



Independent Pricing and Regulatory Tribunal

Gosford City Council and Wyong Shire Council

Review of calculation parameters for developer
charges

Water — Final Report
May 2013



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1 Executive Summary

The Independent Pricing and Regulatory Tribunal of NSW (IPART) is responsible for regulating the prices that Gosford City Council (Gosford Council) and Wyong Shire Council (Wyong Council)¹ can charge for the water supply, sewerage and stormwater drainage services that they provide to customers on the Central Coast of NSW. Our role includes regulation of the prices for providing services to new land developments known as developer charges, which is done by way of a determination.

Wyong Council asked IPART to make a new determination for the Councils to use to calculate their developer charges, which would specifically address some of the parameters to be used.² We have undertaken a review of some of the parameters and other aspects of the calculations.³ Our review has resulted in a new determination for the period starting 1 July 2013. In the interests of consistency, the determination will apply to both Councils.

Our Final Determination is largely the same as our Draft Determination. We received only one submission which proposed changes⁴ to our Draft Determination and Draft Report. These aimed to increase the clarity of some of the terminology used and were not related to our draft decisions (see Section 4.2 *Gosford and Wyong Councils' submissions*).

This report sets out our decisions and our reasons for making them.

¹ Collectively referred to as 'the Councils' in this report.

² Letter to Mr Jim Cox from Ms Gina Vereker, 10 May 2012.

³ To assist in implementing the new parameters, we also reviewed the date and frequency of the requirement to review charges and development servicing plans as well as updating how inflation changes should be calculated in line with our Information Paper: *Measuring Inflation for Industry Price Determinations – Change in Calculation Method*, 17 July 2009. See Chapter 4.

⁴ Gosford City Council submission to IPART, 18 March 2013, p 25.

1.1 Context of the determination

Before 1995, all IPART-regulated water agencies adopted developer charges calculated using their own methodologies. IPART assumed responsibility for regulation of developer charges to improve the efficiency, transparency and consistency of the process. IPART made its first determination of these developer charges in 1995 (the 1995 Determination). We made a revised determination in 2000 (the 2000 Determination) which remains current. Our determination does not set the actual charges, but prescribes a methodology that water agencies must use to calculate their charges. The methodology is based on a net present value (NPV) calculation.

In response to a request from Wyong Council, we have decided to review certain calculation parameters used in the NPV calculation because they have not been reviewed since 2000. As the Councils have not advised us of any concerns with the methodology set out in the 2000 Determination, we have decided that we will not set a different methodology for the Councils as part of this review.

Our decisions for the new parameters reflect our aim to determine parameters that are contemporary and that align, where possible, our assumptions for calculating periodic charges and those for developer charges because the 2 pricing processes interact. We note that, in parallel with our developer charges determination, we have also determined new water, sewerage and stormwater drainage periodic charges for the Councils for the period 2014 to 2017.⁵ As part of our analysis, we also took into account the upcoming transfer of the Councils' functions to the Central Coast Water Corporation.

1.2 Overview of our determination

The calculation parameters in our determination are set out in Table 1.1. A discussion of the Councils' submissions and the reasons for our decisions follows.

⁵ See IPART, *Gosford City Council and Wyong Shire Council - Prices for water, sewerage and stormwater, drainage services from 1 July 2013 to 30 June 2017*, May 2013.

Table 1.1 Calculation parameters for Gosford and Wyong Councils' developer charges

Parameter	Current	Decision
a) Discount rate for Pre-1996 Assets	0% real	0% real
b) Discount rate for Post-1996 Assets	7% real	The pre-tax value of the weighted average cost of capital (WACC) referred to in IPART's report for the Council's periodic charges prevailing on the day that the Council's revised developer charges start to apply.
c) Discount Rate for net revenues and costs	7% real	The pre-tax value of the WACC referred to in IPART's report for the Council's periodic charges prevailing on the day that the Council's revised developer charges start to apply.
d) Consumption per annum for an average residential customer:		The value for the consumption per annum for an average residential customer referred to in IPART's report for the Council's periodic charges prevailing on the day that the Council's revised developer charges start to apply.
– Gosford Council	207 kLs	
– Wyong Council	205 kLs	
e) Forecast horizon for expected net revenues and costs	30 years	30 years
f) Cap on charges (Wyong Council only)	85%	Remove cap

Note: The forecast horizon of 30 years for expected net revenues and costs was not included as an item requiring review in either Wyong Council's or Gosford Council's pricing submissions to IPART so we have decided not to review that parameter ie, the parameter will not change.

Discount rates

Both Councils submit that the discount rates used in the 2000 Determination are still appropriate and should be retained.

We consider that the reasons we relied on in 2000 for adopting the discount rate for pre-1996 Assets still apply, and have decided to maintain the discount rate at 0% real.

However, we consider that the circumstances for Post-1996 Assets and for Expected Net Revenues and Costs have changed, and that the discount rates should reflect the circumstances at the time that the Councils decide to review, and then apply, new developer charges. Therefore, we have decided to set a variable discount rate that will change in line with the WACC⁶ for the Councils' periodic charges, as they are determined from time to time. Periodic charges are determined at regular intervals and so this approach will better reflect market conditions at the time of calculation.

⁶ Water utilities require capital to invest in their business. These funds are provided by the owners (through equity) or lenders (through debt). The weighted average cost of capital (WACC) is the sum of the return required by equity and debt investors – weighted by the proportions of equity and debt used by the business.

Consumption per annum for an average residential customer

Both Councils submit that we should set a fixed value for the consumption parameter based on their forecasts of the consumption of water by the average residential customer for the period to be covered by their upcoming periodic charges determinations. They consider that this would address the problem of the change in consumption levels since the current values were set in 2000.

We accept that a fixed value would reflect current consumption levels, but are concerned that consumption levels may be different when the Councils next review their developer charges. Therefore, we have decided to set a variable consumption figure that will change in line with the calculation of the annual consumption by an average residential customer as we determine for the Councils' periodic charges. This means that the consumption parameters will be updated automatically with each periodic pricing determination.

Wyong Council's 85% cap on its developer charges

We originally introduced the 85% cap on Wyong Council's developer charges in the 1995 Determination. The cap was to ensure a smooth transition of developer charges away from Wyong Council's own developer charges methodology to the new, common, methodology we were introducing for all water agencies.

Wyong Council argues that the 85% cap on its developer charges is causing a distortion compared to the other water agencies which do not have caps on their charges. Wyong Council also considers that the 85% cap will create a barrier to synchronising charges with Gosford Council when the Central Coast Water Corporation begins operation.

We understand Wyong Council's position and consider that the issues that led to introduction of the cap in the 1995 Determination have largely dissipated. We have decided to remove the 85% cap.

Impacts of decisions

For this report, we asked the Councils to model the impacts of a combination of inputs used in calculating their developer charges.

Modelling by Gosford Council indicates that developer charges will increase by between 6% and 10% (an average of around 8%). For example, the Gosford Council Redevelopment DSP charge increases from about \$4,000/ET to about \$4,500/ET.

Modelling by Wyong Council indicates that developer charges will increase between 20% and 39% (an average of around 28%). For example, Wyong Council DSP1-North Wyong Industrial increases from around \$8,000 to around \$10,000 and DSP2-Killarney Urban increases from around \$5,000/ET to around \$6,500/ET. Removal of the 85% cap from Wyong Council's charges accounts for 18% of the increases in Wyong.

These increases are larger than those indicated in our draft report mainly because we asked the Councils to update their modelling using the forecast operating expenditure and periodic charges levels for the year 2014/15 contained in our Draft Report for their periodic charges.⁷

These are preliminary estimates, as the modelling was based on current values and not on the inputs to calculations parameters that will be adopted when the Councils calculate their developer charges for 1 July 2014. Consequently, the results may change when the review of Development Servicing Plans (DSPs)⁸ is actually undertaken.

Time-frame for adoption of initial developer charges

We have decided that both Gosford Council and Wyong Council must complete their initial review of their DSPs using the revised parameters as set out in Table 1.1, and start to apply the new developer charges by 1 July 2014.

DSPs are complex documents containing developer charges calculations and comprehensive background information that developers rely on when deciding whether to develop. The Councils will require time to update all the information requirements of their DSPs. We have decided to allow them 12 months to compile this information after the new determination commences.

⁷ See IPART, *Gosford City Council and Wyong Shire Council - Prices for water, sewerage and stormwater, drainage services from 1 July 2013 to 30 June 2017 - Draft Report*, February 2013.

⁸ DSPs are documents which contain the information that is used to calculate the developer charge for the relevant DSP area. They also include information that assists developers in making decisions about whether to develop or not. For example, they include relevant land use planning information and estimates of lot and dwelling production.

1.3 What does the rest of this report cover?

The following chapters explain our review and determination in detail, including our decisions and the analysis that guided those decisions:

- ▼ Chapter 2 outlines the context for our review, our objectives, the process we undertook to determine new calculation parameters and the matters we are required to consider by the *Independent Pricing and Regulatory Tribunal Act 1992* (NSW) (IPART Act).
- ▼ Chapter 3 outlines our approach to developer charges including a brief history of our determinations, the relationship between developer charges and the other water-associated prices we regulate, and a brief explanation of the methodology we have adopted for the calculation of developer charges.
- ▼ Chapter 4 presents our decision for each calculation parameter, explains how we came to each decision, and discusses the potential impact of our decisions.

2 Context for this review

In May 2012, Wyong Council asked IPART to make a new determination for its developer charges with the specific objective of setting new calculation parameters.⁹ We considered Wyong Council's request and decided to make a new developer charges determination that sets new calculation parameters for both Wyong Council and Gosford Council to apply when reviewing their DSPs (which must be completed by 1 July 2014). Gosford Council has not made a formal request to us but we have decided that it is appropriate to set new calculation parameters for its developer charges to maintain consistency in charging for water customers on the Central Coast.

Our current determination for developer charges was made in 2000 (the 2000 Determination) and sets a methodology for fixing the maximum price. Unlike the majority of our determinations, the 2000 Determination does not specify the period in which the methodology applies. Therefore, it applies until it is replaced by a new determination.

The 2000 Determination is structured to enable water agencies to calculate their own developer charges, but their calculations must adhere to the methodology and require certain parameters to be used in the calculations. Wyong Council's request for a new determination is based on its view that some of the parameters are out of date. Wyong Council has not advised us of any concerns with the methodology set out in the 2000 Determination, and we have decided that we will not set a different methodology for the Councils as part of this review.

In addition to setting a methodology for the Councils' developer charges, the 2000 Determination also sets a methodology for the developer charges for Sydney Water Corporation and Hunter Water Corporation. We have decided that we will not make a new determination for those other water agencies as part of this review.

⁹ Wyong Council asked specifically for a review of the calculation parameters for the consumption of an average residential customer and for the 85% cap on its developer charges. We have decided to also review the calculation parameters for discount rates used in the NPV formula for developer charges.

2.1 Objectives of the review

The key objective of this review is to update certain parameters that were defined in the 2000 Determination, particularly to update the following calculation parameters, which are listed in Schedule 5 of the 2000 Determination:

- ▼ the real discount rate for pre 1996 assets and associated equivalent tenements¹⁰ (ETs) for the Councils
- ▼ the real discount rate for post 1996 assets and associated ETs for the Councils
- ▼ the real discount rate for the expected net revenues, costs and associated ETs for the Councils
- ▼ the consumption per annum for an average residential customer for the Councils
- ▼ the 85% cap on Wyong Council's developer charges.

2.2 The review process

As part of our review process, we have undertaken a comprehensive investigation and public consultation process. We:

- ▼ released an Issues Paper in June 2012 to assist in identifying and understanding the key issues for review
- ▼ invited Gosford Council and Wyong Council to make submissions to the review detailing their pricing proposals
- ▼ invited other interested parties to make submissions on the Issues Paper and the Councils' submissions
- ▼ held a public hearing on 12 November 2012 to discuss issues associated with the review
- ▼ required the Councils to provide extensive financial and performance data based on various combinations of proposed calculation parameters
- ▼ released a Draft Determination and Draft Report, and now
- ▼ release our Final Determination and Report.

Our Issues Paper, our Draft Report and Determination, the Councils' submissions and the transcript from the public hearing are available on our website (www.ipart.nsw.gov.au).

While our determination will take effect from 1 July 2013, the new charges are to apply by 1 July 2014.

¹⁰ An equivalent tenement is a measure of the demand a development will place on the infrastructure in terms of the water consumption and discharge for an average residential dwelling.

2.3 Matters we are required to consider

Our power to determine prices is derived from our governing Act, the IPART Act. This review is being conducted under Section 11 of the IPART Act. Section 11 provides IPART with a standing reference to conduct investigations and make reports to the Minister on the determination of the pricing for a government monopoly service supplied by a government agency.

Under section 13A of the IPART Act, we may set maximum prices or determine a methodology for setting maximum prices. We have prescribed a methodology for developer charges rather than specifying individual prices.

Under Section 15 of the IPART Act, we are required to consider a broad range of matters when making determinations.¹¹ These matters include:

- ▼ consumer protection – the protection of consumers from abuses of monopoly power; the quality, reliability and safety standards of the services concerned; and the social impact of pricing decisions and their effect on inflation
- ▼ economic efficiency – the need for greater efficiency in the use and supply of services; the need to promote competition; and the need to consider demand management and least-cost planning
- ▼ financial viability – the cost of providing the services concerned, the appropriate rate of return on public sector assets; and the impact of pricing decisions on the agency’s borrowing, capital and dividend requirements
- ▼ environmental protection – the need to promote ecologically sustainable development through appropriate pricing policies.

In considering these matters, we aim to balance the diverse needs and interests of stakeholders (including customers), while also ensuring that Gosford Council and Wyong Council are adequately recompensed for the services they provide. We also took into account the principles issued by the Council of Australian Governments (COAG) and those contained in the National Water Initiative.

¹¹ The Section 15 requirements are listed in full in Appendix B.

3 IPART's approach to determining developer charges

The developer charges determination prescribes a Net Present Value (NPV) based methodology that water agencies must use to calculate their charges, as opposed to IPART setting the actual charges. The methodology was developed over many years in consultation with stakeholders including the general public, developers, government, and the water agencies. Before that, water agencies set charges calculated using their own methodologies.

We determined a methodology for fixing maximum prices because we considered the following:

- ▼ 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 agencies to establish new DSPs as they are required.

3.1 History of IPART's developer charges determination

IPART made its first determination for developer charges in 1995 for Sydney Water, and in 1996 for the other water agencies. The principles and objectives of developer charges have remained broadly unchanged since that first developer charges determination in 1995.

A number of refinements and clarifications to the methodology were incorporated in a supplementary note in 1997 and again in the 2000 Determination. In 2008, we decided to further refine the determination as changes (eg, the introduction of the Building and Sustainability Index (BASIX) scheme) had occurred in the water industry since the 2000 Determination had been made. We made a series of decisions and released a draft report and draft determination. However, before we completed our review, the NSW Government decided to set developer charges for Sydney Water and Hunter Water customers at zero. Consequently, we suspended the review and did not make a new determination. This means that the 2000 Determination remains as the current determination that must be used by our regulated water agencies to calculate their developer charges until this review takes effect.

In 2006, we made a determination to calculate recycled water developer charges. It is based on a methodology similar to the methodology for water, sewerage and stormwater services but, in addition, incorporates a set of guidelines that agencies must follow to calculate periodic charges for recycled water services. This determination is still current.

3.2 What is the relationship between developer charges and other tariffs?

One of the key principles underpinning our current water pricing framework is that prices should fully recover the costs of providing water-related services from the users of those services. The total cost of providing new development with water-related services is recovered through a combination of periodic charges and developer charges. The 2 pricing processes are linked so that, for the same level of cost recovery, higher periodic charges will result in a lower developer charge, and vice versa.

We set periodic charges based on the 'building block' approach. This involves determining 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 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 a return. 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 a corresponding downward adjustment in periodic prices.

Developer charges are set by agencies using the developer charges methodology which calculates the value of the capital costs per ET of assets serving a particular development area less the operating surplus water agencies earn from periodic charges. The operating surplus is calculated from periodic charges and operating costs. This avoids 'double dipping'.

Therefore, 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.

3.3 IPART's developer charges methodology

We have retained the original developer charges methodology for this determination. It calculates developer charges to recover the capital costs of providing water-related infrastructure to land developments. The charge is based on the capital cost of assets required and the nexus concept.¹² To avoid 'double dipping' of recovery of the costs of customers, there is an adjustment for future operating surpluses (or deficits) expected to be earned from the periodic charges to be paid by 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.

The methodology calculates the developer charge per ET as

- ▼ the present value (PV) of the existing and future assets used to service the development area
- ▼ less the PV of the future net operating profits (or losses) expected from providing the services to the development area (also called the reduction amount)
- ▼ divided by the PV of the number of ETs in the development area.

The determination requires water agencies to publish a DSP for each development area. As well as the calculation of charges, the DSPs must contain specified information to assist developers in deciding where to undertake land development. The required information includes:

- ▼ land use planning information
- ▼ the extent of the DSP area
- ▼ the services required over the development period
- ▼ the calculated developer charge and the basis on which it is calculated.

The determination requires agencies to review their DSPs once, and only once, every 5 years or as required by IPART. After review, water agencies must publicly exhibit their draft DSPs for 30 days before adoption of the charges. Developers are able to view and query aspects of the DSP during this time. The agency must assess any complaint made by developers but if this process does not resolve the complaint then the developer can have the matter considered by an agreed arbitrator.

A more detailed explanation of IPART's developer charges methodology can be found in Appendix A.

¹² To include the costs of an asset in a developer charge, a water agency must demonstrate a nexus between the development and the assets that will serve the development.

The focus of this review is to update the calculation parameters used in the NPV formula for developer charges. We have decided that we will not set a different methodology for the Councils as part of this review.

4 | IPART's decisions on calculation parameters

Wyang Council considers¹³ that some of the parameters in the 2000 Determination are out of date. Having considered Wyong Council's concerns, we have reviewed the determination with the aim of determining new calculation parameters that:

- ▼ reflect contemporary values
- ▼ align IPART's assumptions for calculating periodic charges and developer charges where possible.

One of the principles that we follow when determining prices for water utilities is that prices should be cost reflective. In fact, the underlying tenet of the developer charges methodology is that new developments should pay the costs of water-related services so that those who impose costs on the system bear those costs. For cost recovery to be achieved, the costs included in the calculation of charges must be up-to-date otherwise the charges could either over-recover or under-recover the actual costs of service.

Water agencies recover their costs through a combination of periodic charges and developer charges. The calculation of periodic charges and developer charges is circular and iterative, and the 2 pricing processes are linked (see Section 3.2). Therefore we consider that it is important, where possible, to align our assumptions for calculating periodic charges and developer charges.

Box 4.1 shows the current calculation parameters.

¹³ Letter to Mr Jim Cox from Ms Gina Vereker, 10 May 2012.

Box 4.1 Parameters for developer charges calculations

1. The parameters for the NPV calculation for Gosford City Council are:
 - a) A zero per cent (0%) real Discount Rate for Pre 1996 Assets.
 - b) A seven per cent (7%) real Discount Rate for Post 1996 Assets.
 - c) A seven per cent (7%) real Discount Rate for the expected net revenues and costs.
 - d) Consumption of 207 kilolitres per annum for an average residential customer.
 - e) A forecast horizon for expected net revenues and costs of 30 years.
2. The parameters of the NPV calculation for Wyong Shire Council are:
 - a) A zero per cent (0%) real Discount Rate for Pre 1996 Assets.
 - b) A seven per cent (7%) real Discount Rate for Post 1996 Assets.
 - c) A seven per cent (7%) real Discount Rate for the expected net revenues and costs.
 - d) Consumption of 205 kilolitres per annum for an average residential customer.
 - e) A forecast horizon for expected net revenues and costs of 30 years.
 - f) Developer Charges are to be capped at 85% of the charge calculated under the developer charges NPV formula.

Source: IPART, *Developer Charges Determination No 9, 2000*, September 2000, Schedule 5.

Based on the reasoning above, we have made the following decisions for updating the calculation parameters for Gosford Council and Wyong Council.

4.1 Summary of IPART's decisions

Decision

- 1 IPART's decision is that Gosford Council and Wyong Council must calculate their developer charges using the calculation parameters in Table 4.1.

Table 4.1 IPART's decision for calculation parameters

Parameters for Developer Charges calculations
1. The parameters for the NPV calculation for Gosford Council are: <ol style="list-style-type: none">a) A zero per cent (0%) real, discount rate for Pre-1996 Assets.b) A discount rate for Post-1996 Assets equal to the pre-tax value of the weighted average cost of capital (WACC) referred to in IPART's report for the Council's periodic charges prevailing on the day that the Council's revised developer charges start to apply.c) A discount rate for the expected net revenues and costs equal to the pre-tax WACC referred to in IPART's report for the Council's periodic charges prevailing on the day that the Council's revised developer charges start to apply.d) The value for the consumption per annum for an average residential customer referred to in IPART's report for the Council's periodic charges prevailing on the day that the Council's revised developer charges start to apply.e) A forecast horizon for expected net revenues and costs of 30 years.
2. The parameters for the NPV calculation for Wyong Council are: <ol style="list-style-type: none">a) A zero per cent (0%) real, discount rate for Pre-1996 Assets.b) A discount rate for Post-1996 Assets equal to the pre-tax WACC referred to in IPART's report for the Council's periodic charges prevailing on the day that the Council's revised developer charges start to apply.c) A discount rate for the expected net revenues and costs equal to the pre-tax WACC referred to in IPART's report for the Council's periodic charges prevailing on the day that the Council's revised developer charges start to apply.d) The value for the consumption per annum for an average residential customer referred to in IPART's report for the Council's periodic charges prevailing on the day that the Council's revised developer charges start to apply.e) A forecast horizon for expected net revenues and costs of 30 years.f) There will not be a cap on Wyong Council's developer charges.

Note: The forecast horizon of 30 years for expected net revenues and costs was not included as an item requiring review in either Wyong Council's or Gosford Council's pricing submissions to IPART so we have decided not to review that parameter ie, the parameter will not change.

Decision

- 2 IPART's decision is that Gosford Council and Wyong Council must complete their initial review of their DSPs and the revised developer charges must apply by 1 July 2014.

4.2 Gosford and Wyong Councils' submissions

In response to our Issues Paper, Gosford Council and Wyong Council provided detailed submissions setting out their proposals for the calculation parameters under review.

In response to our Draft Determination and Draft Report, both Councils indicated that they supported our draft decisions for the calculation parameters. In its submission, Gosford Council also provided 2 suggestions to improve the clarity of the Draft Determination and Draft Report.

The value of some of the parameters is dependent on when calculations are made. Therefore, Gosford Council suggested changing the terminology defining that particular time. We have reviewed Gosford Council's suggestion and agree with its proposal. We have adjusted the relevant sections of our final Report and Determination because we consider that this will help minimise the risk of confusion.

In those years between their reviews of their developer charges, the Councils can increase their charges on 1 July of that year by the change in the CPI. Gosford Council suggested that the wording of the clause in our Draft Determination should be adjusted because the actual calculation will need to occur before 1 July. We have considered Gosford Council's suggestion and adjusted the relevant sections to improve the transparency of the wording of those particular clauses.

The following sections explain the reasoning behind our decisions for the calculation parameters. Because neither Council asked for any changes to our draft decisions (other than the 2 clarification issues discussed above), references to the Councils' submissions below are only to their original submissions to our Issues Paper.

4.3 The discount rate for Pre-1996 Assets

The discount rate for Pre-1996 assets is a calculation parameter that is a direct input to the NPV calculation used to calculate developer charges. It is used to calculate a value for the NPV of assets constructed before 1996 and the ETs that they service.

4.3.1 Gosford and Wyong Councils' submissions

In their pricing submissions, each Council states that the discount rate set out in the 2000 Determination of 0% real for Pre-1996 Assets is still appropriate and should be retained for the new determination.

4.3.2 IPART's analysis

In the 2000 Determination for developer charges, IPART adopted a 0% real discount rate for the Pre-1996 Assets of Gosford Council and Wyong Council. We considered that this rate reflected the 'sunk' nature of the assets and were concerned that higher discount rates would lead to higher charges and might reduce uptake and development. For this determination, we also note that each Council proposed that the discount rate for Pre-1996 Assets remain at 0%.

We have decided that for Pre-1996 Assets, the rates set out in the 2000 Determination are still appropriate, for the reasons advanced at that time.

4.4 The discount rate for Post-1996 Assets

The discount rate for Post-1996 assets is also a calculation parameter that is a direct input to the NPV calculation used to calculate developer charges. It is used to calculate a value for the NPV of assets constructed after 1996 and the ETs that these assets service.

4.4.1 Gosford and Wyong Councils' submissions

In their pricing submissions, each Council states that the discount rate set out in the 2000 Determination of 7% real for Post-1996 Assets is still appropriate and should be retained for the new determination.

4.4.2 IPART's analysis

In its request to IPART for a review of calculation parameters for developer charges, Wyong Council commented that the parameters listed in Schedule 5 of the 2000 Determination are 'out of date and no longer relevant'.¹⁴ We have taken on board Wyong Council's comments and conducted this review in response to them.

The real pre-tax discount rate for Post-1996 assets under the 2000 Determination for both Councils is 7%. We adopted this figure in 2000 because it reflected the WACC we had adopted in the periodic pricing determinations of the water agencies at that time. Therefore at that time, our decision was in line with the objectives we have decided to follow for this review. That is, the value was contemporary and aligned the periodic pricing and developer charges pricing regimes.

However, while the discount rate was appropriate in 2000, circumstances have changed. We consider that, rather than setting a fixed value for the discount rate, a better method to achieve our objectives is to set a variable discount rate that

¹⁴ Letter to Mr Jim Cox from Ms Gina Vereker, 10 May 2012.

will change in line with the WACC for the Councils' periodic charges as they are determined from time to time. Periodic charges are determined at regular intervals and so this will better reflect market conditions at the time of calculation. This will ensure that revenues from developer charges and revenues from periodic charges (which are also included in the calculation of developer charges) are on a consistent basis. The benefits of this method are that:

- ▼ values will be updated automatically with each periodic pricing determination
- ▼ values are easily accessed by the public
- ▼ values will be aligned in both the developer charges and periodic prices determinations.

We have decided to set a variable discount rate that will change in line with the WACC for the Councils' periodic charges in place at the time when the Councils start to apply their developer charges. The pre-tax WACC for developer charges calculations will be listed in our Periodic Charges reports.

4.5 The consumption per annum for an average residential customer

Unlike discount rates, the consumption per annum for an average residential customer parameter is not a direct input into the NPV calculation but it is used to define an ET and is used in the calculation of periodic revenues in the reduction amount.

4.5.1 Gosford and Wyong Councils' submissions

Wyong Council seeks a reduction in the water consumption for an average residential customer to a figure 'more reflective of current (and projected future) consumption'.¹⁵ Wyong Council comments that, as a result of the recent drought, consumption has dropped significantly from the 205kL per annum figure in the 2000 Determination. It proposes a figure of 160kL per annum based on its forecasts for the determination of its periodic charges¹⁶ for the 4 years from 2014 to 2017.

Gosford Council also seeks a reduction in the 2000 Determination's 205kL per annum figure. It proposes a figure of 168kL per annum which is the average of its forecasts for the determination of its periodic charges¹⁷ for the 4 years from 2014 to 2017.

¹⁵ Wyong Council submission to IPART's Review of Prices for Water, Sewerage and Stormwater Services, 21 September 2012, p 66.

¹⁶ Wyong Council submission to IPART's Review of Prices for Water, Sewerage and Stormwater Services, 21 September 2012, p 66.

¹⁷ Gosford Council submission to IPART's Review of Prices for Water, Sewerage and Stormwater Services, 19 February 2013, p 84.

4.5.2 IPART's analysis

As with discount rates, the specified consumption figure in Schedule 5 of the 2000 Determination reflects consumption levels in 2000. However, as Wyong Council has informed us, actual consumption is now significantly lower because of the drought and various initiatives, including demand management measures, initiated by water agencies.

Both Councils have proposed a consumption figure that is contemporary as of today. However, we are concerned that adopting a fixed value may lead to the same problems that have initiated this review. That is, a value that reflects current consumption may be inappropriate for future periods. We consider that, rather than setting a fixed value for the consumption parameter, a better method to achieve our objectives is to set a variable consumption parameter that changes as actual consumption changes.

Therefore, we have decided to link the consumption parameter for developer charges to the figure used in determining each Council's periodic charges at the time that each Council starts to apply its developer charges. The consumption per annum for an average residential customer for developer charges calculations will be listed in our Periodic Charges Reports. The benefits of this method are the same as those for our method for determining discount rates, ie:

- ▼ values will be updated automatically with each periodic pricing determination
- ▼ values are easily accessed by the public
- ▼ values will be aligned in both the developer charges and periodic prices determinations.

4.6 The 85% cap on Wyong Council's developer charges

The 85% cap on Wyong Council's developer charges was originally imposed in the 1995 Determination. The 1995 Determination replaced individual developer charges pricing regimes that the water agencies employed before we began regulating developer charges. One of our aims for the determination was to introduce a more consistent approach to the calculation of developer charges. One of our concerns in 1995 and a driver for the introduction of the 85% cap was the possibility of pricing impacts arising from replacing Wyong Council's developer charges pricing regime with the new determination. So the decision at that time was to transition the new determination into place.

4.6.1 Gosford and Wyong Councils' submissions

Both Councils propose that the 85% cap on Wyong Council's developer charges should be removed.

Wyong Council argues that the 85% cap on its developer charges causes a distortion compared to the other water agencies ie, the 15% reduction is funded by existing customers through periodic charges. Wyong Council also considers that the 85% cap creates a barrier to synchronising charges with Gosford Council when the Central Coast Water Corporation begins operation. Gosford Council also supports the removal of the cap on Wyong Council's charges because of this issue.

Wyong Council comments that removal of the cap will not alter Council's overall revenue, only that the residual capped 15% of developer charges revenue would be recovered by developer charges and not periodic charges.

4.6.2 IPART's analysis

We consider that the reasons that prompted us to impose the 85% cap on Wyong Council's developer charges have largely dissipated.

In addition, our decisions for Gosford Council and Wyong Council for this review and for our review of their water and wastewater periodic charges¹⁸ require consideration of the transfer of the Councils' functions to the Central Coast Water Corporation. Removing the 85% cap on Wyong Council's developer charges will assist in that process as it removes one of the major differences in the calculation of developer charges for each Council.

Therefore, we have decided to remove the 85% cap on Wyong Council's developer charges.

4.7 Time frame for adoption of initial developer charges under this determination

The commencement date for the new determination is 1 July 2013.¹⁹ The 2000 Determination mandates that water agencies must review their developer charges and also their DSPs once in every 5-year period from 1 July 2001. In fact, the calculation of developer charges forms part of the contents of a DSP.

¹⁸ IPART, *Gosford City Council and Wyong Shire Council - Prices for water, sewerage and stormwater, drainage services from 1 July 2013 to 30 June 2017 - Final Report*, May 2013.

¹⁹ The commencement date is the later of 1 July 2013 and the date that it is published in the NSW Government Gazette.

4.7.1 Gosford and Wyong Councils' submissions

Both Councils have stated²⁰ that, in practical terms, they would require a 12 month period after the new determination is introduced to update their DSPs and associated developer charges.

4.7.2 IPART's analysis

DSPs are complex documents that inform developers of many factors essential to their decision to develop or not. The DSPs include such information as demographic and land use assumptions, asset construction forecasts, asset descriptions and standards of service to be provided, as well as the developer charge for the DSP area. We accept the Councils' argument that they will require time to update all these information requirements and have decided to allow them until 1 July 2014 to compile this information.

We have decided that Gosford Council and Wyong Council must complete their initial review of their DSPs and start to apply the new developer charges by 1 July 2014.

4.8 Impact of decisions

Water agencies calculate their own developer charges under the developer charges determination, therefore we rely on them to model the impacts from any changes we make to the determination on their developer charges. At this time, it is difficult to decide on what inputs to use in the calculation of initial charges for 1 July 2014 because values for inputs such as capital expenditure forecasts will not be finalised until that time.

For this report, we asked Gosford Council and Wyong Council to model the impacts of a combination of inputs. The inputs we prescribed were based on current conditions and not on the inputs they will use when they calculate their developer charges for 1 July 2014. The results are therefore preliminary and are not representative of the actual charges that will eventuate. A final adjustment will be made at the next determination in line with our normal practice.

The results of the modelling show that if our decisions for the calculation parameters were applied, then developer charges will increase by between 6% and 10% (an average of around 8%) in the Gosford area. For example, the Gosford Council Redevelopment DSP charge increases from about \$4,000/ET to about \$4,500/ET.

²⁰ IPART, *Transcript of the Public Hearing for developer charges*, 12 November 2012, pp 7 and 16.

Modelling by Wyong Council indicates that developer charges will increase between 20% and 39% (an average of around 28%). For example, Wyong Council DSP1-North Wyong Industrial increases from around \$8,000 to around \$10,000 and DSP2-Killarney Urban increases from around \$5,000/ET to around \$6,500/ET. Removal of the 85% cap from Wyong Council's charges accounts for 18% of the increase in Wyong.

These increases are larger than those indicated in our draft report mainly because we asked the Councils to use in their modelling, the forecast operating expenditure and periodic charges levels for the year 2014/15 contained in our Draft Report for their periodic charges.²¹

²¹ See IPART, *Gosford City Council and Wyong Shire Council - Prices for water, sewerage and stormwater, drainage services from 1 July 2013 to 30 June 2017 - Draft Report*, February 2013.



Appendices

A IPART's Developer Charges

IPART's developer charges 2000 Determination mandates that agencies must calculate their developer charges on an NPV basis using the formula shown in Box A.1.

Box A.1 The developer charges formula

The Developer Charge per Equivalent Tenement is calculated as follows:

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

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 discounted from 1 January 1996

K₂ – the Capital Charge for the Post 1996 Assets which 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 under Schedule 5

r₂ - the Discount Rate to be used in the calculation of the Net Present Value of Post 1996 assets under Schedule 5

r₃ - the Discount Rate to be used in the calculation of the Net Present Value of expected revenues and costs under Schedule 5

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

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

The 2000 Determination provides guidance on each component of the formula as described below.

A.1 Capital charge (K)

The capital charge (K) is the net present value of the efficient cost of assets used to service the development area. These costs are initially funded by the water agency. The capital charge can include headworks and large assets such as pumping stations, but excludes various categories of assets such as those gifted free of charge by developers.

The 2000 developer charges determination allows the inclusion of both existing and future assets in the calculation of developer charges. However, pre-1970 assets are excluded because their costs are considered to have been fully recovered by the agencies.

A.2 Operating surplus (Ri and Ci)

The operating surplus is the net present value of the difference between expected operating revenue (Ri) and expected operating costs associated with the DSP area (Ci). Its inclusion in the methodology takes into account income received from periodic charges and avoids 'double dipping' (where customers are charged more than they should be for the assets they use).

The 2000 developer charges determination specifies the consumption per residential customer that each agency must use when calculating its operating surplus. This was based on average household consumption of single dwelling properties at the time of the 2000 Determination.

A.3 Equivalent tenements (ET)

To calculate the developer charge per lot, both the capital charge and the operating surplus must be divided by the present value of the number of ETs in the development area (L). The 2000 developer charges determination defines an ET as:

...a measure of the demand a development will place on the infrastructure in terms of the water consumption and [sewage or drainage] discharge for an average residential dwelling.²²

The number of ETs is discounted to reflect the time preference of consumption. If the ETs are not discounted then the income from developer charges will not equal the expenditure on assets when both are expressed as a present value.

²² IPART, *Sydney Water Corporation, Hunter Water Corporation, Gosford City Council, Wyong Shire Council - Developer Charges from 1 October 2000 - Final Report*, September 2000, p 34.

A.4 Discount rate (r)

The NPV approach involves discounting a stream of future costs and revenues to today's dollars. The discount rate (r) reflects the opportunity cost to the agency of funding infrastructure works.

The 2000 developer charges determination requires all agencies to use a discount rate of 7% (real, pre-tax) when calculating the net present value of post-1996 assets. This rate was based on the benchmark rate of return used in the corresponding periodic price determinations at that time.

We set a lower discount rate for pre-1996 assets of 0% for Gosford and Wyong Councils. This level reflected our view that agencies did not expect a full commercial return from developer charges prior to their regulatory introduction in 1996.

A.5 Implementing developer charges

Developer charges are calculated for particular geographic areas titled development servicing areas. Water agencies must prepare development servicing plans (DSPs) that provide information to developers about the particular development servicing area. The developer charges determination specifies the format of DSPs and the information they must contain. This includes information about items such as estimates of lot and dwelling production, the calculated developer charge and the basis on which it is calculated, and timing of works and expenditures related to anticipated development and demographic assumptions.

Water agencies are required to publicly exhibit their DSPs for at least 30 working days before adoption. They must then submit the DSP to IPART for registration. This is to ensure transparency and provide certainty to developers when they have to make investment decisions regarding where to develop.

The determination requires agencies to review their DSPs once, and only once, every five years or as required by IPART. This allows for any significant changes in service requirements to be reflected in the DSPs and the charges updated accordingly.

B Matters to be considered by IPART under section 15 of the IPART Act

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

- a) the cost of providing the services concerned
- b) the protection of consumers from abuses of monopoly power in terms of prices, pricing policies and standard of services
- c) the appropriate rate of return on public sector assets, including appropriate payment of dividends to the Government for the benefit of the people of New South Wales
- d) the effect on general price inflation over the medium term
- e) the need for greater efficiency in the supply of services so as to reduce costs for the benefit of consumers and taxpayers
- f) the need to maintain ecologically sustainable development (within the meaning of section 6 of the *Protection of the Environment Administration Act 1991*) by appropriate pricing policies that take account of all the feasible options available to protect the environment
- g) the impact on pricing policies of borrowing, capital and dividend requirements of the government agency concerned and, in particular, the impact of any need to renew or increase relevant assets
- h) the impact on pricing policies of any arrangements that the government agency concerned has entered into for the exercise of its functions by some other person or body
- i) the need to promote competition in the supply of the services concerned
- j) considerations of demand management (including levels of demand) and least cost planning
- k) the social impact of the determinations and recommendations
- l) standards of quality, reliability and safety of the services concerned (whether those standards are specified by legislation, agreement or otherwise).

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

Table B.1 Consideration of section 15 matters by IPART

Section 15(1)	Report Reference
a) the cost of providing the services	Chapter 4 generally
b) the protection of consumers from abuses of monopoly power	Chapter 4 generally
c) the appropriate rate of return and dividends	Sections 4.2 and 4.3
d) the effect on general price inflation	Chapter 4 generally
e) the need for greater efficiency in the supply of services	Sections 4.4 and 4.5
f) ecologically sustainable development	NA
g) the impact on borrowing, capital and dividend requirements	Chapter 4 generally
h) impact on pricing policies of any arrangements that the government agency concerned has entered into for the exercise of its functions by some other person or body	NA
i) need to promote competition	Sections 4.2 and 4.3
j) considerations of demand management and least cost planning	Chapter 4 generally
k) the social impact	Section 4.7
l) standards of quality, reliability and safety	NA

