HUNTER WATER SUBMISSION TO IPART

REVIEW OF DEVELOPER CHARGES AND BACKLOG SEWERAGE CHARGES



RESPONSE TO ISSUES PAPER

DECEMBER 2017



Enquiries regarding this submission should be directed to Hunter Water Corporation's Manager, Regulatory Policy.

Telephone: (02) 4979 9612

Email: price.review@hunterwater.com.au

Address: 36 Honeysuckle Drive, Newcastle NSW 2300

Telephone: 1300 657 657

Fax: 02 4949 9414

Website: www.hunterwater.com.au

© Hunter Water Corporation June 2017

ABN: 46 228 513 446

TABLE OF CONTENTS

1	Introduction	6
1.1	This submission	6
1.2	The Hunter Water context	7
2	Developer charges key issues	12
2.1	Scope for simplifying DSP boundaries	12
2.2	Procedural issues	17
2.3	Transitional issues	18
3	Developer charges and wholesale customers	19
3.1	IPART's review of prices for wholesale water and wastewater services	19
3.2	Reintroduction of developer charges should encourage private entry	20
3.3	Developer charges should apply if there is a connection to the public water utility	20
4	Backlog sewerage services	22
4.1	Backlog sewerage schemes in the Lower Hunter	22
4.2	Remaining backlog areas in the Lower Hunter	27
4.3	Hunter Water's funding principles	29
4.4	Some observations on the funding of backlog sewerage schemes	31
5	Major service connection charge	32
6	References	34

Appendix A: Hunter Water response to IPART's issues paper questions

EXECUTIVE SUMMARY

The Independent Pricing and Regulatory Tribunal (IPART) is reviewing the methodology for setting developer charges for metropolitan public water utilities. IPART is concurrently reviewing the cost-recovery mechanisms for other capital intensive activities that result in 'new' customers, such as backlog sewerage services, Sydney Water's Minor Service Extension Charge for extension of the water and wastewater network to customers on the fringes of their systems and the Major Services Connection Charge proposed by Hunter Water in our 2015 price submission for retail periodic prices.

Developers in the Lower Hunter have paid upfront charges to help recover the costs of providing water and wastewater to new development for many years. IPART first introduced a developer charge methodology in 1995, which sought to encourage efficient development by signalling the location-based costs of service provision. The methodology has been refined many times over the years, in conjunction with stakeholders, however the primary aim remains unchanged. We support this aim, however we note that the strength of the locational cost signal may be affected by similar charges for provision of other infrastructure services to development, such as energy and roads.

The NSW Government needs to balance multiple policy objectives in relation to development. In 2008, as part of a package to stimulate the housing industry and improve housing affordability, the Government directed Hunter Water and Sydney Water to set developer charges to zero. ^{2, 3} The determination remains 'active' but there is no charge.

Hunter Water welcomes the opportunity to contribute to the review of the methodology for water, wastewater and stormwater, even though it will not impact Hunter Water, developers or potential customers in the near term. This review provides an opportunity to address some of the practical issues that have arisen with a live determination that is not operational.

IPART's approach of setting a methodology rather than setting prices remains appropriate given the geographic coverage and pace of development. The accompanying procedural steps to ensure transparency and consistency in applying the methodology generally work well. The steps include IPART review of the calculation spreadsheet, the setting of principles for determining Development Servicing Plan (DSP) areas whilst allowing utilities to exercise engineering judgement, and public exhibition of draft DSPs. Establishing a developer charge on a per Equivalent Tenement (ET) basis, with reference to a single residential dwelling, is conceptually sound and facilitates comparison of developer charges across jurisdictions.

We have identified some opportunities to refine the methodology and procedures to achieve a better balance between administrative efficiency and transparency whilst maintaining the locational cost signals. The main opportunity involves rationalisation of DSP areas. Our preliminary review suggests we could more than halve the number of DSPs covering the Lower Hunter, which would make stakeholder review easier. It makes sense to update the methodology with contemporary parameters, cross referencing the utility's prevailing periodic price determination where applicable. It would also be useful to amend the DSP review frequency so that it is more flexible, which could enable savings to be passed on to developers more quickly if some of the forecast growth is serviced by WICA licensees.

The emergence of competition in the urban water sector and provision of wholesale water and wastewater services from public water utilities and to WICA licensees for on-selling to end use customers has several implications for developer charges.

¹ Government Pricing Tribunal of NSW, 1995.

² NSW Department of Planning, 2008.

³ This was achieved through a direction from the NSW Treasurer to Hunter Water and Sydney Water under section 18(2) of the *Independent Pricing and Regulatory Tribunal Act 1992 (NSW)*.

Firstly, IPART's approach to wholesale pricing enables a saving for the public water utility, arising from a private sector water or wastewater system, to be passed through to the wholesale customer. Secondly, active developer charges would create a more 'level playing field' between public water utilities and WICA licensees reflecting location-based costing. Thirdly, if developer charges are active, they should be paid by all developments with a connection to the public water utility's water and wastewater systems, including wholesale customers. There may be a case for wholesale customers to pay lower developer charges if their development is a lower cost to service (i.e. if recycled water reduces demand for drinking water) however it is too early to generalise the cost savings for incorporation into the methodology.

Backlog sewerage services have been provided in the Lower Hunter since the Hunter Sewerage Project (HSP) in the 1980s, which was followed by the Priority Sewerage Programme (PSP) and most recently, the NSW Government's announcement to sewer Wyee (expected to be commissioned in 2020).

Hunter Water generally agrees with the principles adopted by IPART in its 1997 Pricing of Backlog Sewerage Services Determination. That is, the principle that direct beneficiaries (new customers) should pay, with a contribution from the wider community if there are broader environmental and health benefits.

In relation to backlog sewerage for township and villages, the NSW Government has paid the contribution on behalf of the direct beneficiaries and a contribution from the wider community has been collected via the Environmental Improvement Charge (EIC). The EIC is levied as a separate charge from other wastewater charges, to maintain transparency of its purpose.

In relation to small pockets of infill backlog sewerage comprising up to 30 residential customers, the direct beneficiaries pay all of the costs because the environmental and health benefits are localised.

Despite extensive backlog sewerage programmes in the Lower Hunter, 18 townships and villages remain unsewered. Hunter Water considers that a transparent approach to prioritising and approving backlog areas involves:

- Specified roles for the NSW Environment Protection Authority, NSW Health and local councils in assessing and ranking priority areas.
- Formal NSW Government approval of new backlog sewerage schemes for townships and villages where there are broader public benefits.
- NSW Government social programme funding of the customer's contribution to the capital costs of new schemes, if the Government does not want customers to incur those costs.
- Appropriate balancing of cost recovery principles depending on the extent of environmental and health risks. In cases where these impacts are all localised, such as urban infill areas, the direct beneficiary should pay the full cost of delivering a reticulated wastewater service.

In relation to the other charges included in IPART's review, we agree that public water utilities should be able to recover the total costs of service provision between developer charges, revenue from periodic prices, other charges and other funding arrangements. We do occasionally have situations where existing properties express interest in connecting to our systems – predominantly wastewater. In most circumstances the properties are located within the existing network and the properties have their own onsite wastewater treatment facilities.

These situations may not be price-regulated under the *Independent Pricing and Regulatory Tribunal (Water, Sewerage and Drainage Services) Order 1997*, however we can see merits in applying the developer charges methodology (or similar) if it is 'reactivated' in the future.

1 INTRODUCTION

1.1 THIS SUBMISSION

Hunter Water welcomes the opportunity to contribute to the Independent Pricing and Regulatory Tribunal's (IPART's) Review of developer charges and backlog sewerage charges for metropolitan water agencies.

We agree that it is appropriate to review the 17 year old developer charges determination to ensure it remains fit for purpose and that parameters are current. It makes sense to concurrently review infrastructure funding mechanisms for backlog sewerage programmes and other capital intensive activities that result in 'new' customers for price-regulated metropolitan public water utilities.⁴

Hunter Water has not levied developer charges for water and wastewater services since receiving a Treasurer's direction in 2008 that set the charges to zero. The commentary in this submission reflects Hunter Water's earlier experience in applying IPART's 2000 developer charges methodology and its predecessors.

The submission also outlines Hunter Water's experience and views on backlog sewerage schemes in response to the issues paper's chapter four.

The submission is structured as follows:

1.	Introduction	Background information on Hunter Water's operations and how we previously applied the methodology, which informs subsequent sections of the submission
2.	Developer charges key issues	Scope for simplifying boundaries
		Procedural issues: DSP content and reviews
		Transition issues that may arise if developer charges are 'reactivated' in the Lower Hunter
3.	Developer Charges and wholesale customers	Issues raised by Water Industry Competition Act 2006 (NSW) licensees for developer charges
4.	Backlog Sewerage Services	History of backlog sewerage services in the Lower Hunter, including the remaining un-sewered areas
		Funding mechanisms
		Principles, benefits and beneficiaries
5.	Major services connection charge	History and current status.

Hunter Water's response to each of the 28 questions contained in IPART's issues paper is provided in Appendix A.

⁴ In this context, 'new' customers may be connected to only reticulated water or reticulated wastewater but not both, or may not be connected to either.

1.2 THE HUNTER WATER CONTEXT

Hunter Water is a State Owned Corporation (SOC) providing drinking water, wastewater, recycled water and some stormwater services to a population approaching 600,000 people in homes and businesses across the Lower Hunter.

Hunter Water's services, projects and activities cover 6,671 square kilometres in the areas of Cessnock, Lake Macquarie, Maitland, Newcastle, Port Stephens, Dungog and small parts of Singleton.

1.2.1 Water services

Hunter Water has a large interconnected drinking water supply system that provides reticulated water services to over 240,000 properties in the Lower Hunter's urban areas. We also supply a small volume of bulk treated water to MidCoast Water customers in Karuah and can supply and receive bulk treated water from the Central Coast Council.

The drinking water system consists of catchments (creeks, rivers and groundwater systems), raw water storages (dams and aquifers), water treatment plants and water supply systems. Hunter Water has four raw water storages totalling 276,685 ML (million litres) in capacity. Hunter Water operates six water treatment plants (WTPs) that treat water to a quality suitable to safely drink. These water treatment plants are Dungog WTP, Grahamstown WTP, Lemon Tree Passage WTP, Anna Bay WTP, Nelson Bay WTP and Gresford WTP. The water supply system comprises the trunk mains and distribution networks to convey the drinking water to customers' properties.

The composition of Hunter Water's water developer charges, as at the last review of Development Servicing Plans (DSPs) in 2006, is shown graphically in Figure 1-A. Hunter Water's approach was to have:

- A single water headworks charge, covering the cost of augmenting the Corporation's raw water sources, water treatment facilities and headworks delivery systems.
 - The single water headworks DSP area reflected the interconnectivity of the water sources. Hunter Water applied the net operating result⁵ required under the developer charges methodology to the headworks component of the developer charge. For headworks, the net operating result at that time exceeded the capital charge.
- 17 water supply system charges, which reflected a tight asset-nexus with the development. An
 additional DSP was later created to reflect the provision of reticulated recycled water to a new
 development in Thornton North, which was forecast to reduce the water servicing requirements for
 parts of the Maitland DSP area.

Therefore, the 19 DSP areas combined into 18 developer charges for water services ranging from \$0/Equivalent Tenement (ET) to \$2,543/ET for the single residential property classification (see Figure 1-B).

There were no DSPs covering Dungog Shire Council's area because the Council's water and wastewater business was transferred to Hunter Water on 30 June 2008 and developer charges for water and wastewater services were set to zero in December 2008. The transfer included Gresford WTP.

⁵ As defined in Schedule 4 of the 2000 Developer Charges Determination, the net operating result is the net present value of the future net operating profits (or losses) expected to be derived from providing the services to the DSP area divided by the net present value of the number of ET in the DSP area.

FIGURE 1-A COMPOSITION OF WATER DEVELOPER CHARGES WHEN EXHIBITED AND REGISTERED IN 2006

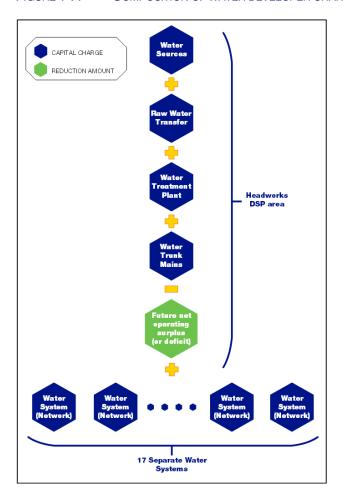
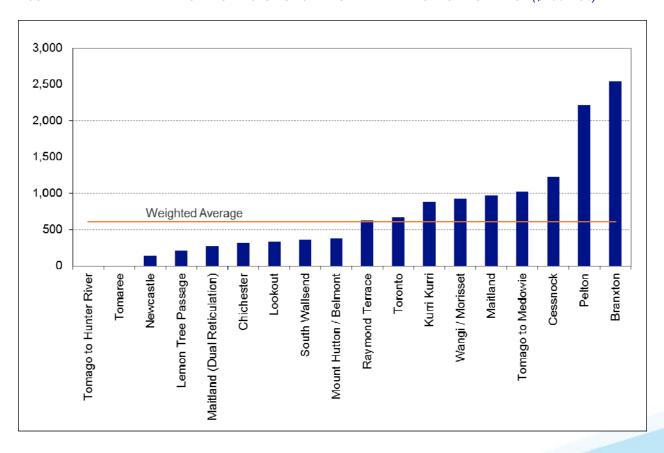


FIGURE 1-B WATER DEVELOPER CHARGES – SINGLE RESIDENTIAL – PRIOR TO INACTIVATION (\$2007-08)



1.2.2 Wastewater services

Hunter Water maintains an extensive system to transport wastewater, which includes 4,995km of sewer main systems and 434 pumping stations, as well as 19 wastewater treatment works.

At the last review of wastewater DSPs, Hunter Water took a component-based approach whereby the wastewater transportation system was divided into sub-catchments, which were then added to DSPs for transfer mains, wastewater treatment works (WWTWs) and an ocean outfall, as applicable to each sub-catchment (see Figure 1-C). Therefore the 59 DSP areas combined into 37 developer charges for wastewater services ranging from \$0/ET to \$24,031/ET for the single residential property classification (see Figure 1-D).⁶

There were no DSPs covering Dungog Shire Council's area because Council's water and wastewater business was transferred to Hunter Water on 30 June 2008 and developer charges for water and wastewater services were set to zero in December 2008. The transfer included Dungog WWTW and an additional WWTW at Clarence Town has since been completed.

Wastewater System (Network)

Future net operating surplus (or deficit)

Wastewater Transfer Main

Wastewater Transfer Main

Wastewater Transfer Main

Wastewater Treatment Works

FIGURE 1-C COMPOSITION OF WASTEWATER DEVELOPER CHARGES WHEN EXHIBITED AND REGISTERED IN 2006

Note: Effluent flows from Edgeworth, Toronto and Dora Creek WWTWs are pumped to Belmont Ocean Outfall. Edgeworth Effluent Pipeline and Toronto Effluent Pipeline had separate DSPs. The developer charge associated with Dora Creek transfer main was calculated separately but included in the Dora Creek WWTW DSP.

⁶ Some sub-catchments combine in the Steel River, Kooragang, Stockton area, hence the 40 wastewater systems reduce to 37 areas.

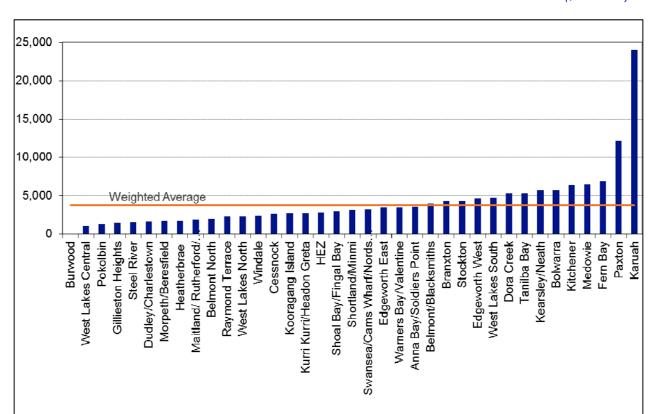


FIGURE 1-D WASTEWATER DEVELOPER CHARGES – SINGLE RESIDENTIAL – PRIOR TO INACTIVATION (\$2007-08)

1.2.3 Stormwater services

Stormwater management in urban areas of the Lower Hunter is primarily the responsibility of local councils. Hunter Water only has stormwater responsibilities in three of the six local government areas that it serves and therefore only about one third of water and/or wastewater customers are also stormwater customers.

In the Newcastle, Lake Macquarie and Cessnock local government areas, Hunter Water's role is to maintain the current capacity of 100 km of major concrete channels and culverts fed by the stormwater systems owned and managed by the Councils. Hunter Water's 2017-2022 Operating Licence enables, but does not require, augmentation of the stormwater system provided that each project is assessed on its merits (including consideration of co-funding opportunities). In the Newcastle, Lake Macquarie and Cessnock local government areas, Hunter Water's role is to maintain the current capacity of 100 km of major concrete channels and culverts fed by the stormwater systems owned and managed by the Stormwater systems of the current capacity of 100 km of major concrete channels and culverts fed by the stormwater systems owned and managed by the Stormwater Stormwater is a supplication of the stormwater system provided that each project is assessed on its merits (including consideration of co-funding opportunities).

To date, no major augmentations have been made and no developer charges have applied to Hunter Water's stormwater services. The 2008 Government Direction also set stormwater developer charges to zero¹⁰.

 $^{^{\}rm 7}$ Hunter Water Act 1991 (NSW), sections 13(1)(b) and 62(2).

⁸ Hunter Water 2017-2022 Operating Licence, section 1.2.3.

⁹ IPART, 2017 (d), p 21.

¹⁰ NSW Department of Planning, 2008.

1.2.4 Recycled water services

Hunter Water recycles approximately 5,000 ML per year for residential, municipal, industrial and agricultural end uses.

In 2006, IPART determined the methodology to be used to calculate recycled water developer charges, which apply to residential reticulated recycled water schemes.¹¹ The methodology is similar to that applying to water and wastewater services.

As noted in IPART's issues paper, the NSW Government's 2008 decision to set water and wastewater developer charges to zero does not apply to Hunter Water's recycled water developer charges.¹²

Hunter Water currently has two reticulated recycled water schemes servicing the Gillieston Heights and Chisholm growth areas. In 2014-15, Hunter Water received the Treasurer's approval to set recycled water developer charges for these dual reticulation schemes in real terms at 2012-13 levels, to be adjusted for inflation annually.¹³

Hunter Water notes that developer charges for recycled water are outside the scope of this review.

¹¹ IPART, 2006.

¹² IPART, 2017 (d), p 3.

¹³ The Treasurer's approval is required for Hunter Water to charge less that the maximum prices calculated in accordance with an IPART determination, under section 18(2) of the *Independent Pricing and Regulatory Tribunal Act 1992*.

2 DEVELOPER CHARGES KEY ISSUES

2.1 SCOPE FOR SIMPLIFYING DSP BOUNDARIES

The establishment of DSP areas plays a key role in signalling the location-specific costs of development, which is one of the objectives of developer charges. ¹⁴ Currently the main requirement in determining the boundaries of DSP areas is that there is a clear nexus between assets and the area serviced (i.e. the user pays principle). ¹⁵

Hunter Water's DSPs have not been reviewed since before 2008, when the then NSW Government set developer charges for water and wastewater to zero. ¹⁶ The last active DSPs were based on water operational zones and wastewater sub-catchments (see Figure 2-A and Figure 2-C). The network DSPs needed to be 'bundled' with the relevant treatment plant, headworks and tailworks DSPs to give an overall developer charge payable for a specific development area (e.g. in 2006 there were 59 wastewater DSPs that combined into 37 wastewater developer charges). In hindsight, the large number of DSPs and complexity in combining DSPs for each component of the system may have increased opacity in application of the methodology.

The cost reflective precision of smaller DSP areas needs to be balanced with competing attributes of price stability and administrative simplicity. Smaller DSP areas lead to a tighter asset nexus and more cost-reflective charges but are sensitive to changes in development-related capital expenditure and changes in development rates during five-yearly reviews, which may undermine certainty for developers. It also results in a higher administrative burden for public water utilities in maintaining DSPs and for developers in reviewing exhibited drafts.

The setting of DSP boundaries should have regard for:

- Price signalling (which could be through a tight asset nexus or geographic proximity)
- Administrative efficiency
- Transparency, including ease of review by stakeholders during exhibition
- Providing certainty for developers
- Sufficient flexibility to reflect different jurisdictional circumstances, such as the level of homogeneity in water and wastewater systems or the benefits of aligning with geographic boundaries set in other planning instruments.

Hunter Water has considered a number of options for redefining and rationalising of DSP areas. One option may involve having one DSP per water supply zone and one DSP per wastewater treatment plant. This has potential to reduce the number of water DSPs from 18 to 6 and wastewater DSPs from 59 to 19 (compare Figure 2-A with Figure 2-B for water and Figure 2-C with Figure 2-D for wastewater). It would be more appropriate to confirm the preferred approach closer to the time of 'reactivation' of developer charges (if this occurs in the future), at which time Hunter Water would consult with developers and other stakeholders.

¹⁴ IPART has cited the objectives of developer charges in NSW as being cost recovery and signalling of locational cost (IPART, 2000(b), p 4; IPART, 2008, p 11; and IPART, 2017 (d), p 1). Additional objectives have included enhancing competition in the provision of services to new developments (IPART, 2017 (d)), sharing the risks associated with the cost of infrastructure provision to developers (IPART, 2008) and achieving the pricing objectives of economic efficiency, transparency and equity (IPART, 2008).

¹⁵ It is noted that this requirement is contained within the report accompanying the 2000 Determination, rather than the Determination itself. See IPART, 2000 (b), sections 4.1.2 and 4.6.

¹⁶ NSW Department of Planning, 2008 and IPART, 2017 (d), Appendix F.

FIGURE 2-A WATER DSP AREAS AS AT 2006 (CURRENTLY INACTIVE)

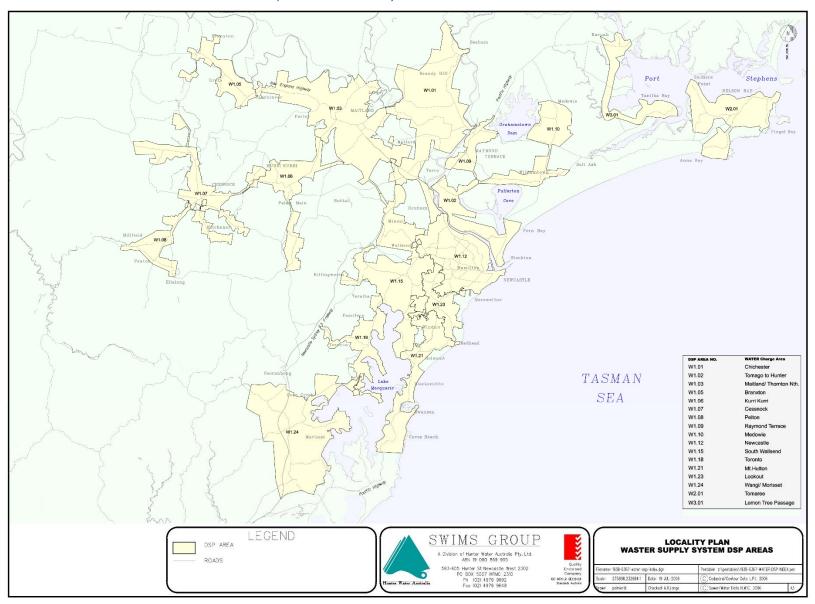


FIGURE 2-B AN OPTION FOR CONSOLIDATED WATER DSP AREAS

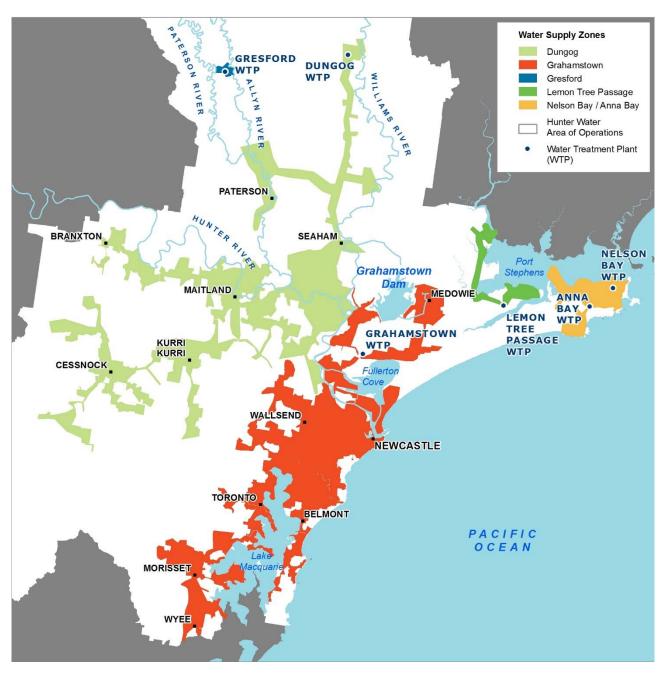


FIGURE 2-C WASTEWATER DSP AREAS AS AT 2006 (CURRENTLY INACTIVE)

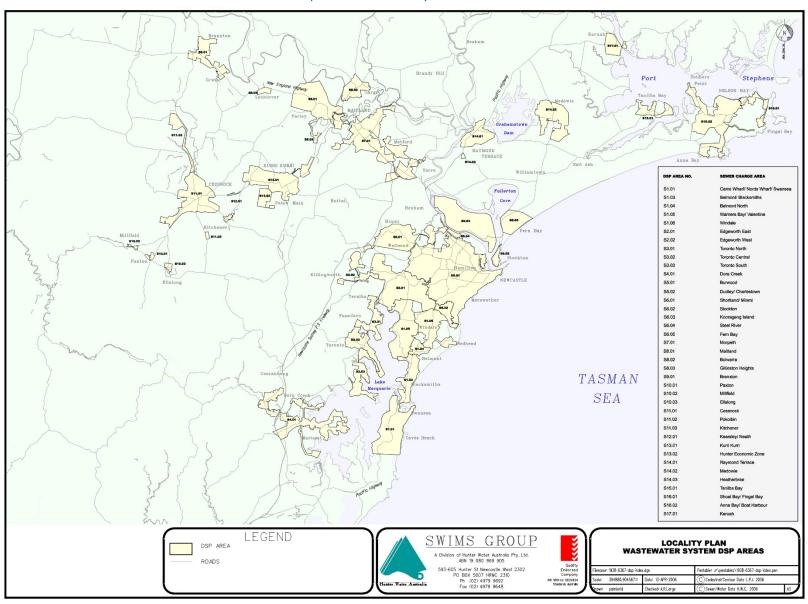
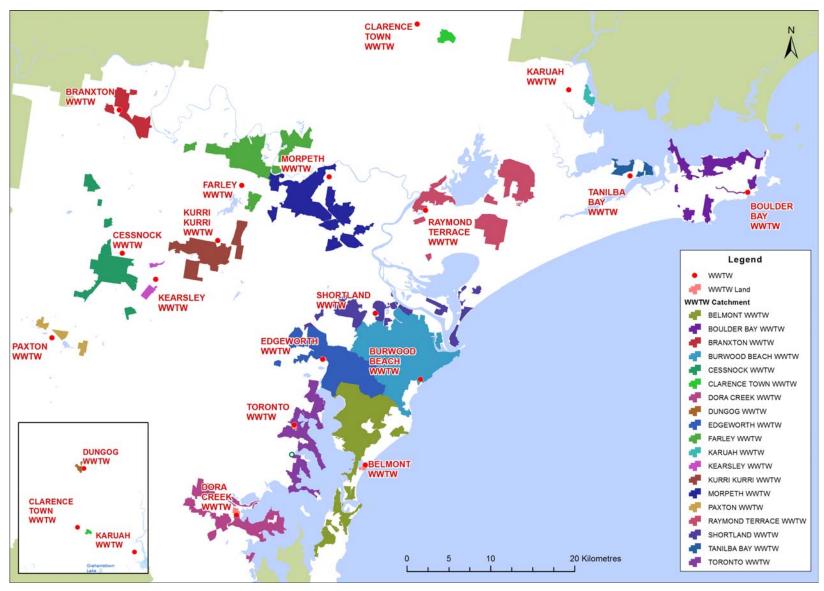


FIGURE 2-D AN OPTION FOR CONSOLIDATED WASTEWATER DSP AREAS



2.2 PROCEDURAL ISSUES

2.2.1 DSP content

DSPs provide transparency and facilitate independent scrutiny of the calculation of developer charges. DSPs also provide information that developers use to assist with making decisions about whether to develop or not, such as the timing of planned works and expenditures related to servicing the anticipated development and demographic assumptions. For many years DSPs were the only means through which developers could access this information.

Hunter Water has now committed to annual publication of a Growth Plan (from 2018) containing our capital works programme, processes for prioritising expenditure, details of recent, current and planned capital works projects and growth maps showing the location and timing of likely development. Stakeholders have expressed support for the proposed Growth Plan and the certainty that it provides. It is noted that Sydney Water has also been publishing a Growth Plan for several years.

Given the current context, where public water utilities are becoming increasingly customer-oriented (including developers as customers), the need for the degree of specificity regarding DSP content within the developer charges determination may have largely dissipated.

2.2.2 Review and update of DSPs

The intent of requiring periodic review of DSPs is supported. The dynamic nature of the development industry and capital-intensive nature of water and wastewater service provision mean it is appropriate to update forecast development locations and rates, as well the infrastructure required to service the development. This approach ensures that developer charges remain contemporary and cost-reflective. Episodic review also enables IPART decisions on retail prices to be updated, ensuring revenue adequacy for public water utilities across upfront and periodic charges.

The DSP review frequency seems about right at once in five years. Generally, a five-yearly approach balances price stability with the level of certainty in forecasting. However, Hunter Water sees merits in incorporating greater flexibility into the review period. For example, the 2000 Determination allows DSPs to be reviewed once, and only once, in a five year period. This may constrain public water utilities in passing on savings (reducing developer charges) due to any material changes in demographic assumptions or asset requirements. Such a situation may arise if the developer enters into a servicing agreement with a WICA licensee after a DSP is registered. Hunter Water understands that during the 2008 review IPART was receptive to amending the determination to allow more than one DSP review within the five year window with the Tribunal's approval.

Hunter Water requests that IPART add review clauses in the determination to reflect the 'inactive' status of developer charges in the Lower Hunter and Sydney. A strict application of the 2000 Determination would require Hunter Water to review, exhibit and register DSPs covering its entire area of operations every five years. IPART should consider amending the current determination to make it explicit that Hunter Water is not compelled to update DSP information if there is a Treasurer's direction in place setting developer charges to zero.¹⁷

¹⁷ The direction was issued in 2008, pursuant to section 18(2) of the IPART Act.

2.2.3 IPART's role in reviewing and registering DSPs

The current level of oversight provided by IPART is appropriate. Prior to the NSW Government's 2008 decision to set water and wastewater developer charges to zero, Hunter Water received very little adverse feedback from developers about the application of the methodology. This suggests an absence of drivers for stronger regulatory oversight.

Any proposal to increase oversight, such as the requirement for regulated public water utilities to obtain any additional approvals from IPART (e.g. approval of DSP areas), should balance the benefits against the additional uncertainty for developers associated with a longer five-yearly review process.

2.3 TRANSITIONAL ISSUES

The process of preparing, documenting and levying developer charges is complex, information intensive and time consuming. IPART's practice has been to allow public water utilities a transition period in adopting a new methodology determination.¹⁸ Given that almost a decade has passed since Hunter Water ceased levying developer charges, substantial work would need to be undertaken to reintroduce them including:

- Alignment with Hunter Water's Growth Plan.
- Updating for changes in Hunter Water's area of operations since 2008.
- Updating costing models for existing assets, new assets and future works.
- Updating demographic and water and wastewater usage information.
- One-off costs associated with any rationalisation of DSP boundaries.
- An extensive public consultation process.

Hunter Water estimates the cost of re-establishing developer charges would be in the order of \$0.5 to \$1.0 million.

Accordingly, Hunter Water considers that IPART should allow for a twelve to eighteen month transition period to implement its updated determination following any Government decision to 'reactivate' developer charges. This would allow time for more comprehensive stakeholder engagement prior to any reintroduction of developer charges, including consideration of revised DSP areas.

¹⁸ See for example, IPART 2000(a), section 3.1.

3 DEVELOPER CHARGES AND WHOLESALE CUSTOMERS

The NSW Government has established the most comprehensive framework in Australia for encouraging competition in the urban water sector. The *Water Industry Competition Act 2006* (NSW) (WIC Act) set in place:

- A licensing regime for private sector providers of drinking water, recycled water and wastewater services. The licensing regime applies to access-seekers, competitors that are on-selling services from public water utilities to end use customers, and competitors that are selling a self-contained, on-site service using infrastructure located within new developments. These private operators are collectively referred to as WICA licensees or WICA utilities.
- An access regime whereby a WICA licensee may access significant network infrastructure owned and operated by a public water utility.

Competition in New South Wales has emerged in the market for end-use water and wastewater services rather than in the form of access to network infrastructure. Overall, there are 20 network operator's licences and 10 retail supplier's licences servicing more than 4,000 water and wastewater connected properties in New South Wales.¹⁹ There are six WICA licensees in the Lower Hunter:

- Network operator licences are held by Huntlee Water, Coorabong Water, Wyee Water and Catherine Hill Bay Water Utility.
- Retail supplier licences are held by Flow Systems and Solo Water.

WICA licensees provide an alternative to public water utilities *for the market* servicing a particular new development. That is, WICA utilities compete with public water utilities to provide water and wastewater infrastructure for the developer.

A WICA licensee may seek the following wholesale services from a public water utility:²⁰

- Drinking water to on-sell to end-use drinking water customers
- Drinking water to top up recycled water plants that is on-sold to end-use customers
- Wastewater services (sewage transportation, treatment and disposal) to on-sell to end-use wastewater customers
- Wastewater services in order to sell recycled water to end-use customers.

3.1 IPART'S REVIEW OF PRICES FOR WHOLESALE WATER AND WASTEWATER SERVICES

IPART undertook a comprehensive review of the pricing of water and wastewater services supplied by Hunter Water and Sydney Water to wholesale customers (WICA licensees). IPART's 2017 final report and final determination set out a detailed process for considering positive and negative facilitation costs via scheme-specific wholesale price determinations.

¹⁹ IPART, 2017 (c), p 1 and 3.

²⁰ IPART, 2017 (b), p 18.

IPART's approach would set scheme-specific wholesale prices taking into account the growth plans of the public water utility.²¹ There would be no facilitation cost adjustment where the wholesale service provider had plans to deliver infrastructure to support urban growth related to the development serviced by the WICA licensee. The developer or WICA licensee may be required to fund augmentations where the public water utility had no plans to augment its system to service growth in that part of the water or wastewater system.

IPART's issues paper suggests that Hunter Water or Sydney Water may make cost savings if a wholesale customer's recycled water production defers a scheduled augmentation, and these cost savings would result in negative facilitation costs and lower wholesale prices.²² This statement raises questions about the relevance of deferrals if the proposed upgrade or augmentation is not included in existing retail prices.

Conceptually, Hunter Water supports IPART's decision to allow scheme-specific reviews and determinations of wholesale prices that include adjustments taking account of net facilitation costs. Demonstrating and measuring the extent and permanency of any positive or negative facilitation cost may prove difficult in practice.

3.2 REINTRODUCTION OF DEVELOPER CHARGES SHOULD ENCOURAGE PRIVATE ENTRY

In essence, the levying of developer charges on new development places a value on the use of the capacity in the water and wastewater systems operated by the public water utility. Developer charges include a contribution for existing surplus system capacity as well as future investment in headworks, treatment works and trunk network infrastructure to service urban growth.

The reintroduction of developer charges would improve the financial viability of private water utilities offering standalone, on-site services – those that are not connected to the public water utility (i.e. schemes that do not involve wholesale arrangements). This would include a wastewater service with a recycling facility located within the new development. From the developer's perspective, the decision to connect to Hunter Water's system would come with the additional cost of paying the relevant developer charge for connection to a water or wastewater service. The alternative would be to sign a commercial agreement with a WICA licensee to provide water and wastewater services. There would be no developer charge if the WICA licensee was not seeking a connection to the public water utility's system.

3.3 DEVELOPER CHARGES SHOULD APPLY IF THERE IS A CONNECTION TO THE PUBLIC WATER UTILITY

Hunter Water's capital planning process involves continuous review of works that are necessary across the Lower Hunter to ensure the delivery of safe, reliable and efficient services. This requires capital investment to refurbish and renew existing assets, and upgrades and augmentations to service both existing customers and new connections.

Where developer charges are active, Hunter Water considers that all new developments that connect to Hunter Water's system should pay the relevant DSP charge for water or wastewater services. Even when a WICA licensee is providing water or wastewater services within the development, that development will still place capital and operating costs on the public water utility – in situations where it purchases wholesale services - to supply drinking water to the development boundary or receive wastewater discharges (either directly or via a recycled water facility). There would be no developer charge if the WICA utility was not connected to the public water utility.

²¹ IPART, 2017 (b), p 61 and 62.

²² IPART, 2017 (d), p 26.

WICA utilities may argue that the presence of an on-site recycling facility reduces the infrastructure costs imposed on the public water utility in supplying wholesale services. IPART's wholesale price review found that it is difficult to make generalisations about the incidence of costs when public water utilities are providing water and wastewater services to WICA licensees.²³ For example, the analysis of relevant capital and operating costs would need to take account of factors like pollutant and nutrient loads, peak discharge rates and maintenance periods for recycling facilities. Similarly, a wholesale service supplying drinking water to a wholesale customer would need to consider peak day demand and BASIX requirements for similar developments. This difficulty in making generalisations means it would be challenging to amend the developer charges methodology and/or determination to address wholesale arrangements at this stage.

Hunter Water considers that all developments connecting to its water and wastewater systems should pay developer charges if they are reintroduced. IPART's approach of allowing scheme-specific determination for wholesale services would provide an opportunity to consider the merits of any adjustment to the developer charges calculation on a case-by-case basis.

-

²³ IPART, 2017 (b), section 6.

4 BACKLOG SEWERAGE SERVICES

There are 18 townships and villages in the Lower Hunter that do not have a reticulated sewerage service. Hunter Water's policy for the provision and funding of backlog sewerage services sets out a process for identifying, ranking and prioritising backlog areas, along with a key role for the NSW Government in the decision making process. This includes NSW Government funding of the customer's share of connection costs for high priority schemes that deliver broader environmental and health benefits.

4.1 BACKLOG SEWERAGE SCHEMES IN THE LOWER HUNTER

The Hunter Sewerage Project commenced in the late 1980s and delivered sewerage services to approximately 20,000 properties around the environmentally sensitive waterways of Lake Macquarie and Port Stephens. The Hunter Sewerage Project cost more than \$300 million at that time, with funding provided in equal shares by the NSW Government and Hunter Water's customer base.

The NSW Government introduced the Priority Sewerage Programme (PSP) in 1997, initially covering seven backlog areas in Sydney Water's area of operations. During 1999, the NSW Environment Protection Authority (EPA) prepared an 'environmental assessment report' for the PSP. The report assessed the environmental and health risks of 64 unsewered areas within Sydney, Hunter, Gosford and Wyong. The EPA prioritised each backlog area according to set criteria:

- the size of the unsewered area in terms of lot numbers, population and area;
- land use within the unsewered area;
- sensitivity of receiving waters, including: consideration of drinking water catchments; agricultural, commercial, and recreational uses; and ecological values; and
- environmental impact and human health risks.

The NSW Government announced the Fern Bay backlog scheme in 2002 - the first Hunter Water project under the PSP. In 2003, the NSW Government announced four new PSP schemes at Kitchener (182 properties), Ellalong (483 properties), Millfield (355 properties) and Lochinvar (187 properties). The works in these areas were completed at a total capital cost of more than \$50 million. From 1 July 2008, Hunter Water took on responsibility for the backlog sewerage scheme for the township of Clarence Town, funded under the Country Towns Water Supply and Sewerage Scheme, following extension of our area of operations to include Dungog Shire.

In 2014, Hunter Water reviewed the potential to provide reticulated sewerage services to remaining backlog areas. The assessment was supported by advice from the EPA, NSW Health and local councils and resulted in the NSW Government announcing the Wyee backlog sewerage scheme. The Wyee scheme will service approximately 450 existing properties when it is commissioned in 2020.

The location of backlog sewerage schemes in the Lower Hunter are shown in Figure 4-A. The timing and funding for these sewerage schemes is detailed in Table 4-A.

FIGURE 4-A HUNTER SEWERAGE PROJECT AND PRIORITY SEWERAGE PROGRAMME AREAS

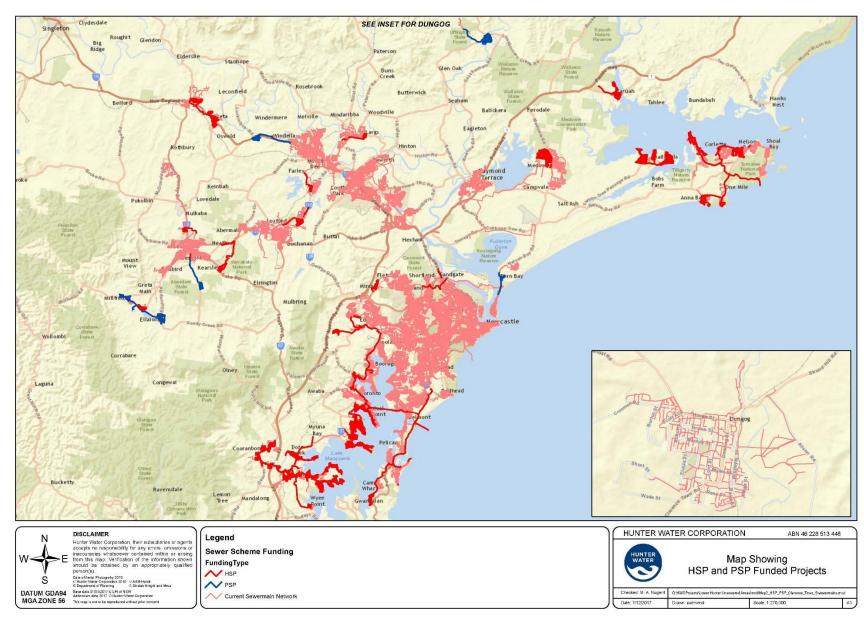


TABLE 4-A TIMING AND FUNDING OF COMPLETED BACKLOG SEWERAGE PROGRAMMES

Programme name	Areas	Timing	Funding	NSW Government contribution
Hunter Fringe Area Sewerage Scheme (HFASS) – later renamed HSP	Largs Fassifern	Late 1980s	SSAC ¹ and EIC	50% of capital cost
Hunter Sewage Project (HSP)	Minmi Gillieston Heights Kearsley Neath Nulkaba Killingworth Greta East Branxton Heddon Greta Paxton	Late 1980s to early 1990s	SSAC ¹ and EIC	50% of capital cost
HSP (expanded scope)	Rathmines Wangi Wangi Morriset Tanilba Bay Mallabula Lemon Tree Passage Cooranbong Karuah	1990s	SSAC ¹ and EIC	50% of capital cost
Priority Sewer Programme (PSP)	Fern Bay	2001	EIC	\$3,000 per lot ² (\$nominal)
PSP (expanded scope 1)	Kitchener Ellalong Millfield Lochinvar	From 2003	EIC	\$3,000 per lot ² (\$nominal)
Country Towns Water Supply and Sewerage Programme (CTWSSP)	Clarence Town	2008 - 2012	Clarence Town levy and EIC	
PSP (expanded scope 2)	Wyee	Underway	EIC	\$6,000 per lot³ (\$nominal)

^{1.} The Sewer Service Access Charge (SSAC) was paid by vacant land in the backlog area when connecting to sewer. The intent of the SSAC was to recover from private owners of vacant land part of the cost of providing a sewer service (which could be recouped by the owner in the value of their land on sale). This was intended to address the perceived 'inequitable windfall benefit' that would apply to the owners of vacant land serviced by the HSP, since the intent of the HSP was to provide a sewerage service to existing houses in the backlog area.

^{2.} Government contribution of \$3,000 per lot; based on IPART 1997 Determination.

^{3.} Consistent with the Government contribution to recent backlog sewerage programmes in Sydney.

4.1.1 IPART's 1997 Determination

In 1997, IPART determined a methodology for fixing the backlog sewerage capital contribution charge for the provision of sewerage services to backlog areas. IPART made the following key points in the pricing report that accompanied the determination:

- As an underlying principle, the capital works costs should be recovered from the direct users or beneficiaries.
- Where environmental or health hazards pose substantial risks to the local and wider community, the wider community should share these costs with the local community.
- The EPA, in consultation with NSW Health, should determine the priority ranking of backlog areas, based on environmental and health risks.
- Where capital costs are to be shared, up to 25 per cent is to be paid by benefitting local residents with the remaining costs to be paid by all customers of the water authority.
- The water authority should provide payment options to affected land owners, using an amortisation
 of costs over a period of up to 20 years incorporating an interest cost using NSW Treasury
 Corporation's 10-year bond rate at the time the service is made available.

Hunter Water considers that IPART's 1997 review of the pricing of backlog sewerage services has stood the test of time. IPART's 1997 report sets out a sound basis for identifying and prioritising backlog sewerage areas. IPART recognised that existing properties connecting to a backlog scheme receive benefits via improvements in the local environment, increases in land values and eliminating on-site operating costs. On this basis, IPART considered that there was a case for customers to make a contribution to part fund backlog schemes.

4.1.2 Funding arrangements under the Priority Sewerage Programme

In 1998, the NSW Government decided that the cost of the customer capital charge should be provided by way of social programme funding. Under this arrangement, customers whose properties were identified by the EPA as a high priority under the Government's PSP would make a zero capital contribution on the basis of 'quality of life' considerations and wider community benefits.

In 2001, the NSW Government put in place a process to prioritise and approve backlog areas under the PSP scheme. The process, at that time, involved the following steps:

- The EPA prepares an environmental assessment report categorising areas based on risk to the environment or public health.
- The Portfolio Minister for the utility receives the EPA report, and requests the utility to prepare an
 analysis of options and costs to service. The Minister, on considering the EPA and utility reports,
 makes a recommendation to Cabinet. The Cabinet approves the areas to be serviced under the
 PSP.
- The NSW Government may not wish to accept the customer capital contribution approach as outlined in IPART's 1997 Determination, in which case social programme funding may cover the customer contribution.
- The utility would seek approval from IPART for the balance of all costs of the backlog sewerage scheme to be recovered from sewerage customers of the utility.

4.1.3 Environmental Improvement Charge

Hunter Water's Environmental Improvement Charge (EIC), a levy paid by the broader customer base, has its origins in the Hunter Sewerage Project dating back to the 1980s. The EIC was used as mechanism for the wider community to share the costs of backlog sewerage schemes for townships, because the wider community also benefits from the improved environmental and health outcomes. The EIC was initially set to run until 2009 to fund projects under the HSP. The announcement of the five PSP projects in the Lower Hunter was funded by an extension of the EIC until 30 June 2019. IPART's 2016 Determination of Hunter Water's prices provided for an extension of the levy until the end of the price path, 30 June 2020, as part of the funding arrangements for the Wyee scheme. ²⁴

Hunter Water's past price submissions have argued that levying the EIC as a separate charge for the HSP and PSP has the benefit of transparently separating the costs of providing backlog sewerage services from the cost of the general operation, upgrade and extension of sewerage infrastructure. The separation of charges also forms part of the assistance arrangements for pensioner concession card holders, for whom the payment of the EIC is waived.

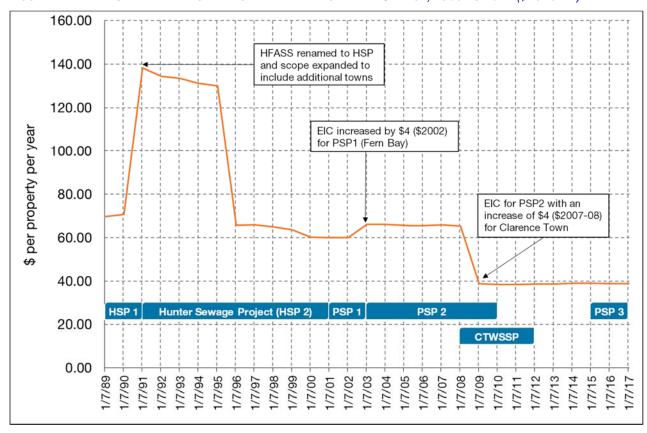


FIGURE 4-B HUNTER WATER'S ENVIRONMENTAL IMPROVEMENT CHARGE, 1989 TO 2017 (\$2016-17)

²⁴ IPART, 2016, p 119 to 122.

4.2 REMAINING BACKLOG AREAS IN THE LOWER HUNTER

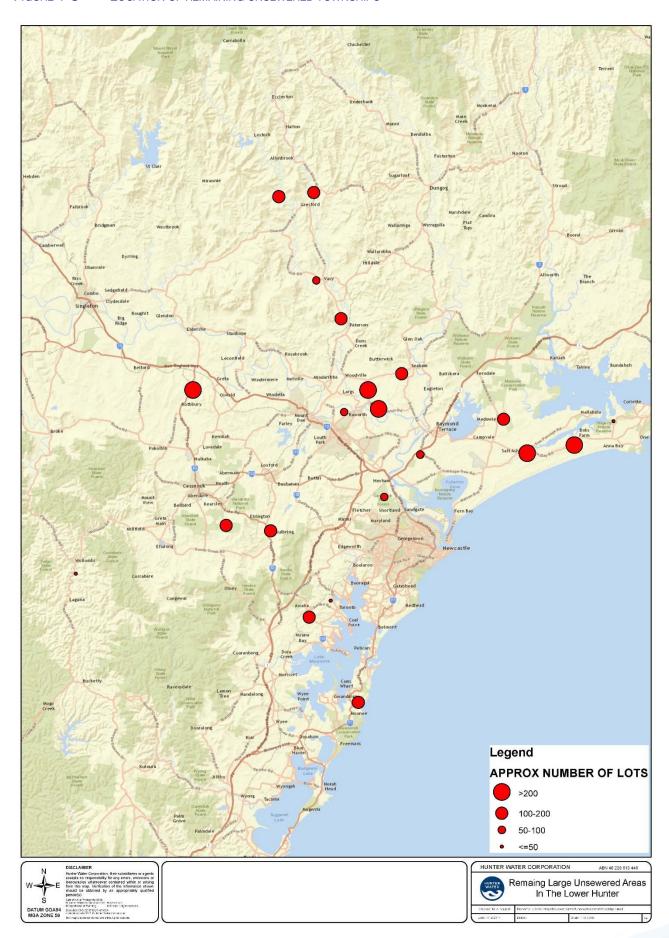
There are almost 2,500 existing residential properties in 18 townships or villages across the Lower Hunter that rely on an on-site wastewater system (e.g. septic tanks). These properties are not connected to Hunter Water's wastewater system or a service provided by a WICA licensee. The number of properties and location of each backlog area are shown in Table 4-B and Figure 4-C.

Hunter Water estimates the capital cost of providing a wastewater service to these properties at more than \$130 million. The average capital cost per residential property of providing a connection to Hunter Water's wastewater system in the backlog areas is in the order of \$55,000 per lot. This figure ranges from \$25,000 per lot up to around \$85,000 per lot, depending on the characteristics of each backlog sewerage area (distance from wastewater treatment works, cost of localised treatment, number of lots, topography, capacity constraints in the existing system).

TABLE 4-B REMAINING BACKLOG SEWERAGE TOWNSHIPS IN THE LOWER HUNTER

Backlog sewer area	Approximate number of residential lots
Abernethy	100
Awaba	150
Blackalls Park	25
Catherine Hill Bay and Middle Camp	110
Gresford / East Gresford	165
Heatherbrae	80
Hexham	70
Hinton and Wallalong	340
Medowie (rural residential)	120
Mulbring	140
North Rothbury	215
Paterson	135
Raworth	50
Salt Ash / Bobs Farm (rural residential)	470
Seaham	130
Taylors Beach	50
Vacy	65
Wollombi	40
Total	2,455

FIGURE 4-C LOCATION OF REMAINING UNSEWERED TOWNSHIPS



4.3 HUNTER WATER'S FUNDING PRINCIPLES

Hunter Water implemented its *Provision of backlog sewer services policy* in 2012. The policy has three aims:

- 1. Assistance is provided by Hunter Water to improve local environmental and health outcomes where the community is unable to facilitate such outcomes by their own means;
- 2. Value for money is achieved without necessarily burdening the broader community; and
- 3. Equitable outcomes for customers.

Hunter Water's policy applies to residential customer groups that do not have the benefit of reticulated sewer services in townships and villages as well as small pockets of urban infill areas.

4.3.1 Townships and villages

Hunter Water's policy for identifying and funding backlog sewerage schemes for townships and villages aligns with the NSW Government's decision making framework for PSP projects. The Hunter Water policy sets out the following steps:

- 1. In conjunction with the EPA, establish a project to assess the environmental and health impacts caused by existing private sewer systems in the regional townships of the Hunter.
- 2. In conjunction with the relevant local Councils, establish what the planning vision is and the resulting additional economic stimulus that may be delivered through the provision of reticulated sewer services to the nominated townships.
- 3. Define the boundary of the area to be serviced. The boundary will be the existing concentration of urban settlement at the time of policy development and may include vacant and occupied residentially zoned properties, non-residential and rural residential properties within the urban settlement, or those properties immediately adjacent or considered contiguous to the urban settlement.
 - Excluded properties would be those immediately adjacent or contiguous non-residential or rural residential properties which would be suitable to maintain an effective on-site sewage treatment and disposal system.
- 4. Independently assess what arrangement of infrastructure may be suitable to provide a sewer point of connection to each property within the boundary area.
- 5. Determine the capital and operating costs for each sewer scheme.
- 6. The cost to provide the internal plumbing to each lot, enabling connection to Hunter Water's network infrastructure, is to be arranged and paid for by the land owner. This may involve the customer pumping to the connection point provided and the need to enter an ongoing 'pump to sewer agreement' with Hunter Water. In other circumstances it may be possible to drain by gravity.
- 7. Determine the cost per lot to provide reticulated sewer services for the township.
- 8. Score, rank and prioritise the townships taking into account:
 - Evidence of the environmental and health impacts to the local and wider community caused by existing private sewer servicing arrangements. Such impacts must be independently verified by the EPA.

- Any assessment of whether there are other benefits generated from the provision of reticulated sewer services, such as employment growth or improved liveability and development potential, fitting within a clearly articulated planning vision determined by the local council.
- There is a lower cost per lot to serve relative to the other townships without reticulated sewer services.

Following these steps, Hunter Water would make a case to the NSW Government for funding to cover the customer's contribution to each backlog scheme. In addition, Hunter Water would seek a direction from the Portfolio Minister to carry out the backlog scheme. Hunter Water's price submission to IPART would set out funding arrangements to enable the recovery of all costs associated with the provision of a backlog reticulated sewer service.

4.3.2 Infill sewer services

As well as the larger unsewered townships, there are smaller pockets of unsewered properties located in urban infill areas. These existing properties typically have on-site systems or pump out systems. It appears this is a legacy issue associated with the development approvals process. Current practices aim to ensure that services are extended by developers as part of the land development process.

Each infill backlog pocket consists of a contiguous or coherent area of three to 36 unsewered properties. There are approximately 260 affected residential properties in total. Each pocket is typically surrounded by fully serviced lots that provide an opportunity for service extension.

Hunter Water's approach has been to consider providing backlog infill services based on the following criteria:

- The affected properties must be connected to Hunter Water's drinking water services (i.e. be existing customers) and generally comprise single residential dwellings on residentially zoned land.
- A high proportion of affected customers must be interested in connecting. It is generally inefficient
 to extend services for just one property, others benefit from the extension of services and Hunter
 Water cannot mandate connection.²⁵
- Demonstrable localised environmental and public health risks associated with the failure of existing private sewer infrastructure (e.g. on-site systems).

Hunter Water's funding policy for urban infill areas aligns with IPART's 1997 Determination in that the costs of backlog schemes are recovered from the beneficiaries of these services. In the case of urban infill, the environmental and health benefits are all localised therefore it is not appropriate for the wider community to contribute to the cost of the scheme.

Most recently, Hunter Water has worked closely with Newcastle City Council and property owners to sewer Hickson Street Merewether. The backlog works were fully funded by the 12 benefitting property owners. Hunter Water assisted through the upfront funding and delivery of the private infrastructure (on-site pressure sewer system) required on each lot to pump to the new sewer connection point provided, with the offer for costs to be recovered from property owners over time through a payment plan. Quarterly payments over a ten year period were calculated using Hunter Water's prevailing cost of debt at the time of executing the agreement with the property owner. This approach is NPV neutral compared with upfront payment.

²⁵ The Environmental Protection Authority or Council may require all properties to connect to the sewerage services of Hunter Water.

4.4 SOME OBSERVATIONS ON THE FUNDING OF BACKLOG SEWERAGE SCHEMES

Hunter Water has delivered reticulated sewerage services to almost 30 backlog areas over recent decades under various schemes. This has involved a lot of planning, time and substantial costs.

The NSW Government has funded the customer's share of the capital costs of township and village backlog schemes in the Lower Hunter since IPART's 1997 Determination.

Hunter Water has applied IPART's preferred funding approach for infill schemes where direct beneficiaries pay for the cost of reticulated sewerage services. ²⁶ Recipients are direct beneficiaries of the sewerage service, via an uplift to property values and via savings from the avoided costs of maintaining on-site systems. In contrast to regional backlog sewerage situations, the environmental and health benefits are localised. Hunter Water does not consider it appropriate for the broader customer base to contribute to these backlog works.

There are 18 townships and villages in the Lower Hunter without a reticulated sewerage service, covering almost 2,500 existing properties (ranging in size from 25 properties to 470 properties). Hunter Water estimates the total capital cost of providing a backlog services to these areas at more than \$130 million.

Hunter Water considers that its current policy for the provision and funding of backlog services, mirroring the process steps established under the PSP scheme, is robust and workable. Hunter Water has an established process for reviewing, ranking and prioritising projects in consultation with the EPA, NSW Health and councils, where there are measureable and substantial environmental and health benefits for the broader customer base.

IPART's 1997 Determination capped the customer's contribution to backlog reticulated sewerage services at a maximum of 25 per cent of capital costs per lot or \$3,000 (nominal). The remaining backlog sewerage areas in the Lower Hunter would involve substantial upfront costs to provide a reticulated service. The average costs is in the order of \$55,000 per connected lot, with the costs of all but one backlog scheme exceeding \$40,000 per lot.

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

Hunter Water notes that the design, installation and operation of domestic on-site wastewater management systems is regulated by local councils under the *Local Government Act 1993* (section 68) and the *Local Government (Approvals) Regulation 1999*. In some cases, the most cost effective option may be improved maintenance and operation of existing on-site schemes, with local councils playing a role in monitoring and enforcement. Alternatively, local councils could consider financial support for residents to upgrade these systems as a way of addressing minor and localised environmental or health risks.

-

²⁶ IPART, 2017(d), p 37.

5 MAJOR SERVICE CONNECTION CHARGE

There are a small number of existing properties in the Lower Hunter that are not connected to Hunter Water's wastewater system. These existing properties are located in areas where Hunter Water provides a wastewater service and are separate from the backlog sewerage townships.

These existing properties are typically commercial or industrial operations and have on-site wastewater treatment facilities with environment protection licences for the discharge of treated effluent. Existing properties may already be connected to water services.

The EPA and local councils have actively encouraged a number of these developments (primarily caravan parks and industrial developments) to connect to the wastewater services of Hunter Water and to cease discharge to the environment.

Requests from existing properties to connect to Hunter Water's wastewater services are infrequent, averaging around six requests per year, but may involve relatively high sewer loads depending on the property type.

Hunter Water considers that IPART's 2000 Determination of developer charges does not apply to existing properties, for the following reasons:

- The introductory statements in the Report supporting the 2000 Determination state that "Developer Charges are charges that water agencies levy developers for the provision, or upgrading, of water supply, sewerage and drainage facilities for new developments. Developer charges are up-front charges paid by developers and are levied to recover part of the infrastructure costs incurred in servicing new developments." ²⁷
- 2. The Report states that the purpose of the developer charges is to:
 - (i) Provide signals for resource allocation and usage;
 - (ii) Provide signals to reflect the environmental effects of urban development;
 - (iii) Ensure the financial viability of extensions of urban water infrastructure.

It is noted that these purposes are aligned to the effects of new development, but would have nil (or very limited) influence on existing development.

- 3. Hunter Water understands that Sydney Water does not impose a capital contribution on existing properties within its area of operations (nor did it do so between 2000 and 2008).
- 4. Clause 1 of the Determination confirms that the Determination applies to the 'Services', which have been declared to be government monopoly services under the IPART Act. The 'Services' are defined in the determination to mean "those services supplied in connection with the provision or upgrading of water supply and sewerage facilities for new developments, and if required, drainage facilities for such developments, such services having been declared to be monopoly services by the Independent Pricing and Regulatory Tribunal (Water, Sewerage and Drainage Services) Order 1997, 5 February 1997, published in Gazette No. 18 dated 14 February 1997 at page 558" [emphasis added].

-

²⁷ IPART 2000 (b), p 1.

5. Schedule 2 (Coverage of Determination) states:

"The Determination applies to all Agencies for all <u>new Developments</u> or stages of Development....

The Determination applies to the calculation of Developer Charges for <u>all new</u>

<u>Developments</u> and re-developments within an existing or new Development Servicing Plan" [emphasis added].

Hunter Water considers that the explicit reference to new development and the stated purposes of IPART's 2000 Determination are sufficient to form the view that the scope of the determination was not intended to apply to existing properties.

Since at least 1996, Hunter Water has required the owners of existing properties to make an upfront contribution to the costs of connection to Hunter Water's system. These amounts were known as 'capital contributions' and were designed to recover infrastructure costs of servicing developments that access existing system capacity, imposed by Hunter Water pursuant to section 39(2) of the *Hunter Water Act 1991*.

Hunter Water calculated capital contributions in accordance with the developer charges methodology determined by IPART in 2000. Hunter Water levied a capital contribution charge on the owners of existing properties. This approach applied before and after the NSW Government directed Hunter Water to set developer charges to zero in 2008 (which Hunter Water interpreted as applying to new developments). The capital contribution charge was based on the prevailing DSP charge. Hunter Water indexed the 2006 DSP charges by inflation as a way of updating the capital contribution amounts.

Hunter Water has received less than \$700,000 in capital contribution charges for water and wastewater services over the last six years. Customer types have varied from residential customers to retirement villages and large industrial facilities.

Hunter Water's 2015 price submission sought clarification from IPART as to whether the connection of existing properties was considered a government monopoly service subject to price regulation. Hunter Water proposed the application of a developer charge style methodology with contemporary parameters and flexibility to address lapsed DSPs in a staged manner. Capital contribution charges would be called 'major service connection charges'. IPART decided to defer consideration of the matter until this review.

Hunter Water decided to cease levying capital contributions after IPART's 2015-16 review of Hunter Water's prices. In the absence of an active developer charges determination, Hunter Water decided not update DSPs due to the resource effort and cost associated with all of the engineering and financial work. Given that DSPs were no longer applicable, we took the view that they should not be relied upon to set capital contribution amounts. Hunter Water considers that it had discretion under section 39(2) of the *Hunter Water Act 1991 (NSW)* to apply capital contribution charges up until that time.

Hunter Water can see merit in applying a major services connection charge to existing properties if the NSW Government reinstates developer charges. The case for applying this charge as a locational signal is stronger for existing commercial properties than existing residential properties. This approach would encourage existing property owners to weigh up the costs and benefits of upgrading or replacing an existing on-site facility versus the costs of a reticulated wastewater service that includes a capacity charge. The developer charges methodology provides a conceptually sound basis for signalling the costs of service provision to new and existing properties.

6 REFERENCES

Government Pricing Tribunal of NSW, 1995, **Prices of developer charges for water, sewerage and drainage services**, December.

Independent Pricing and Regulatory Tribunal of NSW (IPART), 2000 (a), **Determination under the Independent Pricing and Regulatory Tribunal Act, 1992: Developer Charges**, Determination No. 9, Sydney.

Independent Pricing and Regulatory Tribunal of NSW (IPART), 2000 (b), **Sydney Water Corporation**, **Hunter Water Corporation**, **Gosford City Council**, **Wyong Shire Council**, **Developer Charges from 1 October 2000**, **Report No. 9**, Sydney.

Independent Pricing and Regulatory Tribunal of NSW, 2006, Pricing arrangements for recycled water and sewer mining, Sydney Water Corporation, Hunter Water Corporation, Gosford City Council and Wyong Shire Council, Water Determination and Report, September.

Hunter Water Corporation, 2007, Submission to IPART, Review of Developer Charges for Metropolitan Water Agencies, December.

Independent Pricing and Regulatory Tribunal of NSW (IPART), 2007, **Review of developer charges for metropolitan water agencies: Sydney Water, Hunter Water, Gosford City Council, Wyong Shire Council.** Water – Issues Paper, November.

Independent Pricing and Regulatory Tribunal of NSW (IPART), 2008, **Review of developer charges for metropolitan water agencies: Sydney Water, Hunter Water, Gosford City Council, Wyong Shire Council.** Water – Draft Report, July.

Independent Pricing and Regulatory Tribunal of NSW (IPART), 2014, **Guidelines for Water Agency Pricing Submissions**. Water – Guidelines, November.

Independent Pricing and Regulatory Tribunal of NSW (IPART), 2016, **Review of prices for Hunter Water Corporation: From 1 July 2016 to 30 June 2020**. Water – Final Report, June.

Independent Pricing and Regulatory Tribunal of NSW (IPART), 2017 (a), **Review of the Hunter Water Corporation Operating Licence 2017-2022**. Water Licensing – Final Report, May.

Independent Pricing and Regulatory Tribunal of NSW (IPART), 2017 (b), **Prices for wholesale water and sewerage services: Sydney Water Corporation and Hunter Water Corporation**. Water – Final Report, June.

Independent Pricing and Regulatory Tribunal of NSW (IPART), 2017 (c), **Licence compliance and the** *Water Industry Competition Act 2006 (NSW)*: Report to the Minister. Annual Compliance Report – Water, Oct.

Independent Pricing and Regulatory Tribunal of NSW (IPART), 2017 (d), **Review of developer charges and backlog sewerage charges for metropolitan water agencies: Sydney Water Corporation, Hunter Water Corporation, Central Coast Council**. Issues Paper – Water, Oct.

NSW Department of Planning, 2008, Premier announces plan to kick-start housing construction [Press release], 17 December.

NSW Government, 2017, **Hunter Water Corporation Operating Licence 2017-2022**, Hunter Water Corporation, Newcastle.

APPENDIX A: HUNTER WATER RESPONSE TO IPART'S ISSUES PAPER QUESTIONS

CURRENT DEVELOPER CHARGES METHODOLOGY AND PARAMETERS

1. Does the current methodology remain fit for purpose in setting developer charges?

Hunter Water considers that the existing developer charges methodology generally remains fit for purpose with some scope for refinements as outlined in IPART's issues paper and this submission.

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)?

The adoption of contemporary parameters used in calculating developer charges would enhance cost-reflectivity and improve consistency with periodic prices with which they are intertwined.

Hunter Water notes that the relevant changes to the developer charges methodology for the Central Coast were: ²⁸

- Keep the real discount rate for pre-1996 assets unchanged.
- Update the real discount rate for post-1996 assets from 7% to the pre-tax weighted average cost of capital (WACC) in the prevailing price determination.
- Update the average customer consumption value with the consumption for an average residential customer in the prevailing price determination.
- Keep the forecast horizon for expected new revenues and costs unchanged at 30 years.

The IPART issues paper states that "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". ²⁹

Hunter Water acknowledges the reasoning for not setting a commercial rate of return for pre-1996 assets that were constructed before the implementation of a regulated developer charges methodology.

Hunter Water supports updating the real discount rate for post-1996 assets to the prevailing WACC in order to better align developer charges with Hunter Water's agreed rate of return.

Hunter Water agrees with using average residential water consumption estimates from its prevailing price determination as this better recognises regional differences and provides for stakeholder input into the appropriateness of the consumption parameter through the price review process.

Hunter Water supports retaining a 30 year forecast horizon for expected new revenues and costs.

²⁸ IPART, 2017 (d), p 14.

²⁹ IPART, 2017 (d), p 24.

CAPITAL COSTS INCLUDED IN DEVELOPER CHARGES

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?

Hunter Water supports IPART's preliminary position that both existing and new assets should continue to be included in the capital charge component of developer charges.

It would generally be inefficient for Hunter Water not to build in capacity for forecast growth when making significant investments in new or replacement infrastructure. Given the long lives of major water and wastewater infrastructure, Hunter Water considers that the current methodology provides an appropriate balance between historical and forward looking assets in establishing the capital costs to service new development.

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?

Hunter Water supports modifying the assets exclusion period. Hunter Water had already adopted an approach whereby the asset window rolls forward at each DSP review to only include assets constructed within the last 30 years. At its 2006 review Hunter Water rolled forward the starting point to 1975.

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)?

Hunter Water considers that a ten year window of uncommissioned assets is appropriate for inclusion in DSPs where supported by appropriate documentation such as Growth plans, Servicing Strategies, Upgrade Management Plans, Capacity Review or Concept Designs. A ten year window would facilitate increased stability of developer charges between DSP reviews and is consistent with IPART's requirement for public water utilities price submissions. ³⁰

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?

Hunter Water owns the water and wastewater headworks infrastructure assets relating to DSPs within its area of operations and based on the nexus principle required developments within relevant DSP areas to pay an appropriate headworks charge.

In circumstances where a utility did not own relevant headworks assets servicing a DSP area it would still be important to include their costs to support locational price signals. Moreover, there is the issue of maintaining neutrality for potential new entrants that do not own headworks assets. However, it would also be important to ensure that there is no over-recovery of the costs of headworks assets by ensuring alignment between developer charges and the pricing arrangement between the headworks asset owner and the utility levying developer charges.

7. How should the cost of assets that serve more than one DSP area be apportioned between DSP areas?

Hunter Water separately identified transfer assets that serviced multiple developments through a transparent process with costs then being apportioned between DSPs based on their relative ETs.

For example if a water trunk main services DSP-A with 2,000 ET and DSP-B with 3,000 ET, then the cost apportioned to DSP-A will be 40% of the asset cost with the remaining 60% apportioned to DSP-B.

³⁰ IPART, 2014, p 10 and 11.

8. What information is considered necessary, but not currently provided by water utilities, to ensure that assets are apportioned correctly between DSP areas?

Hunter Water believes that its existing asset apportionment processes are simple, sufficiently rigorous and transparent.

In Hunter Water's previous DSPs, assets were classified as either "augment assets" or "upgrade assets", where:

- Augment assets are assets that were built predominantly to service growth. Existing customers may
 use the assets but they do not receive a higher level of service by doing so. The present value of
 the full cost of augment assets was to be recovered through developer charges (when they
 applied).
- Upgrade assets are assets that were built to provide both capacity for growth and an improved level of service for existing customers. Examples of improved level of service include improved water pressure for low pressure customers, reduced wastewater overflows, improved effluent discharge quality and increased drought security. Only the portion of the present value of the full cost of upgrade assets constructed for growth was recovered through developer charges (when they applied).

This approach to apportionment of assets essentially relies on a simple classification of assets firstly into just two main categories and a second minor apportionment within the upgrade assets of the proportion of the asset assigned to meet growth.

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?

Hunter Water continues to support the use of Modern Engineering Equivalent Replacement Asset (MEERA) method to value existing assets for the developer charges calculation. MEERA valuations are considered to ensure that the cost of assets covered by developer charges reflect the most efficient asset set to provide the service. MEERA valuations are also strongly linked to Hunter Water's construction estimating processes. When assets are revalued to update MEERA values, the estimates are based on estimating values for equivalent assets rather than cost indexes. This ensures that market and other efficiencies are taken into account.

THE 'REDUCTION AMOUNT'

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?

It makes sense from a price signalling perspective, framed within the context of a postage-stamp pricing policy, to calculate the reduction amount or net operating position as the difference between postage stamp pricing revenue within the relevant DSP area and location specific operating costs. There may be practical limitations on the extent of locational disaggregation of operating costs, which would be expected to be addressed over time.

Hunter Water continues to support the use of a 30 year period.

DISCOUNT RATES

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

Hunter Water agrees with IPART's preliminary view to:

- Keep the real discount rate for Hunter Water's pre-1996 assets unchanged at three per cent in real terms
- Update the real discount rate for post-1996 assets from seven per cent to Hunter Water's pre-tax weighted average cost of capital (WACC) referred to in the Final report accompanying Hunter Water's prevailing periodic price determinations.
- Update the real discount rate for the expected net revenues and costs from seven per cent to Hunter Water's pre-tax weighted average cost of capital (WACC) referred to in the Final report accompanying Hunter Water's prevailing periodic price determinations.

EQUIVALENT TENEMENTS AND CONSUMPTION FORECASTS

12. Does our measure of ET continue to be appropriate for determining developer charges? If not, how could it be improved?

Hunter Water considers that the ET measure is generally acceptable but could be modified to explicitly allow for the use of peaking factors.

Average consumption vs peak ETs

As IPART's issues paper notes that 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.³¹ Accordingly, Hunter Water's previous DSPs included peaking factors (where relevant) that mainly reflect the greater variation between peak day demand and average demand for residential properties compared to non-residential properties.

Hunter Water's preference therefore, would be to allow for the use of peaking factors in the developer charges formula. However, Hunter Water acknowledges that peak consumption data is less readily available than average daily consumption data. Consequently, IPART needs to consider the trade-off between a technically more correct approach that includes peaking factors and the relative data available to measure peak versus average consumption.

ET Multipliers

ET multipliers are unavoidably specific to each utility's area because the base single ET demand (average annual consumption for a single residential dwelling) is area specific. This reflects differences in factors such as climatic conditions and lot sizes. Accordingly, Hunter Water would not support the development of generic ET multipliers.

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?

Yes. See the response to question 2.

³¹ IPART, 2017 (b), p 24, footnote 40.

IMPLICATIONS OF WHOLESALE CUSTOMERS AND WICA LICENSEES

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?

IPART's recently completed review of prices for wholesale water and wastewater service provided by Sydney Water and Hunter Water to WICA licensees takes into account the growth plans of public water utilities. It provides a mechanism to reduce wholesale prices (via net facilitation costs) in situations where the wholesale customer can demonstrate their water or wastewater system results in a saving for the public water utility in some form.

In situations where developer charges are active and the WICA licensee has a wholesale arrangement, the developer should pay developer charges to help recover the capital and operating costs imposed on the public water utility. WICA licensees may argue that the presence of a recycled water facility reduces the infrastructure costs imposed on the public water utility. IPART's wholesale pricing review found it was not feasible to calculate a typical or average cost saving, therefore it does not seem appropriate to amend the developer charges methodology to address wholesale arrangements at this stage.

Further information is provided in section 3.

STORMWATER CONTRIBUTIONS

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?

Hunter Water notes that this is a question for the Central Coast Councils.

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?

Hunter Water notes that this is a question for the Central Coast Councils.

DETERMINING DSP AREAS

17. What principles or criteria should guide the determination of DSP areas?

The setting of DSP boundaries should have regard for:

- Price signalling (which could be through a tight asset nexus or geographic proximity)
- Administrative efficiency
- Transparency, including ease of review by stakeholders during exhibition
- Providing certainty for developers
- Sufficient flexibility to reflect different jurisdictional circumstances, such as the level of homogeneity in water and wastewater systems or the need to align with geographic boundaries set in other planning instruments.

Further information is provided in section 2.1.

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

It is considered that the reasons that IPART has allowed public water utilities flexibility to set DSP boundaries still apply. That is, public water utilities have access to both the engineering expertise and information required to define coherent boundaries that preserve the asset nexus. ^{32,33} The need to explain boundary selection in exhibited DSPs provides a safeguard against excessive agglomeration.

In considering the option to require independent approval of DSP areas, IPART should have regard for the appropriate sequencing of such an approval within the five-yearly review process and the consequences of an extended review period in terms of prolonged uncertainty for developers.

PRICE INDEXATION FACTOR

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?

Hunter Water supports IPART's preliminary view that the CPI adjustment factor should be made consistent across determinations of prices, charges and methodologies for metropolitan water agencies.³⁴ This approach would improve administrative simplicity and transparency. There are currently four different CPI adjustment factors across various existing determinations. The varying features are:

1. The reference index number from the Australian Bureau of Statistics

That is, the "All Groups" index number for the weighted average of eight capital cities or the Sydney CPI. The former is prevalent in IPART's more recent determinations. We consider the weighted average of capital cities appropriate for determinations that apply to all metropolitan water agencies (Sydney Water, Hunter Water and Central Coast Council).

2. The 'annual average' or 'through-the-year' per cent change in the CPI

The 'annual average' approach involves comparing the average of the four quarterly CPI index numbers for the latest period with the average of the preceding four quarterly CPI index numbers. The 'throughthe-year' approach involves comparing the CPI index for the latest quarter with the CPI index number for the same quarter of the previous year. Hunter Water understands that IPART now applies the 'through-the-year' approach to most industry price determinations as it is a more commonly used measure of annual inflation in Australia. Whilst it is expected that over time the two methods will average, the potential for the two methods to give different results for individual years does create some confusion for customers.

³² IPART, 2000(b), p 10.

³³ IPART, 2007 Issues Paper, p 16.

³⁴ IPART, Issues paper, p 33.

PROCEDURAL REQUIREMENTS

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

Detailed comments on procedural provisions and regulatory oversight are provided in section 2 of the main body of this response.

In relation to the option for IPART to develop and publish a standard Excel template, the current process whereby IPART reviews the water utilities' proposed calculation spreadsheet prior to its use³⁵ is consistent with 'light-handed' regulation and provides sufficient reassurance of the veracity of application of the determined methodology.

As conveyed during IPART's 2007 Review of Developer Charges for Metropolitan Water Agencies, Hunter Water cannot see significant benefits to standardising calculation worksheets across water agencies. Such a standardisation may present difficulties in uploading existing electronic data sources to the spreadsheet because each agency's electronic data sources are configured differently and may have different export format capabilities.

If the Tribunal chooses to pursue a standardised spreadsheet, Hunter Water would expect that there would be close consultation with the affected public water utilities to ensure that any standard format does not compromise data transfer processes or reduce the flexibility available from the discretionary decision making now available in calculating charges. It would be appropriate to align the timing of this consultation with reactivation of developer charges in Sydney and the Lower Hunter, if this occurs.

BACKLOG SEWERAGE CHARGES METHODOLOGY AND APPLICATION

21. What backlog sewerage charges are currently being levied by water utilities, and in what areas? Will they be required in future?

Hunter Water currently has in place the Environmental Improvement Charge (EIC) and a Clarence Town levy to recover the cost of backlog sewerage programmes within its area of operations. The EIC is currently \$38.37 per year (\$2016-17) and applies to properties that are connected to, or for which a connection is available to, the wastewater system. The Clarence Town levy of \$43.05 per year (\$2016-17) applies to customers in the Clarence Town area and contributes to the cost of providing the local sewerage scheme. The Clarence Town levy expires in June 2019. Further details on Hunter Water's backlog sewerage programme and funding arrangements are provided in section 4.

Hunter Water's 'Provision of backlog sewer services policy' sets out a process for considering backlog sewerage schemes for townships and villages, and a mechanism to fund reticulated wastewater services in urban infill areas.

Section 4 of this submission sets out Hunter Water's policy in detail along with past and current backlog sewerage schemes.

The NSW Government has funded the customer's share of the capital costs of connecting to a backlog sewerage scheme in the Lower Hunter in the period since IPART's 1997 Determination of a methodology for fixing backlog sewerage charges.

³⁵ IPART, 2000 (a) Schedule 2, clause C.

³⁶ Hunter Water, 2007, page i.

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?

Hunter Water broadly supports IPART's existing methodology for determining backlog sewerage charges.

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?

Hunter Water consider that in situations where backlog customers contribute towards the capital cost of schemes they should be given the option of an upfront payment or annual charge. The cost of debt component of the WACC is likely to be the most appropriate discount rate given that projects would generally be debt funded.

OTHER RELATED CAPITAL CHARGES

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

In principle, Hunter Water concurs with IPART that a public water utility's costs of providing services should be recoverable through upfront capital charges (e.g. developer charges), retail (postage stamp) price revenue and any other costs agreed with the developer (e.g. for 'lead-in' works). That is, the basic developer charge formula, which calculates the unit cost of servicing a property relative to net operating revenue, is conceptually sound and is theoretically applicable to all properties upon connection to that service. There are merits in applying slight variations of the concepts to different situations, as detailed in response to questions 25 to 28.

HUNTER WATER'S MAJOR SERVICE CONNECTION CHARGE

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

Hunter Water can see merit in applying a major services connection charge to existing properties if the NSW Government reinstates developer charges. Further detail is provided in section 5.

SYDNEY WATER'S MINOR SERVICE EXTENSION CHARGE

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?

This is considered a matter for Sydney Water.

Given that the minor service extension (MSE) charge recovers the cost of providing new water and/or wastewater services to existing properties rather than new development, it may not be a declared monopoly service subject to price-regulation.

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)?

Hunter Water's understanding is that the minor service extension (MSE) is a similar approach to that taken by Hunter Water in relation to infill backlog sewerage (refer to section 4 of the main body of this response for further detail).

Given that the minor service extension (MSE) charge recovers the cost of providing new water and/or wastewater services to existing properties rather than new development, it may not be a declared monopoly service subject to price-regulation.

SYDNEY WATER'S DEVELOPER DIRECT

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

IPART's issues paper describes how developers can use Sydney Water's Developer Direct service to obtain compliance certificates in accordance with Section 73 of the *Sydney Water Act 1994*. 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.

Within Hunter Water's area of operations a developer <u>may</u> under Section 49 of the *Hunter Water Act 1991* apply for a compliance certificate, to the effect that the development complies with the requirements of Section 50. This is similar to Section 73 of the Sydney Water Act 1994.

Applications under Section 49 of the *Hunter Water Act* are discretionary. However, in the case of a subdivision, Section 109J(e) of the *Environmental Planning and Assessment Act 1979* prescribes that a Subdivision Certificate cannot be issued for land within a water supply authority's area of operations unless the applicant has obtained a certificate of compliance from the water supply authority with respect to the subdivision of the land. In relation to other forms of development (i.e. commercial, industrial, medium density residential development), Hunter Water relies on the relevant consent authority to include a condition of consent requiring a Section 50 Certificate.

Hunter Water does not offer construction services and all developer funded works are required to be carried out by accredited designers and contractors.

Hunter Water would expect that in the case of Sydney Water's construction services, minimal if any pricing regulation would be necessary given that a competitive market exists for the provision of such services.