Author name: P. Coombes

Date of submission: Monday, 23 June 2025

Your submission for this review:
Dear IPART Water, My submissiom to the IPART draft decision in Sydney Water prices is attached. A summary of key considerations is below: The proposed Sydney Water prices respond to the complex challenges of population growth, aging infrastructure and climate change. Strategies that are more risk adverse and included new solutions resulted in unprecedented increases in the requested prices. These higher prices were also motivated by uncertainty of future impacts. These proposed prices were dominated by fixed tariffs that abandoned the principles of user pays pricing. There was limited opportunity for customers to manage their Sydney Water bill by reducing water use and sewage discharges. The proposed regime of prices should also incentivise efficient strategies from Sydney Water. A recent decision on developer infrastructure contributions also resulted in large increases in the costs of development with associated revenue collected by Sydney Water. The IPART draft decision has acted to balance the future viability of Sydney Water and the impacts on household welfare. The application of user pays principles to water demands provides efficient price signals to both Sydney Water and customers. Unexpected increases in water demands will generate additional revenue to support Sydney Waters potential infrastructure responses. It is the Authors view that the level of prices proposed by IPART provides increased revenue in 2025 regulatory period that is more than adequate to support Sydney Water operations. Sydney Water can service new growth. The additional infrastructure and financial contributions from developers also make substantial contributions to servicing new growth. These costs are also passed on to new customers. It is proposed that the application of user pays pricing to sewer discharges (via water metering) will further improve the efficiency of Sydney Water prices.

urban WaterCycle Solutions
Independent research and consulting

Response to the IPART draft decision on Sydney Water prices

23 June 2025

[redacted] **Peter Coombes**

Urban WaterCycle Solutions
Independent research and consulting

[redacted]

70 Howden Street Carrington NSW 2294 ■ Tel: 0419 439 124 ■ [redacted] ■ www.urbanwatercyclesolutions.com

1 Introduction

This report provides a response to the draft report on Sydney Water prices 2025-2030 published by IPART on 20 May 2025.[1]

On 9 December 2025, Professor Peter Coombes made a submission to the IPART review of prices for Sydney Water services.[2] This report expressed concern about the proposed departure from the principles of user pays pricing and the need for efficient and equitable prices. The unprecedented escalation of Sydney Water costs and the need for regulatory review was also discussed.

The report recommended the following high level changes to the proposed Sydney Water prices and associated economic regulation:

1. Application of a full usage charge of $6/kL for water and wastewater services (with no fixed tariffs) to all residential dwellings in Sydney for the 2025-30 regulatory period. This initiative will foster water efficient behaviours from Sydney's households whilst providing strong opportunities for families to reduce water use to improve household welfare and environmental impacts.

   It is proposed that progress on water demands, wastewater discharges and Sydney Water revenue can be reviewed by Sydney Water and IPART on an annual basis. The usage charge could be reviewed each year. Implementation of this user pays policy is expected to send the better price signal to Sydney Water and IPART on residential water use.

2. Expenditure that is proposed as a response to concerns about water security should not be included in the Regulatory Asset Base (RAB)

3. The proposed large increases in expenses should be independently reviewed and include options to address all emerging challenges and opportunities

4. Sydney Water should provide a programme and adequate budget to facilitate water conservation, local water sources and demand management The IPART regulatory process should recognise the environmental and social benefits provided by innovative servicing options in a whole of society framework that combines utility and non-utility services;

5. Sydney Water should be rewarded for facilitating customer access to traditional and non-traditional servicing arrangements. This will involve revising the objectives for the successful governance and operation of Sydney Water; and

[1] IPART (2025), Sydney Water prices 2025-2030, Draft Report, 20 May 2025
[2] Urban Water Cycle Solutions (2024), Review of Sydney Water pricing from 1 July 2025, Report by Professor Peter Coombes, 9 December 2024

6. Sydney Water and IPART must provide open, transparent, and freely accessible information about the performance of Sydney Water' water cycle systems to all stakeholders and the community. This complete information should be available in a common location and format.

This response to the IPART draft report on Sydney Water prices is underpinned the following key documents:

A. IPART (2025), Sydney Water prices 2025-2030, Draft Report, 20 May 2025

B. AtkinsRealis (2025) IPART Sydney Water expenditure review (2025), 9 May 2025

C. Sydney Water (2023), Infrastructure contributions, How we apply IPART's pricing method to calculate prices, version 1.3, November 2023

D. Urban Water Cycle Solutions (2024), Review of Sydney Water pricing from 1 July 2025, Report by Professor Peter Coombes, 9 December 2024

E. Coombes P.J., (2022), Modelling the Impact of Changes to BASIX for Department of Planning, Industry and Environment, Urban Water Cycle Solutions, 26 August 2022.

F. Coombes P.J., (2024), The influence of regulation on preference for utility infrastructure investment to generate income for Australian water corporations, Australasian Journal of Water Resources, 28(2), 151-172.

This response provides additional commentary on the need for the principles of user pays pricing and efficient prices. It adds to IPART's various discussion points around growth, equity, efficiency, affordability, system capacity and asset management.

2 The response

Our water utilities provide an essential service in an increasingly complex environment. These government monopoly corporations and their private sector partners operate in a broader economy, society and environment that is also coping with substantial challenges. The drive to earn more revenue is strong, the economic capacity of households is limited and the need for independent regulation is paramount.

It is equally challenging for the regulator to provide balance across this complex system of potentially competing information, outcomes and objectives.

Many of assumptions, data and models underpinning the proposed strategies and associated costs are not openly available to support informed decision making by the community. It is understandable that information is subject to commercial relationships between Sydney Water and its private sector partners. Nevertheless, open access to this information is required to permit the entire community to make informed choices about the various proposals.

There is a need for pricing decisions that drive improved economic behaviour, opportunity, efficiency and social welfare across whole of society. The macroeconomic impact of the price regulation of Sydney Water on the broader economy and household welfare must be considered. Increasing the economic viability of water monopolies is unlikely to be a surrogate for improving the welfare of households.

The draft IPART report has made important progress on balancing these crucial objectives.

The economic effect of minimising fixed water tariffs and increasing usage charges is an important move towards restoration of user pays principles. In combination with the spatial context of the IPART decision on infrastructure contributions, these decisions do contribute to the objectives of the Author's original submission.

Distributed water efficiency and water sources, and full user pays pricing strategies are efficient and affordance responses to expanding cities, climate change and aging infrastructure. The Sydney Water proposal and the IPART draft decision does not sufficiently acknowledge and provide for these supplementary opportunities.

It is proposed that an adequate and equitable response to the future challenges facing Sydney Water will require full support of supplementary opportunities across multiple scales that improve the impacts of preferred large centralised infrastructure strategies.

The response to key issues and discussion around the IPART draft decision on Sydney Water prices is provided as follows.

2.1 User pays principles - efficient prices and equitable impacts

Our submissions highlighted that higher variable prices and lower fixed tariffs are a more equitable and efficient economic measure. The prices and the framework of tariffs proposed by Sydney Water did not significantly permit customers to improve their welfare by reducing water use and associated wastewater discharges.

Moreover, the dominance of fixed tariffs in the proposed prices provides negligible efficiency signals to the utility and rewards higher water use. In our view, the dominance of fixed tariffs in pricing provides economic rent that privileges Sydney Water over customer opportunity and utility efficiency.

The draft IPART decision partially addresses this circumstance by providing efficient prices for access to water services and water use. However, there is a need to address the inequitable impacts of large wastewater fixed charges that continue to dominate household water bills.

Our submissions are consistent with the preferences of Sydney Water customers for higher variable water usage prices relative to fixed service tariffs that permits usage choice.

It is important that tariffs incentivise economic efficiency of the utility and its business partners and provide equitable outcomes for customers. An efficient pricing policy sets the variable (volumetric) price of water services to the long run marginal cost of water services.[3] This assessment must be based on all economic costs and should not be limited to some of the utility financial costs.[4]

The structure of efficient prices could be estimated as a proportion of variable versus fixed prices imposed on customers that is similar to the proportion of variable versus fixed costs experienced by Sydney Water.

The Author's thirty years of research into urban water cycle services in the Sydney region reveals that the short run proportion of all fixed and variable costs ranges from 28% to less than 14%.[5] This result indicates that efficient prices should include a proportion of variable charges that are greater than 72% of the entire bill from Sydney Water for water, sewage and stormwater services.

We should be mindful that this is a short run perspective because all costs are variable in the long run. The proportion of fixed charges should be lower in the total water bill.

[3] Coombes P.J., (2024), The influence of regulation on preference for utility infrastructure investment to generate income for Australian water corporations, Australasian Journal of Water Resources, 28(2), 151-172.
[4] Grafton RQ, A Manero, L Chu & P Wyrwoll (2023). The price and value of water: An economic review. Cambridge Prisms: Water 1, e3, 1–17 https://doi.org/10.1017/wat.2023.2
[5] Coombes P.J., (2022), Modelling the Impact of Changes to BASIX for Department of Planning, Industry and Environment, Urban Water Cycle Solutions, 26 August 2022.

The draft IPART decision also includes the following commentary (for example) on the potential impacts of more efficient prices that we address in this section:

> *The proposed change would mean lower fixed charges, which would be set to generate the remaining revenue we estimate Sydney Water will need to cover its efficient costs. Households and businesses with low or moderate water usage may benefit from a higher variable water usage charge (and lower fixed charges). However, we note that higher water users including some large families and industrial customers may face a higher percentage increase in their bills.*
>
> *Higher variable water usage charges might increase what renters pay for using water. Sydney Water sends bills to property owners. However, property owners can pass on the water usage component of their bills to their tenants. Tenants in this situation, would experience higher percentage increases in their bills, due to in the materially higher variable water usage charge.*

The IPART comments suggest that more efficient prices will benefit households and businesses with low to moderate water use and higher water users will experience a greater increase in water bills.

We examine the total Sydney Water bills for different water annual water use to further clarify efficient prices. The total bill (water, sewage and stormwater services) paid by households in 2030 from the Sydney Water proposal and draft IPART decision is presented in Figure 2.

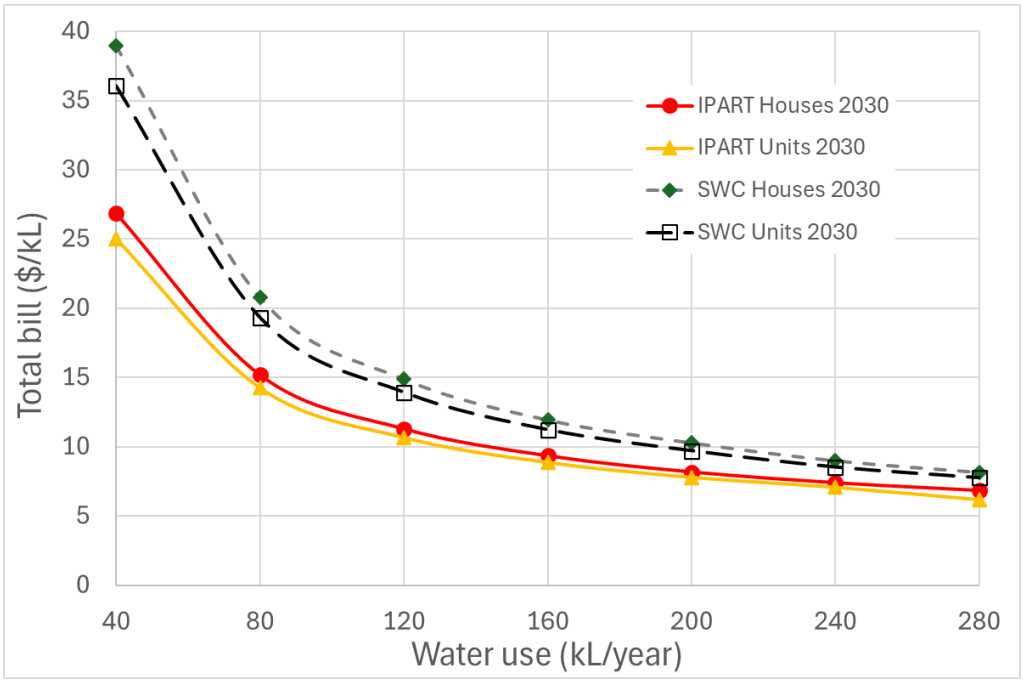

Figure 2: The proposed and draft decision on 2029-30 total price impact for units and houses

Figure 2 demonstrates that households with lower water use pay substantially higher total costs per kilolitre of water use than households with higher water use. The pricing structure is dominated by fixed tariffs that provide diminished incentives for efficient water use or opportunity to improve household welfare.

Given the combined fixed tariffs for water and sewage are significantly larger than stormwater tariffs, the total price relationship to household water use provides a realistic indicator the efficiency of the proposed Sydney Water prices.

Figure 2 also shows that the draft IPART decision with lower fixed water tariffs and higher water usage charges provides an improved price impact. This IPART structure of tariffs is expected to better incentivise lower water use and provide more equitable opportunity to improve household welfare by managing water demand.

The draft IPART decision has improved the efficiency of the Sydney Water prices but does continue to disadvantage efficient water use behaviours and fixed tariffs are an excessive proportion of the total bill as shown in Figure 3.

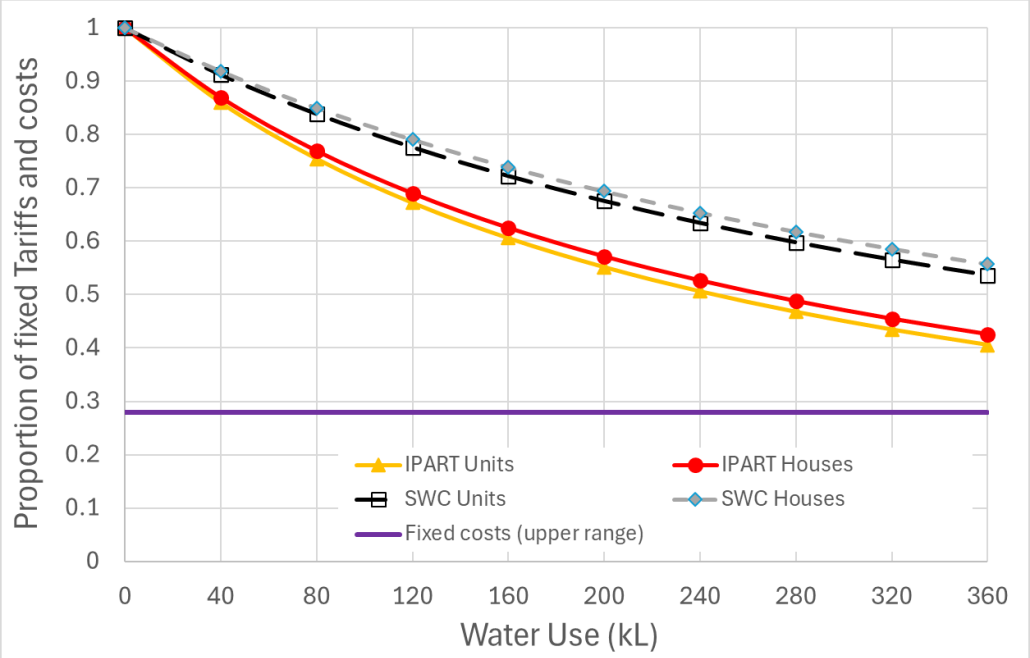

Figure 3: The proportion of fixed charges in 2029-30 total prices for services to units and houses versus the upper range of Sydney Water fixed costs

Figure 3 shows that the proportion of fixed tariffs in total household bills is significantly higher than the upper range proportion of Sydney Water's fixed costs. The total Sydney Water bills for households with lower water use are increasingly dominated by fixed tariffs.

The improvements in price impacts in the IPART draft decision are driven by an allocation of water prices that better represent the proportion of variable and fixed costs. However, the retention of large fixed tariffs for wastewater discharges continues

to dominate the proposed Sydney Water bills for households with lower water use. This is an inequitable outcome.

Around 70% of water use from houses and 90% of water use from units becomes wastewater discharges.[6] The Author's investigations into the urban water cycle services in the Sydney region reveals that the short run proportion of wastewater fixed costs ranges from less than 35% to 56% (average: 44%).[7]

Given that household water use is a reliable indicator of wastewater discharges and is expected to have an indirect but similar price elasticity, we can apply fixed and usage charges to household wastewater discharges. The price signal from the combined water and sewage wis expected have greater price elasticity that will drive higher efficiency outcomes from customers and Sydney Water.

It is also proposed that the wastewater charges are adjusted to better reflex the available information and produce more efficient prices. It is proposed that fixed charges are a 44% proportion of the total household wastewater tariffs, and the variable charge is applied to 90% of water use for units and 70% of water use for houses. The proposed fixed and variable charges for wastewater services are presented in Table 2.

Table 2: Proposed residential wastewater prices for 2024-25 and 2029-30

Item	Year	
	2025-26	2029-30
Fixed tariff ($)	321.11	349.95
Variable charges ($/kL)	2.55	2.78

Including the fixed and variable wastewater charges from Table 2 in IPART's draft prices will substantially enhance the efficiency and equity of the proposed Sydney Water prices.

It is acknowledged that the proportion of wastewater discharges are higher and stormwater runoff are lower for houses with rainwater harvesting. The resultant reduction in stormwater runoff from properties provides benefits to both the stormwater and wastewater networks.[8]

The wet weather factors (3 – 12 times dry weather flows) used in design of wastewater infrastructure is strong evidence that reducing stormwater runoff at the local scale will improve the capital and operating costs of wastewater services.

[6] Sydney Water (2023), Infrastructure contributions, How we apply IPART's pricing method to calculate prices, version 1.3, November 2023
[7] Coombes P.J., (2022), Modelling the Impact of Changes to BASIX for Department of Planning, Industry and Environment, Urban Water Cycle Solutions, 26 August 2022.
[8] Coombes P.J., (2022), Modelling the Impact of Changes to BASIX for Department of Planning, Industry and Environment, Urban Water Cycle Solutions, 26 August 2022.

These benefits are expected to balance any lost revenue from wastewater variable tariffs. However, Sydney Water records the presence of rainwater harvesting at properties in its billing system. This information can facilitate the application of a default wastewater discharge of 150 kL per annum for houses with rainwater harvesting.

It is proposed that non-residential wastewater tariffs provided by the IPART draft decision (variable tariff of $1.41/kL) are retained subject to inclusion of the water wastewater discharge factors of different types of non-residential properties in the economic investigations. Wastewater discharge factors can readily be applied to different non-residential properties (nurseries will have low discharge factors and commercial properties will have high discharge factors) in the ultimate variable tariffs for wastewater discharges.

Do more efficient prices impact on higher water users?

It is suggested by IPART that higher water users including some large families and industrial customers may pay a higher percentage in their Sydney Water bills. However, we provide information that demonstrates that higher water users will experience larger variable charges but lower fixed changes.

The reduced fixed water tariff in 2030 represents 88 kL of water use at the 2030 variable water tariff. A higher water user will need to increase their water use by more than 88 kL to be worse off under the IPART draft decision. In addition, the increased variable prices are expected to reduce water use and wastewater discharges by 1% - 5% which will further reduce the impact of total water bills on higher water use households.

It is also noteworthy that larger households are not necessarily higher water users and some households with higher income are also associated with higher water use. The relationship of household size and water use is also non-linear as demonstrated (for example) by Figure 4.

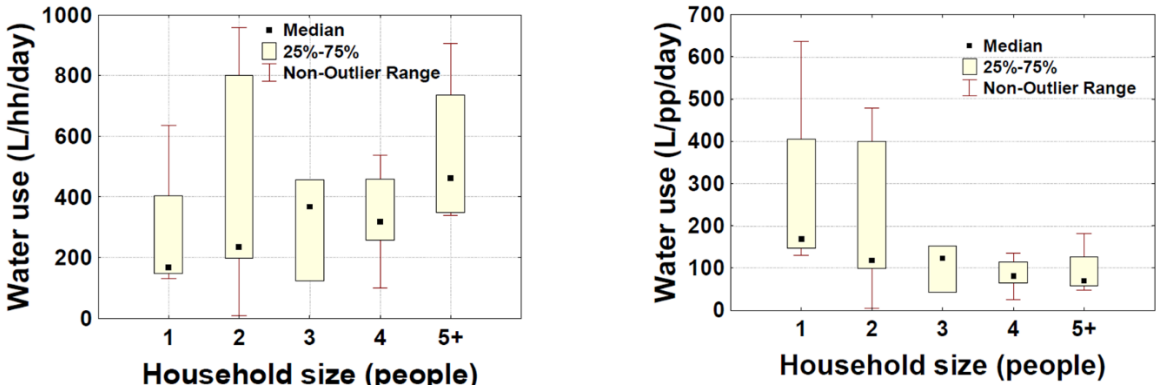

Figure 4: An example of the relationship between household size and water use

Figure 4 reveals that there is increasing opportunities for efficient water use in larger households due to diminishing increases in water use around shared activities such as cooking, dish washing and clothes washing.[9] The shared water use activities in larger households result in higher reductions in water use in response to economic and drought signals.

It is expected that higher variable charges and lower fixed tariffs will prove significant opportunities for larger households to manage total water bills by reducing water use.

Do more efficient prices impact on renters?

The IPART draft decision explains that a larger variable water charge may result in a higher percentage increase in water bills paid by tenants. In these circumstances, the variable charge represents a tenants' use of resources, and the fixed tariffs are the rental for using the Sydney Water infrastructure paid by the owner of the property.

Similar to the above discussions, the increased variable charge provides greater incentive and opportunity for the tenant to reduce water use and improve household welfare. It is commonly assumed that higher fixed charges provide benefits to tenants.

However, an equitable pricing policy must ensure that the usage charges reflect variable costs of services enjoyed by the tenant and the owner of property pays the fixed costs of the access to services. Otherwise, the property owner is subsidising the water and wastewater use of the tenant and there are diminished incentives for efficient water use.

It is also important to consider that high fixed charges imposed on the property owner are also passed onto tenants as a factor of production in the rental transaction. The allocation of higher fixed charges to water and wastewater services may not provide welfare benefits to tenants or renters.

A balanced distribution of fixed and variable charges is more likely to drive more efficient and equitable economic outcomes for both tenants and landlords.

2.2 Sydney Water can service new growth

The IPART draft decision on Sydney Water prices makes an important strategic return to the principles of user pays pricing. A significant reduction in fixed water tariffs and the increase in water usage charges provides more equitable and efficient water prices.

However, the ongoing adoption of large fixed tariffs for wastewater services is a residual barrier to equitable and efficient prices. It is our view that user pays principles should also apply to wastewater tariffs. Importantly, the IPART draft decision on Sydney Water prices is financially sustainable:

[9] Coombes P.J., Insights into Household Water Use Behaviours Throughout South East Queensland During Drought. 34th Hydrology and Water Resources Symposium, Sydney, Australia, 2012

It is our view that it can remain financially sustainable and continue to provide sustainable services over the 2025 determination period.[10]

The Author's investigation affirms that the IPART draft prices will provide for the viability of Sydney Water with more equitable impacts on the community. A user pays policy (low fixed charges) is expected to provide efficient responses from Sydney Water and its customers.

It was also found that reductions in water demands generate greater reductions in costs than the associated diminished revenue (economic multipliers).[11] It is important to also consider these macroeconomic impacts of pricing policy. More efficient prices will produce economic benefits to Sydney Water and its customers.

The IPART draft decision on Sydney Water prices and various public forums included commentary that substantial (rate and step change) increases in expenditure and tariffs were required to meet the challenge of population growth, ageing assets and climate change.

It was proposed that there is need for large increases in tariffs to reduce the impacts of population growth and urban expansion. The regulated flat growth in Sydney Water bills will not allow the acceleration in capital expenditure required to address these challenges.

We tested these concerns by investigating the forecast changes in total water demand, the notional revenue requirement NRR and the regulatory asset base RAB as follows:

- IPART total water demand (including losses): 544.3 GL in 2025-26 to 548.2 GL in 2029-30 indicates a small 3.9 GL increase in total water demand,
- NRR: $2.834 billion in 2023-24 increasing to $3.548 billion in 2029-30 is a 25% increase in regulated annual revenue that includes increases in revenue in each year that total $3.46 billion across the 2025 regulatory period; and
- RAB: $23.2 billion in 2023-24 to 33.57 billion in 2029-30 is a $10.37 billion (44.7%) increase in the regulatory value of Sydney Water assets.

The IPART draft decision provides for an increase in regulated NRR revenue of $3.46 billion (25%) and the regulated value of Sydney Water by regulated assets by $10.37 billion (44.7%) during the 2025 regulatory period. These results indicate strong increases in the viability of Sydney Water in response to a moderate 7.2% increase in connections and a small 0.72% increase in the water demands.

However, these regulatory processes do not reveal the additional major contributions to providing future infrastructure. It is important to note that the expansion of Sydney

[10] IPART (2025), Sydney Water prices 2025-2030, Draft Report, 20 May 2025, s 10.4, p 136
[11] Coombes P.J., (2022), Modelling the Impact of Changes to BASIX for Department of Planning, Industry and Environment, Urban Water Cycle Solutions, 26 August 2022.

Water infrastructure to service new and infill growth is paid for by developers as gifted assets and infrastructure contributions. These costs are passed on to new customers as part of house prices.

Delivery of New Infrastructure

Developers provide the assets that service new growth areas and then gift the assets to Sydney Water. This infrastructure servicing new development is constructed to the specifications of Sydney Water and becomes part of the calculation of the NRR when maintenance, operation or renewal expenses are incurred.

The historical values of these contributions are provided in Figure 5 and the historical building approvals provides evidence of the rate of development as presented in Figure 6. The estimate value of the gifted assets provided by developer is $1.06 billion during the 2025 regulatory period.

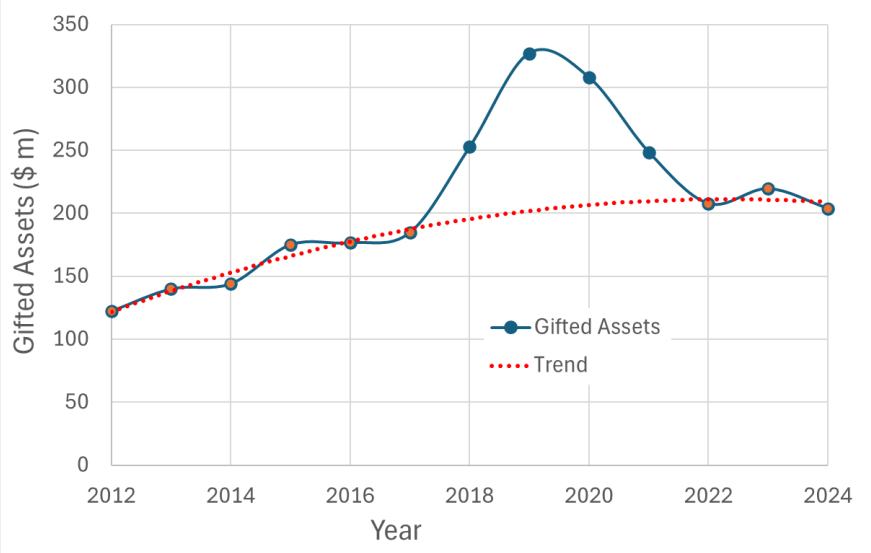

Figure 5: The value of gifted assets to Sydney Water in 2024-25 dollars

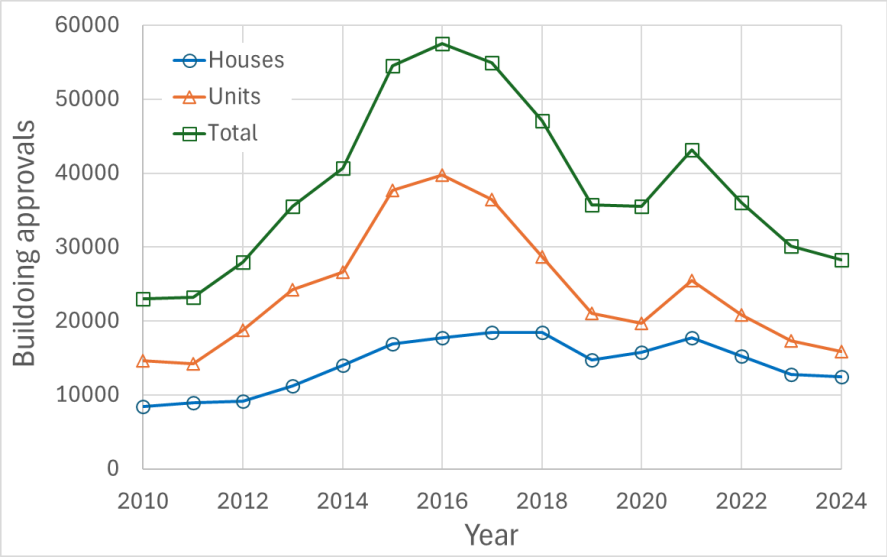

Figure 6: Building approvals for Greater Sydney

The payment of infrastructure contributions for new development also contributes to the costs of servicing new development.[12] These payments from developers to Sydney Water are expected to be greater than $1.24 billion during the 2025 regulatory period.

Developers (and new home buyers) will provide more than $2.3 billion in assets and revenue to Sydney Water that will service new development. In combination with customer bills, more than $5.76 billion in additional revenue and assets are available to address Sydney Water's challenges during the 2025 regulatory period.

Managing climate change and population growth

The proposals for large increases in expenses were also based on assumptions about increasing rates of climate change and population growth.

There are a range of different impacts of climate change on the operation of a water utility that should be carefully examined. Lower rainfall depths and the potential for more frequent droughts and floods impact on the availability of bulk water resources.

Increases in temperature can lead to higher water demands, lower catchment runoff and increases evaporation from regional water storages. These impacts are partially mitigated by reductions in household water demands, reduced leakage from water distribution networks and changes in the mix of dwelling types (units versus houses). Only small increases in regional water demands are observed and are expected.

We propose that ongoing changes in the mix of dwellings from houses in expanding growth corridors to lower impact units in existing areas will further mitigate the impacts of climate change and population growth.

The reductions in water use and sewage flows from increasingly efficient properties will also significantly reduce future challenges and growth in expenses. These more efficient responses are driven by improved price signals provided by usage changes (reduced fixed tariffs), water efficient appliances and practices, and distributed water sources.

The proposals to augment the water supply with desalinated water and recycled wastewater for drinking water (purified recycled water) are based on the estimated decline in available water supply from regional catchments. The purified recycled water projects are subject to customer acceptance and involve substantial changes throughout the wastewater network.

The AtkinsRealis review identified that the estimated project expenses were dominated by large scale centralised strategies that are based on preliminary estimates of new types of projects by Sydney Water's external partners.[13] The magnitude and timing of

[12] Sydney Water (2023), Infrastructure contributions, How we apply IPART's pricing method to calculate prices, version 1.3, November 2023
[13] AtkinsRealis (2025) IPART Sydney Water expenditure review (2025), 9 May 2025

the expenses are impacted by uncertainty about the estimated costs and allocation of risk scores (see discussion below).

The IPART draft decision balances the uncertainty of this requested expenditure with the equity impacts on customers. It accounts for water losses from network infrastructure and includes increasing water efficiency by Sydney Water and households.

A key insight from the Author's investigations is more than 70% of Sydney Water's total costs vary with demand and a higher level of usage charges with reduced fixed tariffs will address any uncertainty of impacts whilst providing equitable outcomes for customers.

The Author's work on the Sydney's water supply indicated that increases in temperature may results in marginally higher urban water demands. The increases in temperature may also by associated with higher rainfall intensity that could increase sewerage flows.

These potential increases in water demands and wet weather sewer flows are expected to be small for the relevant design event but may impact on the design and performance of water and sewage infrastructure. These impacts will mostly attribute to existing infrastructure and are dependent on the rate of change in temperature and rainfall intensity. These are ongoing incremental effects.

These incremental effects can be demonstrated by forecast global average temperature changes and generalised changes in rainfall depths provided by Australian Rainfall and Runoff (ARR2019).[14]

For example, the expected incremental increase in global average temperatures is 0.03°C per year and the generalised relationship for increases in rainfall depths (intensity) since 1961 – 1990 is 10% in 2030 and 41% in 2100 for a 24 hour rainfall event.

The Gravity Sewerage Guideline of Australia estimates that 2% - 10% of rainfall are expected to enter sewage infrastructure.[15] As a consequence, the total increase in sewer volumes (and flowrates) from 1990 to 2030 is 1% and to 2100 is 4.1%. The incremental change during the 2025 regulatory period (2025 – 2030) is very small and the rainfall used by designers is more recent than records before 1990.

The importance of the challenges and the proposed magnitude of expenses require that Sydney Water should apply local weather and climate relationships to infrastructure planning. The Authors research reveals substantial spatial and temporal

[14] ARR2019 Datahub, https://data.arr-software.org/
[15] Water Services Association Australia, Gravity sewerage code of Australia

variation on weather and climate processes across Sydney urban and water supply catchments.[16]

The gradual increase in rainfall intensity from 24 hour storm events may increase wet weather flows in sewage infrastructure. However, these impacts will be mitigated by improved design, construction, maintenance, renewals and operational process during the same period.

This discussion indicates that the utility has experienced gradual increases in temperatures and rainfall intensities across multiple regulatory periods. There is no sudden and dramatic increase in these trends that justify large or step change increases in operating and capital costs.

It is expected that the challenges of climate change are accommodated across multiple regulatory periods by the water utility, the community and IPART.

Responding to aging infrastructure and risk

Another stated reason for increasing capital expenditure is the need to replace or upgrade aging infrastructure. A substantial increase in asset renewals is proposed.

The review by AtkinsRealis highlighted that Sydney Water has improved their approach to asset planning by implementing a risk based planning process.[17] However, the assignment of risk scores to infrastructure and application of the decision criteria was not clear.

No justification of chosen performance levels and associated cost benefit analysis was provided. The large increases in renewal budgets were more related to the accounting process that increased risks scores than assets reaching the end of life.

The Author's review of risk based renewals in other jurisdictions has identified similar issues that substantially increase asset replacement budgets requested from regulators (and customers).[18] The draft IPART decision has acted to balance the magnitude of the requests for Sydney Water renewal budgets which are ultimately paid by customers.

Importantly, it is expected that the challenges of aging infrastructure are accommodated across multiple regulatory periods by the water utility, the community and IPART. In particular, the regulated allowances for depreciation, renewal, upgrades and operation expenses across a continuum of regulatory periods should provide for the management or replacement of aging assets. The aging process of water and sewage assets is gradual. Large or step change increases in costs are unusual.

[16] Coombes P.J., (2025), Utilising local rainfall intensity, temperature and storm tide relationships in systems frameworks to downscale climate change forecasts, In press
[17] AtkinsRealis (2025) IPART Sydney Water expenditure review (2025), 9 May 2025
[18] Coombes,P.J., (2025), Review of new customer contributions, Submission to the Victorian Essential Services Commission, 6 January 2025

3 Summary

The proposed Sydney Water prices respond to the complex challenges of population growth, aging infrastructure and climate change. Strategies that are more risk adverse and included new solutions resulted in unprecedented increases in the requested prices. These higher prices were also motivated by uncertainty of future impacts.

These proposed prices were dominated by fixed tariffs that abandoned the principles of user pays pricing. There was limited opportunity for customers to manage their Sydney Water bill by reducing water use and sewage discharges. The proposed regime of prices should also incentivise efficient strategies from Sydney Water.

A recent decision on developer infrastructure contributions also resulted in large increases in the costs of development with associated revenue collected by Sydney Water.

The IPART draft decision has acted to balance the future viability of Sydney Water and the impacts on household welfare. The application of user pays principles to water demands provides efficient price signals to both Sydney Water and customers. Unexpected increases in water demands will generate additional revenue to support Sydney Water's potential infrastructure responses.

It is the Author's view that the level of prices proposed by IPART provides increased revenue in 2025 regulatory period that is more than adequate to support Sydney Water operations. Sydney Water can service new growth. The additional infrastructure and financial contributions from developers also make substantial contributions to servicing new growth. These costs are also passed on to new customers.

It is proposed that the application of user pays pricing to sewer discharges (via water metering) will further improve the efficiency of Sydney Water prices.

About the Author

Professor Peter Coombes

Peter Coombes is a director of Urban Water Cycle Solutions, an honorary and visiting Professor in Crawford School of Public Policy at the Australian National University, a Fellow of Engineers Australia and Certified Practicing Engineer in Civil and Environmental Engineering, Leadership and Management at the Engineering Executive (EngExec) level. He was awarded the 2018 GN Alexander Medal for scientific contributions to Hydrology and Water Resources by Engineers Australia and the 2019 Presidents Medal for his role as a lead editor of the Urban Book of Australian Rainfall and Runoff. Peter holds a PhD in Civil and Environmental Engineering, degrees in Civil Engineering (Hons), Surveying (Hons) and Economics, and a Diploma of Legal Studies. He is a Registered Professional Engineer in Victoria (PE0007360) and has over 30 years experience in hydrology (surface and groundwater) and water resources.

Peter was recently the Associate Dean (Education) and Professor of Water Resources Engineering at Southern Cross University. He is a Member of Systems Research Steering Committee at Imperial College London and is an editor the Urban Book of Australian Rainfall and Runoff published by Engineers Australia. He has held senior academic positions at University of Newcastle, University of Melbourne and Swinburne University. Peter was a Chief Scientist in the Victorian Government and contributed to inquiries into stormwater management and flooding by the Senate of the Australian Parliament and into water resources by the Productivity Commission.

Peter was a managing director of Bonacci Water, a member of the water advisory group to the Prime Ministers Science, Engineering and Innovation Council, the advisory council on alternative water sources for the Victoria Government's Our Water Our Future policy, a member of the advisory panel on urban water resources to the National Water Commission, an advisor on alternative water policy to the United Nations and a national research leader of innovative WSUD strategies in the eWater CRC. He has generated over 250 scientific publications and designed more than 120 sustainable projects including settlements that generate all of their water resources and manage flooding. Professor Coombes was also a co-author of Australian Runoff Quality and a former chair of the Stormwater Industry Association. More information can be found at http://urbanwatercyclesolutions.com.