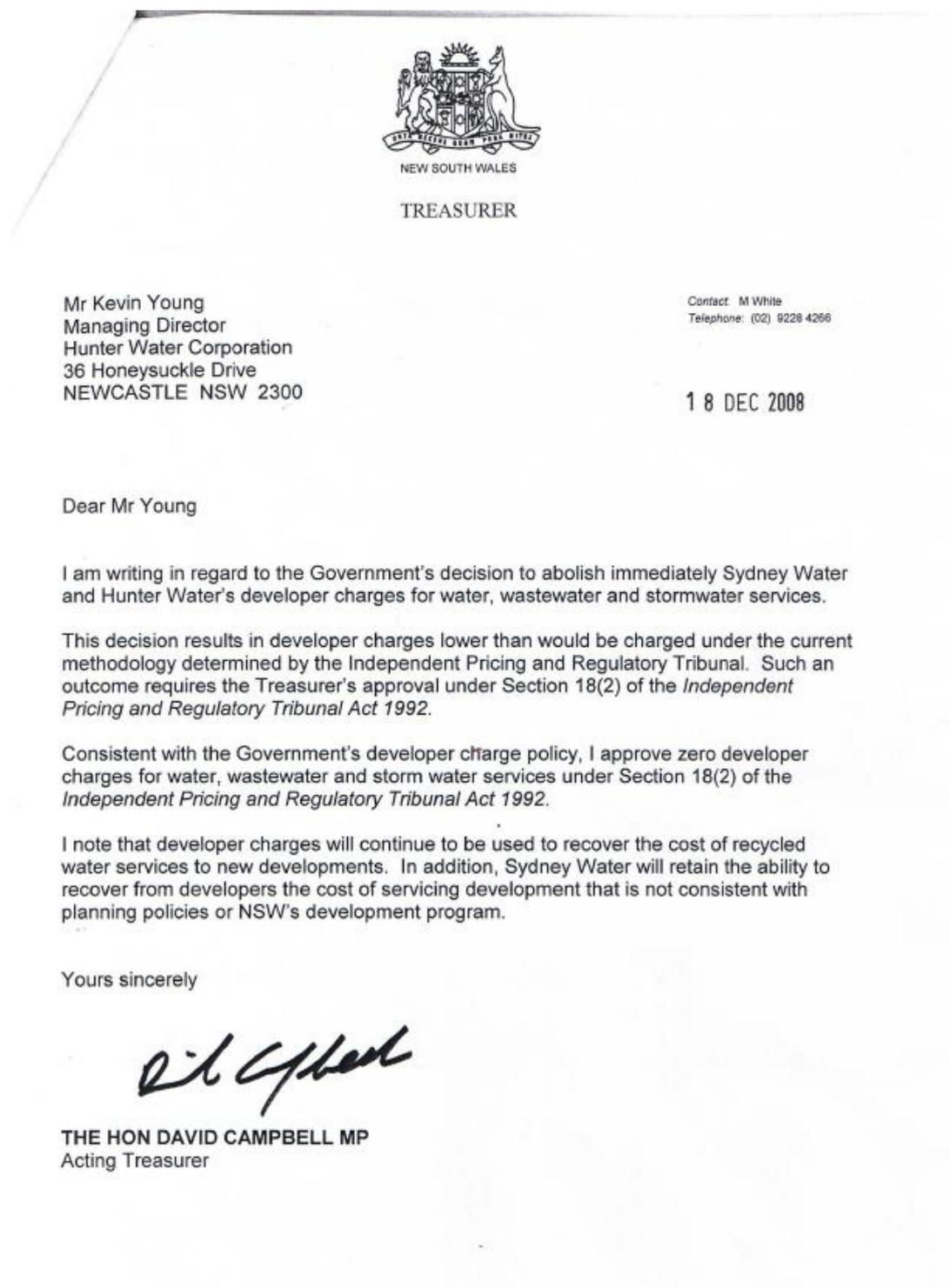
Parameters	2016 DPI Guidelines for LWUs	Does it align with IPART determinations?
Discount rate for pre-1996 assets	3%	Yes – based on 2000 Determination for Sydney Water and Hunter Water. The discount rate for Central Coast Council is 0%.
Discount rate for post-1996 assets	5%	No – applicable rate for utilities is 7% for Sydney Water and Hunter Water as per 2000 Determination. Central Coast Council uses the prevailing WACC as per the 2013 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 2000 Determination
Inclusion of headworks	Capital charge is calculated for water supply headworks serving the development	Yes – consistent with 2000 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	N/A – 2000 Determination does not set a timeframe
Valuation of assets	MEERA	Yes – consistent with 2000 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 2000 Determination
Reduction amount	NPV of annual bills (similar to IPART method) or simplified NPV	Yes – NPV approach is consistent with 2000 Determination

⁷⁷ IPART, *Review of Water Supply, Sewerage and Stormwater Developer Charges Guidelines – Final Report to the Minister*, September 2007, p 4.

	of annual bills (n= 30 in both cases)	
Reticulation	Exclude	N/A – 2000 Determination does not make a provision for reticulation

Source: 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, June 2016, accessed on 25 August 2017; and 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.

F Treasurer's letter under section 18(2) setting zero developer charges



G Glossary

1995 Determination	IPART, <i>Sydney Water Corporation Prices of Developer Charges for Water, Sewerage and Drainage Services</i> , Determination No. 9, December 1995
1997 Determination	IPART, <i>Pricing of Backlog Sewerage Services for Sydney Water Corporation, Gosford City Council, Hunter Water Corporation, Wyong Shire Council</i> , Determinations No. 4.1 and 4.2, July 1997
2000 Determination	IPART, <i>Sydney Water Corporation, Hunter Water Corporation, Gosford City Council, Wyong Shire Council – Developer Charges from 1 October 2000</i> , Determination No. 9, September 2000
2006 Determination	IPART, <i>Pricing of Backlog Sewerage Services for Gosford City Council – Determination</i> , Determination No. 1, February 2006
2013 Determination	IPART, <i>Gosford City Council and Wyong Shire Council – Developer charges – Determination</i> , Determination No. 1, May 2013
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
ABS	Australian Bureau of Statistics
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
BSCC	Backlog Sewerage Capital Contribution Charge
Building block approach	IPART’s standard methodology to establish notional revenue requirement

CPI	Consumer Price Index
CSO	Community Service Obligation
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
EP&A Act	<i>Environmental Planning and Assessment Act 1979 (NSW)</i>
ETs	Equivalent Tenements
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	<i>Independent Pricing and Regulatory Tribunal Act 1992 (NSW)</i>
LGA	Local Government Area
LRMC	Long Run Marginal Cost
LWUs	Local Water Utilities
MEERA	Modern Engineering Equivalent Replacement Asset
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
Out-of-sequence development	Development that occurs ahead of the NSW Government's planned release of land and the water utilities DSP
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
Sydney Water	Sydney Water Corporation
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)
WIC Act	<i>Water Industry Competition Act 2006 (NSW)</i>