9 Pricing of other services

Technical Paper 9

- Hunter Water receives trade wastewater from around 2,300 customers connected to sewer and around 30 customers that visit wastewater treatment plants with tankers. A comprehensive review of all trade wastewater charges has been undertaken to ensure that they remain appropriate, robust and consistent with IPART's pricing principles.
- Approximately 1,100 households will be provided with recycled water for non-drinking purposes at two residential dual reticulation schemes – at Chisholm and Gillieston Heights. We are proposing to simplify recycled water charges for these customers by removing the fixed annual service charge and setting the recycled water usage charge at 90 per cent of the drinking water usage charge. This proposal takes into account feedback from affected customers on the fairness of charges.
- There are separate miscellaneous and ancillary charges for typically discrete, one-off activities that are only utilised by a small number of customers. We are proposing to reduce the number of these charges for simplicity and administrative efficiency. We have also revised all charges to ensure they are cost-reflective.

Contents

1. Trade wastewater charges

1.1 Background

Trade wastewater means any liquid, and any material contained in any liquid, which:

a) Is produced on or stored at any non-residential property.

b) Is produced or stored on, or transported by, any vehicle (including without limitation, motor vehicles, planes, boats and trains).

c) Is comprised of waste from a portable toilet or septic tank.

d) Is comprised of run-off from an area that is contaminated within the meaning of section 5 of the *Contaminated Land Management Act 1997 (NSW)*.

e) Contains any substance classified as a restricted substance in our Trade Wastewater Standard.

Hunter Water provides trade wastewater services to commercial and industrial customers where there is available capacity and capability at the receiving wastewater treatment plant. We receive trade wastewater from customers via property connections to the sewer network and tankers that deliver wastewater directly to wastewater treatment plants. The method of delivery is used to distinguish between two types of trade wastewater customer: *sewered trade wastewater* and *tankered trade wastewater*.

To control the discharge of trade wastewater into the sewerage system, you must obtain our written consent and, if required, enter into a separate agreement with us to discharge trade wastewater into the sewerage system in accordance with our *Trade Wastewater Policy* and *Trade Wastewater Standard*.

We will not provide our consent if by accepting the trade wastewater, we are in breach or potentially in breach, of any laws, including the *Hunter Water Act 1991*, our operating licence or Environment Protection Licences.

We forecast that in 2020-21 approximately 2,300 sewered customers will have separate agreements to discharge trade wastewater. This is approximately one per cent of all properties connected to sewer and 20 per cent of all non-residential customers connected to sewer.

Trade wastewater discharges are often higher strength than domestic wastewater, placing a greater load on wastewater treatment facilities. We also incur administrative costs in managing customers and monitoring discharges to ensure that compliance with all necessary regulatory obligations. Our proposed trade wastewater charges are set to recover these costs.

1.2 Trade wastewater agreements and risk classification

Hunter Water classifies trade wastewater customers based on the risk that their discharge poses to Hunter Water and the environment. The terms of our agreement with the customer are reflective of the customer's risk classification and business activities. The four agreement types, risk classification and the typical business activities carried out by these agreement holders are described in Table 1.1.

We use a risk calculator to appropriately classify each customer based on: water usage, average contaminant discharge levels, business activities, capacity of the receiving wastewater treatment plant and the extent of onsite pre-treatment of the wastewater prior to discharge. We reassess the risk classification when: the agreement period ends, the nature of the onsite business operations changes, or following changes in our regulatory obligations relating to wastewater discharge. Our Trade Wastewater Standard describes the process of risk classification.

The approximately 2,300 sewered trade wastewater customers comprise of 2,020 minor, 176 moderate, 100 major agreement customers and 30 tankered trade wastewater customers.

We apply load limits to each trade wastewater agreement, if required. This occurs when an industry has sufficiently high volume and trade wastewater strength to have potentially serious consequences on the receiving treatment plant if the agreed load limits are exceeded. Consequences include failure of the treatment process and breach of environmental regulations that may impose significant costs on the environment and Hunter Water.

Table 1.1 Trade wastewater agreement types and risk classifications

Agreement type	Description	Typical business activities	Risk
Minor	Domestic and process water discharged, may require pre-treatment prior to discharge.	Small retail food producers, restaurants, mechanical shops, bakers, dentist	Low
Moderate	Domestic and process water discharged, needs pre-treatment prior to discharge and may have discharge restrictions.	Large retail food producers, car wash, spray painters, service stations, large pubs, small shopping centres	Medium
Major	Domestic and process water discharged, needs pre-treatment prior to discharge and may have discharge restrictions. Contaminant loads may be significant and include restricted substances.	Food manufacturing, metal processing, oil refinery, chemical production, industry, hospitals, laboratories	High
Tanker	Wastewater discharged directly to the wastewater treatment plant via tanker.	Residential septic systems, commercial wastewater not connected to sewer, portable toilet waste	High

Source: Hunter Water, Trade Wastewater Standard, available at: https://www.hunterwater.com.au/Resources/Documents/Standards/Trade-Wastewater/Trade-Wastewater-Standard.pdf.

1.3 Review of our trade wastewater charges

Hunter Water has undertaken a comprehensive review of all trade wastewater charges to ensure that they remain appropriate, robust and consistent with IPART's pricing principles.

IPART's principles for trade wastewater charges

- Standards for acceptance should be set on the basis of the capacity of current systems to transport, treat and dispose of the wastes, having regard to the health and safety of wastewater workers.
- Trade wastewater charges should cover the efficient costs to the water supplier of handling these wastes, including an allocation of corporate overheads.
- Charges should vary to reflect differences in the cost of treating wastewater to the required standards at particular locations.
- Water suppliers should set charges and standards in a manner that is transparent and accurate. The method of measurement should be reliable and the basis for setting charges should reflect costs incurred as far as possible.
- Where environmental reasons are made for variations from the pricing principles detailed above then sufficient evidence needs to be available to justify these variations. The basis for calculating greater than cost charges where environmental justifications exist should also be justified.

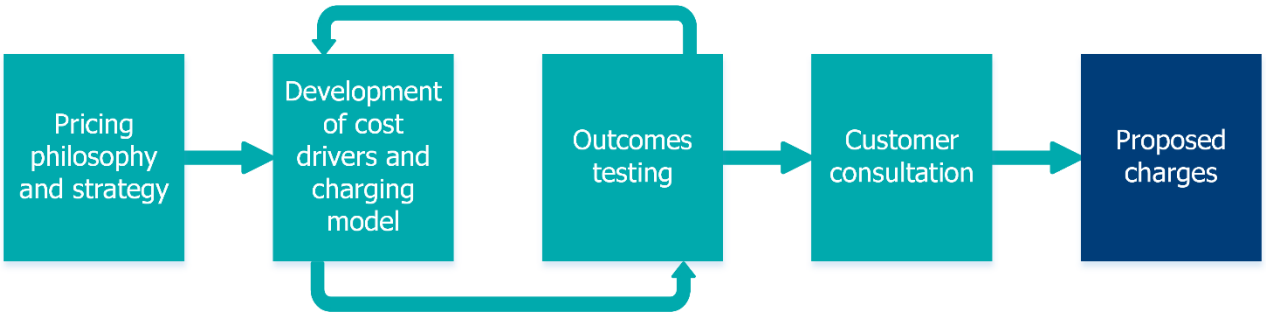
Source: IPART 2016, Review of prices for Hunter Water Corporation: Water - Final Report.

As part of the review, we engaged consultants from GHD to provide technical expertise and undertake the review of high-strength trade wastewater charges. We analysed our existing model and compared current charges against the structure and level of charges of other major utilities. We determined current cost drivers and considered theoretical and practical issues related to future pricing including the recovery of capital costs, practicality of administration, possible chargeable parameters and pricing principles.

This work informed our approach to developing an updated charging model. We used the model to assess several different options for revised charges and tested the customer impacts. This informed decision-making in relation to the charges that we propose.

The outcome of the review is a set of proposed trade wastewater charges that better reflect the costs incurred in delivering trade wastewater services. We are proposing several significant changes to the trade wastewater charge structure. We have also updated the cost-basis underpinning all charges. This results in changes to the level of proposed charges.

Figure 1.1 Our approach to reviewing our trade wastewater charges



1.4 Proposed sewered trade wastewater charges

1.4.1 Overview of proposed charges

The current and proposed pricing structure for sewered trade wastewater customers is shown in Figure 1.2. We propose changes to the structure and levels of administration and agreement fees. We have simplified and improved the high-strength charges, including modifying the chargeable parameters to reflect the characteristics of wastewater that drive costs.

Figure 1.2 Proposed charge structure for sewered trade wastewater customers

	Minor	Moderate	Major
Establish agreements (new agreements only)	✓	✓	✓
Annual agreement fee	✓	✓	✓
Agreement renewal/reissue fee	✓	✓	✓
Variation to agreement fee	✗*	✓	✓
Inspection fee	✗*	✗*	✓
High strength charge for: • Biochemical oxygen demand (BOD) • Total suspended solids (TSS)	✗	✓+	✓+
Other pollutant charges: • Heavy metals • Phosphorous • Sulphates	✗	✗	✗*

+ Charge Modified
* Charge Removed

1.4.2 Agreements, administration and inspections

Agreement, administration and inspection fees are set to reflect the time spent completing these tasks. Table 1.2 describes the circumstances in which the charges are applied and the types of activities that each charge is based upon. The listed activities do not apply to all agreement types.

Table 1.2 Description of agreement, administration and inspection charges

Proposed charge	Description and activities undertaken (if applicable for agreement type)
Agreement establishment fee	Once-off charge applied when establishing the customer's initial trade wastewater agreement. Activities include: Answering enquiries, receiving and registering the application, applicant investigation/inspection and sampling, preparing agreement and risk assessment, signing/issuing agreement
Annual agreement fee	Charge is applied annually to all customers with a trade wastewater agreement. Activities include: Inspection, sampling, review and follow-up of sample results, obtaining sewer meter readings, monitoring customer performance, meetings/correspondence with customers, laboratory sampling costs
Agreement renewal/reissue fee	Charge applied periodically when agreement expires. Activities include: reviewing existing agreement, applicant investigation, and preparing/signing/issuing agreement.
Variation to agreement fee	Charge applied when change required to terms of agreement. Activities include: receiving and undertaking request for action, receive/issue request for change, prepare agreement/undertake risk assessment (if required), review/sign/issue agreement.
Inspection fee	Charge applied when inspection of customer's site/operations is required. Activities include: onsite inspection, issuing inspection notice, and travel time.

Source: Hunter Water.

We are not proposing major changes to the structure of agreement, administration and inspection fees. To ensure that we are appropriately and efficiently managing the risk posed by each type of customer, we have reviewed and improved trade wastewater administration processes. We are spending an increasing amount of time managing moderate and major trade wastewater customers. This involves working with customers to:

- Better understand factors specific to their business operations that influence discharge quality.
- Further investigate options for on-site pre-treatment.
- Improve follow-up and responses to abnormal laboratory analysis results that we obtain through monitoring.

This reduces risks and helps trade wastewater customers to reduce bills by improving the quality of wastewater discharge.

We have recalculated the time and cost of undertaking trade wastewater administration activities. The most notable proposed changes to these fees are:

- Removing the variation to agreement fee for minor agreement customers. Due to the nature of business operations, agreement variations are not required for these customers.
- Removing the inspection fee for minor and moderate agreement customers. The costs of undertaking these inspections is now built into annual agreement fees based on average costs for that risk category.
- Removing the average high-strength load component that was built into moderate customer's annual agreement fee. The existing approach does not reflect the costs imposed by each customer's discharge and provides no incentive to reduce the wastewater load. We are proposing that moderate agreement customers pay high-strength charges based on the actual strength/load of their discharge (this is discussed in section 1.3).
- Significant increases to the annual agreement fee and inspection fee for major agreement customers. This increase reflects the increasing time and costs spent managing major customers and monitoring the quality of trade wastewater discharge.

Our proposed trade wastewater agreement, administration and inspection charges for the price period commencing 1 July 2020 are detailed in Table 1.3. The derivation of the charges makes no allowance for the effect of inflation and we propose the charges be increased annually in line with CPI.

Table 1.3 Sewered trade wastewater agreement and inspection fees ($2019-20)

Charge	2019-20	2020-21 to 2024-25	Real price change over price period
Minor agreement customers			
Agreement establishment fee [1]	146.49	173.30	26.81
Annual agreement fee	119.79	120.57	0.78
Agreement renewal/reissue fee	108.19	145.62	37.43
Variation to agreement fee	115.29	Charge removed	(115.29)
Inspection fee	127.32	Charge removed	(127.32)
Moderate agreement customers			
Agreement establishment fee [1]	520.43	447.93	(72.50)
Annual agreement fee	875.70	692.90	(182.80)
Agreement renewal/reissue fee	293.20	274.70	(18.50)
Variation to agreement fee	115.29	148.63	33.34
Inspection fee	127.32	Charge removed	(127.32)
Major agreement customers			
Agreement establishment fee [1]	589.30	704.18	114.88
Annual agreement fee	487.68	2,370.83	1,883.15
Agreement renewal/reissue fee	416.80	452.03	35.23
Variation to agreement fee	115.29	148.63	33.34
Inspection fee	127.32	231.65	104.33

Note: 1. New customers only.
Source: Hunter Water price schedule, available at www.hunterwater.com.au; Hunter Water analysis.

1.4.3 High-strength charges

Domestic wastewater from residential customers has relatively uniform concentrations of contaminants, meaning that pricing on a simple volumetric basis is generally cost reflective. However, trade wastewater from non-residential customers has widely varying concentrations of contaminants between different customers. These concentrations are usually higher than domestic wastewater. We propose to set these charges on a load basis (*volume x concentration*) so that our charges are responsive to the costs imposed by customers.

As part of our review of cost drivers and charges we found that the cost-reflectivity of existing charges could be improved. As a result, we propose considerable revisions to the structure and levels of high-strength charges. Our proposed charges are presented in Table 1.4.

Domestic strength equivalent

Our sewered trade wastewater customers pay sewer usage and service charges. High-strength trade wastewater charges are also levied on some of our sewered trade wastewater customers in order to recover the variable costs incurred in treating wastewater that exceeds the domestic-strength wastewater. High-strength trade wastewater charges capture the costs of receiving and treating the load that are higher than the typical domestic concentration. This approach avoids any double recovery of these costs from trade wastewater customers.

We propose to reduce the domestic strength equivalent used in calculating high-strength charges. Currently, we assume domestic strength is 350mg/L for both Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS). Research and analysis undertaken by GHD indicates that this assumed strength is higher than typical loads and the strength assumed throughout Australia. We propose to use 240mg/L for BOD and 290mg/L for TSS. All else equal, this change increases the proportion of costs recovered through high-strength charges.

Moderate customers

There is currently an assumed average strength loading component built into the annual agreement fee for moderate risk trade wastewater agreement customers. The existing approach does not reflect the costs imposed by a customer's actual discharge and provides no incentive for these customers to control trade wastewater discharge.

In the past, Hunter Water has not had sufficient trade wastewater quality sampling information for moderate risk customers on which to base accurate customer-specific charging of high-strength loads. We have now collected, and will continue to collect, sufficient sampling information that allows us to apply customer-specific high-strength charges. We propose the removal of the average strength charge from moderate customer agreements and instead apply high-strength charges to all moderate risk customers in addition to major risk customers.

Cost basis for high-strength charges

Our high-strength trade wastewater charges recover the operating costs of receiving and treating high-strength wastewater and discharging treated effluent from all wastewater treatment plants. The types of costs recovered included:

- Electricity used at our wastewater treatment plants
- Wastewater treatment plant maintenance costs
- Chemicals used in our wastewater treatment process
- Waste disposal costs for handling and removing biosolids
- Licence fees for load-based licencing
- Laboratory costs for monitoring and testing wastewater quality at our treatment plants
- Diving costs for inspecting ocean outfalls, and
- Other miscellaneous fixed and variable treatment plant operating costs that vary with contaminant concentration.

The main cost types across wastewater treatment plants are electricity and operations and maintenance costs.

We are not proposing to include wastewater transportation (network) operating and maintenance costs, or capital expenditure costs in high-strength charges. We are not confident that we can reliably estimate the portion of these costs attributable to wastewater that exceeds domestic strength (high-strength waste) or to allocate these costs across the proposed chargeable parameters.

Our capital expenditure on wastewater assets (network and treatment) is recovered through broader sewerage charges, not trade wastewater high-strength charges. Because sewer-connected trade wastewater customers pay sewerage charges in addition to trade wastewater specific charges, these customers will continue to pay a contribution to Hunter Water's capital costs of providing wastewater and trade wastewater services (e.g. wastewater treatment plant upgrades and sewer main replacement costs).

We investigated options for incorporating a portion of capital costs in high-strength charges but decided against this because:

- Hunter Water's treatment facilities are primarily designed to treat domestic quality wastewater. Designing wastewater plants for trade wastewater loads is not an efficient balance between the investment required to treat high-strength wastewater and the risk of customers ceasing operations or initiating on-site treatment.
- The strength and volume of trade wastewater discharges are highly variable in nature. Customers may also cease operations or move between wastewater treatment catchments. This inherent uncertainty results in a less reliable source of cost recovery for long-lived capital assets.
- We were unable to develop a transparent, accurate and robust methodology for estimating the causal relationship between treatment plant capital costs and the strength/volume of sewered and tankered trade waste.

Chargeable parameters

We held internal stakeholder workshops and undertook desktop research to investigate the characteristics of wastewater that drive the majority of treatment costs based on the treatment process. We determined that BOD and TSS were the main cost drivers.

Our proposed pricing model recovers costs across the chargeable parameters of BOD and TSS. Where appropriate, costs have been directly allocated to the chargeable parameters. Costs identified as indirect were allocated across the chargeable parameters in proportion to the direct costs.

We propose to discontinue the existing charges for heavy metals, sulphates and phosphorous. These pollutants are no longer deemed to be significant drivers of costs. It is also inefficient to administer these charges as the costs of laboratory analysis often exceeds the revenue that is generated.

Our existing charges are based on the higher of BOD or TSS load. Analysis undertaken by GHD shows that it is less costly to treat a unit of TSS than a unit of BOD. GHD have demonstrated that the current approach penalises customers with loads that are relatively high in TSS compared to BOD. It also results in overall charging that is not cost-reflective. For instance, the revenue received from treating a given load of BOD and TSS may differ depending on whether the loads come from a single or multiple customers. As a result, we would apply separate charges for BOD and TSS that better reflects costs to treat trade wastewater containing these parameters.

Wastewater treatment plant-specific charges

Hunter Water has a relatively large number of small wastewater treatment plants when compared with other major utilities. We currently have specific trade wastewater charges for each treatment plant. As part of this review we investigated simplifying our trade wastewater charges by consolidating or grouping our wastewater treatment plants into categories that would receive a common (average) charge. This sought to improve the administrative efficiency of our charges by trading off cost-reflectivity for improved simplicity.

We analysed possible charges based on a number of grouping methods. This included grouping treatment plants of a similar size (smaller plants generally have higher treatment costs) and also by the type of receiving waters for effluent discharge (ocean outfall or inland/estuary). We analysed the impact on our customers of these proposed grouping methods. Necessarily, grouping of wastewater catchments with different costs made some customers better off and some customers worse off depending on whether the receiving treatment plant was higher or lower than the average charge within a group.

We concluded that the administrative and customer benefits from simplification did not justify the resulting cross-subsidies created by grouping treatment plants together. We propose to retain treatment plant-specific high-strength charges.

Incentive charge

Our incentive charge is a way of encouraging customers to maintain compliance with limits specified in each trade wastewater agreement. We apply the charge to loads that exceed an agreed load limit for each pollutant. Non-compliant loads can have potentially serious consequences including failure of the treatment process and breach of environmental regulations that may impose significant costs on the environment and Hunter Water. The incentive charge only applies to the proportion of the load that is above the load limit for each billing cycle.

The incentive charge rate is set at triple the base load rate. The charge rate is not based on cost-reflectivity and is intended to be revenue neutral. That is, it is not set to recover costs incurred as a result of non-compliant discharges. We consider that the magnitude of the incentive charge is both reasonable and effective, set at an appropriate rate to motivate compliance with agreement limits. Over the past four years, the incentive charge has been applied to six different customers and we have received average revenue of $12,500 per year. We propose to levy incentive charges for both BOD and TSS as shown in Table 1.4.

Summary of high-strength charges for sewered trade wastewater

Our current (2019-20) and proposed (2020-21 to 2024-25) charges are shown in Table 1.4.

We propose to apply high-strength charges based on the load (kg) of BOD and TSS discharged that exceeds the domestic-strength equivalent. As described earlier, moderate agreement customers would pay high-strength charges based on their actual discharge. The charge level would differ depending on the wastewater treatment plant. Customers would no longer pay a combined BOD/TSS charge based on the higher of the customer's BOD or TSS load. Where the customer's load exceeds the load limit set in the trade wastewater agreement, we propose to levy an incentive charge that only applies to the proportion of the load that exceeds the load limit. We propose to discontinue our existing pollutant charges (heavy metals, phosphorous and sulphates) as shown in Table 1.5.

Table 1.4 High-strength and incentive charges for moderate/major customers

	Current charges for 2019-20 ($2019-20 per kilogram)		Proposed charges for 2020-21 to 2024-25 ($2019-20 per kilogram)			
Wastewater Treatment Plant	BOD/TSS Base charge [1]	BOD/TSS incentive charge [2]	BOD Base charge [3]	TSS Base charge [3]	BOD incentive charge [2]	TSS incentive charge [2]
Belmont WWTP	1.44	4.32	1.29	0.35	3.87	1.05
Boulder Bay WWTP	1.93	5.79	1.33	0.37	3.99	1.11
Branxton WWTP	5.35	16.05	3.00	2.15	9.00	6.45
Burwood Beach WWTP	0.81	2.43	0.62	0.21	1.86	0.63
Cessnock WWTP	1.80	5.40	1.62	0.25	4.86	0.75
Clarence Town WWTP	15.31	45.93	4.88	4.06	14.64	12.18
Dora Creek WWTP	2.13	6.39	1.94	0.19	5.82	0.57
Dungog WWTP	3.36	10.08	2.10	1.41	6.30	4.23
Edgeworth WWTP	1.41	4.23	1.05	0.36	3.15	1.08
Farley WWTP	1.38	4.14	1.45	0.36	4.35	1.08
Karuah WWTP	15.34	46.02	7.18	1.23	21.54	3.69
Kearsley WWTP	2.88	8.64	1.98	0.84	5.94	2.52
Kurri Kurri WWTP	3.10	9.30	3.09	0.71	9.27	2.13
Morpeth WWTP	1.06	3.18	1.51	0.44	4.53	1.32
Paxton WWTP	8.48	25.44	4.02	2.82	12.06	8.46
Raymond Terrace WWTP	2.11	6.33	2.18	0.68	6.54	2.04
Shortland WWTP	1.62	4.86	3.46	0.67	10.38	2.01
Tanilba Bay WWTP	3.30	9.90	2.44	0.68	7.32	2.04
Toronto WWTP	1.74	5.22	1.63	0.24	4.89	0.72

Note:
1. These charges apply where the concentration strength is greater than 350mg/L for BOD/TSS.
2. These charges apply for loads beyond the load limit set the trade wastewater agreement.
3. These charges apply where the concentration strength is greater than 240mg/L for BOD and 290mg/L for TSS.

Source: Hunter Water price schedule, available at www.hunterwater.com.au; Hunter Water analysis.

Table 1.5 Pollutant charges - $ per kilogram ($2019-20)

Wastewater Treatment Plant	2019-20	2020-21 to 2024-25
Heavy metals – Burwood Beach WWTP	25.12	Charge removed
Heavy metals – All other WWTP	41.44	Charge removed
Phosphorous	2.90	Charge removed
Sulphate	0.17 x (SO_4/2000)	Charge removed

Source: Hunter Water price schedule, available at www.hunterwater.com.au; Hunter Water analysis.

1.5 Proposed tankered trade wastewater charges

Hunter Water enters into specific agreements with customers to receive tankered wastewater that is discharged directly at those wastewater treatment plants where tankering is permissible. The source of this wastewater includes residential septic effluent, portable toilet wastewater and commercial waste. We currently receive trade wastewater from 30 customers via tanker at five wastewater treatment plants (Burwood Beach, Dora Creek, Kurri Kurri, Morpeth and Raymond Terrace).

1.5.1 Agreement and administration charges

We are continuing to improve our service offering to tankered wastewater customers. In 2018, we conducted an online survey of 23 tanker customers. To further understand the survey responses we held face-to-face meetings with four of the larger customers. The top three matters raised by our customers were:

- Requests for extended access hours for discharging at the receiving treatment plants
- Greater certainty on which wastewater treatment plants are available for discharge, and
- Providing invoices to our customers in a timelier manner.

In response, we are improving access to those wastewater plants that receive tankers. To recover the costs of offering this service, we propose to introduce two administrative charges for after-hours access including weekends and public holidays. For customers requiring after-hours access, an overtime charge will apply for the first four hours (minimum time), after which a separate hourly rate would apply.

We have launched an online application that allows tanker companies to submit their tankered wastewater information electronically, rather than completing a paper docket. For Hunter Water, this will result in process efficiencies, better reporting and faster invoice processing. Tanker customers will receive more timely invoices and we expect their customer experience will be improved. This solution is viewed as an interim measure until we complete planned capital improvements to improve the capability of tanker receival facilities (discussed in section 1.5.2).

We propose the following changes to our agreement charges (see Table 1.6):

- A higher agreement establishment fee to reflect the increased time spent undertaking risk and capacity assessments when establishing new tanker agreements
- An annual fee to recover the costs incurred in undertaking compliance audits, reviewing and following up sample results, liaising and corresponding with customers, and
- Removing the processing fee levied per delivery and included these administrative costs - which reflect the number of loads we receive - into the volumetric fee.

The variation to agreement fee is applied when assessing customer requests to discharge alternative types of wastewater.

Table 1.6 Tankered trade wastewater agreement and administrative fees ($2019-20)

Charge	2019-20	2020-21 to 2024-25	Real price change
Agreement fees			
Agreement establishment fee [1]	224.89	567.46	342.57
Agreement renewal/reissue fee	143.53	236.21	92.68
Variation to agreement fee	115.29	150.03	34.74
Annual agreement fee	-	750.30	750.30
Delivery processing fee (per delivery docket)	4.43	-	(4.43)
Administration fees			
Overtime costs for after-hours access to wastewater treatment plant (up to four hours)	-	440.00	440.00
Hourly rate for after-hours access that is required to extend beyond four hours	-	83.00	83.00

Note: 1. New customers only.
Source: Hunter Water price schedule, available at www.hunterwater.com.au; Hunter Water analysis.

1.5.2 Volumetric charges

Tankered trade wastewater customers do not pay sewer service or sewer usage charges as they do not discharge to the wastewater network. As such, the tanker volumetric charge includes the cost of treating the domestic strength load in addition to a high-strength component.

We currently rely on an honour-based system to collect tanker wastewater charges whereby tanker drivers record the discharge type and volume on paper dockets. This exposes Hunter Water to a number of risks:

- Fraud (relating to volume and discharge type)
- Breaching our environmental licences and obligations if discharges have a high or non-compliant pollutant load, and
- Treatment plant process issues due to acute effect of discharges with non-compliant pollutant loads.

We are proposing a number of changes to help mitigate these risks.

Our existing charge structure is based on the type of wastewater that is discharged (septic waste, portable toilet effluent, or other commercial wastewater – 'high strength waste'). We are proposing to consolidate these charges and apply a uniform volumetric charge to all tankered wastewater discharges irrespective of the source of the wastewater or load of pollutants. This approach has two benefits:

- Tanker customers are typically intermediaries that collect wastewater from their own customers (end-users) and discharge to Hunter Water. We do not typically have a relationship with the end-user, reducing our visibility of the source of wastewater and type of discharge.
- Consolidation eliminates the possibility of fraud relating to customer's self-nominating the discharge type.

Due to the variability in the strength of tanker discharges, charging tankered wastewater customers based on the strength/load of pollutants is a theoretically preferable charging method. However, tanker loads are typically low volume. It is currently administratively inefficient for us to undertake the manual sampling and laboratory analysis of each tanker that is necessary to accurately and fairly administer strength-based charges.

We are continuing to improve our controls to reduce risks from receiving tankered wastewater. As part of our forward capital works program, we plan to modify the receival stations at five wastewater treatment plants to include a key pad for positive driver identification, flow and quality meters, data logging via SCADA, and a screening unit. These facilities will allow digital source tracking, timely billing and us to provide out of hours access to the discharge stations for our customers. Extended access and timelier billing were two of the key matters raised during our customer engagement.

The works are expected to cost $5.7 million and be delivered in 2022-23. Because this infrastructure is only used by tankered wastewater customers, we are proposing to recover the cost of these capital upgrades directly from tanker customers through higher tanker charges (from $5.68 to $8.85) starting in 2023-24; the year after the infrastructure becomes operational. This infrastructure will provide the ability to administer strength-based charges in the future and to reduce any cross-subsidy that is inherent in our proposed average-strength volumetric charges for tankered wastewater customers.

As with sewered trade wastewater customers, we are proposing to discontinue our pollutant charges (see Table 1.7) as these pollutants are not a significant driver of costs and are administratively inefficient.

Because the incremental cost of transportation between our wastewater treatment plant locations is low relative to the cost of discharging, differential prices for each of our wastewater treatment plants may incentivise tankered trade wastewater customer's to direct discharge to the lowest cost wastewater treatment plant. This may potentially distort the distribution of load between our wastewater treatment plants and increase the risks of us breaching our environmental licences obligations or bring-forward future capital upgrades to treatment plants. Although receiving discharges at the lowest cost treatment plant is efficient, inflexible prices (within a regulatory period) mean that the discharge price at individual plants cannot adjust in order to signal capacity constraints. We therefore propose a single network-wide price.

Table 1.7 Proposed volumetric and pollutant charges for tankered wastewater ($2019-20)

Charges	2019-20	2020-21 to 2022-23	2023-24 to 2024-25
Volumetric charges			
Portable toilet effluent ($/kL)	14.69	Charge removed	Charge removed
Septic waste ($/kL)	5.79	Charge removed	Charge removed
High strength waste ($/kL)	3.74	Charge removed	Charge removed
Average strength charge ($/kL)	-	5.68	8.85
Pollutant charges			
Heavy metals – Burwood Beach WWTP ($/kg)	23.70	Charge removed	Charge removed
Heavy metals – All other WWTP ($/kg)	39.09	Charge removed	Charge removed
Phosphorous ($/kg)	2.74	Charge removed	Charge removed
Sulphate ($/kg)	0.17 x (SO_4/2000)	Charge removed	Charge removed

Source: Hunter Water price schedule, available at www.hunterwater.com.au; Hunter Water analysis.

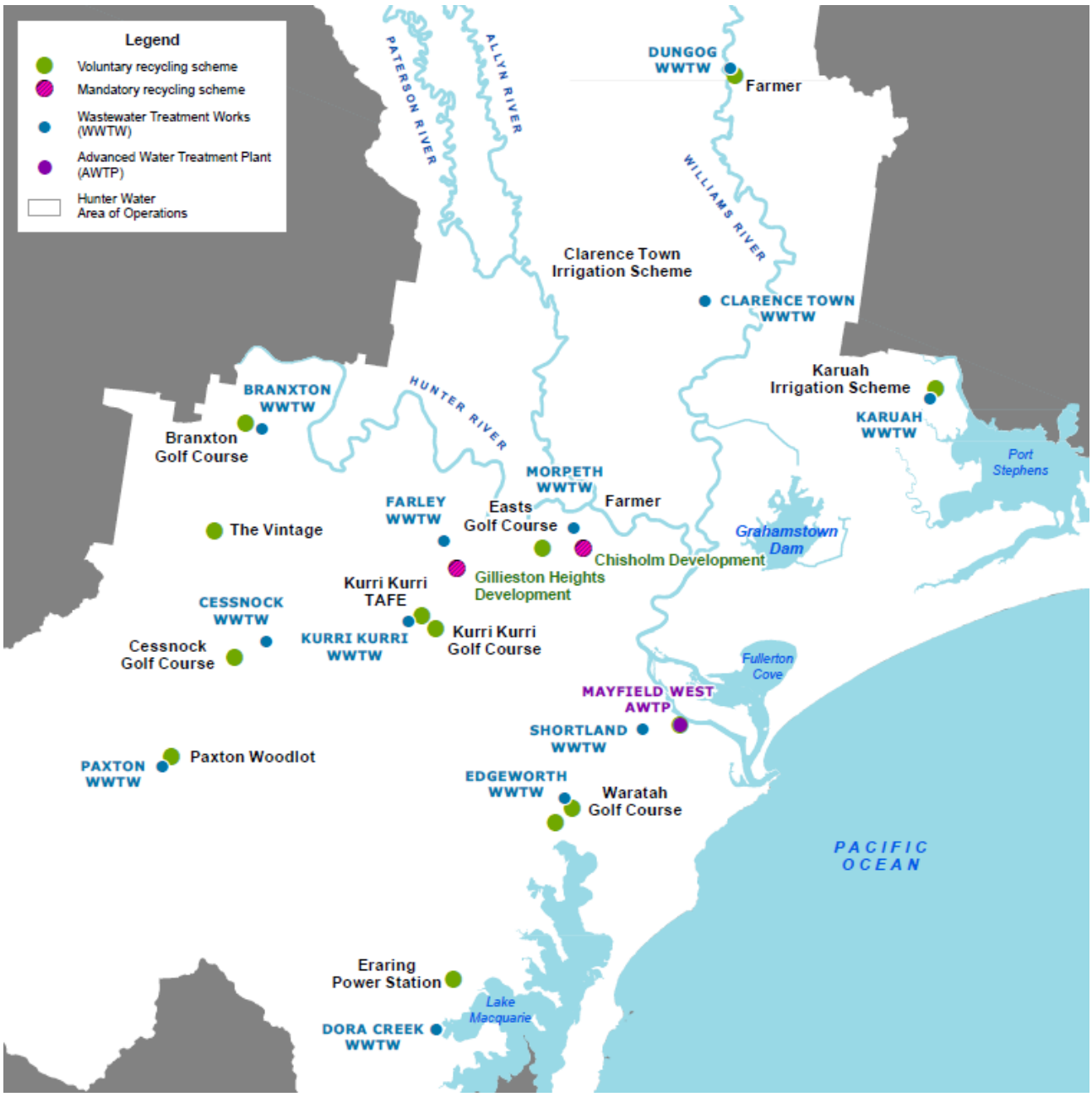
2. Recycled water services

2.1 Recycling facilities in the Lower Hunter and categorisation in IPART's cost recovery framework

Diversifying water sources for fit-for-purpose use has contributed to reducing demand for drinking-quality water. Recycled water can form an important part of our supply 'portfolio' by utilising these resources in applications where drinking-quality water is not required.

Hunter Water operates 19 wastewater treatment plants across the Lower Hunter. Of these treatment plants, 11 include wastewater recycling and about 10 per cent of effluent is treated to a recycled water standard. Our plant and supply locations are shown in Figure 2.1.

Figure 2.1 Hunter Water's water recycling operations



Source: Hunter Water.

IPART's cost-recovery framework establishes a hierarchy for recycled water schemes:

- **Least-cost schemes**, which are the least cost means of providing water or wastewater services, are treated on an equivalent basis to traditional network schemes and funded through periodic charges to the broader water and wastewater customer base.[1]
- For **higher-cost schemes**, which are recycled water schemes that are not the least-cost servicing solution:
    - In the first instance, any cost offsets arising from the scheme (avoided or deferred costs, and/or external benefits) are funded by the broader customer base through periodic prices for water, wastewater and stormwater services.
    - Any residual costs that make up total scheme costs are to be ring-fenced and recovered through periodic charges to recycled water customers (i.e. usage and fixed charges) and charges levied to developers (recycled water developer charges), where applicable.

For higher-cost schemes, a further distinction is made between mandatory and voluntary recycled water schemes. The form of price regulation varies between the two categories:

- **Mandatory recycled water schemes** are those in which the customer has no effective choice (e.g. there are practical barriers to opting-out). IPART considers all residential dual reticulation schemes to be mandatory schemes. IPART has decided to defer regulating maximum prices for mandatory recycled water schemes, instead monitoring prices and only stepping in if our proposed prices are inconsistent with IPART's pricing principles.
- **Voluntary recycled water schemes** are those in which customers have effective choice, such as the availability of an appropriate substitute (e.g. groundwater). Moreover, customers of these schemes are usually commercial entities with an ability to negotiate with public water utilities. IPART has decided to defer regulating maximum prices for voluntary recycled water schemes, and only step in if requested to do so by the customer or us. Prices for our voluntary recycled water schemes are negotiated with direct users and are subject to supply contracts.

A description of Hunter Water's recycled water schemes and their classification in accordance with IPART's pricing arrangements is provided in Table 2.1.

[1] This statement takes into account the NSW Government's 2008 decision to set water and wastewater developer charges to zero in Sydney and the Hunter region.

Table 2.1 Hunter Water's recycled water schemes

Least-cost recycled water schemes [1]	Higher-cost recycled water schemes	
	Voluntary schemes [2]	Mandatory schemes [3]
Branxton Golf Course	Kurri Kurri TAFE	Gillieston Heights
Clarence Town Irrigation Scheme	Vintage Golf Course (supplied from Branxton WWTP)	Chisholm
Eraring Power Station		
Local farmers, supplied from Dungog WWTP, Morpeth WWTP and Farley WWTP		
Karuah Irrigation Scheme		
Paxton woodlot		
Cessnock Golf Course		
Easts Golf Course		
Waratah Golf Course		
Kurri Kurri Golf Course		
Waratah Golf Club		
Water Utilities Australia (supplied from Shortland WWTP for use in the Kooragang Industrial Water Scheme)		
Onsite recycling at WWTP for use by Hunter Water		
Indirect agricultural reuse		

Source:
1. AIR/SIR, RW Voluntary Others.
2. AIR/SIR, RW Voluntary 1 and RW Voluntary 6.
3. AIR/SIR, RW Mandated 1 and RW Mandated 2.

2.2 Ring-fencing recycled water costs

Consistent with IPART's guidance in the April 2019 draft report on recycled water pricing, we have adopted the principle that where recycled water solutions are a least cost solution to achieve mandated wastewater outcomes (such as licence compliance), those expenditures remain classified as wastewater expenditure. This principle recognises that if the recycled water option was not available to meet the wastewater objectives, another solution, of at least the same cost, would have to be adopted and the associated costs would be recovered from wastewater customers. That is, wastewater customers are no worse off than they otherwise would have been, in the absence of the recycled water scheme.

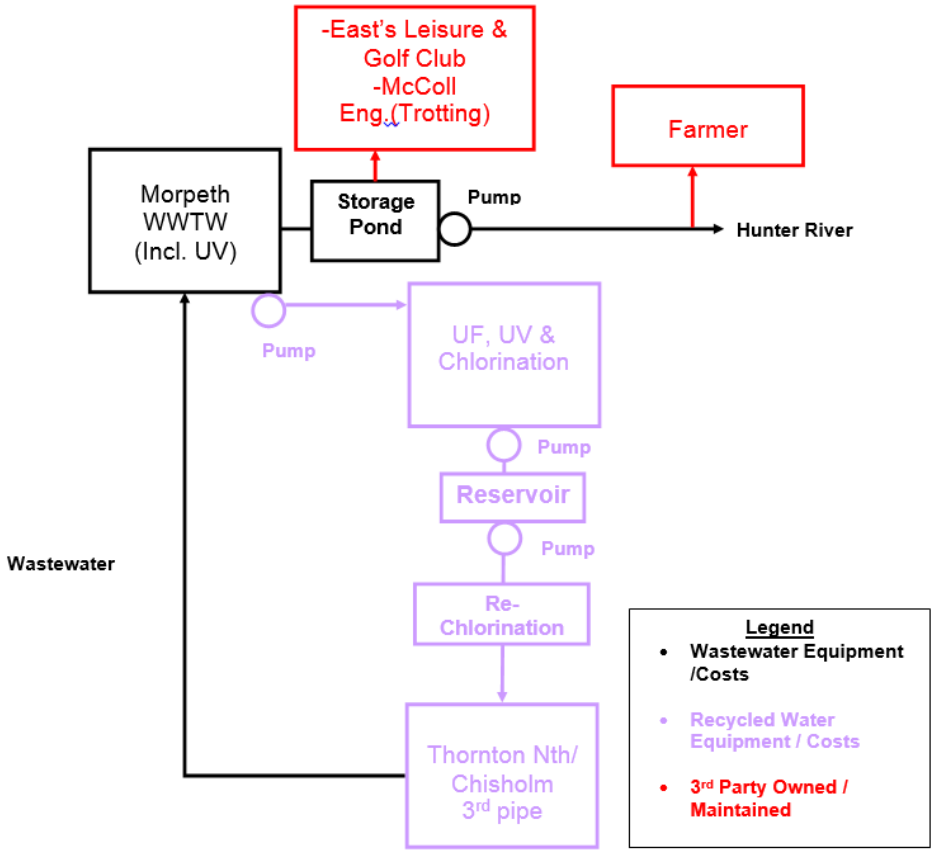
IPART requires Hunter Water to ring-fence the costs associated higher-cost recycled water schemes from other regulated services. This approach provides transparency of total scheme costs, and transparency in the allocation of cost offsets and residual scheme costs.

Hunter Water has developed flow diagrams for each wastewater treatment plants where there is a recycling facility. These diagrams identify processes and items of equipment that are specifically involved in supplying recycling water. We separately identify the cost of these ring-fenced operations - including, routine maintenance, dosing, electricity, equipment installation, repairs and replacement. An example of our component ring-fencing is provided in Figure 2.2.

Income from recycled water customers is tracked by individual customer and can be allocated to a specific scheme. We report separately on each recycled water scheme in the special information return.

The remainder of section 2 relates to pricing arrangements for our two mandatory recycled water schemes, at Gillieston Heights and Chisholm.

Figure 2.2 Morpeth WWTP water flow diagram: ring fencing recycling operations



2.3 Pricing arrangements for residential customers of mandatory recycled water schemes

In 2018-19, Hunter Water commissioned two residential, dual reticulation recycled water schemes. The Gillieston Heights scheme will supply approximately 771 properties, and the Chisholm scheme will supply around 400 properties. The expected recycled water usage is about 85 ML per year.

2.3.1 Recycled water prices for Gillieston Heights and Chisholm

We intend to set the recycled water usage charge for both of the mandatory schemes at ten per cent below Hunter Water's retail drinking water usage price from 1 July 2020. We intend to not set a recycled water service charge for schemes over the next regulatory period (see Table 2.2).

Table 2.2 Proposed usage and service charges for mandatory schemes ($2019-20)

Charge	2020-21	2021-22	2022-23	2023-24	2024-25
RW usage charge ($ per kL)	$2.17	$2.20	$2.21	$2.24	$2.26
RW service charge (per year)	0	0	0	0	0

Source: Hunter Water AIR/SIR, RW Mandated 1, rows 108 and 109, and RW Mandated 2, rows 108 and 109.

2.3.2 Alignment with IPART's pricing principles for recycled water

IPART has adopted pricing principles for recycled water to:

- Support the achievement of its pricing objectives to protect customers, ensure utilities are able to recover their efficient costs, and deliver efficient outcomes by providing appropriate pricing signals.
- Support implementation of the regulatory framework, which includes a less intrusive approach to regulating mandatory schemes.
- Set out how recycled water costs are recovered from recycled water customers.

In the following sections we set out how our proposed prices align with IPART's pricing principles.

Cost recovery for recycled water schemes

IPART Pricing Principle 1: *The total revenue expected to be recovered is the efficient "total scheme cost". The total scheme cost should lie on or between a lower bound representing the incremental cost of the recycled water scheme and an upper bound representing the stand-alone cost of the scheme.*

IPART defines the total cost of a scheme as all attributable capital and operating costs plus a share of joint (overhead) costs.[2] We have applied IPART's formula to derive a lower bound total scheme cost of $5.5 million for Gillieston Heights and $4.7 million for Thornton North ($2019-20).[3] Our calculation includes all capital expenditure from commencement of the schemes. No further capital expenditure is forecast during the next price period. Forecast operating expenditure over the next five years is provided in Table 2.3.

Table 2.3 Forecast operating expenditure on mandatory recycled water schemes ($'000s, $2019-20)

Scheme name	2020-21	2021-22	2022-23	2023-24	2024-25
Gillieston Heights	330	332	321	320	319
Chisholm	388	390	378	377	376

Source: Hunter Water AIR/SIR, RW Mandated 1, row 180 and RW Mandated 2, row 180.

We estimate that our proposed recycled water prices, along with revenues received to 2018-19 from asset sales, recycled water developer charges and end user charges (i.e. service and usage), would result in us recovering around 20 per cent of the lower bound total scheme costs. The under-recovery arises due to the capping of recycled water developer charges for both schemes. This occurred when the number of property connections was lower than anticipated, which had a significant impact on the scale of operations and the subsequent potential of these schemes to recover costs.

In June 2015, in accordance with Section 18(2) of the IPART Act, the NSW Treasurer approved Hunter Water setting the recycled water developer charges for these schemes at 2012-13 levels, indexed by inflation.[4] The approval was granted to help maintain housing affordability and the viability of new residential development in the areas affected. We have since received all anticipated recycled water developer charges from these schemes.

[2] See IPART, 2018, Issues paper, p.45 and proposed refinements detailed in IPART, 2019, Draft report, Appendix F (pp.112-116).

[3] For simplicity, and as a broad indicator of the current project business case, we have assumed a 30 year outlook period that commences from 2017-18 in the examination below.

[4] 18(2) of the Independent Pricing and Regulatory Tribunal Act 1992 states *"The approval of the Treasurer must be obtained if another Minister, an official or an agency fixes (or takes action to fix) the price below the maximum price determined by the Tribunal or calculated in accordance with the determination of the Tribunal."*

Cost recovery from recycled water customers

IPART Pricing Principle 2: *The costs expected to be recovered from recycled water customers and/or developers is the total scheme costs net of cost offsets that might apply.*

Hunter Water has not sought to claim cost offsets or external benefits for these schemes. A t this point, no material cost offsets are anticipated.

Pricing structure and level

IPART Pricing Principle 3: *The structure of recycled water prices:*

- *should ensure that appropriate price signals are sent to recycled water users with the aim of balancing supply and demand, and should entail an appropriate allocation of risk*
- *should include a usage charge, which must have regard to the price of substitutes (such as potable water and raw water). Where the usage charge exceeds the substitute price, water utilities must demonstrate willingness-to-pay by the recycled water customer*[5]
- *may include a fixed service charge, which should have regard to customer impacts, willingness-to-pay and not act as a material incentive for customers to disconnect from the recycled water scheme*[6]
- *should have regard to an efficient distribution of costs between recycled water customers and developers*
- *should be simple and understandable*

Forecast recycled water demand over the next price period is forecast to be 85 ML per year, as shown in Table 2.4. Drinking water will contribute about ten per cent of this, to ensure sustained quality and supply.

Table 2.4 Forecast demand for recycled water from mandatory schemes (megalitres)

Scheme name	2020-21	2021-22	2022-23	2023-24	2024-25
Gillieston Heights	52	52	52	52	52
Chisholm	33	33	33	33	33

Source: Hunter Water AIR/SIR, RW Mandated 1, row 89 and RW Mandated 2, row 89.

For simplicity, and given the proximity of these schemes, we have decided to consider them on a combined basis, and apply a consistent set of charges across these household customers.

All anticipated revenue from recycled water developer charges has already been received.

[5] IPART, 2019, Draft report, p.72.
[6] IPART, 2019, Draft report, p.72.

Recycled water prices from 1 July 2016 to 30 June 2020 were set on the following basis:

- The available substitute is drinking-quality water, priced at the retail water usage charge.
- Service charges were set at a level expected to recover operational and administrative costs that are relatively constant per dwelling.
- Usage prices were set by using a fairness test with the aim of ensuring that customers are not disadvantaged by living in a dual reticulation area. The fairness test set the usage charge such that an average customer in a dual reticulation area using both recycled and drinking water has the same total water bill as customers with the same total usage of drinking water only. This test is based on 40 per cent of the total household use being recycled water and 60 per cent being drinking quality water, which was consistent with the intended uses of recycled water (e.g. garden watering and toilet flushing).

We have recently reviewed feedback from recycled water customers on their price structure preferences.[7] We then used IPART's pricing principles and customer feedback to consider a range of approaches for setting recycled water usage and fixed service charges based on different levels of recycled water use (see Table 2.5), noting the average household usage is currently around 77 kL per year.

At a discount of 10 per cent relative to the drinking water price, using recycled water for outdoor and non-bathing applications would save an average household about $18.90 per year ($2019-20). A 20 per cent discount would save an average household about $37.79 per year. However, for those households using lower levels of recycled water, the savings are smaller. At a recycled water usage level of only 40kL per year, a 10 per cent price discount represents a saving of only $4.91 per year. A service charge greater than this would push the total cost of recycled water use for that household above the marginal cost of using drinking water instead.

The combination of annual usage levels projected for our customers at North Thornton and Gillieston Heights, and proposed drinking water prices (of around $2.41 per kL rising to $2.50 per kL ($2019-20)), implies annual revenues from recycled water sales over the 2020-25 price determination period of around $208,000 per year.

Table 2.5 Annual household bill reductions at various discounts to the drinking water price (2019-20 prices)

Annual household water use (recycled water applications only)	Average annual water bill (2020-25) based on proposed drinking water price	Discount on drinking water usage price Average annual reduction in water usage cost under different recycled water discount scenarios				
		0%	10%	20%	30%	40%
0 kL	0.00	-	0.00	0.00	0.00	0.00
20 kL	24.54	-	2.45	4.91	7.36	9.82
40 kL	49.08	-	4.91	9.82	14.72	19.63
60 kL	73.62	-	7.36	14.72	22.09	29.45
77 kL (average)	198.53	-	18.90	37.79	56.69	75.58
80 kL	196.32	-	19.63	39.26	58.90	78.53
100 kL	245.40	-	24.54	49.08	73.62	98.16
120 kL	294.48	-	29.45	58.90	88.34	117.79
140 kL	343.56	-	34.36	68.71	103.07	137.42

Source: Hunter Water analysis.

[7] We regularly receive feedback from customers who are concerned that the fairness test disadvantages customers that use less water than average (across both drinking water and recycled water).

3. Miscellaneous and ancillary services

3.1 Background

Hunter Water provides ancillary and miscellaneous customer services for which no alternative supply exists and that relate to the supply of our other monopoly services (water, sewerage, stormwater drainage, and trade waste). This includes charges levied for many of our activities relating to new developments. These services are non-contestable and have charges set on a direct cost recovery basis.

The services that attract these charges are typically discrete, one-off activities that are only utilised by a small number of customers.

We classify our miscellaneous and ancillary charges into two broad categories:

- Development fees – These charges cover the administrative and application processing costs associated with managing potential new developments. Examples include advice on servicing requirements, complex works design review and inspection.
- Customer services – These are charges for services that are largely administrative in nature and related to individual properties. Examples include damaged meter replacement and provisions of sewer location diagrams.

The categorisation of our current miscellaneous and ancillary charges are shown in Table 3.1.

Table 3.1 Categorisation of current miscellaneous and ancillary charges

Charge category	(Current) charge numbers
Development-related charges	11, 16, 28, 30, 31, 32, 33, 34, 35, 36, 39, 41, 42, 44, 45, 46, 47, 48
Customer services charges	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29, 37, 38, 40, 43, 49, 50, 51, 52, 53, 54, 55

3.2 Our review

In proposing new charges to commence from 1 July 2020 we have comprehensively reviewed ancillary and miscellaneous charges. The review involved assessing whether:

- Existing charges are still required based on current service practices and the materiality of revenue received from the charge.
- Existing charges can be restructured for simplification and administrative efficiency.
- New charges should be introduced to recover the costs of miscellaneous services that we provide.
- Existing charge levels are cost-reflective of current costs to deliver each service. This has involved reviewing all processes and recalculating the cost-basis for all proposed charges.

Where applicable, miscellaneous and ancillary charges are comprised of the following cost components:

- Direct labour costs (including on-costs)
- Other direct costs (i.e. materials, contractor costs), and
- Indirect overheads.

Direct labour costs are estimated based on the time spent by employees undertaking the activities. We do not record the actual costs that are incurred undertaking each activity. We consider that due to the nature of the services provided, time-sheeting and recording the actual time spent/costs in delivery of most of these services is administratively inefficient and impractical. Rather than relying on actual time-sheeted costs, we consider that it is more practical to undertake a robust root-and-branch review of the charges for each price period.

The majority of services provided require a small amount of input from numerous employees, often spread across multiple teams (cost centres). For example, to issue a conveyancing certificate over the counter, it takes us 11 minutes split between three different employees from two different cost centres.

There are a number of services that require effort from only one employee, however, the time spent is often low and the volume of activities is high, making it administratively inefficient to track the actual time/costs to deliver each service.

To understand the processes and verify the time spent by different employees in delivering the services, we performed walk-through tests where we observed and recorded the time spent delivering the service from start to finish. For applications requiring considerable time and technical analysis, we observed the weekly processing log of individual employees to calculate the actual time spent by them in completing activities and compared that with employees' estimates. We also compared times between different teams and employees to highlight and correct any inaccuracies or inefficiencies. We documented the time and motion study for each service and this was reviewed and endorsed by relevant stakeholders.

The review process has demonstrated significant efficiencies in our service delivery that have been achieved during the current price period and allow us to propose lower charges for our services. The review has also helped us to update our service benchmarks.

The outcome of the review is a set of miscellaneous and ancillary charges that are cost-reflective and accurate based on current service practices. We are proposing price reductions for the majority of charges due to improved efficiency in the delivery of services. These efficiencies are driven by process improvements, improved training and performance of employees, automation, and lower contractor costs. These efficiencies have supported a greater focus on improved customer service and experience. We are proposing to reduce the overall number of charges from 55 to 45.

3.3 Resource usage and revenue

In reviewing processes, we have forecast the number of full-time employees (FTEs) required to deliver each proposed miscellaneous and ancillary service. The forecast service volumes are based on analysis of historical volume and the judgement of subject-matter experts.

The forecast FTEs required to deliver these services (in 2020-21), disaggregated by resource/employee role is provided in Table 3.2. The aggregate FTE's required in each year of the next price period is shown in Source: Hunter Water analysis.

Table 3.3.

We forecast annual revenues of approximately $2.3 million per year from these charges during the next price period (<1% of our total regulated revenue).

Table 3.2 Forecast FTEs required for 2020-21 - disaggregated by resource

Resource	Total annual hours	Full-time equivalent employees (FTEs)
Development-related services		
Technical Officer	1,708	1.46
Accounts Manager Major Development	1,085	0.93
Operational Engineer	89	0.08
Account Manager Major Works	147	0.13
Surveillance Officer (Delivery)	255	0.22
Civil Engineer	133	0.11
Development Services Engineer	519	0.44
Electrical Engineer	114	0.10
Environmental Planner	235	0.20
Mechanical Engineer	132	0.11
Administration Officer	3,082	2.63
Customer Service Officer	887	0.76
TOTAL	**8,386**	**7.16**
Other customer services		
Customer Service Officer	3,579	3.06
Billing Officer	360	0.31
Credit Officer	679	0.58
Administration Officer	137	0.12
Technical Officer	1,779	1.52
Development Services Engineer	255	0.22
Property and Accounts Officer	1,791	1.53
Plumbing and TW Case Officer	1,027	0.88
Maintenance Planner	21	0.02
Civil Maintenance - Level 1	229	0.20
Civil Maintenance - Level 5	277	0.24
TOTAL	**10,133**	**8.65**
TOTAL for development-related services and other customer services	**18,519**	**15.81**

Source: Hunter Water analysis.

Table 3.3 Annual forecast of FTEs required to deliver our miscellaneous and ancillary services

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Development-related FTE	7.16	7.05	6.95	6.84	6.74
Customer service FTE	8.65	8.66	8.68	8.69	8.71
TOTAL FTE	**15.81**	**15.72**	**15.62**	**15.54**	**15.45**

Source: Hunter Water analysis.

3.4 Summary of proposed changes

In Table 3.4, we summarise our proposed changes including the reason for the change. For clarity, we have used the numbering system from our current price determination to refer to the existing charges and have also assigned our proposed charges a new charge number.

We are proposing the following changes to our charges:

- Discontinuing nine charges
- A price decrease for 31 charges
- A price increase for six charges
- 13 charges have been restructured, replaced or amended, and
- Four charges comprising of sub-charges that reflect both increases and decreases.

Table 3.4 Proposed changes to our miscellaneous and ancillary charges

Current charge number	Proposed charge number	Miscellaneous or Ancillary Service	Proposed change
1(a)	1(a)	Conveyancing certificate – over the counter	Charge decreased
1(b)	1(b)	Conveyancing certificate - electronic	Charge decreased
2	2	Property sewerage diagram	Charge decreased
3(a)	3(a)	Service location diagram – over the counter	Charge decreased
3(b)	3(b)	Service location diagram – electronic	Charge decreased
4(a)	-	Meter reading – special reads and by appointment: during business hours	Charge discontinued
4(b)	-	Meter reading – special reads and by appointment: outside of business hours (by appointment)	Charge discontinued
5(a)	-	Billing record search statement – up to and including 5 years	Charge discontinued
5(b)	-	Billing record search statement – for multiple properties	Charge discontinued
6	4	Building over or adjacent to sewer advice	Charge decreased
7(a)	5(a)	Water reconnection after restriction – restriction	Charge decreased
7(b)	5(b)	Water reconnection after restriction – during business hours	Charge decreased
7(c)	5(c)	Water reconnection after restriction – outside business hours	Charge decreased
8(a)	-	Workshop flow rate test of meter – without strip test	Charge discontinued
8(b)	6	Workshop flow rate test of meter – with strip test	Charges decreased and increased
9(a)	7(a)	Application for water disconnection – water disconnection (all sizes)	Charge decreased
9(b)	7(b)	Application for water disconnection – recycled water disconnection (all sizes)	Charge decreased
10	8	Application for water service connection (all sizes)	Charge decreased
11	9	Application to assess a water main adjustment	Charge decreased
12(a)	10(a)	Metered standpipe hire security bond – 20mm metered standpipe	Charge decreased
12(b)	-	Metered standpipe hire security bond – 32mm low flow metered standpipe	Charge discontinued
12(c)	10(b)	Metered standpipe hire security bond – 32mm high flow metered standpipe	Charge decreased
12(d)	10(c)	Metered standpipe hire security bond – 50mm metered standpipe	Charge decreased

Current charge number	Proposed charge number	Miscellaneous or Ancillary Service	Proposed change
13(a)	11(a)	Metered standpipe hire (quarterly fees) – 20mm metered standpipe	Charge decreased
13(b)	-	Metered standpipe hire (quarterly fees) – 32mm low-flow metered standpipe	Charge discontinued
13(c)	11(b)	Metered standpipe hire (quarterly fees) – 32mm high-flow metered standpipe	Charge decreased
13(d)	11(c)	Metered standpipe hire (quarterly fees) – 50mm metered standpipe	Charge decreased
14	-	Metered standpipe water usage fee ($ per kL)	Charge discontinued
15(a)	-	Backflow prevention device fees – device test	Charge discontinued
15(b)	-	Backflow prevention device fees – disconnection for non-compliance	Charge discontinued
15(c)	-	Backflow prevention device fees – reconnection after rectification of non-compliance	Charge discontinued
16	-	Major works inspection fee	Charge discontinued
17	12	Statement of available pressure	Charge decreased
18	13	Application to connect or disconnect sewer services or for a special internal inspection permit	Charge decreased
19	14	Application to connect or disconnect water and sewer services (combined application)	Charge decreased
20	15	Request for separate metering of units (per plan)	Charge increased
21	-	Unauthorised connections	Charge discontinued
22	16	Building plan stamping	Charge increased
23	17	Determining requirements for building over/adjacent to sewer or easement	Charge decreased

Current charge number	Proposed charge number	Miscellaneous or Ancillary Service	Proposed change
24(a)	18(a)	Hiring of a metered standpipe – application to hire a metered standpipe	Charge decreased
24(b)(i)	18(b)(i)	Hiring of a metered standpipe – breaching of standpipe hire conditions (breach 1)	Charge decreased and consolidation of charge 24(b)(i), 24(b)(ii) and 24(b)(iii)
24(b)(ii)	18(b)(i)	Hiring of a metered standpipe – breaching of standpipe hire conditions (breach 2)	Charge decreased and consolidation of charge 24(b)(i), 24(b)(ii) and 24(b)(iii)
24(b)(iii)	18(b)(i)	Hiring of a metered standpipe – breaching of standpipe hire conditions (breach 3) - step 1	Charge decreased and consolidation of charge 24(b)(i), 24(b)(ii) and 24(b)(iii)
24(b)(iv)	18(b)(ii)	Hiring of a metered standpipe – breaching of standpipe hire conditions (breach 3) – step 2 (customer fails to return standpipe)	Charge decreased
25(a)	19(a)	Meter affixtures/handling fee – 20mm, delivery and installation of water meter by Hunter Water	Charge has increased and decreased
25(a)	19(b)	Meter affixtures/handling fee – 25mm, delivery and installation of water meter by Hunter Water	Charge has increased and decreased
25(a)	19(c)	Meter affixtures/handling fee – 32mm, delivery and installation of water meter by Hunter Water	Charge has increased and decreased
25(a)	19(d)	Meter affixtures/handling fee – 32mm, delivery and installation of water meter by Hunter Water	Charge has increased and decreased
25(a)	19(e)	Meter affixtures/handling fee – 32mm, delivery and installation of water meter by Hunter Water	Charge has increased and decreased
25(b)	19(f)	Meter affixtures/handling fee – 50mm or larger, to be collected by customer from reception of Hunter Water	Charge has increased and decreased
25(b)	19(g)	Meter affixtures/handling fee – 50mm or larger, delivery and installation of water meter by Hunter Water	Charge has increased and decreased
26	20	Inspection of non-compliant meters	Charge decreased
27	21	Connect to or building over/adjacent to stormwater channel for a single residence	Charge decreased

Current charge number	Proposed charge number	Miscellaneous or Ancillary Service	Proposed change
28	22	Stormwater channel connection	Charge decreased
29(a)	23(a)	Hydraulic design assessment – residential 25mm to 40mm	Charge decreased and replaced
29(b)	23(a) and 23(b)	Hydraulic design assessment – residential >40mm	Charge decreased and replaced
29(c)	23(a)	Hydraulic design assessment – non-residential 25mm to 40mm	Charge decreased and replaced
29(d)	23(a) and 23(b)	Hydraulic design assessment – non-residential >40mm	Charge decreased and replaced
30(a)	24(a)	Pump station design assessment – water pump station	Charge renamed, restructured and decreased
30(b)	24(b)	Pump station design assessment – sewer pump station	Charge renamed, restructured and decreased
30(c)	24(a), (b) and (c) (i, ii, iii)	Pump station design assessment – recycled water pump station	Charge renamed, restructured and decreased
31	25	Application to assess sewer main adjustment	Charge decreased
32	26	Revision of development assessment	Charge decreased
33	27	Bond application	Charge increased
34	-	Bond variation	Charge discontinued
35	28	Development assessment application	Charge decreased
36	29	Application for water or sewer main extensions	Charge decreased
37(a)	30 and 31	Connection to existing water system – major works (valve shutdown)	Charge restructured and consolidated
37(b)	30 and 31	Connection to existing water system – major works (non-valve shutdown)	Charge restructured and consolidated

Current charge number	Proposed charge number	Miscellaneous or Ancillary Service	Proposed change
38(a)	30 and 31	Insertion or removal of tee and valve – valve shutdown and charge-up	Charge restructured and consolidated
38(b)	30 and 31	Insertion or removal of tee and valve – non-valve shutdown and charge-up	Charge restructured and consolidated
39	32	Application for additional sewer connection point	Charge decreased
40	30 and 31	Tee and valve connection	Charge restructured and consolidated
41	33	Complex works inspection fees	Charge restructured, renamed and components added
42	-	Application to assess encroachment on Hunter Water land, easement rights or assets	Charge discontinued
43	34	Technical Services hourly rate	Charge increased
44	35	Remote application fee	Charge decreased
45	36	Preliminary servicing advice	Charge decreased
46(a)	37	Servicing strategy review – water, sewer, recycled water	Charge increased
46(b)	-	Servicing strategy review – additional reviews	Charge discontinued
47(a)	38	Environmental assessment report review	Charge decreased
47(b)	38	Environmental assessment report review – additional reviews	Charge discontinued
48	39	Reservoir construction inspection and WAE fee	No change
49(a)	40	Water cart tanker - inspection	Charge decreased
49(b)	-	Water cart tanker – re-inspection due to non-compliance	Charge discontinued
50	-	Inaccessible meter - imputed charge for breach of meter reading agreement	Charge discontinued
51	41	Damaged meter replacements – various meter sizes	Charges decreased and increased
52	42	Affix a separate meter to a unit	Charge decreased
53	43	Recycled water meter affix fee	Charge increased
54	44	Application for recycled water service connection	Charges decreased and increased
55	45	Irregular and dishonored payments	Charge decreased

3.5 Cost-basis for miscellaneous and ancillary charges

This section contains detailed information relating to each miscellaneous and ancillary charge:

- A description of the provided service
- An overview of the process undertaken to deliver the service including time required to complete each process step or task
- A breakdown of the component costs between internal Hunter Water costs (e.g. labour costs and indirect overhead allocation) and external costs (e.g. materials and contractor costs)
- The proposed charge for the next price period, including a comparison to the existing charge rate and the reason for any changes in the charge level or structure, and
- A forecast of the service volume for each year of the next price period and the expected revenue from the charge. We also explain the basis or assumptions of the forecast.

Our proposed charges in this section are quoted in $2019-20 price terms. We propose that they increase annually in line with the CPI, with the nominal price rounded appropriately. We have rounded the proposed ancillary and miscellaneous charges as follows:

- If the charge is $100 or more, rounded to the nearest whole dollar, and
- If the charge is less than $100, rounded to the nearest 5 cents.

All values described in the tables are based on internal Hunter Water analysis. Current charge rates are based on Hunter Water's current price schedule.

1(a) Conveyancing certificate – over the counter

Current charge number	1(a)
Proposed charge number	1(a)
Current charge rate ($2019-20)	39.75
Proposed charge rate ($2019-20)	14.75
% change	(63)

Service overview and process

Providing an over the counter statement of outstanding rates and charges at a specific date which is issued to solicitors, conveyancing companies and individuals as a requirement for buying and selling property.

Process	Time (min)
Identify property on CIS database, raise and charge fee	3
Print certificates	2
Email/post to applicant	3
Follow up telephone call to check balance on date of settlement	3
Average time for service	**11 minutes**

Proposed charge and reason for change

This charge would decrease. We have become more efficient by improving the process steps.

Cost component	$2019-20
Hunter Water costs	14.76
Proposed charge	**$14.75**

Forecast quantity and revenue

The base forecast is estimated from the historical volume and trend. We are forecasting a decrease in over the counter and an increase in electronic applications. We have assumed that over the counter applications decrease by 10 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	162	146	131	118	106
Revenue ($2019-20)	2,390	2,151	1,935	1,742	1,568

1(b) Conveyancing certificate – electronic

Current charge number	1(b)
Proposed charge number	1(b)
Current charge rate ($2019-20)	15.05
Proposed charge rate ($2019-20)	10.50
% change	(30)

Service overview and process

Providing an electronic statement of outstanding rates and charges at a specific date that is issued to solicitors, conveyancing companies and individuals as a requirement for buying and selling property. This fee covers the Land and Property Information (LPI) Brokers fee, cost of manually handling exceptions plus the transaction charge.

Process	Time (min)
Property and vendor details supplied electronically by solicitors, conveyancing companies or individuals to a Broker nominated by Hunter Water	CPU
Details electronically forwarded to Hunter Water	CPU
The appropriate Hunter Water customer account is automatically identified and the statement of rates and charges is electronically compiled and sent to the broker	CPU
Investigation of exceptions where electronic advice cannot be provided are handled manually. Manual correction of an electronic entry takes approximately 15 minutes. Historically, this has only been required in approximately 12% of cases. Therefore, a weighted average time of 1.8 minutes is used in the calculation of the charge.	15
Free electronic update of charges on the date of settlement	CPU
Average time for service	**1.8 minutes**

Proposed charge and reason for change

This charge would decrease due to automation of processes and a lower allocation of overheads.

Cost component	$2019-20
Hunter Water costs	4.05
LPI access fee	6.47
Proposed charge	**$10.50**

Forecast quantity and revenue

The base forecast is estimated from the historical volume and trend. We forecast a decrease in over the counter and an increase in electronic applications. We have assumed that electronic applications increase by 4 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	17,107	17,791	18,502	19,243	20,012
Revenue ($2019-20)	$179,619	$186,804	$194,276	$202,047	$210,129

2 Property sewerage diagram

Current charge number	2
Proposed charge number	2
Current charge rate ($2019-20)	25.75
Proposed charge rate ($2019-20)	13.40
% change	(48)

Service overview and Hunter Water costs

Where available, issue a copy of a diagram showing the location of the house-service line, building and sewer for a property.

Process	Time (min)
Identify property on Hunter Water's mapping system, raise and charge fee	5
Print plan	2
Email/post copy of plan, as required	3
Average time for service	**10 minutes**

Proposed charge and reason for change

This charge would decrease. We have become more efficient by improving the process and doing the process steps more quickly.

Cost component	$2019-20
Hunter Water costs	13.42
Proposed charge	**$13.40**

Forecast quantity and revenue ($2019-20)

The base forecast is the 4-year historical average. We have assumed that the volume increases by 2 per cent per year to reflect growth in customer base and activity.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	168	171	174	178	181
Revenue ($2019-20)	2,245	2,289	2,335	2,382	2,430

3(a) Service location diagram – over the counter

Current charge number	3(a)
Proposed charge number	3(a)
Current charge rate ($2019-20)	28.60
Proposed charge rate ($2019-20)	10.75
% change	(62)

Service overview and Hunter Water costs

Over the counter plan of Hunter Water's services and connection points in relation to a property's boundaries or a statement that no sewer main is available.

Process	Time (min)
Identify property on Hunter Water's mapping system, raise and charge fee, forward to relevant department	3
Print diagram	2
Email / Post to applicant	3
Average time for service	**8 minutes**

Proposed charge and reason for change

This charge would decrease. We have become more efficient by improving our process and doing the process steps more quickly.

Cost component	$2019-20
Hunter Water costs	10.73
Proposed charge	**$10.75**

Forecast quantity and revenue

The base forecast is estimated from the historical volume and trend. We are forecasting a decrease in over the counter and an increase in electronic applications. We have assumed that over the counter applications decrease by 10 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	162	146	131	118	106
Revenue ($2019-20)	1,742	1,567	1,411	1,270	1,143

3(b) Service location diagram – electronic

Current charge number	3(b)
Proposed charge number	3(b)
Current charge rate ($2019-20)	17.70
Proposed charge rate ($2019-20)	8.70
% change	(51)

Service overview and Hunter Water costs

Broker or agent lodges an application via the Land Title Office interface and extracts property details, produces an electronic plan of Hunter Water's services and connection points in relation to a property's boundaries, or a statement that no sewer main is available. This fee covers the Land and Property Information (LPI) Brokers fee, cost of manually handling exceptions plus the transaction charge.

Process	Time (min)
Land parcel details are supplied electronically by solicitors, conveyancing companies or individuals to a broker nominated by Hunter Water.	CPU
The details are electronically forwarded to Hunter Water.	CPU
The appropriate land parcel for the details provided is automatically identified, compiled and sent electronically to the broker.	CPU
Investigation of exceptions where electronic advice cannot be provided are handled manually. Historically, this has only been required in less than 1 per cent of cases. Therefore, a weighted average time of 0.13 minutes is used in the calculation of the charge.	15
Provide large diagrams – locate, print, package and post.	CPU
Average time for service	**0.13 minutes**

Proposed charge and reason for change

This charge would decrease. The decrease is due to process automation and a lower allocation of overheads.

Cost component	$2019-20
Hunter Water costs	2.21
LPI access fee	6.47
Proposed charge	**$8.70**

Forecast quantity and revenue

The base forecast is estimated from historical volume and trend. We forecast a decrease in over the counter and an increase in electronic applications. We have assumed that electronic applications increase by 4 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	16,063	16,705	17,374	18,069	18,791
Revenue ($2019-20)	139,747	145,337	151,150	157,196	163,484

4 Meter reading – special reads and by appointment

Current charge number	4(a) – During business hours 4(b) – Outside business hours
Proposed charge number	- -
Current charge rate ($2019-20)	28.45 115.00
Proposed charge rate ($2019-20)	- -
% change	(100) (100)

Service overview

Special meter reading at request of customer in addition to ordinary meter reads.

Reason for discontinuing charge

There was a very low volume of these applications in recent years and the revenue received is not material. We propose this service charge be removed from the charge schedule. Any future costs incurred will be recovered indirectly through broader customer charges.

5 Billing record search statement

Current charge number	5(a) – Up to and including 5 years 5(b) – For multiple properties
Proposed charge number	- -
Current charge rate ($2019-20)	70.40 101.00
Proposed charge rate ($2019-20)	- -
% change	(100) (100)

Service overview

Issuance of billing record search statement at request of customer.

Reason for discontinuing charge

There was a very low volume of these applications in recent years and the revenue received is not material. We propose this service charge be removed from the charge schedule. Any future costs incurred will be recovered indirectly through broader customer charges.

6 Building over or adjacent to sewer advice

Current charge number	6
Proposed charge number	4
Current charge rate ($2019-20)	85.55
Proposed charge rate ($2019-20)	62.65
% change	(27)

Service overview and Hunter Water costs

Statement of approval status for existing building over or adjacent to sewer applications.

Process	Time (min)
Identify property on Hunter Water's mapping system, raise and charge fee	5
Search for relevant information on TRIM	15
a) Non-commercial cases (approximately 75 per cent of total volume)	
Prepare a letter and attached copy of existing conditions or a letter advising there was no such previous application	15
Email / Post, as required	3
b) Commercial cases (approximately 25% of total volume)	
Prepare a letter and attached copy of existing conditions or a letter advising there was no such previous application	30
Email / Post, as required	3
Weighted average time for service	**42 minutes**

Proposed charge and reason for change

This charge would decrease. We have become more efficient through process improvement and doing the process steps more quickly.

Cost component	$2019-20
Hunter Water costs (weighted average)	62.67
Proposed charge	**$62.65**

Forecast quantity and revenue

The base forecast is estimated from historical volume and trend. We have assumed that the volume increases by 2% per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	250	255	260	265	270
Revenue ($2019-20)	15,643	15,956	16,275	16,601	16,933

7(a) Water reconnection – after restriction

Current charge number	7(a)
Proposed charge number	5(a)
Current charge rate ($2019-20)	77.65
Proposed charge rate ($2019-20)	55.15
% change	(29)

Service overview and Hunter Water costs

Restriction of water supply to a property for non-payment of account or other reason in accordance with clause 11 of the Customer Contract. Restriction of water supply for non-payment may occur if an account remains unpaid after issuing a final notice for payment in accordance with the Customer Contract.

This charge includes all direct costs associated with this activity including administration and contractor fees. We do not restrict unless seven days have elapsed since we issued the final notice.

Process	Time (min)
Review account and issue restriction notice	5
Average time for service	**5 minutes**

Proposed charge and reason for change

This charge would decrease due to process automation and reduced contractor costs.

Cost component	$2019-20
Hunter Water costs	6.32
Contractor costs to restrict water service (includes travel to/from site, installing the inhibiting device and notifying Hunter Water)	48.82
Proposed charge	**$55.15**

Forecast quantity and revenue

The base forecast is estimated from historical volume. We have assumed the volume increases by 2 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	1,389	1,417	1,445	1,474	1,503
Revenue ($2019-20)	76,600	78,132	79,694	81,288	82,914

7(b) Water reconnection – restoration during business hours

Current charge number	7(b)
Proposed charge number	5(b)
Current charge rate ($2019-20)	114.00
Proposed charge rate ($2019-20)	61.45
% change	(46)

Service overview and Hunter Water costs

Restoration of water supply during business hours to a property restricted for non-payment of accounts when payment has been received, during normal business hours (8am to 3pm).

Process	Time (min)
Customer advises Collection Team about payment or pay plan through call or e-mail	5
Field activity issued and phoned through to contractor	5
Average time for service	**10 minutes**

Proposed charge and reason for change

This charge would decrease due to process automation and reduced contractor costs.

Cost component	$2019-20
Hunter Water costs	12.64
Contractor costs to restore water service (includes travel to/from site, removing the inhibiting device and notifying Hunter Water)	48.82
Proposed charge	**$61.45**

Forecast quantity and revenue

The base forecast is estimated from historical volume. We assumed the volume increases by 2 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	1,287	1,313	1,339	1,366	1,393
Revenue ($2019-20)	79,085	80,666	82,280	83,925	85,604

7(c) Water reconnection – restoration outside business hours

Current charge number	7(c)
Proposed charge number	5(c)
Current charge rate ($2019-20)	135.00
Proposed charge rate ($2019-20)	97.95
% change	(27)

Service overview and Hunter Water costs

Restoration of water supply outside business hours to a property restricted for non-payment of accounts when payment has been received, outside normal business hours (3pm to 8am the following business day).

Process	Time (min)
Customer advises Collection Team about payment or pay plan through call or e-mail	5
Field activity issued and phoned through to contractor	5
Average time for service	**10 minutes**

Proposed charge and reason for change

This charge would decrease due to process automation and reduced contractor costs.

Cost component	$2019-20
Hunter Water costs	12.64
Contractor costs to restore water service (includes travel to/from site, removing the inhibiting device and notifying Hunter Water)	85.33
Proposed charge	**$97.95**

Forecast quantity and revenue

The base forecast is estimated from historical volume. We have assumed the volume increases by 2 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	201	205	209	213	217
Revenue ($2019-20)	19,668	20,061	20,463	20,872	21,289

8(a) Workshop flow rate test of water meter – without strip test

Current charge number	8(a)
Proposed charge number	-
Current charge rate ($2019-20)	See below table
Proposed charge rate ($2019-20)	See below table
% change	See below table

Service overview

Removal, transportation, flow rate and strip test of a mechanical water meter by an accredited organisation at the customer's request to determine the accuracy of the water meter. All tests are now strip based.

Current charge

Meter size	Current charge ($2019-20)	Proposed charge ($2019-20)	% change
20 and 25mm	218.00	-	(100)
32mm	266.00	-	(100)
40mm	270.00	-	(100)
50mm light	393.00	-	(100)
50mm heavy	393.00	-	(100)
65mm	393.00	-	(100)
80mm	523.00	-	(100)
100mm	607.00	-	(100)
150mm	721.00	-	(100)

Reason for discontinuing charge

All tests undertaken with the new contractor are now strip based. This charge can now be removed.

8(b) Workshop flow rate test of water meter – with strip test

Current charge number	8(b)
Proposed charge number	6
Current charge rate ($2019-20)	See below table
Proposed charge rate ($2019-20)	See below table
% change	See below table

Service overview and Hunter Water costs

Removal, transportation, flow rate and strip test of a mechanical water meter by an accredited organisation at the customer's request to determine the accuracy of the water meter. All tests are now strip based.

Process	Time (min)
Identify property and receipt fees	5
Create a case file in records management system and scan application	5
Review case and log a field activity for removal and replacement of meter	5
Forward case to outsourced Contractor	2
Contractor prepares meter for transportation	
Assessment of results and preparation of reply to customer	15
Scan results sheet and letter into records management system	2
Average time for service	**34 minutes**

Proposed charge and reason for change

This charge would decrease for small meter sizes and increase for larger meter sizes due to revised contractor and other external costs.

Meter size	Current charge ($2019-20)	Proposed costs ($2019-20)				Proposed charges ($2019-20)	
		Hunter Water costs	Freight	Contractor	Test facility	TOTAL	% change
20 and 25mm	319.00	45.11	15.38	39.71	153.75	**254.00**	(20%)
32mm	367.00	45.11	16.40	51.21	184.50	**297.00**	(19%)
40mm	370.00	45.11	17.43	51.21	184.50	**298.00**	(19%)
50mm light	516.00	45.11	18.45	121.53	184.50	**370.00**	(28%)
50mm heavy	516.00	45.11	18.45	152.46	184.50	**401.00**	(22%)
65mm	516.00	45.11	18.45	156.53	184.50	**405.00**	(22%)
80mm	646.00	45.11	21.53	182.43	354.65	**604.00**	(7%)
100mm	730.00	45.11	27.68	478.56	354.65	**906.00**	24%
150mm	845.00	45.11	27.68	666.10	375.15	**1,114.00**	32%

Forecast quantity and revenue

The base forecast is from subject-matter expert opinion given consideration of historical volume. We assumed that volume increases by 2 per cent per year. All quantity was assumed to be 20 and 25mm meter size as there were only sporadic instances of levying charges for larger meter sizes.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	10	11	11	11	11
Revenue ($2019-20)	2,643	2,695	2,749	2,804	2,860

9(a) and 9(b) Application for water disconnection

Current charge number	9(a) – Water 9(b) – Recycled water
Proposed charge number	7(a) 7(b)
Current charge rate ($2019-20)	122.00 172.00
Proposed charge rate ($2019-20)	26.85 40.25
% change	(78) (77)

Service overview and Hunter Water costs

The water disconnection charge is applied to process applications to disconnect an existing drinking water service (all sizes).

The recycled water disconnection charge is applied to process applications to disconnect an existing recycled water service. A plumbing inspection is required to ensure the service has been correctly capped off and complies with Plumbing Standards.

Process	Time (min)
Drinking water	
Identify property on Hunter Water's database, raise and charge fee	5
Create a CIS case and forward case to relevant department	5
Process case, Schedule inspection	10
Average time for service	**20 minutes**
Recycled water	
Identify property on Hunter Water's database, raise and charge fee	5
Create a CIS case and forward case to relevant department	5
Process case, schedule inspection	10
Liaison with contractor, ensure completion and update property info in database	10
Average time for service	**30 minutes**

Proposed charge and reason for change

This charge would decrease due to a revised allocation of resources. The charge covers the administrative costs of processing the disconnection application. The actual disconnection is now carried out by customer's contractor.

Cost component	Costs ($)
Drinking water	
Hunter Water costs	26.85
Proposed charge	**$26.85**
Recycled water	
Hunter Water costs	40.25
Proposed charge	**$40.25**

Forecast quantity and revenue

The base forecast is estimated based on historical volume. We assumed that the volume increases by 2 per cent per year for drinking water and recycled water.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Drinking water					
Quantity	140	143	146	149	152
Revenue ($2019-20)	3,771	3,847	3,924	4,002	4,082
Recycled water					
Quantity	1	1	1	1	1
Revenue ($2019-20)	42	43	44	44	45

10 Application for water service connection (all sizes)

Current charge number	10
Proposed charge number	8
Current charge rate ($2019-20)	135.00
Proposed charge rate ($2019-20)	33.55
% change	(75)

Service overview and Hunter Water costs

This charge recovers the costs of processing applications to connect a new water service and covers the administration fee only. There is a separate charge payable to Hunter Water if we also perform the physical connection.

Previously there was a plumbing inspection cost included in this charge. This has now been removed as the inspection is no longer carried out for simple connections.

Process	Time (min)
Identify property on Hunter Water's database, raise and charge fee	5
Create a CIS case, schedule inspection, forward case to relevant dept.	5
Print plans for plumbers	5
Process case and create meter affix	5
Update property information on customer service database	5
Average time for service	**25 minutes**

Proposed charge and reason for change

This charge would decrease. We have become more efficient by improving the process and doing the process steps more quickly. The charge covers the administrative costs of processing the connection application. The actual connection is now carried out by customer's contractor.

Cost component	$2019-20
Hunter Water costs	33.54
Proposed charge	**$33.55**

Forecast quantity and revenue

The base forecast is estimated based on a four-year average of historical volume. We assumed that the volume increases by 2 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	226	230	235	240	244
Revenue ($2019-20)	7,574	7,726	7,880	8,038	8,199

11 Application to assess a water main adjustment

Current charge number	11
Proposed charge number	9
Current charge rate ($2019-20)	396.00
Proposed charge rate ($2019-20)	292.00
% change	(26)

Service overview and Hunter Water costs

This charge covers assessment of feasibility and advice on requirements for relocation/resizing a water main asset and will result in either:

a. A rejection

b. Conditional approval – in which case the fee covers the administration costs associated with the investigation and record amendment.

Process	Time (min)
Register application	25
Assign Application	5
Initial assessment and overlay	25
Determine requirements for additional capacity	7
Prepare requirements letter	25
Review assessment process and letter	60
Send requirements letter	5
Issue Compliance Letter:	
Prepare Acceptance Letter	5
Review Acceptance Letter and create PDF	10
Issue Acceptance Letter	5
Average time for service	**172 minutes**

Proposed charge and reason for change

This charge would decrease. We have become more efficient by improving the process and doing the process steps more quickly.

Cost component	$2019-20
Hunter Water costs	291.78
Proposed charge	**$292.00**

Forecast quantity and revenue

The base forecast is estimated based on a four-year average of the historical volume. We have assumed that the volume decreases by 1.5 per cent per year due to an expected softening in local development activity relative to the recent boom.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	40	39	39	38	37
Revenue ($2019-20)	11,616	11,441	11,270	11,101	10,934

12 Metered standpipe hire security bond

Current charge number	12
Proposed charge number	10
Current charge rate ($2019-20)	20mm - $355.00 32mm low-flow - $432.00 32mm high-flow - $952.00 50mm - $952.00
Proposed charge rate ($2019-20)	20mm - $287.00 32mm low-flow – discontinued 32mm high-flow - $846.00 50mm - $846.00
% change	20mm - (19) 32mm low-flow – (100) 32mm high-flow - (11) 50mm - (11)

Service overview and Hunter Water costs

Bond paid to Hunter Water by a hirer for provision of a metered standpipe. The money-received is held in a public monies account, refundable upon return of the standpipe in an undamaged state and upon payment of all outstanding hire and usage charges. The Bond is the actual purchase price of the standpipe.

Proposed charge and reason for change

This charge would decrease. We negotiated a lower purchase price for standpipes with our contractor. The low-flow 32mm metered standpipe is obsolete and would be removed from our charge schedule.

Cost component	$2019-20
Purchase price of replacement standpipe – 20mm	287.00
Purchase price of replacement standpipe – 32mm high-flow	845.63
Purchase price of replacement standpipe – 50mm	845.63
Proposed charges: 20mm; 32mm high-flow; 50mm	**$287.00; $846.00; $846.00**

Forecast quantity and revenue

The base forecast is based on judgement by subject-matter experts and is informed by the historical volume and trend. We have assumed that the volume is constant throughout the price period.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
20mm					
Quantity	1	1	1	1	1
Revenue ($2019-20)	287	287	287	287	287
32mm high-flow					
Quantity	40	40	40	40	40
Revenue ($2019-20)	33,840	33,840	33,840	33,840	33,840
50mm					
Quantity	20	20	20	20	20
Revenue ($2019-20)	16,920	16,920	16,920	16,920	16,920

13 Metered standpipe hire – quarterly fees

Current charge number	13
Proposed charge number	11
Current charge rate ($2019-20)	20mm - $72.40 32mm low-flow - $76.65 32mm high-flow - $112.00 50mm - $112.00
Proposed charge rate ($2019-20)	20mm - $27.20 32mm low-flow – discontinued 32mm high-flow - $55.15 50mm - $55.15
% change	(62) (100) (51) (51)

Service overview and Hunter Water costs

This charge covers hire fees payable for the use of a portable metered standpipe owned by Hunter Water which is used to extract water from a water main.

Process	Time (min)
Update reading on CIS	4
Book inspection of standpipe with contractor	2
Update TRIM with details of inspection	2
Average time for service	**8 minutes**

Proposed charge and reason for change

This charge would decrease. We have negotiated a lower price for the purchase of standpipes with our contractor. The low-flow 32mm metered standpipe is obsolete and would be removed from our charge schedule.

Cost component	$2019-20
Hunter Water administrative costs	10.57
Contractor costs (once a year inspection)	2.30
Asset cost recovery: (Cost / 60 months life x 3 months)	
- 20mm	14.35
- 32mm high-flow	42.28
- 50mm	42.28
Proposed charge: 20mm; 32mm high-flow; 50mm	**$27.20; $55.15; $55.15**

Forecast quantity and revenue

The base forecast is based on judgement by subject-matter experts and is informed by the historical volume and trend. We have assumed that the yearly increase will come from new standpipes on hire and the yearly decrease will come from retiring standpipes. The assumed yearly increase is more than the decrease, hence there is a net volume increase throughout the price period. We assumed the net volume will remain consistent for 20mm, increase by around 5 per cent for 32mm and increase by around 4 per cent for 50mm metered standpipe.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
20mm					
Quantity	340	340	340	340	340
Revenue ($2019-20)	9,248	9,248	9,248	9,248	9,248
32mm high-flow					
Quantity	1,068	1,124	1,180	1,236	1,292
Revenue ($2019-20)	58,900	61,989	65,077	68,165	71,254
50mm					
Quantity	668	696	724	752	780
Revenue ($2019-20)	36,840	38,384	39,929	41,473	43,017

14 Metered standpipe water usage fee ($ per kL)

Current charge number	14
Proposed charge number	-
Current charge rate ($2019-20)	2.39
Proposed charge rate ($2019-20)	-
% change	-

Service overview

Water usage fee ($ per kL) paid for supplying services to a metered standpipe.

Reason for discontinuing charge

We believe that no separate miscellaneous charge is required as this charge may be levied as a *Water Supply Service* under (Schedule 1) clause 6.1(b) of our current price determination.

15 Backflow prevention device fees

Current charge number	15
Proposed charge number	-
Current charge rate ($2019-20)	15(a) – device test - $352.00 15(b) – disconnection for non-compliance - $356.00 15(c) – Reconnection after rectifying non-compliance - $188.00
Proposed charge rate ($2019-20)	15(a) – device test - discontinued 15(b) – disconnection for non-compliance - discontinued 15(c) – Reconnection after rectifying non-compliance - discontinued
% change	15(a) – device test - (100) 15(b) – disconnection for non-compliance - (100) 15(c) – Reconnection after rectifying non-compliance - (100)

Service overview

Due to inherent risk faced by Hunter Water, customers with a hazard risk rating (mostly commercial customers) are required to periodically test their backflow prevention device and submit compliance results.

Reason for discontinuing charge

Previously, this was a manual process where, upon non-compliance by the customer, a device test was carried out by Hunter Water, followed by disconnection in the case of continued non-compliance. The costs of testing and disconnection were recovered from the customer on reconnection after rectification of non-compliance.

We have now automated this function: a customer is sent a reminder notice two weeks after the due date for an annual test. If they fail to send a test result within six weeks, a second reminder notice is sent automatically. If within two weeks they do not comply with the notice, we take action by sending a disconnection notice and ultimately disconnect the service on continuous non-compliance.

Any administration cost and disconnection costs are recovered when the customer applies for reconnection.

Since there was no volume for such applications in recent years and we also have a separate fee for disconnection and reconnection in our schedule of charges, we consider that this separate fee is no longer required.

16 Major works inspection fee

Current charge number	16
Proposed charge number	-
Current charge rate ($2019-20)	11.25
Proposed charge rate ($2019-20)	-
% change	(100)

Service overview

Charge ($ per metre) for the inspection of rising sewer mains constructed by developers that are longer than 25 metres and / or greater than 2 metres in depth. This fee also includes Work-as-Executed (WAE) drawings.

Reason for discontinuing charge

We propose to discontinue this charge as the activity will now be charged under proposed miscellaneous charge number 41.

17 Statement of available pressure

Current charge number	17
Proposed charge number	12
Current charge rate ($2019-20)	360.00
Proposed charge rate ($2019-20)	95.95
% change	(73)

Service overview and Hunter Water costs

A water pressure report detailing relative pressures in Hunter Water's mains. The charge covers assessment of available pressures at three specific flow rates from a single connection point to Hunter Water's main. Additional points of connection and flow values can be assessed for additional cost at the *Technical Services Hourly Rate* (proposed charge number 41).

This charge reflects an average assessment for three flows including associated computer modelling. It also includes an estimate of the time taken to process and assess these applications, particularly the input for modelling pressure levels within the water network.

Process	Time (min)
Identify property on CIS, raise and charge fee	5
Create TRIM file and forward to relevant department	2
Model pressure levels within the water network	25
Prepare and approve SAP letter	25
Average time for service	**57 minutes**

Proposed charge and reason for change

This charge would decrease. We have become more efficient by improving the process and doing the process steps more quickly.

Cost component	$2019-20
Hunter Water costs	95.94
Proposed charge	**$95.95 plus the Technical Services Hourly Rate (if required)**

Forecast quantity and revenue

The base forecast is estimated based on the trend of historical volumes. We have assumed that the volume increases by 2 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	306	312	318	325	331
Revenue ($2019-20)	29,349	29,936	30,535	31,145	31,768

18 Application to connect or disconnect sewer services or for a special internal inspection permit

Current charge number	18
Proposed charge number	13
Current charge rate ($2019-20)	61.25
Proposed charge rate ($2019-20)	42.95
% change	(30)

Service overview and Hunter Water costs

Charge applied to process applications to connect a new sewer service or to disconnect an existing sewer service or apply for a special internal inspection permit.

Process	Time (min)
Identify property on Hunter Water's CIS and mapping system, prepare sewer junction details	10
Raise and charge fee and email receipt	5
Raise, process and complete connection/disconnection case against property account in CIS	15
Update property information in CIS	2
Average time for service	**32 minutes**

Proposed charge and reason for change

This charge would decrease. We have become more efficient by improving the process and doing the process steps more quickly. Internal inspections are now done by the Department of Fair Trading.

Cost component	$2019-20
Hunter Water costs	42.93
Proposed charge	**$42.95**

Forecast quantity and revenue

The base forecast is estimated based on the trend of historical volumes. We have assumed that volume decreases by 1.5 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	131	129	127	125	123
Revenue ($2019-20)	5,626	5,541	5,458	5,376	5,296

19 Application to connect or disconnect water and sewer services (combined application)

Current charge number	19
Proposed charge number	14
Current charge rate ($2019-20)	62.65
Proposed charge rate ($2019-20)	53.65
% change	(14)

Service overview and Hunter Water costs

Charge applied to process combined application to connect a new water and sewer service or to disconnect an existing water and sewer service.

Process	Time (min)
Identify property on Hunter Water's CIS and mapping system, prepare water and sewer junction details	15
Raise and charge fee and email receipt	5
Raise, process and complete connection/disconnection combined case against property account in CIS	15
Update property information for both water and sewer in CIS	5
Average time for service	**40 minutes**

Proposed charge and reason for change

This charge would decrease. We have become more efficient by improving the process and doing the process steps more quickly. The charge covers the administrative costs of processing the connection/disconnection application. The actual connection/disconnection is now carried out by customer's contractor.

Cost component	$2019-20
Hunter Water costs	53.66
Proposed charge	**$53.65**

Forecast quantity and revenue

The base forecast is estimated based on the trend of historical volumes. We have assumed that volume decreases by 1.5 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	2,488	2,450	2,414	2,377	2,342
Revenue ($2019-20)	133,463	131,461	129,489	127,547	125,633

20 Request for separate metering of units (per plan)

Current charge number	20
Proposed charge number	15
Current charge rate ($2019-20)	35.55
Proposed charge rate ($2019-20)	46.95
% change	32

Service overview and Hunter Water costs

Initial assessment of a request for separate sub-metering of individual units. This fee is applied per plan, regardless of the number of units.

Process	Time (min)
Identify property on CIS, raise and charge fee	5
Set up TRIM folder and scan application	5
Review application details	20
Prepare and scan letter of approval or non-compliance	5
Average time for service	**35 minutes**

Proposed charge and reason for change

This charge has increased. It reflects the complexity and effort involved in analysing strata plan and processing the application.

Cost component	$2019-20
Hunter Water costs	46.96
Proposed charge	**$46.95**

Forecast quantity and revenue

The base forecast is estimated based on the trend of historical volumes. We have assumed that the volume increases by 2 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	68	69	70	72	73
Revenue ($2019-20)	3,175	3,239	3,303	3,369	3,437

21 Unauthorised connections

Current charge number	21
Proposed charge number	-
Current charge rate ($2019-20)	176.00
Proposed charge rate ($2019-20)	-
% change	(100)

Service overview

Charge applied to a customer account to recover costs and appropriate application fees where a connected service is located, but no application to connect has been lodged with Hunter Water.

Reason for discontinuing charge

This charge was not used in recent periods. Instead, unauthorised connections were streamlined by on-boarding them as new customers. Fees for new connection, meter affixture and handling fees etc. are adequate to cover the costs of this process. Therefore, we consider that this charge is no longer needed.

22 Building plan stamping

Current charge number	22
Proposed charge number	16
Current charge rate ($2019-20)	19.50
Proposed charge rate ($2019-20)	20.10
% change	3

Service overview and Hunter Water costs

All new building and development plans require revision and stamping by Hunter Water staff to ensure the proposed construction does not adversely impact Hunter Water's assets.

Process	Time (min)
Identify property on mapping system	5
Confirm asset location in relation to proposed building/ development	2
Confirm any further development requirement	3
Lay Hunter Water's stamp upon customers building plan (4 copies)	3
Log customer contact against relevant property account on CIS	2
Average time for service	**15 minutes**

Proposed charge and reason for change

This charge would increase to reflect the resources required to deliver this service.

Cost component	$2019-20
Hunter Water costs	20.12
Proposed charge	**$20.10**

Forecast quantity and revenue

The base forecast is estimated based on the trend of historical volumes. We have assumed the volume decreases by 1.5 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	8,492	8,365	8,240	8,116	7,994
Revenue ($2019-20)	170,697	168,136	165,614	163,130	160,683

23 Determining requirements for building over / adjacent to sewer or easement

Current charge number	23
Proposed charge number	17
Current charge rate ($2019-20)	200.00
Proposed charge rate ($2019-20)	146.00
% change	(27)

Service overview and Hunter Water costs

Attaching conditional requirements to Council-approved building plans to safeguard Hunter Water assets.

Process	Time (min)
Assess requirement for build over sewer assessment, charge fee and issue receipt	10
Register application on TRIM and scan documents	15
Assess implications of encroachment	30
Check precedents	20
Type letter and mail to customer	15
Record details on CIS database	5
Average time for service	**95 minutes**

Proposed charge and reason for change

This charge would decrease. We have become more efficient by improving the process and doing the process steps more quickly.

Cost component	$2019-20
Hunter Water costs	145.56
Proposed charge	**$146.00**

Forecast quantity and revenue

The base forecast is estimated based on the trend of historical volumes. We have assumed that volume decreases by 1.5 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	1,067	1,051	1,035	1,020	1,005
Revenue ($2019-20)	155,818	153,481	151,179	148,911	146,677

24a) Application to hire a metered standpipe

Current charge number	24a
Proposed charge number	18a
Current charge rate ($2019-20)	192.00
Proposed charge rate ($2019-20)	55.20
% change	(71)

Service overview and Hunter Water costs

Process applications for the hire of a portable metered standpipe.

Process	Time (min)
Process fee for application and issue receipt	3
Initial assessment of application and confirm completed checklist	10
Register file and attach documentation	2
Undertake company checks of applicant, Log details on standpipe register	5
Create new customer record on CIS	5
Affix new meter to customer account on CIS	3
Finalise paperwork and issue standpipe	5
Receipt security bond	2
Average time for service	**35 minutes**

Proposed charge and reason for change

This charge would decrease. We have become more efficient in completing the process steps and we also managed to negotiate better contractor fees charged for issuing standpipes.

Cost component	$2019-20
Hunter Water costs	46.29
Contractor costs	8.93
Proposed charge	**$55.20**

Forecast quantity and revenue

The base forecast is estimated based on the trend of historical volumes. We have assumed that volume increases by 2 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	63	65	66	67	69
Revenue ($2019-20)	3,503	3,573	3,645	3,718	3,792

24b) Breach of standpipe hire conditions

Current charge number	24b(i), 24b(ii), 24b(iii), 24b(iv)
Proposed charge number	18(b)(i), 18(b)(ii)
Current charge rate ($2019-20)	21.65, 28.60, 35.55, 35.55
Proposed charge rate ($2019-20)	7.90, 29.05
% change	(64), (72), (78), (18)

Service overview and Hunter Water costs

Fees applied to a customer's account each time a breach of the terms and conditions of their hire agreement is made. Examples of a breach in conditions are failure to provide a standpipe meter reading, failure to pay an account, or using a standpipe at a hydrant that is not approved (due to low pressure). The standpipe agreement advises the customer that three breaches of the standpipe hire conditions can result in termination of the Agreement.

Although different internal processing/notation is carried out at each breach, the time spent is similar for Breach 1, 2 and 3 except for Breach 3 Step 2 which requires more time-intensive action. Note the charges are based on the most common (and the lowest cost) type of breach which is the failure to provide a standpipe meter reading.

Process – Breach 1	**Time (min)**
Enter estimate read on CIS	2
Prepare breach letter and enter document in TRIM	2
Add notations to CIS	2
Average time for service	**6 minutes**
Process – Breach 2	**Time (min)**
Review notations on current breach on CIS/TRIM	2
Complete pending bill on CIS	2
Prepare breach letter and enter document in TRIM	2
Average time for service	**6 minutes**
Process – Breach 3 *	**Time (min)**
Review notations on current breach on CIS/TRIM	2
Complete pending bill on CIS	2
Prepare more comprehensive breach letter and enter document in TRIM	2
Average time for service	**6 minutes**

* Note: If customers return the standpipe as requested, this process ends at this point. If however they fail to return the standpipe, Step 2 of the process (as detailed below) is required and charged accordingly

Process – Breach 3 Step 2	**Time (min)**
Customer or HW initiated contact to discuss options for return of standpipe- phone call	5
Preparation of declaration letter or customer file for debit recovery agent and enter into TRIM	15
Add notations on CIS and update internal tracking spreadsheet	2
Average time for service	**22 minutes**

Proposed charge and reason for change

This charge would decrease. We have become more efficient by improving our process and doing the process steps more quickly. Because the cost of responding to breach 1, 2 and 3 is identical, we propose consolidation of these charges. Therefore, there would be two charges:

i. Breach 1, 2 or 3 (step 1)
ii. Breach 3 (step 2)

Breach 1, 2 or 3 (step 1):

Cost component	$2019-20
Hunter Water costs	7.92
Proposed charge	**$7.90**

Breach 3 (step 2):

Cost component	$2019-20
Hunter Water costs	29.06
Proposed charge	**$29.05**

Forecast quantity and revenue

The base forecast is estimated based on the trend of historical volumes. We have assumed that volume increases by 2 per cent per year. We have shown the quantity and revenue below separated by breach number.

Breach 1:

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	62	64	65	66	68
Revenue ($2019-20)	493	503	513	523	534

Breach 2:

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	16	16	16	17	17
Revenue ($2019-20)	123	126	128	131	133

Breach 3:

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	10	11	11	11	11
Revenue ($2019-20)	82	84	86	87	89

Breach 3 Step 2:

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	2	2	2	2	2
Revenue ($2019-20)	60	62	63	64	65

25 Meter affixtures/ handling fee

Current charge number	25(a), 25(b)
Proposed charge number	19(a), 19(b), 19(c), 19(d), 19(e), 19(f), 19(g)
Current charge rate ($2019-20)	54.35, 85.80
Proposed charge rate ($2019-20)	46.75, 46.40, 57.90, 57.90, 108.00, 15.90, 217.00
% change	-

Service overview and Hunter Water costs

Installation of a water meter to the water connection framework.

Previously, customers only had two options depending on the size of the water meter that is to be affixed. However, Hunter Water's revised agreement with the contractor provides six different size options.

Hunter Water arranges for the contractor to attend the customer's property and affix meters between sizes 20mm up to 50mm Light Duty. For meters 50mm and over, customers have to arrange for a private plumber to collect the meter from Hunter Water's contractor and pay the respective handling fee. Alternatively, Hunter Water can arrange delivery of the meter with the customer being required to pay the delivery fee. The customer then pays their plumber for the installation.

Process	Time (min)
Account management	5
Average time for service	**5 minutes**

Proposed charge and reason for change

This charge would decrease or increase depending on the meter size. We have become more efficient by improving our process.

Cost component	Hunter Water costs	Contractor costs	$2019-20 Proposed charge
20mm installation	6.71	40.03	**$46.75**
25mm installation	6.71	39.71	**$46.40**
32mm installation	6.71	51.21	**$57.90**
40mm installation	6.71	51.21	**$57.90**
50mm Light Duty installation	6.71	100.93	**$108.00**
50mm and Over – Reception	6.71	9.19	**$15.90**
50mm and Over - Delivery	6.71	210.16	**$217.00**

Forecast quantity and revenue

The base forecast is estimated based on historical volumes. We have assumed that volume decreases by 1.5 per cent per year. The vast majority of meters installed are 20mm. We do not anticipate any volume of meter installation for meter sizes ranging from 25mm to 50mm and over (reception), noting that damaged meter replacement does not fall under this charge. We forecast two instances per year where we will be delivering meters that are 50mm or over.

20mm Meter installation:

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	2,578	2,539	2,501	2,464	2,427
Revenue ($2019-20)	120,516	118,709	116,928	115,174	113,446

25mm installation – 50mm and Over - Reception:

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	-	-	-	-	-
Revenue ($2019-20)	-	-	-	-	-

50mm and Over - Delivery:

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	2	2	2	2	2
Revenue ($2019-20)	421	415	409	402	396

26 Inspection of Non-compliant meters

Current charge number	26
Proposed charge number	20
Current charge rate ($2019-20)	59.60
Proposed charge rate ($2019-20)	52.80
% change	(11)

Service overview and Hunter Water costs

Re-inspect a multi-occupancy development or standalone property where a second inspection is required for separate metering, or meter installation, as meter assemblies were either non-compliant or were not accessible at the initial inspection. This fee is applied per development.

Process	Time (min)
Review field activity to determine reason for non-compliance	2
Preparation of non-compliance letter or phone call to plumber and/or owner	6
Receipt fee when paid by customer to have meter frame re-inspected	1
Log request to contractor to conduct plumbing inspection (1 x field activity per development)	5
Average time for service	**14 minutes**

Proposed charge and reason for change

This charge would decrease as we are now doing the process steps more quickly.

Cost component	$2019-20
Hunter Water costs	18.62
Contractor costs [1]	34.17
Proposed charge	**$52.80**
	Plus contractor hourly rate of $77.13 (if required)*

Note: 1. Contractor costs include contractor travel to site, inspect the meter assembly and complete field activity advising whether installation is compliant (or meter installed). Where more than one unit or inspection is required at a property, the Contractor meter inspection component is only applied once. If there is a large number of units and the inspection requires longer than 15 minutes, an hourly rate of $77.13 will be applied in place of the fee. In the case of a multiple-occupancy development, contractor costs for additional meters could be applied to this charge.

Forecast quantity and revenue

The base forecast is estimated based on historical volumes and judgement by subject matter experts. We have assumed that the volume increases by 2 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	208	212	216	221	225
Revenue ($2019-20)	10,987	11,206	11,430	11,659	11,892

27 Connecting to or building over/adjacent to a stormwater channel for a single residence

Current charge number	27
Proposed charge number	21
Current charge rate ($2019-20)	118.00
Proposed charge rate ($2019-20)	90.80
% change	(23)

Service overview and Hunter Water costs

Process applications from customers connecting a single residence to a stormwater channel or erecting a single residence over/adjacent to a stormwater channel held by Hunter Water.

Process	Time (min)
Take application at counter, charge fee and issue invoice	5
Prepare TRIM file	10
Prepare detailed letter of reply	30
Record details on database	15
Finalise TRIM file	5
Average time for service	**65 minutes**

Proposed charge and reason for change

This charge would decrease as we are now doing the process steps more quickly.

Cost component	$2019-20
Hunter Water costs	90.78
Proposed charge	**$90.80**

Forecast quantity and revenue

The base forecast is estimated based on historical volumes and judgement of subject matter experts. We have assumed zero volume during the next price period, as this type of application is rare. However, we propose to retain this charge, allowing us to levy a fee in the case that we receive an application.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	-	-	-	-	-
Revenue ($2019-20)	-	-	-	-	-

28 Stormwater channel connection

Current charge number	28
Proposed charge number	22
Current charge rate ($2019-20)	376.00
Proposed charge rate ($2019-20)	243.00
% change	(35)

Service overview and Hunter Water costs

This charge applies where new developments are required to drain to Hunter Water's stormwater channels. The charge covers the time taken to conduct a technical assessment.

Process	Time (min)
Register application	25
Assign application	5
Determine impact on stormwater system	15
Assessment/response from strategic operations	25
Complete stormwater technical assessment and letter	45
Prepare and issue stormwater channel connection approval letter	30
Send letter	5
Average time for service	**150 minutes**

Proposed charge and reason for change

This charge would decrease as we are now doing the process steps more quickly.

Cost component	$2019-20
Hunter Water costs	242.55
Proposed charge	**$243.00**

Forecast quantity and revenue

The base forecast is estimated based on a four-year average of historical volumes. We have assumed the volume decreases by 1.5 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	5	5	5	5	5
Revenue ($2019-20)	1,179	1,161	1,144	1,127	1,110

29 Hydraulic design assessment (HDA)

Current charge number	29(a), 29(b), 29(c), 29(d)
Proposed charge number	23(a), 23(b)
Current charge rate ($2019-20)	261, 312, 374, 409
Proposed charge rate ($2019-20)	191, 284
% change	-

Service overview and Hunter Water costs

The Hunter Water services connection policy requires applicants to prepare and submit a hydraulics design for review and approval where the development requires:

- water services of 32mm diameter or greater
- more than 2 residential units on 1 lot
- a water meter greater than 25mm
- large domestic or fire water demands
- potential trade waste or alterations to existing trade waste installation
- water supplied for use in manufacturing processes
- water meter upsize or downsize
- a private pressure sewer pump system (other than common pump effluent)
- 'outside normal connection' criteria
- multiple water metering systems
- an alternative water supply system (other than rainwater)
- multiple underground rain water tanks where Hunter Water drinking water supply could be connected – directly or indirectly.

This design review is required to confirm compliance with Hunter Water service connection requirements, correct application of the applicable Australian standards, ensuring that Hunter Water's infrastructure is not adversely impacted by the customer upon connection.

Process	Time (min) < 80mm	Time (min) >/= 80mm
Take application at counter, charge fee and issue invoice	5	5
Prepare TRIM file	10	10
Review HDA application	15	25
Review HDA hydraulic designs	30	60
Populate HDA Assessment spreadsheet	10	20
Populate HDA Assessment letter to customer	20	30
Supervisory review and approval	30	30
Forward HDA letter to Customer	5	5
Average time for service	**125 minutes**	**185 minutes**

Proposed charge and reason for change

This is the stand alone fee for assessment of water and sewer services for a development proposing to connect to Hunter Water's existing infrastructure network. The base fee includes assessment of the point of connection to a standard water main frontage and sewer connection point for the lot. Drawings must be formatted to comply with our services connection policy.

With revised and updated contracts in place, the costs are lower and we propose a simplified charge schedule. There would now only be two options to choose from:

- Where property service size is less than 80mm and
- Where property service size is equal to or more than 80mm

This charge would decrease for most meter sizes due to efficiency in service delivery.

Cost component	$2019-20 < 80mm	$2019-20 >/= 80mm
Hunter Water costs	191.14	284.42
Proposed charge	**$191.00**	**$284.00**

Forecast quantity and revenue

The base forecast is estimated from the trend of historical volumes. The quantity for the proposed meter-size categories assumed that 70% of volume is for meters smaller than 80mm and 30% for meters that are 80mm or larger. We have assumed that the volume increases by 2% per year.

< 80mm

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	265	271	276	282	287
Revenue ($2019-20)	50,673	51,686	52,720	53,774	54,850

≥ 80mm

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	114	117	119	121	124
Revenue ($2019-20)	32,502	33,152	33,815	34,491	35,181

30 Complex works design review – (previously: pump station design assessment)

Current charge number	30(a), 30(b), 30(c)
Proposed charge number	24(a), 24(b), 24(c)(i)(ii)(iii)
Current charge rate ($2019-20)	5,061, 5,573
Proposed charge rate ($2019-20)	4,394, 5,017, 748, 3,148, 4,582
% change	-

Service overview and Hunter Water costs

We currently have charges for water, sewer and recycle water pump station design assessment. We propose to revise the classification into linear and non-linear water and sewer assets to better reflect the new complex works design review processes.

To ensure compliance with Hunter Water's design and operating standards, we review complex works designs prepared by consultants engaged by developers. Hunter Water relies on the design consultants engaged to provide high quality and error free designs.

Complex works including pump stations are complex and important to Hunter Water. The designs require a high degree of scrutiny. The assessment fee includes review at three hold points in the design process: 15 per cent, 85 per cent and 100 per cent review. The time involved is reflected in the proposed charge level.

Process – non-linear assets	Time (min) Water	Time (min) Sewer
Inception meeting	120	120
Review design and determine review requirements	60	60
Distribute strategy internally	15	15
15% review		
Development Planning Relations review	180	180
Operations review	180	180
Mechanical	180	180
Civil	120	180
Environmental review	60	120
Collate comments and send to applicant	60	60
85% review		
Development planning relations review	180	240
Operations review	240	240
Mechanical	240	240
Electrical	240	300
Civil	180	240
Infrastructure delivery	180	240
Collate comments and send to applicant	60	60
Development planning relations 100% review	120	120
Approval	30	30
Average time for service	**2,445 minutes**	**2,805 minutes**

Process – linear water and sewer assets	Time (min) Tier-1 (0-99m)	Time (min) Tier-2 (99-1000m)	Time (min) Tier-3 (>1000m)
Inception meeting	-	120	120
Review design and determine review requirements	30	60	60
Distribute strategy internally	15	15	15
15% review			
Development Planning Relations review	30	180	240
Civil	30	180	240
Environmental review	30	180	240
Collate comments and send to applicant	30	60	120
85% review			
Development Planning Relations review	60	240	360
Civil	60	240	360
Infrastructure Delivery	60	240	360
Collate comments and send to applicant	15	60	120
Development Planning Relations 100% review	30	120	240
Approval	15	30	30
Average time for service	**405 minutes**	**1,725 minutes**	**2,505 minutes**

Proposed charge and reason for change

This charge would decrease. We have revised the charge to reflect a more appropriate classification of the asset types and to allocate relevant effort accordingly. We have also become more efficient by improving the process and doing the process steps more quickly.

Cost component	2019-20 Hunter Water costs	$2019-20 Proposed charge
Non-linear:		
Water	4,394.07	**$4,394**
Sewer	5,017.20	**$5,017**
Linear water and sewer:		
Tier - 1 (0-99m)	748.05	**$748**
Tier - 2 (99-1000m)	3,147.82	**$3,148**
Tier - 3 (>1000m)	4,581.54	**$4,582**

Forecast quantity and revenue

The base forecast is estimated using judgement of a subject-matter expert. We have assumed that the volume decreases by 1.5 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Non-Linear Water					
Quantity	2	2	2	2	2
Revenue ($2019-20)	$8,526	$8,398	$8,272	$8,148	$8,026
Non-Linear Sewer					
Quantity	6	6	6	6	5
Revenue ($2019-20)	$29,206	$28,768	$28,336	$27,911	$27,492
Linear Tier-1					
Quantity	2	2	2	2	2
Revenue ($2019-20)	$1,451	$1,430	$1,408	$1,387	$1,366
Linear Tier-2					
Quantity	2	2	2	2	2
Revenue ($2019-20)	$6,109	$6,017	$5,927	$5,838	$5,750
Linear Tier-3					
Quantity	1	1	1	1	1
Revenue ($2019-20)	$4,446	$4,379	$4,313	$4,249	$4,185

31 Application to assess sewer main adjustment

Current charge number	31
Proposed charge number	25
Current charge rate ($2019-20)	516.00
Proposed charge rate ($2019-20)	324.00
% change	(37)

Service overview and Hunter Water costs

This charge covers assessment of feasibility and advice on requirements for relocation/resizing a sewer main asset and will result in either:

a. a rejection

b. conditional approval – in which case the fee covers the administration costs associated with the investigation and record amendment.

From time to time developers seek formal guidance from Hunter Water with respect to adjusting services. This may be triggered by road works or other works proposed to be undertaken by the developer that is not normally covered by a development assessment application.

Process	Time (min)
Register application	25
Assign application	5
Initial assessment and overlay	45
Determine requirements for additional capacity	7
Prepare requirements letter	25
Review assessment process and letter	60
Send requirements letter	5
Issue compliance letter:	
Prepare acceptance letter	5
Review acceptance letter and create PDF	10
Issue acceptance letter	5
Average time for service	**192 minutes**

Proposed charge and reason for change

This charge would decrease. We have become more efficient by improving our process and doing the process steps more quickly.

Cost component	$2019-20
Hunter Water costs	323.58
Proposed charge	**$324.00**

Forecast quantity and revenue

The base forecast is estimated based on judgement of subject matter experts with consideration given to historical volume. We have assumed that the volume decreases by 1.5 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	3	3	3	3	3
Revenue ($2019-20)	943	929	915	901	888

32 Revision of development assessment requirements

Current charge number	32
Proposed charge number	26
Current charge rate ($2019-20)	428.00
Proposed charge rate ($2019-20)	304.00
% change	(29)

Service overview and Hunter Water costs

As a result of lodging an application to determine requirements under Section 50 of the Hunter Water Act, Hunter Water issues a letter containing these requirements (previously referred to as a 'Notice of Requirements' letter). Requirements are valid for 12 months from the date of issue of the letter. Should the requirements letter lapse and the developer then wish to proceed, they are required to make a subsequent application to Hunter Water for review of all aspects of the development proposal.

Due to the dynamic nature of our systems, capacity limitations, and changing design standards and/or operating environment, it is necessary to review requirements after 12 months from the date of initial determination. This fee excludes the administrative cost of the original application. Looking at historical data, the applications can be broadly grouped into three different categories, each requiring a different amount of work.

Process/Time (min)	Category-2 (50% volume)	Category-3 (30% volume)	Category-4 (20% volume)
Assign application	5	5	5
Initial assessment and overlay	25	25	25
Determine requirements for additional capacity	7	7	7
Determine reimbursement	5	5	5
Calculate reimbursement	-	36	36
Approve reimbursement calculation	-	12	12
Prepare notice letter	30	45	60
Review assessment process and letter	30	45	60
Send Notice letter	5	5	5
Issue Section 50 certificate:			
Determine outstanding requirements	15	15	25
Prepare Section 50 certificate	5	5	5
Review Section 50 certificate and create PDF	15	15	30
Issue Section 50 certificate	5	5	5
Average time for function	**147**	**225**	**280**
Weighted Average time for function			**197 mins**

Proposed charge and reason for change

This charge would decrease. We have become more efficient by improving our process and doing the process steps more quickly.

Cost component	$2019-20
Hunter Water costs	304.27
Proposed charge	**$304.00**

Forecast quantity and revenue

The base forecast is estimated based on the trend of historical volumes. We have assumed that the volume decreases by 1.5 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	194	191	188	185	183
Revenue ($2019-20)	$58,990	$58,105	$57,233	$56,375	$55,529

33 Bond application

Current charge number	33
Proposed charge number	27
Current charge rate ($2019-20)	1,953.00
Proposed charge rate ($2019-20)	2,412.00
% change	24

Service overview and Hunter Water costs

This fee covers the lodging and release of a bond (and an estimate of the cost of outstanding works), where a developer wishes to provide security in lieu of constructing works to facilitate early release of a Hunter Water Section 50 compliance certificate.

On occasion, Hunter Water is requested to accept a bond to cover the costs of outstanding works and, in return, allow early release of the compliance certificate for a development application. This charge covers preparation of an estimate of the value of the works for a single asset eg a sewer pump station and rising main. Additional assets that are incomplete attract additional assessment fees, due to the additional estimating involved. Hunter Water's legal fees in preparing special Deeds of Agreement and associated collateral agreements are to be paid by the developer at cost.

Process	Time (min)
Receive and process application	15
Assess application in accordance with policy	45
Approval of developer bond	800
Receive and process bond	120
Release developer bonds	180
Additional assessment/estimating at the technical services hourly rate for each additional asset	-
Hunter Water Legal Fees	AT COST
Average time for service	**1,160 minutes**

Proposed charge and reason for change

This charge would increase to reflect the time required to complete tasks related to this complex service.

Cost component	$2019-20
Hunter Water costs	2,411.97
Proposed charge	**$2,412.00**

Forecast quantity and revenue

The base forecast is estimated based on the trend of historical volumes. We have assumed that the volume decreases by 1.5 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	7	7	7	6	6
Revenue ($2019-20)	$16,381	$16,136	$15,894	$15,655	$15,420

34 Bond variation

Current charge number	34
Proposed charge number	-
Current charge rate ($2019-20)	281.00
Proposed charge rate ($2019-20)	-
% change	(100)

Service overview

Fee for any variation in Bond application (existing Charge 33).

Reason for discontinuing charge

There was no volume for this application in recent years and we propose to remove this service charge from our schedule of charges.

35 Development assessment application

Current charge number	35
Proposed charge number	28
Current charge rate ($2019-20)	516.00
Proposed charge rate ($2019-20)	324.00
% change	(37)

Service overview and Hunter Water costs

As a result of lodging an application to determine requirements under Section 50 of the Hunter Water Act, Hunter Water issues a requirements letter containing these requirements (previously called a 'Notice of Requirements' letter). Requirements are valid for 12 months from the date of issue of the letter. Applications for both those properties proposed to be developed and properties without service proposing to connect for the first time, are subject to the same assessment procedure.

Applications cover a variety of proposals ranging from minor developments, (e.g. boundary adjustments for which there may be no requirements, up to major developments including large subdivisions). Should the requirements letter lapse and the developer then wish to proceed, it is a requirement that the developer make a subsequent application to Hunter Water to permit review of all aspects of the development proposal and advise the developer accordingly of any changes.

This charge covers the basic processing of each application to determine if there are any requirements (e.g. developer charges) or the design and construction of works. Once requirements are met, a certificate under Section 50 of the Hunter Water Act 1991 is issued and properties are permitted to connect to water and/or sewer systems. If there are further works requirements, additional charge(s) (dependent on the specific nature of the requirements) are payable.

Looking at historical data, the applications can be broadly grouped into three different categories, each requiring a different amount of work.

Process/Time (min)	Category-2 (50% volume)	Category-3 (30% volume)	Category-4 (20% volume)
Receipt and register application	25	25	25
Assign application	5	5	5
Initial assessment and overlay	15	25	25
Determine requirements for additional capacity	7	7	7
Determine reimbursement	5	5	5
Calculate reimbursement	-	36	36
Approve reimbursement calculation	-	12	12
Prepare requirements letter	30	45	60
Review assessment process and letter	30	30	60
Send requirements letter	5	5	5
Issue Section 50 certificate:			
Determine outstanding requirements	15	15	25
Prepare Section 50 certificate	5	5	5
Review Section 50 certificate and create PDF	15	15	30
Issue Section 50 certificate	5	5	5
Average time for function	**162**	**235**	**305**
Weighted average time for function			**208 mins**

Proposed charge and reason for change

This charge would decrease. We have become more efficient by improving our process and doing the process steps more quickly.

Cost component	$2019-20
Hunter Water costs	323.74
Proposed charge	**$324.00**

Forecast quantity and revenue

The base forecast is estimated based on judgement of subject matter experts with consideration given to historical volume. We have assumed that the volume decreases by 1.5 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	1,610	1,585	1,562	1,538	1,515
Revenue ($2019-20)	$521,511	$513,689	$505,983	$498,394	$490,918

36 Application for water or sewer main extension

Current charge number	36
Proposed charge number	29
Current charge rate ($2019-20)	516
Proposed charge rate ($2019-20)	325
% change	(37)

Service overview and Hunter Water costs

A property owner can apply for approval to extend the existing water and/or sewer mains of Hunter Water to an existing development. Hunter Water calculates appropriate developer charges and a possible extension option, based on system capacity and topographical constraints.

Process	Minor works (40% volume)	Major works (60% volume)
Register application	25	25
Assign application	5	5
Initial assessment and overlay	25	25
Determine requirements for additional capacity	7	7
Determine reimbursement	10	10
Calculate reimbursement	18	36
Approve reimbursement calculation	12	12
Prepare requirements letter	25	25
Review assessment process and letter	30	45
Send requirements letter	5	5
Issue compliance letter:		
Prepare acceptance letter	5	5
Review acceptance letter and create PDF	10	10
Issue acceptance letter	5	5
Average time for function	**182 mins**	**215 mins**
Weighted average time for function		**202 mins**

Proposed charge and reason for change

This charge would decrease. We have become more efficient by improving our process and doing the process steps more quickly.

Cost component	$2019-20
Hunter Water costs	325.38
Proposed charge	**$325.00**

Forecast quantity and revenue

The base forecast is estimated based on the trend of historical volumes. We have assumed that the volume decreases by 1.5% per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	42	41	40	40	39
Revenue ($2019-20)	$13,559	$13,356	$13,155	$12,958	$12,763

37 Connection to existing water system

Current charge number	37(a) and 37(b)
Proposed charge number	30 and 31
Current charge rate ($2019-20)	760.00 324.00
Proposed charge rate ($2019-20)	Not comparable as three different processes have been merged into two revised processes
% change	-

Reason for discontinuing charge

We propose that this charge be consolidated into proposed charges 30 and 31.

38 Insertion or removal of tee and valve

Current charge number	38(a) and 38(b)
Proposed charge number	30 and 31
Current charge rate ($2019-20)	1,196.00 747.00
Proposed charge rate ($2019-20)	Not comparable as three different processes have been merged into two revised processes
% change	-

Reason for discontinuing charge

We propose that this charge be consolidated into proposed charges 30 and 31.

39 Application for insertion of a sewer connection point

Current charge number	39
Proposed charge number	32
Current charge rate ($2019-20)	376.00
Proposed charge rate ($2019-20)	288.00
% change	(23)

Service overview and Hunter Water costs

Existing developments requiring an alternative sewer connection point or those with sewer available but without an existing point of connection within the development lot must make an application to Hunter Water to allow investigation and notification of requirements. This charge covers processing of the application and connection advice to the applicant. It may be necessary for the applicant to engage an accredited design consultant to complete investigation of design options and make a recommendation to Hunter Water. Assessment of any resulting design or construction works are covered by other service charges.

Process	Time (min)
Register application	25
Assign application	5
Initial assessment and overlay	25
Determine reimbursement	10
Calculate reimbursement	36
Approve reimbursement calculation	12
Prepare requirements letter	25
Review assessment process and letter	30
Send requirements letter	5
Issue compliance letter:	
Prepare acceptance letter	5
Review acceptance letter and create PDF	10
Issue acceptance letter	5
Average time for service	**193 minutes**

Proposed charge and reason for change

This charge would decrease. We have become more efficient by improving our process and doing the process steps more quickly.

Cost component	$2019-20
Hunter Water costs	287.93
Proposed charge	**$288.00**

Forecast quantity and revenue

The base forecast is estimated based on the trend of historical volumes. We have assumed that the volume decreases by 1.5 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	26	26	25	25	25
Revenue ($2019-20)	$7,544	$7,431	$7,320	$7,210	$7,102

40 Tee and valve connection

Current charge number	40
Proposed charge number	30 and 31
Current charge rate ($2019-20)	295.00
Proposed charge rate ($2019-20)	Not comparable as three different processes have been merged into two revised processes
% change	-

Reason for discontinuing charge

We propose that this charge be consolidated into proposed charges 30 and 31.

41 Complex works inspection fee (previously: major works inspection and WAE fee)

Current charge number	41
Proposed charge number	33
Current charge rate ($2019-20)	7,025.00 , 9,516.00 , 7,025.00
Proposed charge rate ($2019-20)	6,427.00 , 5,847.00 , 694.00 ,974.00 , 1,329.00
% change	-

Service overview and Hunter Water costs

Previously we had inspection fees for water, sewer and recycle water. We revised the classification into water and sewer dividing these into linear and non-linear assets to better reflect the new complex works process.

This charge comprises inspection/audit of works constructed under complex works deeds to ensure that the specified quality, safety and environmental performance is achieved. Inspection fees are applied to complex works undertaken by developers including:

- Review of the contractor's safety management plans.
- Regular inspection / audit of works to ensure that only approved materials are used and that the works comply with Hunter Water's standards.
- Review of finalisation package.

Process	Minutes Water	Minutes Sewer
Pre-start meeting - Surveillance Officer (SO)	120	120
Pre-start meeting - Project Officer (PO)	120	120
Inspections during construction - SO	1,200	900
Inspections during construction - PO	360	270
Pre-commissioning works - SO	300	300
Pre-commissioning works - PO	300	300
Pre-commissioning works - Electrical Engineer (EE)	300	300
Pre-commissioning works - Mechanical Engineer (ME)	300	300
Commissioning works - SO	300	300
Commissioning works - PO	300	300
Commissioning works - EE	300	300
Commissioning works - ME	300	300
Average time for function	**4,200 mins**	**3,810 mins**

Process	Time (min) Tier-1 (0-99m)	Time (min) Tier-2 (99-1000m)	Time (min) Tier-3 (>1000m)
Pre-start meeting - SO	90	90	120
Pre-start meeting - PO	90	90	120
Inspections during construction	120	300	420
Commissioning works - SO	90	90	120
Commissioning works - PO	90	90	120
Average time for service	**480 minutes**	**660 minutes**	**900 minutes**

Proposed charge and reason for change

This charge would decrease. We have revised the process to reflect more appropriate classification of the type of asset and allocate relevant effort accordingly. We have also become more efficient by improving our process and doing the process steps more quickly.

Cost component	2019-20 Hunter Water costs	$2019-20 Proposed charge
Non-linear:		
Water	6,426.97	**$6,427.00**
Sewer	5,846.83	**$5,847.00**
Linear water and sewer:		
Tier - 1 (0-99m)	693.89	**$694.00**
Tier - 2 (99-1000m)	973.73	**$974.00**
Tier - 3 (>1000m)	1,329.40	**$1,329.00**

Forecast quantity and revenue

The base forecast is estimated by a subject matter expert, with consideration of historical volumes. We have assumed that the volume decreases by 1.5 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Non-linear water					
Quantity	2	2	2	2	2
Revenue ($2019-20)	$12,471	$12,284	$12,100	$11,918	$11,740
Non-linear sewer					
Quantity	6	6	6	6	5
Revenue ($2019-20)	$34,037	$33,527	$33,024	$32,529	$32,041
Linear tier-1					
Quantity	2	2	2	2	2
Revenue ($2019-20)	$1,347	$1,326	$1,307	$1,287	$1,268
Linear tier-2					
Quantity	2	2	2	2	2
Revenue ($2019-20)	$1,890	$1,862	$1,834	$1,806	$1,779
Linear tier-3					
Quantity	1	1	1	1	1
Revenue ($2019-20)	$1,289	$1,270	$1,251	$1,232	$1,214

42 Application to assess encroachment on Hunter Water land, easement rights or assets

Current charge number	42
Proposed charge number	-
Current charge rate ($2019-20)	446.00
Proposed charge rate ($2019-20)	-
% change	(100)

Service overview

This charge is for a 'first-pass' review of an application to allow Hunter Water to advise of requirements to be met and provision of a quote for additional, more detailed assessment.

Reason for discontinuing charge

There were no applications for this in recent years. We therefore propose that this charge be removed and any such requests in the future be charged at the Technical Services hourly rate (current charge number 43), if required.

43 Technical Services hourly rate

Current charge number	43
Proposed charge number	34
Current charge rate ($2019-20)	116.00
Proposed charge rate ($2019-20)	121.00
% change	4

Service overview and Hunter Water costs

This hourly, time-based fee provides for additional technical work to be undertaken where base services are exceeded. The rate is calculated based on level of technical resources commonly engaged for this purpose.

Process	Time (min)
Average time for function	60
Average time for service	**60 minutes**

Proposed charge and reason for change

This charge has slightly increased to reflect Hunter Water costs of resources utilised.

Cost component	$2019-20
Hunter Water costs	121.44
Proposed charge (hourly)	**$121.00**

Forecast quantity and revenue

The base forecast is estimated based on the trend of historical volumes. We have assumed that the volume increases by 2 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	121	123	126	128	131
Revenue ($2019-20)	$14,603	$14,895	$15,193	$15,497	$15,807

44 Remote application fee

Current charge number	44
Proposed charge number	35
Current charge rate ($2019-20)	320.00
Proposed charge rate ($2019-20)	87.90
% change	(73)

Service overview and Hunter Water costs

This charge covers applications made for a compliance certificate in an area remote from Hunter Water services. The charge covers the basic processing of each application to issue a certificate.

This service provides a more equitable charge for remote applications that only require a compliance certificate to be issued and avoids any technical assessment or assessment of development-related charges.

Process	Time (min)
Register applications and create TRIM file	25
Raise and receive fee	5
Initial assessment and overlay	15
Prepare Section 50 certificate	5
Review assessment and Section 50 certificate	10
Issue certificate	5
Average time for service	**65 minutes**

Proposed charge and reason for change

This charge would decrease. We have become more efficient by improving our process and doing the process steps more quickly.

Cost component	$2019-20
Hunter Water costs	87.92
Proposed charge	**$87.90**

Forecast quantity and revenue

The base forecast is estimated based on the trend of historical volumes. We have assumed that the volume decreases by 1.5 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	7	7	7	6	6
Revenue ($2019-20)	$597	$588	$579	$571	$562

45 Preliminary servicing advice

Current charge number	45
Proposed charge number	36
Current charge rate ($2019-20)	489.00
Proposed charge rate ($2019-20)	495.00
% change	1

Service overview and Hunter Water costs

Some developers require advance advice of Hunter Water's likely water, sewer or recycled water requirements for a particular development. Usually the development would involve rezoning of land and/or would not have consent conditions issued by Local Council or the Department of Planning and Infrastructure at the time the application is lodged with Hunter Water. Any advice offered therefore is to be considered indicative only and can only be used as a guide.

This charge covers technical assessment of a proposed development and general advice on the level of potential charges. To determine preliminary advice is, in essence, the same as making an application under Section 50 for a formal requirements letter.

Process	Time (min)
Register application	5
Complete capacity assessment	30
Prepare preliminary servicing advice	180
Review and issue preliminary servicing advice	60
Average time for service	**275 minutes**

Proposed charge and reason for change

This charge would increase slightly to reflect updated costs of the resources utilised.

Cost component	$2019-20
Hunter Water costs	494.96
Proposed charge	**$495.00**

Forecast quantity and revenue

The base forecast is estimated based on the trend of historical volumes. We have assumed that the volume decreases by 1.5 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	27	27	26	26	26
Revenue ($2019-20)	$13,447	$13,246	$13,047	$12,851	$12,658

46(a) and 46(b) Servicing strategy review

Current charge number	46(a), 46(b)
Proposed charge number	37
Current charge rate ($2019-20)	1,253.00, 355.00
Proposed charge rate ($2019-20)	1,490.00, Nil
% change	19 and (100)

Service overview and Hunter Water costs

a) Standard review process

Major developments often require preparation of water and sewer servicing strategies. Sometimes, a recycled water servicing strategy may be required. An Accredited Design Consultant is engaged by the developer to complete the necessary servicing strategies. Hunter Water reviews and approves these strategies to ensure they are consistent with our broader regional strategies (where relevant), design standards and Operating Licence requirements. These reviews require technical and engineering time/effort to review and are typically complex to assess. This charge includes a preliminary and final review of each strategy. Hunter Water relies on the design consultant submitting high quality reports.

b) Additional review process **(No Longer Required)**

We propose to discontinue this separate charge and instead use the Technical Services Hourly Rate (current charge number 43) where additional review iterations are required by Hunter Water.

Process	Time (min)
Inception meeting	120
Review strategy and determine review requirements	30
Distribute strategy internally	15
DPR review	240
Operations review	180
Capability/environmental review	60
Collate comments and send to applicant	60
Receive revision and assess	120
Approval	30
Average time for service	**855 minutes**

Proposed charge and reason for change

This charge would increase to reflect the costs of performing an updated process which reduces the need for subsequent strategy reviews.

Cost component	$2019-20
Hunter Water costs	1,490.38
Proposed charge	**$1,490.00**

Forecast quantity and revenue

The base forecast is estimated based on the trend of historical volumes. We have assumed that the volume decreases by 1.5 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	12	11	11	11	11
Revenue ($2019-20)	$17,348	$17,087	$16,831	$16,579	$16,330

47 Environmental assessment report review

Current charge number	47(a), 47(b)
Proposed charge number	38
Current charge rate ($2019-20)	1,253.00 and 116.00/hour
Proposed charge rate ($2019-20)	914.00 and Nil
% change	(27) and (100)

Service overview and Hunter Water costs

a) Standard review process

Major developments often require the preparation of an environmental assessment report for the water, sewer or recycled water infrastructure servicing the development. An accredited design consultant is engaged by the developer to complete the report. Hunter Water reviews and approves the report to ensure that it is consistent with legislation and the design requirements of Hunter Water.

This charge includes a preliminary and final review of the report. The review undertaken by Hunter Water requires similar time/effort as a servicing strategy review (current charge number 46). Hunter Water relies on the consultant submitting high quality reports. Poor quality reports, requiring further revisions, attract additional fees at the technical services hourly rate.

b) Additional review process **(No Longer Required)**

We propose to discontinue this separate charge and instead use the Technical Services hourly rate (current charge number43) where additional review iterations are required by Hunter Water.

Process	Time (min)
Receive and distribute report	20
Review environmental report	420
Prepare green slip	30
Review and approve green slip	15
Review and send letter	30
Average time for service	**515 minutes**

Proposed charge and reason for change

This charge would decrease. We have become more efficient in carrying out this assessment and it now utilises lesser resources.

Cost component	$2019-20
Hunter Water costs	914.06
Proposed charge	**$914.00**

Forecast quantity and revenue

The base forecast is estimated based on the trend of historical volumes. We have assumed that the volume decreases by 1.5 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	28	28	27	27	26
Revenue ($2019-20)	$25,717	$25,331	$24,951	$24,577	$24,208

48 Reservoir construction inspection fee

Current charge number	48
Proposed charge number	39
Current charge rate ($2019-20)	By quote
Proposed charge rate ($2019-20)	By quote
% change	-

Service overview and Hunter Water costs

Comprises inspection/audit of reservoir construction works to ensure that the specified quality is achieved. Reservoir construction inspection/audit fees are applied by Hunter Water including:

- Review of the contractor's safety management plans, and
- Regular inspection/audit of works to ensure that only approved materials are used and that the works comply with Hunter Water's standards.

All work-as-completed (WAE) data is to be provided by the developer's accredited construction contractor to ensure that the works are accurately updated on Hunter Water's GIS (SWIMS) database. The fees are calculated on a job-by-job cost recovery basis.

Process	Time (min)
Management of the Developer Works Deed	1 hour per week
On-site auditing to ensure materials and construction meet Hunter Water standards including follow-up checks during the defects liability period	7 hours per week
Pre-commissioning and commissioning inspections	
Additional inspection and or management at the Technical Services hourly rate (if required)	
Average time for service	**8 hours per week**

Proposed charge and reason for change

This charge has no change.

Cost component	$2019-20
Hunter Water costs	By quote
Proposed charge	$ By quote

Forecast quantity and revenue

We do not expect to use this charge during the next price period, however, we propose that the charge is retained in case it is required. We have forecast zero volume or revenue from this charge.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	-	-	-	-	-
Revenue ($2019-20)	-	-	-	-	-

49 Water tanker inspection (previously: inspection of a water cart tanker)

Current charge number	49(a), 49(b)
Proposed charge number	40
Current charge rate ($2019-20)	159.00, 145.00
Proposed charge rate ($2019-20)	45.45, Nil
% change	(71), (100)

Service overview and Hunter Water costs

a) Inspection

Initial inspection of a new water cart tanker (or annual inspection of a tanker) to ensure the air gap and backflow prevention is sufficient to protect Hunter Water's drinking water supply. The inspection location is negotiated with the customer (i.e. at either a field location nominated by the customer or at a Hunter Water depot).

b) Reinspection

We propose to remove this charge. Because the cost of inspection and reinspection are the same, charge part (a) would be used for both inspections and reinspections.

Process	Time (min)
Raise and charge fee, arrange date and time for inspection	5
Inspect tanker off-site	15
Post-inspection administration, update tanker register/records	10
Average time for service	**30 minutes**

Proposed charge and reason for change

This charge would decrease. We have become more efficient in carrying out this assessment and it now utilises lesser resources.

Cost component	$2019-20
Hunter Water costs	45.47
Proposed charge	**$45.45**

Forecast quantity and revenue

The base forecast is estimated based on the trend of historical volumes. We have assumed that the volume increases by 2 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	80	82	83	85	87
Revenue ($2019-20)	$3,641	$3,714	$3,788	$3,864	$3,941

50 Inaccessible meter – imputed charge for breach of meter reading agreement

Current charge number	50
Proposed charge number	-
Current charge rate ($2019-20)	25.80
Proposed charge rate ($2019-20)	-
% change	(100)

Reason for discontinuing charge

We propose to remove this charge as it is no longer required. Bills for these customers are issued on an estimated basis.

51 Damaged meter replacement

Current charge number	51
Proposed charge number	41
Current charge rate ($2019-20)	Table below
Proposed charge rate ($2019-20)	Table below
% change	Table below

Meter Size	Current charge rate ($2019-20)	Proposed charge rate ($2019-20)	% change
20mm	$69.85	$86.55	24%
25mm	$116.00	$147.00	27%
32mm	$161.00	$201.00	25%
40mm	$192.00	$276.00	44%
50mm light	$410.00	$287.00	(30%)
50mm heavy	$468.00	$318.00	(32%)
65mm	$572.00	$588.00	3%
80mm	$718.00	$512.00	(29%)
100mm	$747.00	$851.00	14%
150mm	$1,279.00	$2,490.00	95%
250mm	$4,335.00	$4,945.00	14%
300mm	$5,856.00	$6,126.00	5%

Service overview and Hunter Water costs

Replacement of meters wilfully or accidentally damaged by a third party as described in section 15.1.4 of the Customer Contract. In this situation the customer is responsible for the replacement cost of the asset. This does not include normal wear and tear.

Process	Time (min)
Accept returned damaged meter at counter and process. Apply damaged meter replacement fee.	4 min
Raise field activity on CIS	5 min
Average time for service	**9 minutes**

Proposed charge and reason for change

This charge would both decrease and increase across different meter sizes. The changes reflect updated meter costs from contractors.

Meter size	HWC cost	Contractor cost	Meter cost	Total $2019-20
20mm	12.07	$39.71	34.79	**$86.55**
25mm	12.07	$39.71	95.12	**$147.00**
32mm	12.07	$51.21	137.76	**$201.00**
40mm	12.07	$51.21	213.16	**$276.00**
50mm light	12.07	$121.53	153.87	**$287.00**
50mm heavy	12.07	$152.46	153.87	**$318.00**
65mm	12.07	$156.53	419.74	**$588.00**
80mm	12.07	$182.43	317.49	**$512.00**
100mm	12.07	$478.56	360.54	**$851.00**
150mm	12.07	$666.10	1,811.54	**$2,490.00**
250mm	12.07	$1,009.39	3,923.47	**$4,945.00**
300mm	12.07	$1,352.67	4,761.33	**$6,126.00**

Forecast quantity and revenue

The base forecast is estimated based on the trend of historical volumes. We have assumed that the volume increases by 2% per year. However, we only expect volume in 20mm meter size.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	312	318	325	331	338
Revenue ($2019-20)	$27,014	$27,554	$28,105	$28,667	$29,241

52 Affix a separate meter to a unit

Current charge number	52
Proposed charge number	42
Current charge rate ($2019-20)	59.60
Proposed charge rate ($2019-20)	32.85
% change	(45)

Service overview and Hunter Water costs

Affix a meter to a unit within a registered strata plan where the meter frame is compliant with requirements. This fee will be applied for each meter that is affixed.

Process	Time (min)
Receive application, charge fee, forward to relevant dept.	1
Log a field activity to contractor for a site inspection, copy and fax plan showing property location and proposed locations of meter frames	4
Amend meter and service agreement on CIS	4
Average time for service	**9 minutes**

Proposed charge and reason for change

This charge would decrease. We now complete this process more efficiently and it utilises fewer resources.

Cost component	$2019-20
Hunter Water costs	32.83
Proposed charge	**$32.85**

Forecast quantity and revenue

The base forecast is estimated based on the trend of historical volumes. We have assumed that the volume decreases by 1.5% per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	61	60	59	58	58
Revenue ($2019-20)	$2,008	$1,978	$1,948	$1,919	$1,890

53 Recycled water meter affix fee

Current charge number	53
Proposed charge number	43
Current charge rate ($2019-20)	52.90
Proposed charge rate ($2019-20)	59.90
% change	13

Service overview and Hunter Water costs

Installation of a water meter to the recycled water connection framework for the recycled water supply. This fee covers the administration cost as well as the contractor cost to affix the meter to the meter frame.

Process	Time (min)
Charge fee, raise field activity in CIS for contractor to affix meter	3
Audit the work carried out by contractors	5
If audit passes, update field activity	5
Account management (enter meter details, bill cycle route, sequencing)	2
Average time for service	**15 minutes**

Proposed charge and reason for change

This charge would increase to reflect the updated cost and effort required to provide the service.

Cost component	$2019-20
Hunter Water costs	19.87
Contractor costs	40.03
Proposed charge	**$59.90**

Forecast quantity and revenue

The base forecast is estimated based on historical volumes. We have assumed that the volume will decrease significantly (by 20% per year) as there are no planned expansions to our recycled water services.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	6	5	4	3	3
Revenue ($2019-20)	$383	$307	$245	$196	$157

54 Application for recycled water service connection – domestic

Current charge number	54(a), 54(b)
Proposed charge number	44(a), 44(b)
Current charge rate ($2019-20)	(a)54.35 (b) 171.00
Proposed charge rate ($2019-20)	(a)21.20 (b)197.00
% change	(61), 15

Service overview and Hunter Water costs

This function covers two separate connection types:

a) Pre-laid service

The processing of applications to connect a new recycled water service. The current charges also relates to mandatory inspections of recycled water service components to confirm compliance with the current plumbing legislation.

b) Redevelopment

The processing of properties being redeveloped and connecting to an existing recycled water service that has not been pre-laid. Hunter Water will still be required to conduct inspections of recycled water services where a new recycled connection is required. In this case, the inspection will include the recycled watermain drilling and the recycled property service. Drilling fees are determined by the size of the main.

Process	Pre-laid	Redevelopment
Identify property on Hunter Water's customer services database	5 min	5 min
Raise a recycled water connection case against property account on customer services database and collect fee	5 min	5 min
Perform plumbing inspection (redevelopment only) – 15 minutes		15 min
Update property information on customer service database	5 min	5 min
Average time for function	**15 mins**	**30 mins**

Proposed charge and reason for change

This charge would decrease for pre-laid services as we have become more efficient delivering this service. The charge would increase for redevelopment to reflect updated contractor costs.

a) Pre-laid service

Cost component (pre-laid)	$2019-20
Hunter Water costs	21.19
Proposed charge	**$21.20**

b) Redevelopment

Meter size	Hunter Water administration cost ($2019-20)	Contractor drilling cost ($2019-20)	Total and proposed charge ($2019-20)
80mm	44.51	152.45	**$197.00**
100mm	44.51	145.27	**$190.00**
150mm	44.51	152.45	**$197.00**
200mm	44.51	231.37	**$276.00**
250mm	44.51	272.37	**$317.00**
300mm	44.51	340.02	**$385.00**
375mm	44.51	604.47	**$649.00**

Forecast quantity and revenue

The base forecast is estimated based on historical volumes. We have assumed that the volume will decrease significantly (by 20 per cent per year) as there are no planned expansions to our recycled water services. There is no volume forecast for redevelopment. All volume and revenue forecasting is for pre-laid services.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	6	5	4	3	3
Revenue ($2019-20)	$136	$109	$87	$69	$56

55 Irregular and dishonoured payments

Current charge number	55
Proposed charge number	45
Current charge rate ($2019-20)	30.15
Proposed charge rate ($2019-20)	27.85
% change	(8)

Service overview and Hunter Water costs

Functions relating to cheques returned by banking authorities as irregular or dishonoured, credit card payment declines and direct debit payment declines.

Process	Time (min)
Identify property, raise fees against property account and process in CIS to reverse payment	15
Prepare letter to customer	3
Update details on computer	2
Average time for service	**20 minutes**

Proposed charge and reason for change

This charge has decreased, due to savings in labour costs. Third-party fees remain the same.

Type of fee paid	Amount paid $2019-20
Cheque dishonour fee - bank	$ 10.00
Direct debit dishonour fee	$ 2.56
Cheque dishonour fee - Australia Post	$ 29.60

Cost component	$2019-20
Hunter Water costs	25.28
Contractor costs [1]	2.56
Proposed charge	**$27.85**

Note: 1. We are proposing to only reflect the direct debit dishonour fee in our charge. More than ninety per cent of Hunter Water's dishonoured or declined payments are via this channel. In addition, incorporating only the lowest contract cost creates an incentive to improve efficiency on the Hunter Water cost component of the charge (i.e. reduce labour costs).

Forecast quantity and revenue

The base forecast is estimated based on the trend of historical volumes. We have assumed that the volume will increase by 2 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	946	964	984	1,004	1,024
Revenue ($2019-20)	$26,339	$26,865	$27,402	$27,951	$28,510

3.6 Additional proposed charges

30 (Proposed) Application to connect to/disconnect from water system

Current charge number	37, 38, 40
Proposed charge number	30
Current charge rate ($2019-20)	-
Proposed charge rate ($2019-20)	176.00
% change	-

Service overview and Hunter Water costs

This is a revised charge that partly consolidates current charge number 37, number 38 and number 40.

In order to connect major developments to the water supply system a tee and valve must be inserted, and that requires a shut down. This fee is levied to prepare the shutdown plan and determine the most appropriate shutdown method to allow connections to existing fittings.

The shutdown plan and related fee for carrying out the actual shutdown and charge-up (proposed charge number 31) is then communicated to the applicant.

Process	Time (min)
Take application at counter, charge fee and issue invoice	5
Prepare TRIM file	10
Review application	10
Forward application with shut down requests	10
Create shutdown plan	30
Review shutdown advice from System Operations group	15
Populate tee and valve letter	15
Supervisory review and approval	15
Email letter to customer indicating fees	5
Average time for service	**115 minutes**

Proposed charge and reason for change

This charge partly consolidating three previous charges to better reflect the current process of connection to and disconnection from the water system.

Cost component	$2019-20
Hunter Water costs	175.59
Proposed charge	**$176.00**

Forecast quantity and revenue

The base forecast is estimated based on the trend of historical volumes of charges it consolidates. We have assumed that the volume increases by 2 per cent per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	156	159	162	166	169
Revenue ($2019-20)	$27,467	$28,016	$28,576	$29,148	$29,731

31 (Proposed) Shutdown and charge-up for water connection/disconnection

Current charge number	37, 38, 40
Proposed charge number	31
Current charge rate ($2019-20)	-
Proposed charge rate ($2019-20)	412.00
% change	-

Service overview and Hunter Water costs

This is a revised charge that partly consolidates current charge number 37, number 38 and number 40.

In order to connect major developments to the water supply system a tee and valve must be inserted, and that requires a shutdown. Proposed charge number 30 covers preparation of a shutdown plan, whereas this charge covers the actual shutdown and charge-up of the watermain.

The fee is calculated on the basis that the developer provides all materials and performs any digging required to insert the tee and valve. For those developers that request Hunter Water to perform the whole job (i.e. excavation, shutdown, supply and install fittings, recharging main), the Technical services hourly rate (current charge number 43) will be applied in addition to this charge (proposed charge number 31).

Process	Time (min)
Book date, collect fee, process receipt in TRIM, forward to System Operations group	10
Create shutdown AOMS job, confirm date with ADC	20
Print notice card	5
Schedule shutdown job	5
Deliver cards to impacted customers	50
Check valve status	60
Assign personnel	5
Perform shutdown, close AOMS job, and charge-up	75
Hunter Water services will be charged at the Technical Services hourly rate (current Charge 43), if required	$118 per hour
Average time for service	**230 minutes**

Proposed charge and reason for change

This charge partly consolidated three previous charges to better reflect the current process of shutdown for connection/disconnection and subsequent charge-up.

Cost component	$2019-20
Hunter Water costs	412.00
Proposed charge	**$412.00**

Forecast quantity and revenue

The base forecast is estimated based on the trend of historical volumes of charges it consolidates. We have assumed that the volume increases by 2% per year.

Annual forecast	2020-21	2021-22	2022-23	2023-24	2024-25
Quantity	125	127	130	132	135
Revenue ($2019-20)	$51,437	$52,466	$53,515	$54,586	$55,677

4. Abbreviations

Acronym	Term
AOMS	Asset and Operations Maintenance System (software)
BOD	Biochemical oxygen demand
CIS	Customer Information System (software)
FTE	Full time equivalent (employees)
IPART	Independent Pricing and Regulatory Tribunal (NSW)
LPI	Land and property information
m	metres
mm	millimetres
SCADA	Supervisory control and data acquisition (monitoring system)
TRIM	Total Records and Information Management (software)
TSS	Total suspended solids
WWTP	Wastewater treatment plant

5. References

IPART (Independent Pricing and Regulatory Tribunal (NSW), 2019, **Review of recycled water prices for public water utilities**, Final Report – Water (June 2019), Sydney.

IPART, 2019, **Review of recycled water prices for public water utilities**, Draft Report – Water (April 2019), Sydney.

IPART, 2018, **Review of recycled water prices for public water utilities,** Issues Paper, September, Sydney.

IPART, 2016, **Review of prices for Hunter Water Corporation, From 1 July 2016 to 30 June 2020**, Water – Final Report, June, Sydney.

IPART, 2006, **Pricing arrangements for recycled water and sewer mining** - Sydney Water Corporation, Hunter Water Corporation, Determinations 8 and 9, (including **Developer Recycled Water Charges)**, Sydney.