



Pricing Proposal

Central Coast Council's pricing proposal to
IPART for its water, sewerage and
stormwater drainage services from 1 July
2022

September 2021

Central
Coast
Council

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About this document

Central Coast Council's water, sewer and stormwater drainage pricing proposal is a summary of the services Council intends to provide as well as proposed prices from 1 July 2022 to 30 June 2026.

This proposal is supported by 10 Technical Papers that provide detail on operational and capital expenditure forecasts, future connections, water demand and service levels. The Technical Papers also detail the performance over the current determination (2019-2022).

The technical papers are:

- Technical Paper 1 - Engaging our customers and community
- Technical Paper 2 - Service levels
- Technical Paper 3 - Form of regulation
- Technical Paper 4 - Capital expenditure
- Technical Paper 5 - Operational expenditure
- Technical Paper 6 - Revenue requirement and financial
- Technical Paper 7 - Demand for services
- Technical Paper 8 - Pricing of water, sewerage and stormwater drainage
- Technical Paper 9 - Pricing other services
- Technical Paper 10 - Our role, operations and operating context

In addition, the proposal includes:

- An overview of customer and community input gained through surveys, focus groups and forums to inform their willingness to pay for specified increased operational expenditure
- Prices Council proposes to bill customers for the services provided

The Independent Pricing and Regulatory Tribunal (IPART) will determine the prices for Council's services following a thorough review of this proposal. These prices may differ from those in this proposal.

Council thanks the community and stakeholders for helping to prepare this pricing proposal and encourage these groups and the wider community to take part in the price review process that IPART will begin in October 2021.



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"Participation in IPART's review of prices for Central Coast Council is encouraged."



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Part 1

Executive summary



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1 Executive summary

1.1 Context

Council's 2022 pricing proposal to IPART for its water, sewerage and stormwater drainage services describes its performance over the current regulatory period as well as its planned expenditure for the next.

The proposal includes key information related to:

- Operational expenditure
- Capital investment
- Community engagement
- Forecast consumption
- Forecast connections
- Levels of service
- Pricing of trade waste and ancillary services

This information is used to set Council's revenue needs and proposed pricing.

Currently customers on the Central Coast have the lowest bills for water and sewerage in New South Wales, as reported to the National Performance Review.

Council requires a major increase in prudent and efficient expenditure to reverse severe, ongoing degradation of its sewage treatment plants, network and water treatment plants.

Council is currently collecting less revenue per property than water businesses with larger economies of scale such as Sydney Water and Hunter Water Corporation.

Council's water, sewerage and stormwater drainage businesses service 139,000 properties across a unique geography where infrastructure must travel around sensitive marine and estuary environments. The customer base is far smaller than that of Sydney Water and Hunter Water Corporations.

Without prudent and efficient operational expenditure in the next determination period, Council risks the delivery of compliant and appropriate water, sewerage and stormwater drainage services to customers that aligns to our mandatory standards imposed by regulators.



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The previous pricing proposal provided to IPART lacked the evidence to support Council's proposed bills, and IPART provided significant feedback to improve this pricing submission.

Council has integrated IPART's feedback and is providing a pricing proposal comprised of prudent and efficient expenditure to meet customer needs.

1.2 Who we are and what we do

Council is a Water Supply Authority located within the Central Coast Local Government Area (LGA) and is a provider of essential services. Council provides direct water and sewer services to a population of approximately 345,000, and more than 139,000 homes and businesses, via a holistic model from catchment to tap. The primary focus is to deliver quality and reliable water, sewerage and stormwater drainage services, as well as trade waste services to the Central Coast.

The Central Coast region extends north through Summerland Point, south to Mooney Mooney, east to the Tasman Sea and west to the border of Wisemans Ferry. Council's water, sewer and stormwater drainage network is managed within a Local Government Area (LGA) of an estimated 1,680 square kilometres.

On average, Council's water network supplies 76 million litres of drinking water each day to residential, commercial and industrial customers. Processes ensure the standard of delivery to the customer is high-quality. Water follows a life cycle from capture of raw water to filtered, to treated water, to sewage, then finally to treated effluent water for disposal.

The Central Coast has a unique geography. The northern part of the Coast has six sewage treatment plants that are built around the Tuggerah Lakes system. The southern part of the Coast has two sewage treatment plants built around the Brisbane Waters. The sewer network includes low pressure systems located at Davistown, Tacoma, St Hubert's Island and Mooney Mooney.

Corrosive conditions cause rapid degradation and result in higher costs to maintain and operate these assets. The proximity and location to local waterways results in higher environmental standards. The stormwater systems are also divided around these systems.



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1.3 Changes to 2022 proposal

As part of this determination, Council is proposing to:

- Align the sewerage service charges between the former Wyong and Gosford Local Government Areas for both residential & non-residential properties
- Align the sewer service charge for the former Wyong Council (north) from using a 25mm meter equivalent to a 20mm. This will align with the former Gosford Council's (south) service charge calculation methodology
- Simplify the delivery of stormwater drainage management for customers, by consolidating all stormwater drainage functions within the submission. This will reduce the need to charge a concurrent Stormwater Levy or to cross-subsidise stormwater drainage management using General Rates revenue. In line with this objective, Council reviewed the scope of its stormwater drainage operations and identified that flood planning and water quality management have been funded by the Stormwater Levy under the Local Government Act, or by General Rates during the current Determination. Given that the services are existing, prudent and preceded by inclusion in former Council IPART Determinations, Council is proposing to phase in their return into the scope of operations as a Water Supply Authority.
- Understand the anticipated changes to the Security of Critical Infrastructure Act by the Department of Home Affairs. This Act was developed with a focus on security and risk for critical assets with water being such an asset. While the actual requirements are in the draft stage, Council is expecting additional costs attributed to compliance under this Act. The emphasis will include:
 - Cybersecurity
 - Personnel Hazards
 - Supply Chain Hazards
 - Physical Hazards
 - Natural Hazards – link to catchment management
 - Material Risk rules



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1.4 Major projects and outcomes

Council's activities and service levels are set through committed, regulated requirements with a focus on critical risk reduction. They are also determined by the price customers are willing to pay.

Below is a snapshot of Council's key capital investments over the next regulatory period.

Supply safe and reliable water services

The upgrade of Mardi Water Treatment Plant (MWTP) will secure the original design 160ML/day plant capacity to Australian Drinking Water Guidelines. The investment is \$32M.

Ensuring future strategies

Ensuring changes to the Gosford Central Business District (CBD) in both the long and short term are factored into a strategy to address performance requirements for minimum pressure, reservoir storage and mains velocity for the network under Peak Day Demand Conditions. The investment is \$5.3M.

Delivering water quality

Water main renewals -The annual investment for priority and programmed water main renewals is \$5M per year.

Improving our environment through asset and service reliability:

- Sewer Treatment Plant Major upgrade - Charmhaven – \$14M
- Sewer Treatment Plant upgrade – Bateau Bay - \$7.8M
- Gwandalan Sewer Treatment Plant Capacity upgrade - \$13.3M

These projects and programs are proposed to meet compliance with the Sewage Treatment Plants (STP) Environmental Protection Licences.



Figure 1: Aerial view of Mardi Water Treatment Plant



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1.5 Revenue

Revenue is determined using IPART's building block methodology (BBM) - *How we determine the revenue.*

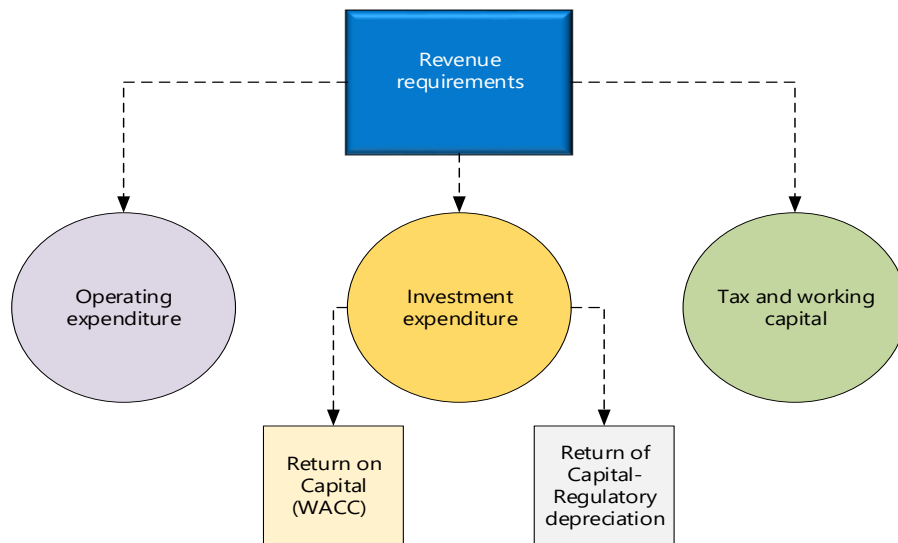


Figure 2: Building block methodology (BBM)

The target total notional revenue requirement of \$873.7million (\$2021-22) over four years (2022-26) is shown in Table 1. The lower WACC estimate (3.31% post tax real WACC) results in a lower return on capital. The disaggregation of the asset base by asset class has resulted in an increase in return of capital depreciation and a reduction in the return on the Regulatory Asset Base (RAB).

Table 1: Notional revenue requirement (\$millions) (\$2021-22)

Financial year ending 30 June \$M	2023	2024	2025	2026	2027
Operating expenditure	126.1	130.4	135.1	132.6	134.5
Depreciation	27.9	29.9	31.9	33.2	34.5
Return on RAB	48.2	49.4	50.8	52.0	54.7
Return on working capital	1.5	1.3	1.4	1.4	1.2
Tax allowance	3.8	4.7	5.7	6.5	7.4
TOTAL	207.5	215.6	224.9	225.7	232.3

When calculating the revenue received from billing by services, there are several net revenue offsets that are considered.

The net revenue offsets are comprised of the Demand Volatility Allowance Mechanism (DVAM) and Weighted Average Cost of Capital (WACC) true-up.



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The DVAM accounts for the difference in the determined sales volume and actual sales volume over the 2019-2022 determination period. Council sold less water than was forecast in the 2019 determination period.

The WACC true up is a method for updating the cost of debt in the next regulatory period. IPART introduced a trailing-average approach for measuring historical and current estimates of the cost of debt, risk-free rate and debt risk premium over the regulatory period. IPART's 2019 WACC method, documents that there are two methods for updating the cost of debt: an annual adjustment to regulatory prices or a regulatory true up to the notional revenue requirement in the following regulatory period. This proposal uses the true up to the notional revenue requirement for this proposed regulatory period.

Table 2: Revenue from tariffs by service (\$2021-22)

Financial year ending 30 June \$M (\$2021-22)	2023	2024	2025	2026	Total \$2021-22)	4-year average	2027
Water	90.7	94.1	100	98.8	383.6	95.9	102.8
Sewer	83.7	92.6	95.1	96.1	367.5	91.2	97.1
Stormwater drainage	23.3	25.4	26.2	27.0	101.9	25.5	28.8
Total	197.7	212.1	221.3	221.1	853.0	212.6	228.7

Note The revenue for water will be split 76% water usage and 24% service charges. Sewer will be split 21% sewer usage and 79% for service charges. Total may not add due to rounding.*



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1.6 Capital investment

Council is proposing \$313M of capital investment over the proposed four-year price path. This is a 16% increase from the 2019 determination's annual average allowance of \$67M to a forecast annual average of \$78M.

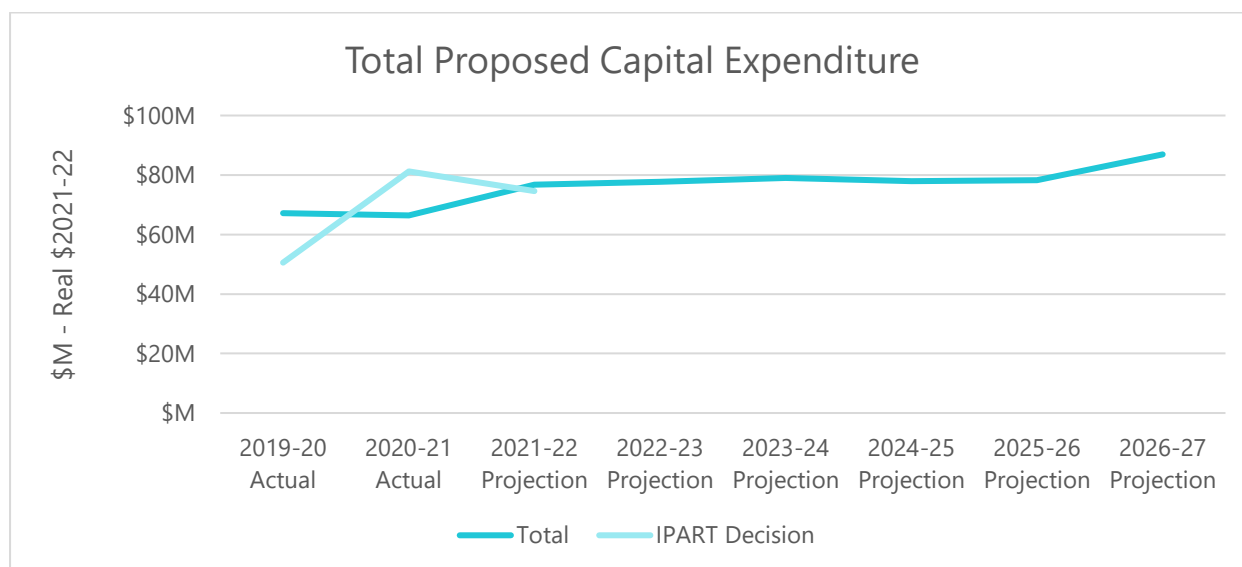


Figure 3: Total proposed capital investment

1.7 Operational expenditure

Council's ability to meet its regulatory requirements such as Environment Protection Licences (EPL's) and Drinking Water standards are being impacted, resulting in:

- Environmental Protection Licence (EPL) breaches related to suspended solids, oil and grease and total nitrogen
- An increase in sewer overflows, odour complaints and water quality complaints that are above service level targets
- The highest sewerage service complaints in Australia
- The lowest workforce in NSW per 1000 properties (compared to other Local Water Utilities)
- 30% increase in customer service calls (based on 2018-19 trends)
- 50% increase in SCADA alarms (based on 2018 trends)
- Lost time injury rate is at 16 (2019-20) for Council's water and sewer business compared to seven at HWC and five at Sydney Water.

For the 2022 determination period, Council has requested additional operational expenditure to improve its maintenance regime, re-introduce floodplain risk assessment and stormwater



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quality management, reduce the current EPL and EPA breaches, and address the increase in lost time injuries.

Table 3: Total proposed operational expenditure 2020-2026 (\$2021-22)

Product \$M	2022-23	2023-24	2024-25	2025-26	Total 2022-26	2026-27	Total
Water	55.9	57.2	61.7	60.1	234.9	62.8	297.7
Sewer	53.2	56.0	56.4	55.3	220.9	54.4	275.2
Stormwater drainage	17.1	17.2	17.1	17.2	68.6	17.3	85.9
TOTAL	126.1	130.4	135.1	132.6	524.4	134.5	658.8

Note : Totals may not add due to rounding. Source



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1.8 Proposed bills

Residential bills (\$2022-23)



House



Apartments

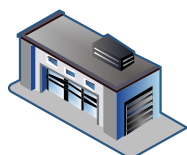
Total = \$1372.49 Total = \$1285.21

\$238.33 Water service charge +
\$337.50 (\$2.25 kl Usage charge (150kl)) +
\$498.71 (\$664.94 Sewer service charge * 75%)
\$116.25 (Deemed usage 125kl x 0.93) +
\$181.70 Stormwater drainage
Total \$1372.49

\$238.33 Water service charge +
\$337.50 (\$2.25 kl Usage charge (150kl)) +
\$498.71 (\$664.94 Sewer service charge * 75%)
\$74.40 (Deemed usage 80KLx 0.93) +
\$136.27 Stormwater drainage
Total \$1285.21

Non- Residential prices

Service charges depend on meter size, discharge factors and customer type e.g customer with own meter or shared meter. The following is calculated on a 25mm own meter using 180kl sewer usage with a low impact premise



Non residential

Total = \$2201.39

\$363.31 Water service charge +
\$450 (\$2.25 kl Usage charge (200kl)) +
\$1038.98 Sewer service charge +
\$167.40 (Deemed usage 180KL @ 0.93per kl) +
\$181.70 Stormwater drainage (low impact)
Total \$2201.39
(sewer usage assumes .90 discharge factor on water usage)



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1.9 Plans for next 4 years

Council is proposing to change the current business model, to one where all maintenance and inspections schedules are further aligned to the Asset Management Plans (AMP) and specific asset class and maintenance plans. The success of good asset management is determined by the implementation of asset strategies and Asset Management Plans (AMP).

The key objectives of the transition strategy are to:

- Reduce unplanned outages and customer complaints
- Extend the life of assets and improve asset performance
- Avoid risks associated with safety
- Reduce operational expenses, thus reducing pricing for customers
- Defer capital investment.

These objectives will be met by:

- Implementation of Council asset strategies
- Updating the business model with new workflows, processes and reporting
- Improving capability with experienced resourcing
- Implementing a series of changes to the business model to lay the foundations for the transition strategy
- Enhanced asset systems, monitoring and reporting
- Developing a mature water utility business.

1.10 Next steps

Council's pricing proposal was lodged with IPART in September 2021.

IPART will review the proposal and undertake a public consultation process, giving the community an opportunity to provide feedback. Submissions to IPART from customers and the community is encouraged by Council.

IPART will then hold a Public Hearing in November 2021 with locations and times advertised in local newspapers, on IPART's website and via Council communication channels.

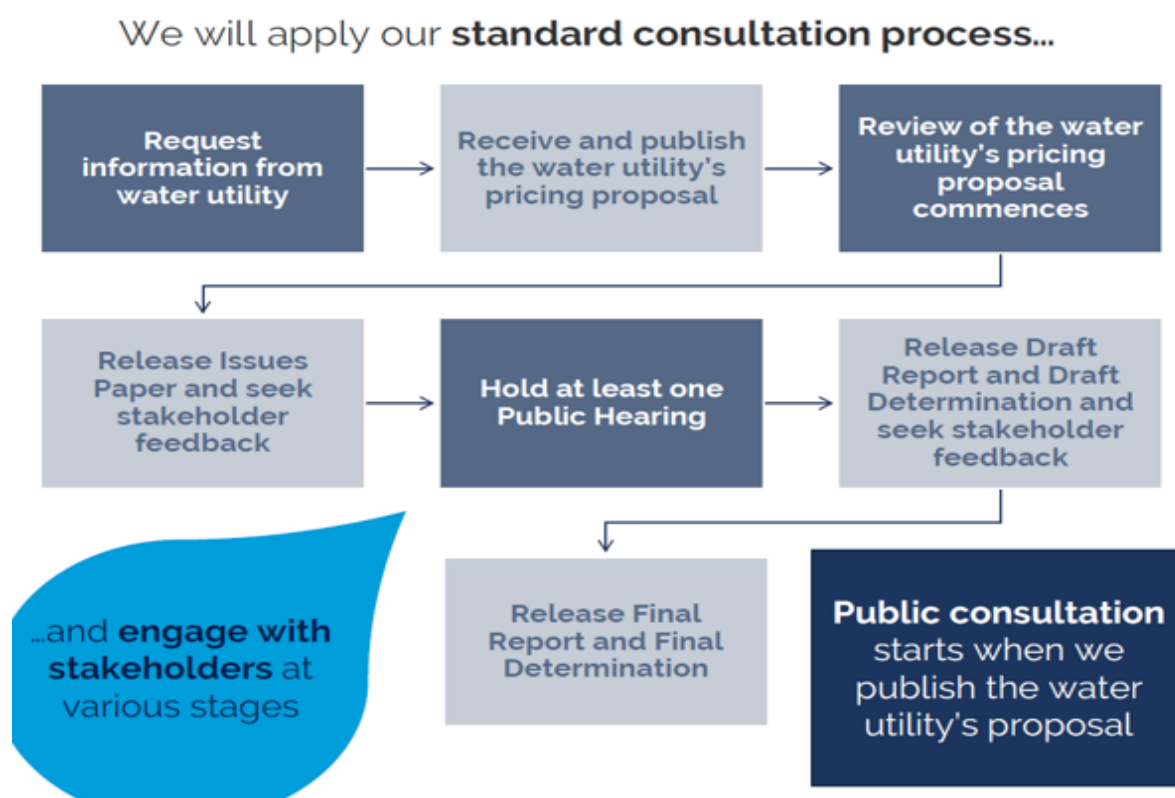
IPART will then release a draft Report and Determination in March 2022 detailing prices. The community has a further opportunity to respond to the draft reports by making submissions to IPART.



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In May 2022, IPART will release their Final Report and Determination on prices that will come into effect in July 2022.



Box 1: IPART's consultation process



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Part 2

Pricing proposal



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2 Context

Customers on the Central Coast currently have the lowest bills for water and sewerage in New South Wales as reported to the National Performance Review. The typical bill for residential customers fell 16% from 2018-19 to 2019-2020 due to the most recent IPART price determination (as referenced in the figure below)

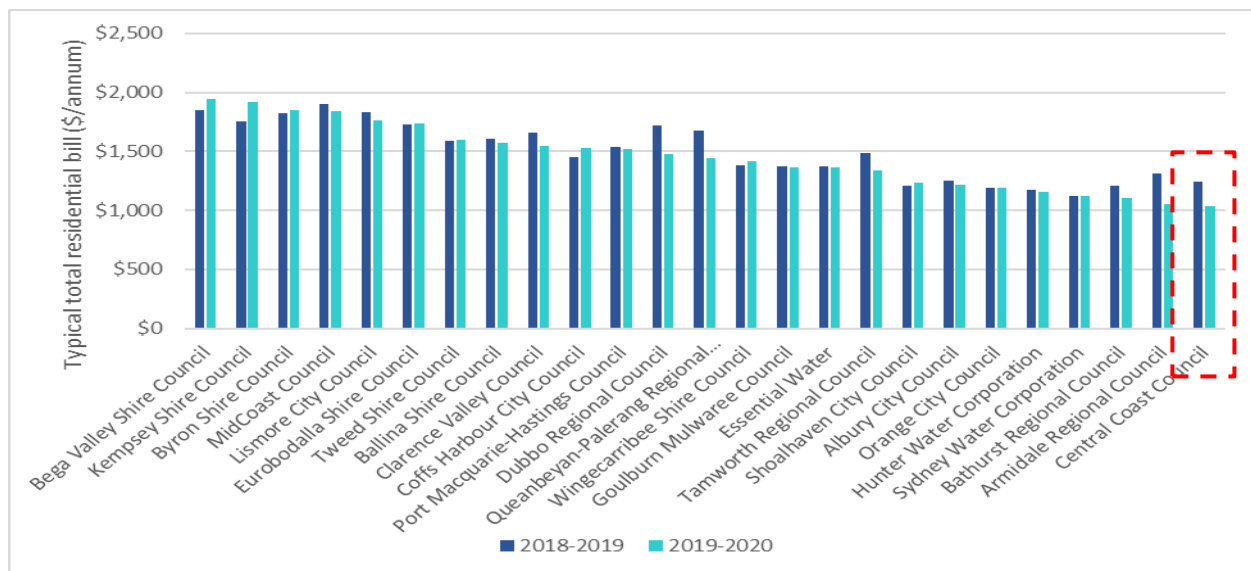
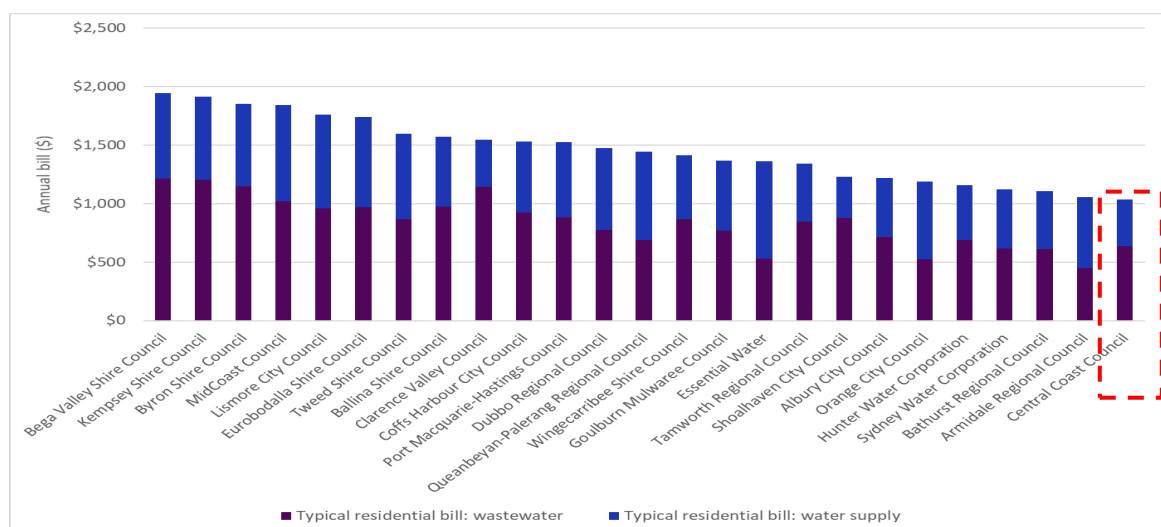


Figure 4: Total typical residential bill (water and sewer)

Note: Based on average water and sewerage use within water businesses

Source: Bureau of Meteorology 2021, National performance report 2019–20: urban water utilities, part A, Bureau of Meteorology, Melbourne.

The breakdown of the typical bill is shown in Figure 5.



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Figure 5: Breakdown of water and sewer bills per annum

Note: Based on average water and sewerage use within water business

Source: Bureau of Meteorology 2021, National performance report 2019–20: urban water utilities, part A, Bureau of Meteorology, Melbourne.

Central Coast's customers pay substantially less than the average bill for water supply and sewerage. However, Council does not have the requisite economy of scale to justify this low amount of revenue per property.

2.1 Economies of scale

The cost of service provision is correlated to the size and relative simplicity of the network. Larger customer bases tend to result in lower bills per property. Council has a customer base far smaller than Hunter Water Corporation (HWC) and Sydney Water as shown in Figure 6.

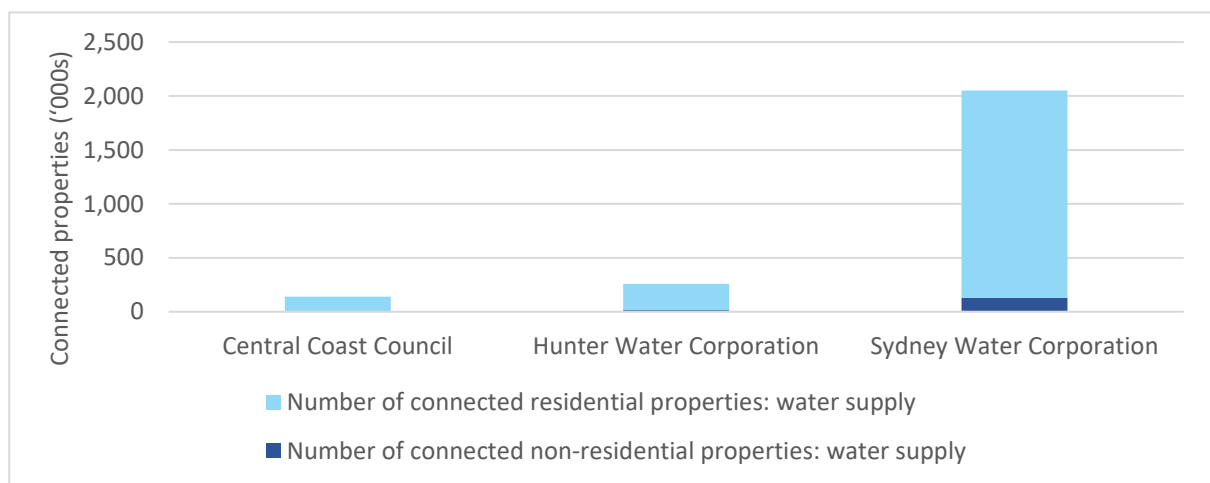


Figure 6: Customer by water business (2019-20)

Source: Bureau of Meteorology 2021, National performance report 2019–20: urban water utilities, part A, Bureau of Meteorology, Melbourne.

Council has 60% of HWC's population so Central Coast water bills should be higher than HWC. Sydney Water has the highest economies of scale so should have the lowest bills. Council's water and sewerage network, as shown in Figure 7 serves a similar number of customers to HWC per 1km of main, suggesting that the Central Coast has a similar network and similar bills.



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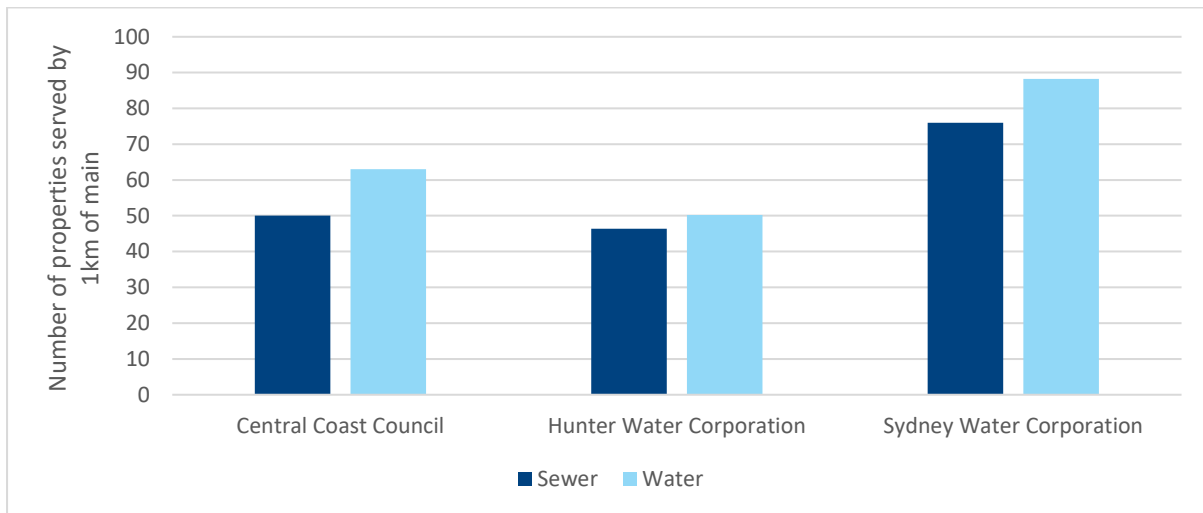


Figure 7: Number of properties served by 1klm of main = 2019-2020

Source: Bureau of Meteorology 2021, National performance report 2019–20: urban water utilities, part A, Bureau of Meteorology, Melbourne.

Council's low number of customers per 1km of main is in an area 25% of the size of HWC's service area. The geography of the Central Coast area leads to Council operating a network that is highly dispersed and difficult to directly link, resulting in a higher cost of service provision. The water and sewerage network must travel around these water bodies, so the network is longer and exposed to degrading environments with high salinity, with a relatively high number of mains and associated infrastructure. In addition, the geography and proximity to waterways leads to a growing community expectation of more responsible environmental discharge.

2.2 Not meeting mandatory or industry standards

Council is currently not meeting some mandatory or industry standards for water and sewerage services. Critical issues that need to be addressed include:

- Breaches of Environmental Protection Licences for sewer treatment plants
- Non-compliant number of sewer overflows
- Significant sewerage network customer complaints
- Rising water quality complaints

2.3 Environmental Protection Licences for sewer treatment plants

Council is not currently meeting requirements for several sewerage discharge standards including total suspended solids load from the Kincumber Sewer Treatment Plant.



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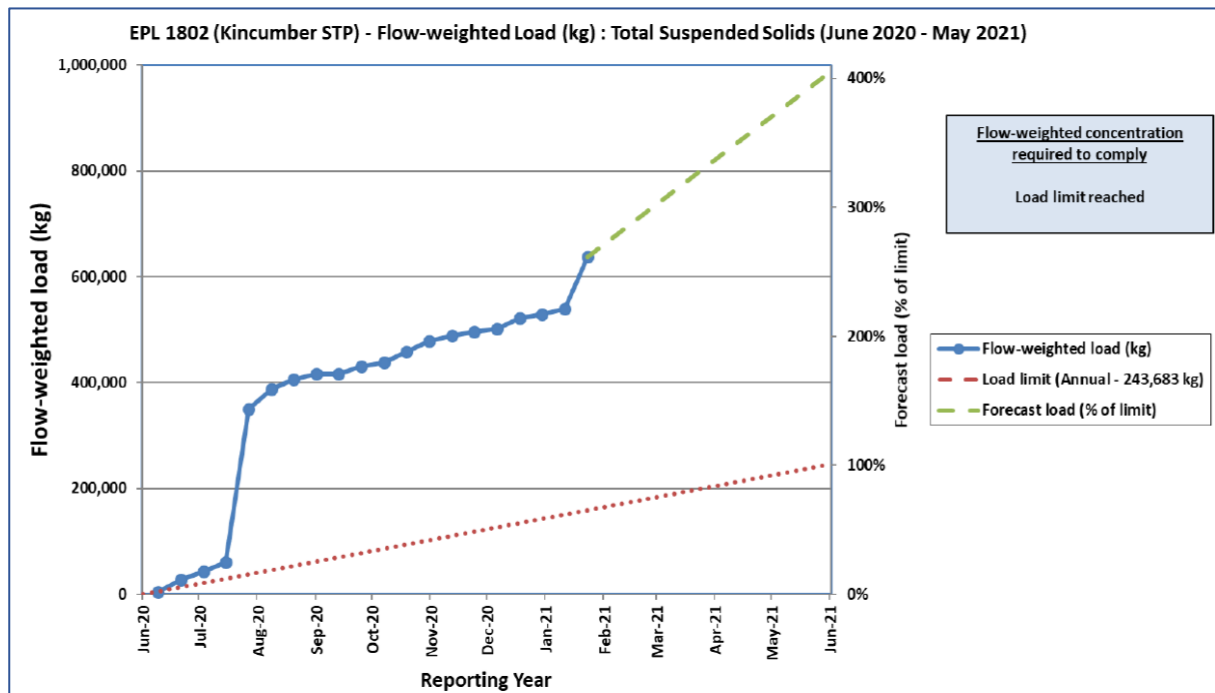


Figure 8: Flow weighted Load (kg) Total suspended solids

Source: Council Water and Sewer Performance Report, January 2021

Similarly, suspended solids and nitrogen loads for the Toukley Sewer Treatment Plant are forecast to be double the load limit.

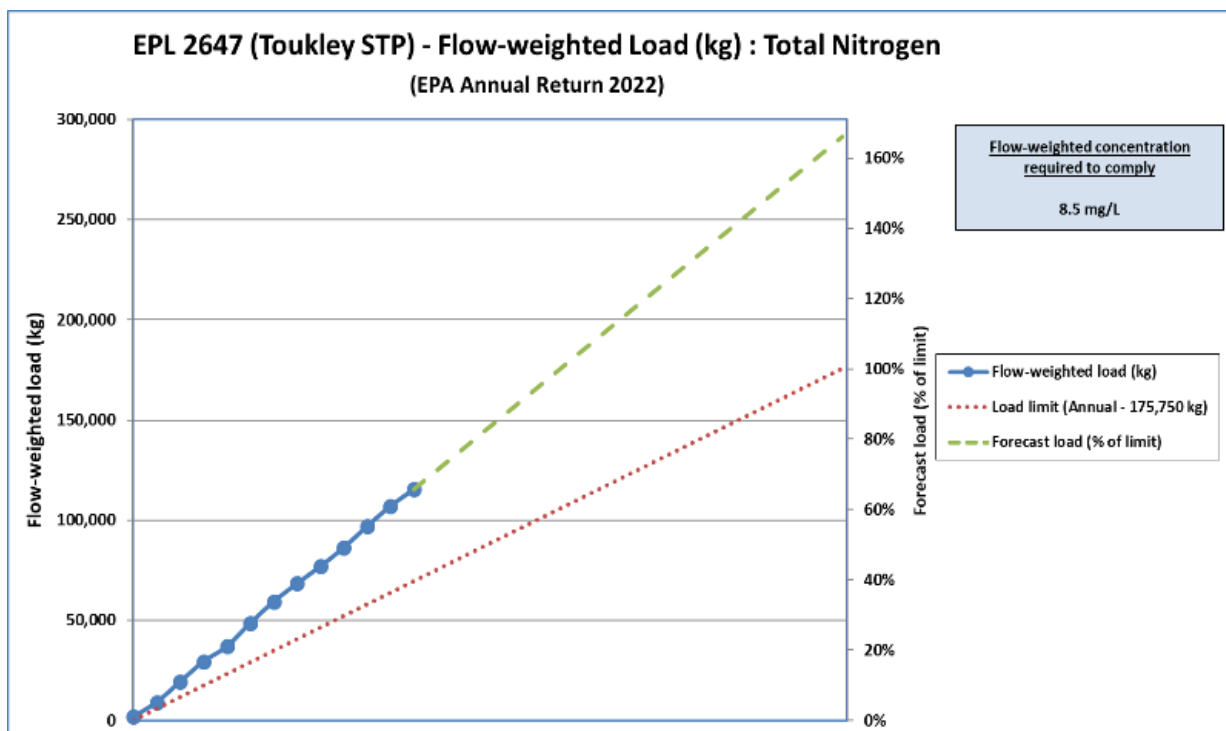


Figure 9: Toukley STP Flow weighted load (kg) Total nitrogen



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Other limits of other discharge indicators, such as annual load of total oil and grease and maximum pH, have also been breached over the last three years.

2.4 Breaches of sewer overflows

Council has had a significant increase in the number of reported sewer overflows over the last 3 years, breaching the IPART target set in the Final Report in July 2018 and remaining above the target since September 2018. Figure 10 shows the historical number of reported sewer overflows since July 2017, the annualised rate of overflows per 100km of main and the IPART target.

2.5 Sewer overflow complaints

In line with the sewer overflows reported, sewage service complaints have increased significantly in the same period. The rate of complaints to Council per 1,000 properties is 2.5 times more than its nearest comparable water business (Figure 10).

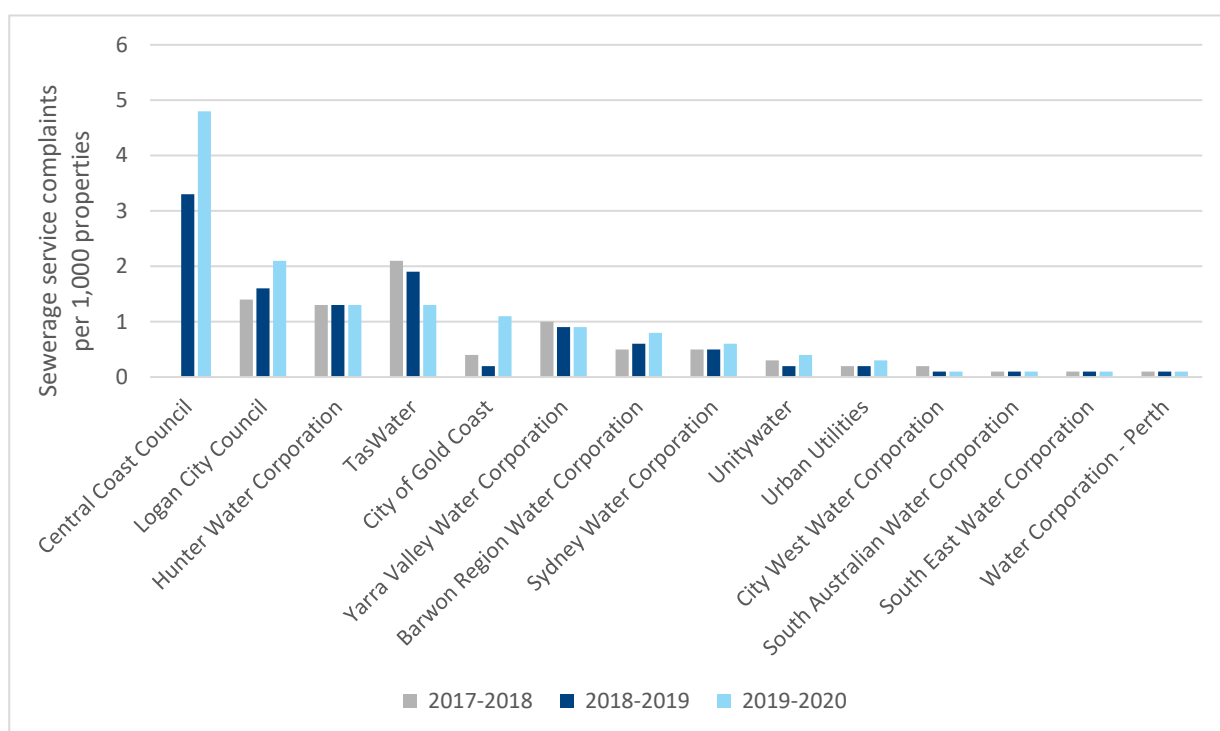


Figure 10: Sewerage overflows reported

Source: Bureau of Meteorology 2021, National performance report 2019–20: urban water utilities, part A, Bureau of Meteorology, Melbourne.



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2.6 Water quality complaints

Water quality complaints have also risen sharply over the last three years. The annualised rate of water quality complaints per 1,000 properties was higher than the IPART target set in the Final Report in July 2018 especially in January 2020, and in November 2020.

Water quality complaints represent customer concern with the quality of drinking water, and it is unacceptable that customers should experience this concern.

2.7 Other indicators are rising

An assessment of the customer complaints data shows that customer complaints are increasing for many issues and elements of the network (Figure 11).

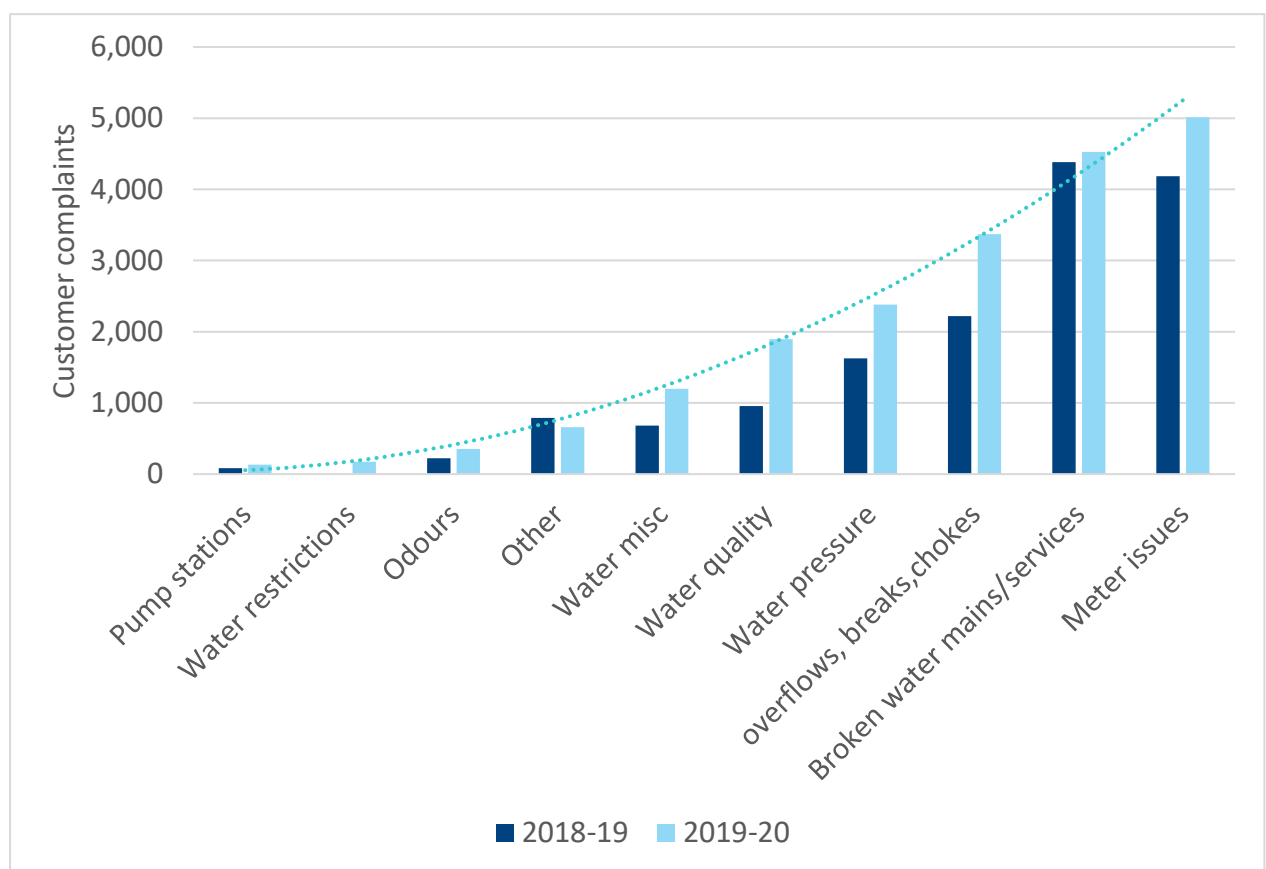


Figure 11: Customer complaints

Source: Central Coast Council data

While Council is currently not exceeding mandatory standards, a rise in customer complaints is a strong indication these issues need to be addressed.



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2.8 Forecast demand

One explanation for the range of issues currently experienced across the Central Coast is rising demand and therefore Council services are stretched. However, the actual and forecast demand for water in the region is around 1 per cent per year (Figure 12). The issues occurring in the network are not primarily driven by rising demand.

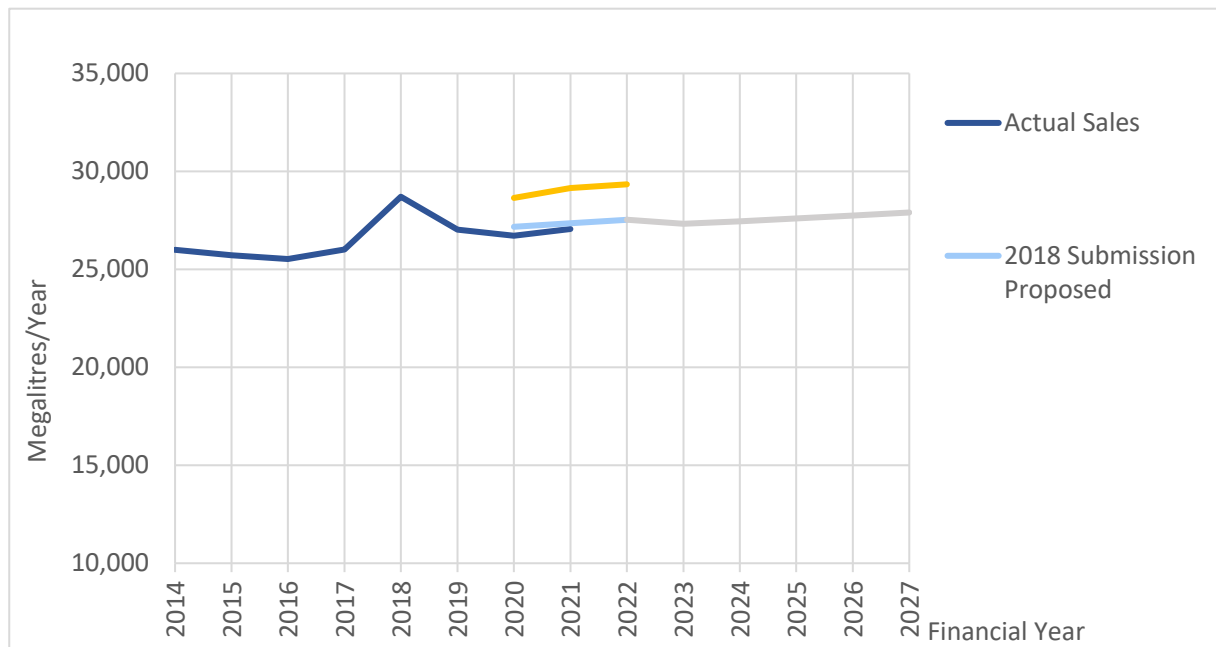


Figure 12: Actual and forecast water sales/demand

Source: Central Coast Council data

2.9 Central Coast Council operations

The previous pricing determination led to a significant reduction in resources for Council, exacerbated by poor management by the previous administration. The water and sewerage business, as a result, has seen:

- Less expenditure on planned maintenance with a resulting rise in reactive maintenance
- Reasonable capital expenditure over the last three years, however there is a need due to non-compliances and aging infrastructure for increased capital expenditure for the next determination period.

2.10 Previous pricing determination

In 2019, IPART determined that Council should recover \$18.2M (\$real) less revenue annually, or \$54M (\$real) less revenue (10.2%) than its \$536M (\$real) proposal. This was driven in part by the reduction in Council's operating expenditure by \$12M (\$real) per annum (12%) and capital



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expenditure by \$88M (\$real) (31%). An exceptional adjustment was also included to account for the \$10.3M (\$real) of undelivered capital expenditure.

2.11 Lean labour force and contractors

The number of Full-Time Equivalent Employees (FTE) for Council's water and sewerage business has decreased from 330 to 280 since 2020. Currently Council has one of the lowest labour forces (measured in Full Time Employees - FTE) per 1,000 properties in New South Wales as shown in Figure 13.

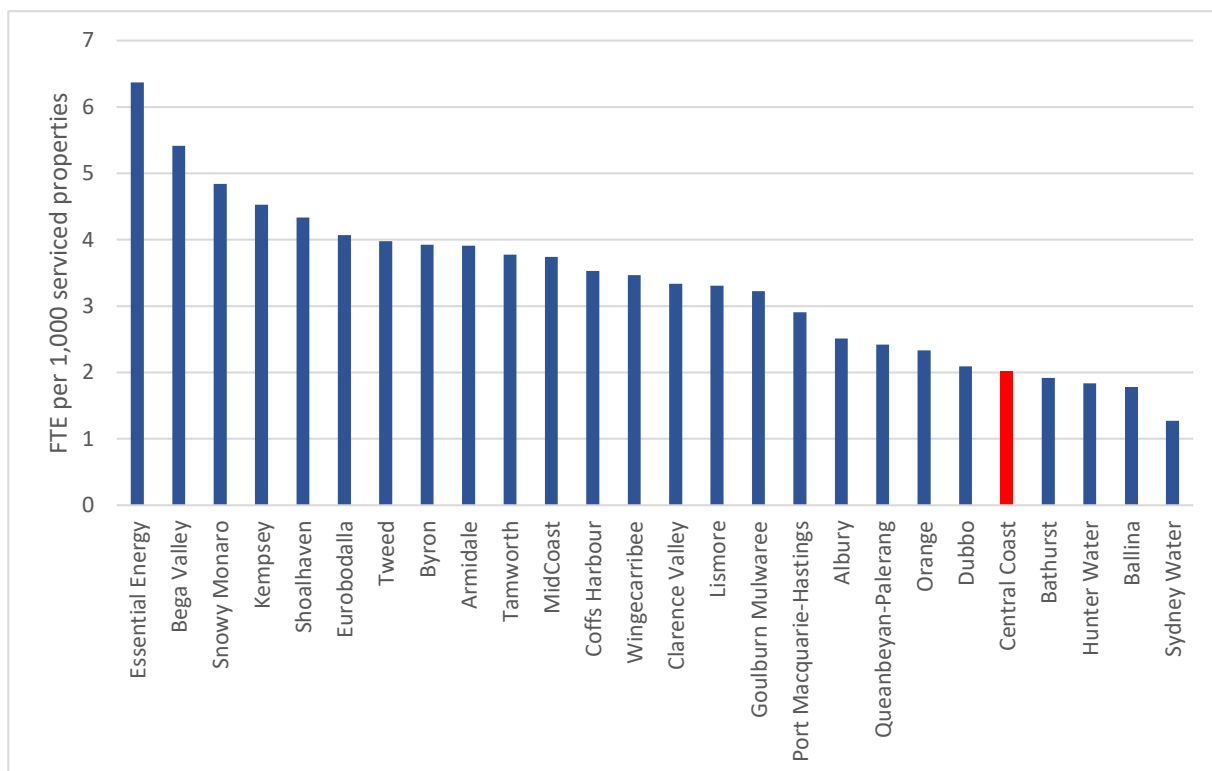


Figure 13: Labour force (FTE) per 1000 connected properties

Source: LWU performance monitoring data and reports, Sydney Water and Hunter Water annual reports, Council data

This workforce has made significant productivity improvements but needs support to maintain customer service standards across Council's complex network into the 2022 IPART determination period.

2.12 Reactive maintenance rising

A result of Council's previous IPART submission, there has been a significant increase in reactive water and sewer asset maintenance. An assessment of Council's water and sewer maintenance timecard data is shown in Figure 14.



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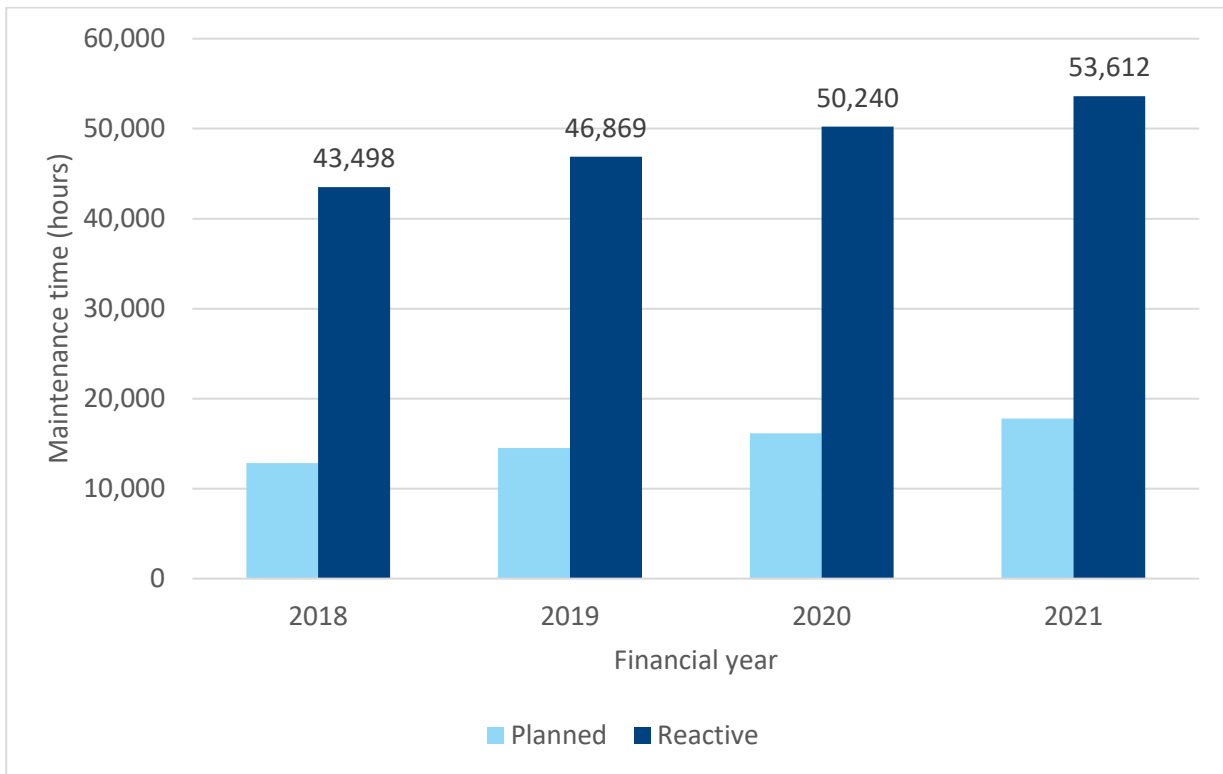


Figure 14: Council's planned and reactive maintenance expenditure (water and sewer)

Source: Central Coast Council data

The split of planned vs. reactive maintenance is currently a ratio of 25:75. Data on the planned vs. reactive maintenance in other water businesses is not available however Sydney Water's last pricing proposal¹ noted that water supply's planned to reactive ratio was 25:75 while sewerage was 35:65 in financial year 2020.

Sydney Water proposed increasing the planned maintenance in both water and sewerage in its most recent IPART determination. Comparable water businesses have higher planned maintenance and are proposing to increase the percentage of planned to reactive maintenance.

A breakdown of planned and reactive maintenance by network element for Council's water and sewer business is shown in Figure 15.

¹ WS Atkins International Limited, 2019, Sydney Water Corporation Expenditure and Demand Forecast Review - Final Report

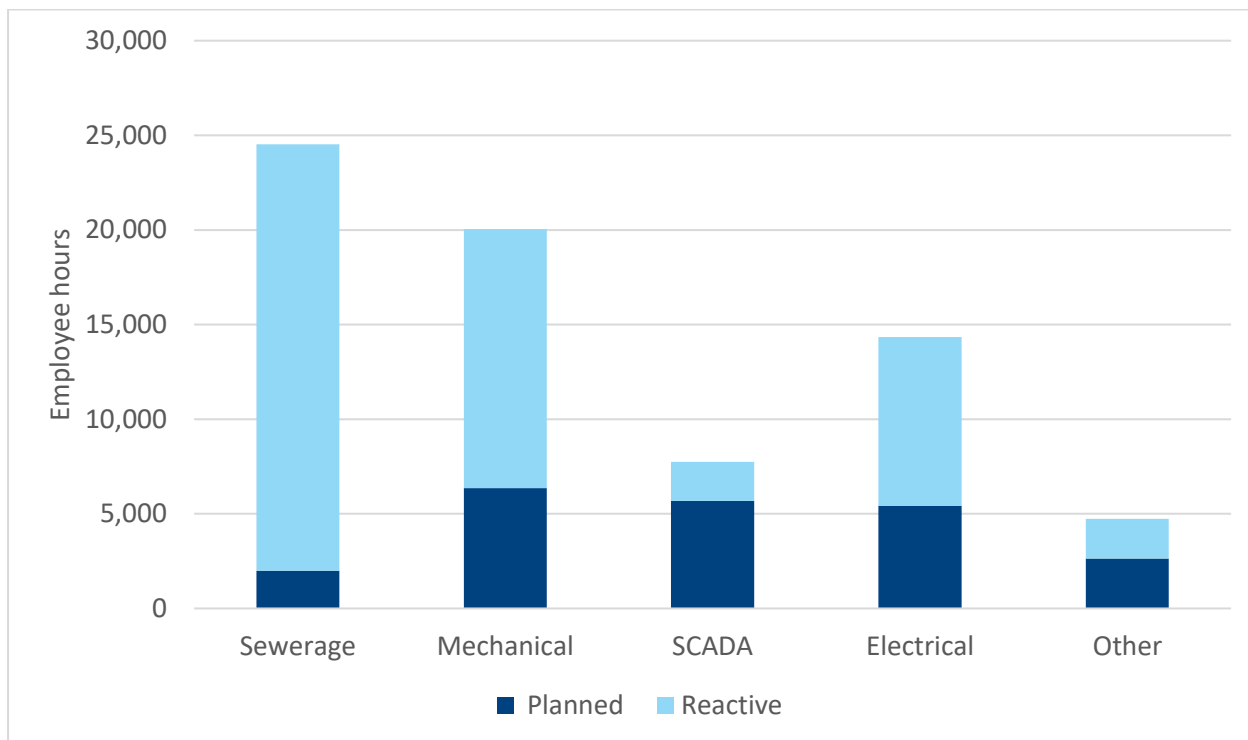


Figure 15: Central Coast planned vs reactive maintenance by network element

Source: Central Coast data



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3 Engaging our customers and community



Council's Water and Sewer Directorate has undertaken considerable engagement with customers over the past two years. Communication has been thorough and transparent, using the specialist services of Woolcott Research consultants to assist with engaging the community for both IPART purposes and the Central Coast Water Security Plan (CCCWSP).

Council's community consultation included:

- A structured (representative) survey among 510 Council residents aged 18+
- An opt-in online survey, open to Council residents through the Council's Your Voice Our Coast (YVOC) website with 620 respondents
- A phone survey of small to medium (SME) sized business decision makers with 120 respondents (labelled SME)
- Two qualitative group discussions amongst residents aged 18+, conducted via Zoom
- Two community forums that focused on the proposed changes to achieve the outcomes as identified by Council's community
- Exploration of the level of knowledge, attitudes preferences amongst Central Coast Council customers regarding water, sewerage and drainage supply demand in the future
- An initial phase of engagement (comprising deliberative forums and in-depth interviews) was conducted in December 2020. This explored water usage and perceptions of water security drought measures, identified customer values on water supply, waste and management, and evaluated the receptivity and acceptability of water restrictions
- A second round of engagement was conducted in February 2021 with specific objectives to confirm and rate the importance of the water values generated in the first round, to explore reactions and level of support for Council considering a series of water supply and demand options for the future, and to explore willingness to pay for project offsets and two types of rainwater tanks
- A third and final round of community engagement was designed to explore reactions to and level of support for a series of portfolios of water supply and demand methods including estimates of cost to build and operate, as well as reactions to an Emergency



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Drought Management Plan. It also served to gauge support for two Level of service scenarios.

3.1 Customer perceptions

3.1.1 Conclusions from the IPART surveys

The overall findings of the IPART engagement project showed that apart from lowering the price of water (as emerged unprompted) water quality improvement was seen to be a key area that the community would like Council to focus attention on in the future. The research found that while not all customers are experiencing poor quality drinking water, many who did not have an issue still sympathised with those experiencing quality issues.

While sewerage overflows to personal properties did not appear to be a significant issue for the survey respondents, overflows into the community seemed to be a higher concern, and as such this should be another priority area for future focus.

The concepts/potential changes that gained majority support were:

- All Central Coast residents (and businesses) contributing to the funding of drainage infrastructure
- The discontinuation of location-based sewer services pricing.

However, Council recognises the following ideas for change were not received as positively by the community and may require educational initiatives to communicate any benefits that these changes would bring to customers before they can gain wider support:

- Pricing of Stormwater Drainage being set by Council as part of general rates
- Scarcity pricing (increasing the price of water during times of drought).

3.1.2 Conclusions from the deliberative forums on pricing

Using deliberative engagement forums, Council also surveyed customers (as recently as July 2021) in relation to their willingness to pay. Views on price increases specific to regulatory and environmental obligations, and Council's ability to maintain its assets, were also collated. The participants were given three options:

1. **Option A** – No change to services and maintain existing pricing with a minimal increase, however, Council will only be able to respond to risk-based issues and will not meet its regulatory obligations.



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2. **Option B** – Increase bills slightly to assist Council maintaining its assets with better environmental outcomes. This will decrease the risk to our community, assets and the environment.
3. **Option C** – Some topics also included a third option, Option C, that involved a more significant improvement to service levels for a higher additional cost.

The overall response was that the community agreed to pricing in relation to a combination of both Options B and C. Option A was preferred by some forum participants understanding that this would not improve existing performance.

- Choosing option A was an increase to bills based on the 2019-20 re-baselined expenditure of \$23M (\$2021-22) resulting in approximately \$19 per quarter on existing bills.
- Choosing option B would result in an increase in bills by approximately \$208 (\$52 per quarter (\$2021-22))
- Choosing option C would result in a quarterly increase in bills by approximately \$328 (\$82 per quarter (\$2021-22))

A summary of the outcomes is detailed in Table 4.

Table 4: Results of Community Forum

	Option A participants agreed	Option B participants agreed	Option C participants agreed
Water quality and reliability	5	54	40
Environmental and safety management	9	91	not offered
Water conservation and engagement	21	79	not offered
Sewerage overflows	10	35	54
TPs and outfalls	12	88	not offered
Critical Stormwater Drainage Asset Inspections, Cleaning and Repairs	10	90	not offered
Stormwater quality and urban channels	28	72	not offered
Flood planning	22	39	40



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4 Safe and reliable services

Council has outlined its responsibilities to provide customers with dependable water, sewerage and stormwater drainage systems. Council's objective for water, sewer and stormwater drainage is to support ecologically sustainable development and to meet community needs through the provision and maintenance of effective services. These responsibilities include provision of high-quality water supply complying with drinking water guidelines, transport and treatment of sewage for disposal to meet the Council's legislative and regulatory requirements, service delivery, problem resolution, and minimum system efficiency requirements for water pressure, water continuity, sewer overflows and stormwater drainage services.

Council's aim for water, sewer and stormwater drainage is to:

- Meet regulatory responsibilities in relation to the environment and the quality of water provided
- Provide reliable services in relation to the reliability of water and its pressure
- Minimise sewer overflows associated with weather events that impact the community
- Minimise flooding associated with weather events
- Reduce the volume of pollutants discharged into local waterways
- Ensure asset performance
- Protect infrastructure
- Provide a safe environment for community and staff
- Be efficient and prudent in relation to costs associated with the provision of services

As identified above, the local community want Council to focus on:

- Water quality and reliability
- The environment
- A reduction in sewer overflows
- Maintenance of Council's water and sewer pipe network
- Being prompt in responding to incidents
- Keeping prices to a low and affordable level

In response, Council believes this will be achieved through the following initiatives:



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Water Operations Centre

Council's dedicated Water Operations Centre now operates 24 hours a day, seven days a week. This includes provision of prompt response to major water and sewer failures, issuing jobs and tracking prompt response and monitoring system failures identified by our Supervisory Control and Data Acquisition (SCADA) alarms situated at key infrastructure points such as pump stations, reservoirs and treatment plants.

Leveraging technology

The software code used to control Council's 331 sewer pump stations generates alarms whenever a control setting is exceeded (i.e. water level to high / pump not operating). It is common for a single event (i.e. high inflow) to exceed multiple settings, triggering multiple alarms across multiple

pump stations. When this occurs across the network of sewer and water assets, the Water Operations Centre is flooded with alarms, with each alarm needing to be investigated and triaged. Water Operations Centre staff must address the list of alarms as they arrive before progressing onto the next. This flood of alarms means issues are not identified as they arise and managed according to their priority.

Council's proposed change seeks to rationalise the software code so that pump station alarms are contained to a parent alarm, allowing staff to better triage. Also, changes to the software code allow for greater change management, with only pre-approved staff able to alter operational settings at individual pump stations.

Improving our Leak Detection

Since March 2020, Council has operated a proactive leak detection program with an annual funding commitment of \$142,000 per year for a total of \$568,000 for four years. The funding was awarded under the previous IPART determination. In the absence of limited leakage data, the program was initiated by focusing on suburbs with the highest frequency of water main breaks per 100km. Over the course of the first full year's program of work (i.e. four quarters),



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476 leaks were detected across 1,205 km of water main. The loss rate prior to repairs was 2.5ML/day or 899.4ML/year. The cost of water saved from the leaks identified and repaired for the first year of leak detection equates to \$1.9M. Estimated loss rates are based on the IWA (International Water Association) Water Loss Taskforce figures and err on the conservative.

Council is proposing to increase the scope of the existing leak detection project to allow increased acoustic scanning of its potable water mains and employ other techniques to detect leaks across the water supply network within the Central Coast LGA.

Transitioning to a proactive maintenance regime

The proposed change is to carry out a suite of proactive field-based inspections, maintenance and repairs of various network water, sewer and stormwater drainage assets, including:

- Manhole condition assessment program
- CCTV condition assessment program
- High risk manhole “reveal and seal” program
- Proactive manhole repair program
- Proactive inspection and maintenance programs for rising mains and critical stormwater drainage infrastructure
- Proactive field-based inspections, maintenance and repairs of various network water assets
- Harmonised gross pollutant trap cleaning program
- Contributions to maintaining health of drinking water supply, e.g. mains cleaning improving chlorine residuals, maintaining hydrants minimising the opportunity for contaminants to enter the drinking water supply.



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Improving outfalls

The impact of ocean outfalls on the ecological health of the benthos in the receiving environment were last measured by Wyong Shire Council in 2009 and Gosford City Council in 1997. Council proposes to undertake this in the 2022 determination period. Following multiple breaches of Environmental Protection Licences (EPLs) at all three ocean outfalls linked to Council's eight Sewage Treatment Plants (STP's), Council has identified several measures which need to be implemented on a planned cycle across the STPs. A move to a greater amount of proactive maintenance to better balance performance, risk and cost in the management of this critical asset class is proposed.



4.1 Current performance for service levels 2019-2022

Providing dependable services necessitates significant ongoing operating and capital expenditures. As a responsible operator, Council must manage operational expenditure and capital expenditure to ensure bill affordability and meet regulatory requirements at the lowest possible lifecycle cost. Weather, asset condition, asset configuration and operating practises are all factors that affect service reliability. Council uses specific indicators and associated metrics to benchmark its service level for customer service, operational and regulatory purposes:

- Water pressure
- Water main breaks and water continuity
- Water quality and compliance
- Sewer overflows (storm events and other)
- Sewer odour complaints
- Sewer main breaks and chokes
- Compliance with EPL loads and concentrations of certain constituents.

In its *Review of Central Coast Council's water, sewerage and stormwater prices* in 2019, IPART agreed to the four-year output measures proposed by Council for water and sewerage services.



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4.1.1 Water

Water output measures for the Council 2019 IPART determination are shown in Table 5.

Table 5: Water output measures for Council 2019 IPART determination (Table B1 IPART (2019))

Output or activity measure	Current target	Target for 2020	Target for 2021	Target for 2022	Target for 2023
1. Water quality complaints per 1,000 properties	9.9	9	8	8	7
2. Average frequency of unplanned interruptions per 1,000 properties	151.8	115	115	115	115
3. Water main breaks per 100km of main	23.7	16	16	16	14
4. Compliance with Australian Drinking Water Guidelines – microbial guideline values (%) ^a	100	100	100	100	100
5. Compliance with Australian Drinking Water Guidelines – chemical guideline values (%) ^a	100	100	100	100	100

^a 100% in measures 4 and 5 means fully compliant with corresponding values in Australian Drinking Water Guidelines.

Note: We have presented the full four years of output measures recommended by Atkins Cardno. However, we will review the Council's output measures as part of our next price review. In the event that our next price review is deferred, these output measures will continue to apply.

Source: Atkins Cardno, *Central Coast Council Expenditure Review*, March 2019, Table 6-1.

Water Quality complaints per 1000 properties

Water quality complaints are presented as water quality complaints per 1000 properties.

Water quality complaints refer to colour, taste and odour. Figure 16 presents the reported water quality complaints every month and water quality complaints per 1000 properties on the Central Coast since July 2017. Following compliance from 2007 to 2019, complaints exceeded the output measure in 2020. Water quality complaints in 2021 marginally exceeded the output measure for 2021.



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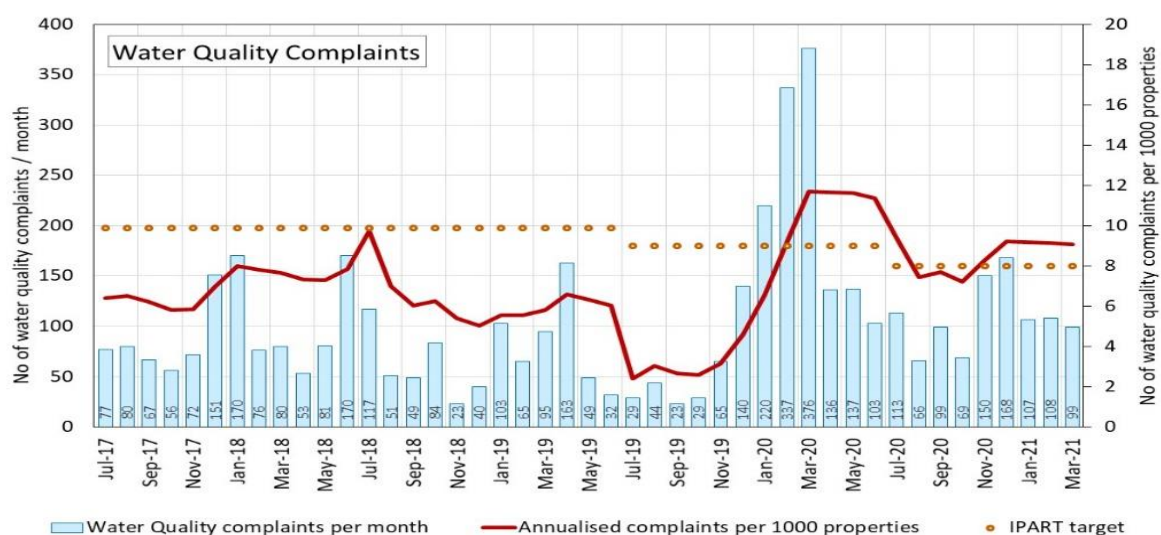


Figure 16: Water quality complaints

Council's approach to mitigate water quality concerns

Chemical and microbial water quality can be controlled by maintaining a healthy catchment and waterways, proper treatment, and well-maintained reticulation system. Discoloured water complaints can be reduced by regular monitoring and maintenance, including cleaning of mains and regular flushing. Council seeks capital and operational expenditure for hotspot management, systematic main cleaning and pigging, reservoir internal coating, chlorination and mixing process enhancement, catchment minor asset renewals, pump station capacity upgrade and water treatment and plant pre-treatment train upgrades.

A suite of capital works projects and programs is proposed by Council for the period of 2022-23 to 2026-27 to meet the Compliance with the ADWG chemical and microbial IPART output measure targets.

Table 6: Capital works program summary proposed to meet compliance with ADWG chemical and microbial output measures (\$2021-22)

IPART output measure (\$M)	Forecast 2022-23	Forecast 2023-24	Forecast 2024-25	Forecast 2025-26	Forecast 2026-27	Total Forecast
Compliance with ADWG microbial and chemical guidelines output measure	26.4	8.9	1.1	2.2	11.9	50.5



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Average frequency of unplanned outages

The most common water supply interruptions are caused by mains breaks, major leaks and emergency repairs due to issues including tree roots damaging pipes, and infrastructure damage by third parties.

Figure 17 presents the reported unplanned water supply interruptions every month and unplanned water supply interruptions per 1000 properties in the Central Coast LGA since July 2017. This metric is directly influenced by water main breaks. Following marginally compliant years of 2017-2018 and 2018-2019 of determined IPART output measure, the number of interruptions per 1000 properties exceeded the revised output measure of 115 in 2019-20.

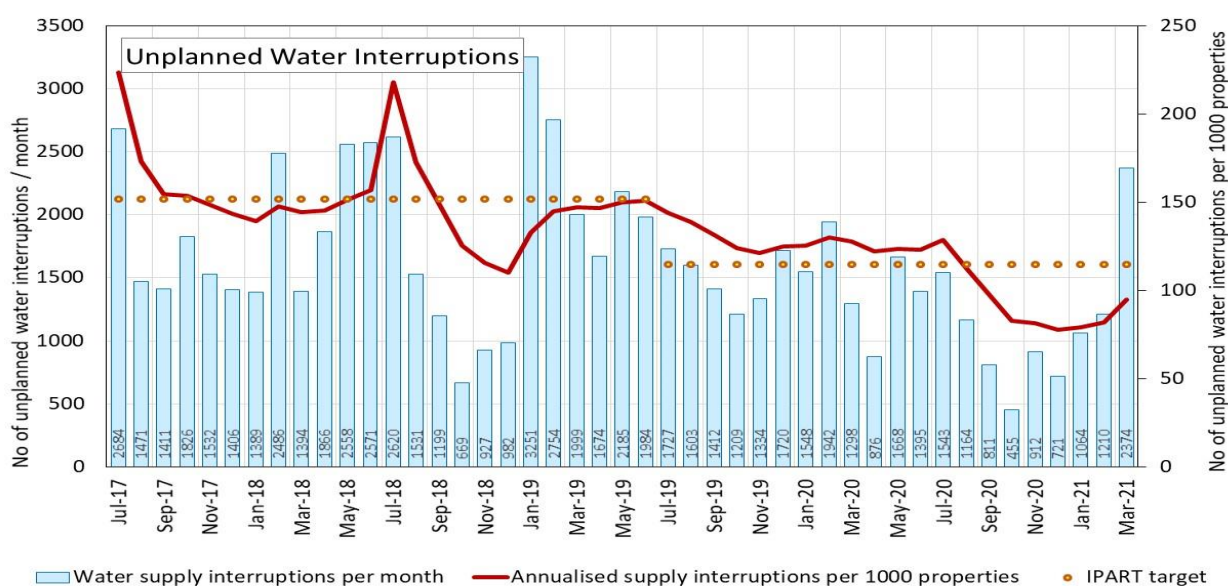


Figure 17: Unplanned water supply interruptions unplanned outages in Central Coast LGA since 2017

Council's approach to mitigate water supply interruptions

Delivery of projects to reduce main breaks (see Table 7) will significantly decrease the number of unplanned water supply interruptions. With secured funding, Council will be able to reduce unplanned water supply interruptions.

Table 7: Capital works program summary proposed to meet frequency of unplanned interruptions output measure (\$2021-22)

IPART output measure (\$M)	Forecast 2022-23	Forecast 2023-24	Forecast 2024-25	Forecast 2025-26	Forecast 2026-27	Total Forecast
Average frequency of unplanned	4.8	4.5	2.6	4.0	2.1	18.0



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interruptions per 1,000 properties						
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Water main breaks

The NPR (National Performance Reporting) highlights the improving trend for Council in regard to water main breaks, bursts and leaks per 100km of water mains from 2015-2020. Figure 18 presents the number of water main breaks every month and per 100 km of water main. Water main breaks per 100 km dropped from 12.06 in 2018-2019 to 11.58 in 2019-2020, on trend with NPR data. The target set by IPART of 16 per 100km of main breaks is currently being achieved.

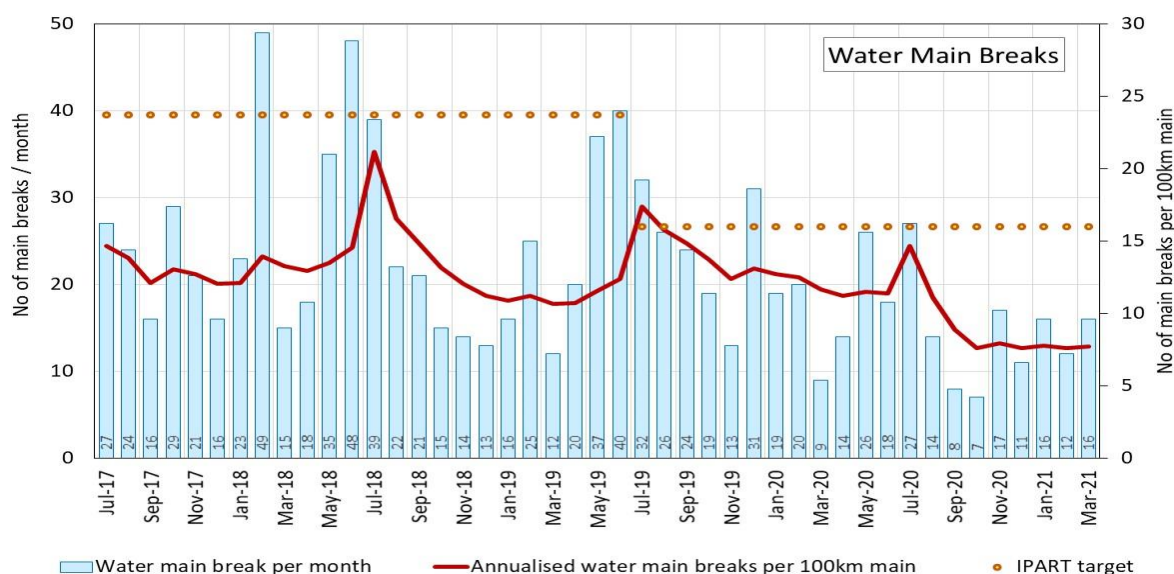


Figure 18: Water main breaks in the Central Coast LGA since 2017

Council's approach to mitigate main break concerns

A review by Council found that main breaks trend down because of Council's renewals program. If the renewals program cannot be sustained, Council may not be able to meet the output measure. CAPEX renewal for water main has been steady over last few years, but as infrastructure ages, Council is proposing to base capital expenditure renewals on risk. Council intends to undertake pressure reducing valves (PRV) installation, SCADA automation, water pump station management and water main assets and trunk main renewal programs to minimize the water main breaks.

A suite of capital works projects and programs is proposed by Council for the period of 2022-23 to 2026-27 to meet the water mains breaks per 100 km of mains IPART output measure targets.

Table 8: Capital works program summary proposed to meet the water main breaks output measure (\$2021-22)



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IPART output measure (\$M)	Forecast 2022-23	Forecast 2023-24	Forecast 2024-25	Forecast 2025-26	Forecast 2026-27	Total Forecast
Water main breaks per 100km of main	2.0	6.3	5.2	5.4	5.8	24.7

Compliance with ADWG guidelines both microbial and chemical

Council is required to provide safe drinking water in accordance with the NSW Public Health Act 2010 and the Public Health Regulation 2012, Fluoridation of Public Water Supplies Act 1957, and Fluoridation of Public Water Supplies Regulation 2017.

A key requirement for drinking water suppliers is compliance with a quality assurance program in the form of a Drinking Water Management System.

IPART established water quality output measures of 100% compliance with ADWG microbial and chemical guideline values in the current determination period (See Technical Paper 2).

Overall, the results of the drinking water monitoring and verification program demonstrate that Council continues to deliver safe drinking water to customers.

4.1.2 Sewer

Sewer output measures for the Council 2019 IPART determination are shown in Table 9.

Table 9: Sewerage output measures for Councils 2019 IPART determination (Table B2 IPART (2019))

Output or activity measure	Current target	Target for 2020	Target for 2021	Target for 2022	Target for 2023
1. Wastewater overflows per 100 km of main	32.6	32	30	28	26
2. Wastewater overflows reported to the environmental regulator, per 100km of main	1.6	1.6	1.5	1.4	1.3
3. Wastewater odour complaints per 1,000 properties	1.9	1.7	1.7	1.5	1.3
4. Wastewater main breaks and chokes per 100km of main	35.6	35.6	34	32	30
5. Compliance with EPL concentration, load limits.	N/A	Yes	Yes	Yes	Yes

Note: We have presented the full four years of output measures recommended by Atkins Cardno. However, we will review the Council's output measures as part of our next price review. In the event that our next price review is deferred, these output measures will continue to apply.

Source: Atkins Cardno, *Central Coast Council Expenditure Review*, March 2019, Table 6-2.

In terms of protecting the environment and public health associated with sewage collection, transport, treatment and disposal, Council is regulated to both the Environment Protection Authority (EPA) and our community. Sewer system overflows may occur occasionally, even in well-designed systems that collect and store sewage flow. Sewage overflows and main breaks



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have the potential to cause significant environmental harm, public health risks and a lack of confidence in Council's ability to serve and meet public expectations. Council must report such incidents to the regulators, particularly the EPA.

The performance of Council's sewerage system is influenced by many factors including soil type, pipe material, tree roots, disposed solids, topography, settlement behaviour of soil, electricity outages, sewerage configuration, management of trade waste, volume of sewage, rainfall and overall weather conditions.

There are three IPART output measures with respect to sewer overflows, main breaks and chokes:

- Sewerage (sewer) main breaks and chokes per 100km of main: 34 in 2021
- Sewerage (sewage) overflows per 100 km of main: 30 in 2021
- Sewerage (sewage) overflows reported to the environmental regulator, per 100km of main: 1.5 in 2021

Sewer main breaks and chokes

Figure 19 illustrates the number of sewer main breaks and chokes each month since July 2017, and per 100 km main. Council seldom met the target output measure for sewer main breaks and chokes from 2017 through to September 2020. However, there has been a favourable trend towards meeting the performance output measure since August 2019.

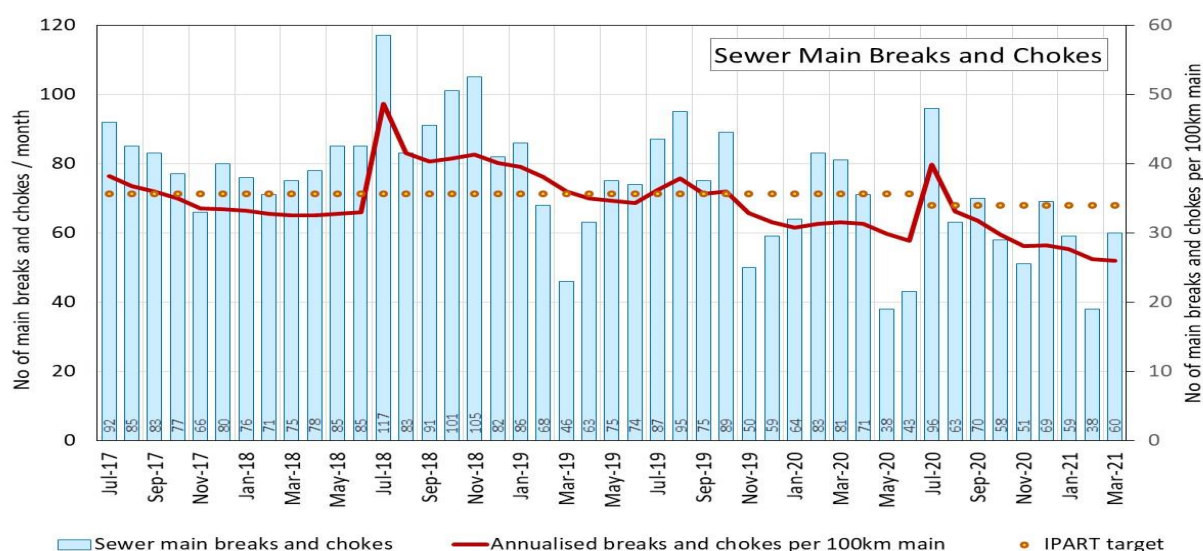


Figure 19: Sewer main breaks and chokes in Central Coast LGA since July 2017

The 2019-20 NPR report shows Council reported 32.9 sewer breaks and chokes per 100 km sewer mains in 2019-20, which was the median value among the reported utilities and



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significantly better than Hunter Water (42.8) and Sydney Water (66). Barwon Water, a utility of similar size, reported 53.8 sewer overflows per 100 km sewer mains in the same year. Council performance notably improved in the current year of 2020-2021.

Council's proposal for sewage overflow, and sewer main breaks and chokes output measures

Although Council failed to meet the IPART output measure for sewer main breaks until recently, there has been a steady downward trend since July 2018. Council's investment in main and asset renewals programs appears to play a favourable role. Without a consistent commitment, Council may not sustain this improvement. With the current level of funding, Council should be able to meet the proposed 34 main breaks and chokes per 100km main. With the proposed change in funding, the aspirational level of 30 may be achieved.

Sewage overflows reported to the EPA

A water supply authority has a regulatory responsibility to report pollution incidents, such as sewage overflows, under section 148 of the *Protection of the Environment Operations Act 1997*. The number of reported overflows to EPA per month and number of reported overflows since July 2017 are shown in Figure 20. Although this indicator exceeded the prescribed output measure for 2019 (1.9 reporting per 100 km main) after November 2018, it rarely exceeded 1.9 prior to this between July 2017 and November 2018.

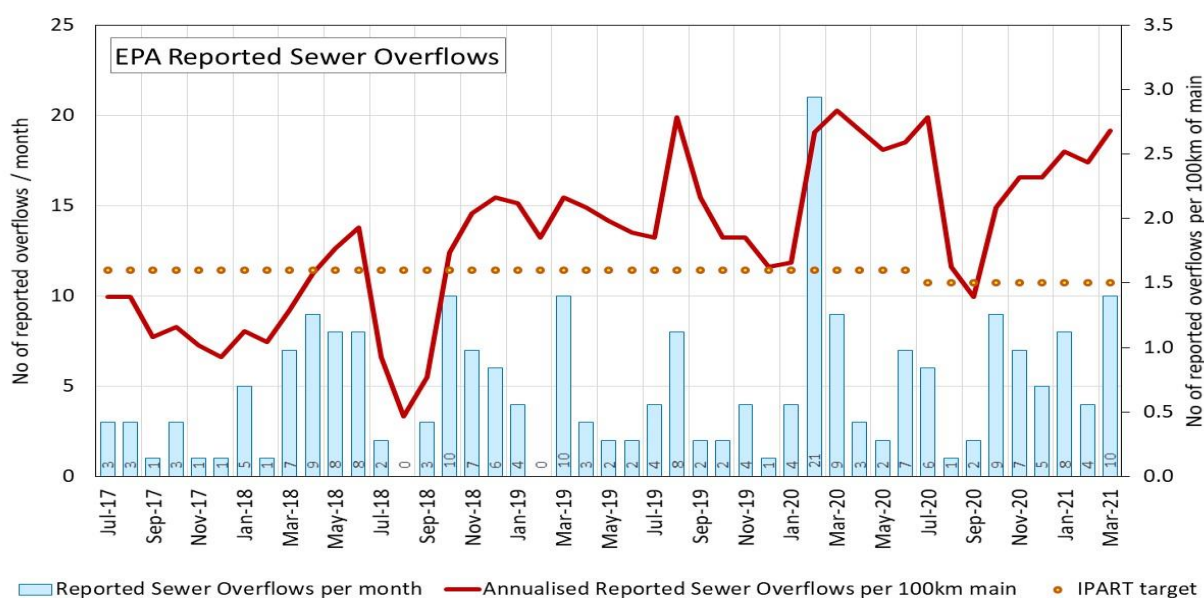


Figure 20: Reported sewer overflows reported to EPA by Central Coast Council since 2017



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Council's approach to mitigate sewage overflow concerns

Sewer network overflow monitoring, SCADA upgrades, sewer pump station emergency overflow prevention, rising main rehabilitation, vacuum system renewals, rising main asset management, manhole rebuilds, pump station renewals and refurbishments, sewer main coating, sewer rising main renewals, cathodic protection, leaking manhole detection and management, and other similar measures will assist Council to reduce sewer overflows and meet the aspirational output measures.

Table 10: Capital works program summary for proposed sewer overflows output measures (\$2021-22)

IPART output measure (\$M)	Forecast 2022-23	Forecast 2023-24	Forecast 2024-25	Forecast 2025-26	Forecast 2026-27	Total Forecast
Sewer overflows per 100km of main	14.6	18.8	29.8	23.9	38.9	126.0

Sewage odour complaints

Sewage odour complaints are very common. The degradation of sulphur dioxide in the sewerage system produces odours. Sewage treatment plants and sewerage network assets, such as sewerage pump stations, can emit odours. The intensity of sewage odour can be attributed to several factors:

- Weather conditions
- Wind speed
- Shock influent loads
- Equipment failure
- Age of sewage in the network
- Pump station operations
- Asset conditions
- Presence of blockages and chokes

The number of sewage odour complaints each month, and per 1000 properties, is shown in Figure 21. This number can fluctuate substantially from month to month, highlighting the need to actively investigate and manage the network for the vectors responsible.



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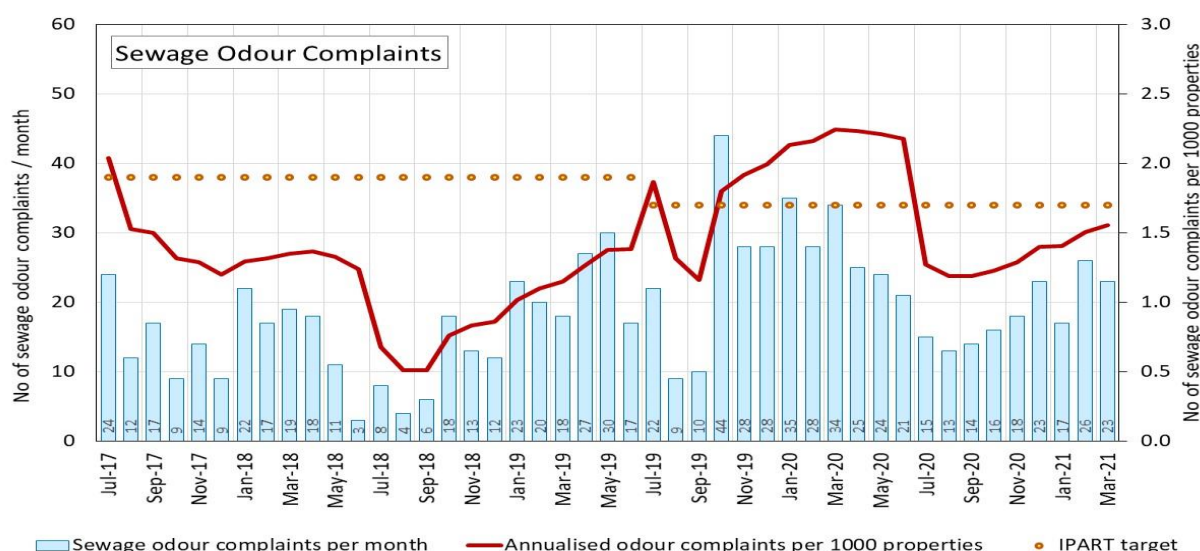


Figure 21: Sewage odour complaints in the Central Coast LGA since 2017

Council's approach to mitigate sewage odour concerns

Control measures put into place to mitigate odours include:

- Chemicals added to sewerage in network and treatment plants
- Odour management equipment installed at the existing sewerage pump stations (SPS) and treatment plants
- Odour management technology used in the construction of new sewerage pump stations
- Filter media on odour control systems in the sewerage network and at sewage treatment plants (STP) regularly inspected and changed as required.

By investing in a STP plant odour control program, STP treatment process improvements, Kincumber Mountain vent stack renewal, sewer odour vent replacements, and Wyong odour control augmentation, Council should be able to meet the aspirational output measure of 1.5 complaints per 1000 properties. A suite of capital works projects and programs is proposed by Council for the period of 2022-23 to 2026-27 to meet the Sewerage odour complaints per 1,000 properties IPART output measure targets.

Table 11: Capital works program proposed to meet sewerage odour complaints (\$2021-22)

IPART output measure (\$M)	Forecast 2022-23	Forecast 2023-24	Forecast 2024-25	Forecast 2025-26	Forecast 2026-27	Total Forecast
Sewage odour complaints per 1,000 properties	0.0	0.1	0.4	1.2	0.8	2.5



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In addition to proposed capital works projects and programs, Council is proposing to implement an Odour and Corrosion Strategy across all areas of operation within the 2022-23 to 2026-27 period. The strategy will entail sewage gas and liquid phase odour management reviews, as well as odour logging and sewage quality monitoring pre- and post-strategy implementation. This strategy will support and define some of the proposed capital works projects and programs.

Compliance with EPL concentration Load Limits

NSW EPA has issued three Environment Protection Licences (EPLs) for the operation of eight Council STP premises, including the associated sewer reticulation system (Table 12).

Table 12: EPL for Councils licences for Council sewage treatment plants

EPL	STPs	Treated Effluent Outfall
1802	Kincumber Woy Woy	Winney Bay
1942	Bateau Bay	Wonga Point
2647	Manning Park Gwandalan Wyong South Charmhaven Toukley	Norah Head

Pollutant load and concentration limits, and maximum daily volume of treated effluent discharged to the ocean outfalls are specified in the EPL.

Non-compliance with daily discharge volume limits occurs for each EPL following major storm events. EPL 2647 daily discharge volume limit is regularly challenged by the balancing of flow between five STPs, with increased demand due to population growth in the sewage catchment.

Non-compliance with EPL conditions, including administrative non-compliances, are reported to the EPA on an annual basis. Table 13 shows reported non-compliances of EPL 1802, EPL 1942 and EPL 2642 from 2016 to 2020. Non-compliance with pollutant concentration and load limits reported to EPA have become prevalent for EPLs 1802 and 2647.



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Table 13: Non-compliance with pollutant concentration and load limits reported to EPA

Reporting year	EPL	Non-compliance
2018	2647	Maximum pH Annual load of total nitrogen
2019	1802	Annual load of total suspended solids Annual load of total oil and grease 3DGM concentration of daily discharge volume limits
	2647	Annual load of total nitrogen
2020	1802	Annual load of total suspended solids Annual load of total oil and grease 90 th percentile concentration of total suspended solids
	2647	Annual load of total nitrogen

Councils approach to mitigate EPL concentration

Council's proposal for compliance with EPL concentration, load limits, output measures and a suite of capital works projects and programs is proposed by Council for the period of 2022-23 to 2026-27, to meet compliance with the EPL concentration, load limits' IPART output measure targets.

Table 14: Capital works program proposed to meet compliance with EPL concentration and load limits output measure (\$2021-22)

IPART output measure (\$M)	Forecast 2022-23	Forecast 2023-24	Forecast 2024-25	Forecast 2025-26	Forecast 2026-27	Total Forecast
Compliance with EPL concentration, load limits	7.3	5.9	9.3	6.3	5.9	34.7

4.1.3 Additional Output measures

The additional output measures for the Council 2019 IPART determination are shown in Table 15.



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Table 15: Additional Output measures for Councils 2019 IPART Determination (Table B4 IPART (2019))

Output measure	Output
Water	
Project milestone: Mangrove Creek Spillway Dam Upgrades	Mangrove Creek Spillway Dam Upgrade project to be 100% complete by 30 June 2024
Project milestone: Mardi to Warnervale Trunk Main	Mardi to Warnervale Trunk Main project to be >75% complete by 30 June 2024
Customer Service: Supply Interruptions	1. Total customer minutes lost to unplanned supply interruptions. 2. Total customer minutes lost to planned supply interruptions. <i>Council reports data to NPR (frequency and average duration of unplanned interruptions) which can be used as an input to this measure, but it is not available for the current year.</i>
Sewerage	
Project milestone: Charmhaven STP	Charmhaven STP upgrades to be 100% complete by 30 June 2024

Mangrove Creek Dam Spillway Upgrade

Council proposed to undertake capital upgrades to resolve a dam safety limitation that prevented Council filling Mangrove Creek Dam (MCD) beyond 80% Full Supply Level (FSL). A revised assessment methodology that was independently peer reviewed, showed that Council can operate the dam at the original 100% Full Supply Level (FSL) without any further upgrade to the existing spillway structure. Additional capital works may be required in support of any future raising of the Dam, however the risk of operation at 100% FSL is within the relevant risk-based threshold. The project objective of resolving the Spillway capacity constraint is now resolved.

Mardi to Warnervale Pipeline

Construction of the Mardi to Warnervale Pipeline began in April 2020. This \$61M (\$2021-22) project is critical to the northern part of our region's water supply system. Within the Kanwal Reservoir Catchment, it will serve expansion in the main northern development corridor, including Warnervale Town Centre and various greenfield subdivision sites. It will also improve drought security via bulk water transfers between the Central Coast and Hunter.

The Mardi to Warnervale Pipeline reached practical completion in mid-2021, with additional optimisation works continuing into early 2022.



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Charmhaven STP

The delivery of the main project elements has been delayed since Council's submission in 2018. Council has undertaken key early works at the site including rehabilitation of existing distribution mains. However, the main scope of works has been delayed due to a change in preferred upgrade strategy and program deferrals as a result of Council's financial issues through 2020-21.

Council is currently preparing an Investigation and Design contract for the revised upgrade strategy and is seeking to combine this work with similar planned activities for Gwandalan STP. These works will progress during the 2022 determination period, however it is unlikely the works will be fully completed by 30 June 2024 as per IPART's existing output measure.

Total number of minutes lost to planned interruptions

As identified in Council's response to the IPART draft report, Council cannot currently report on an output measure relating to planned water supply interruptions. Council has no baseline at the current time, as it does not record planned interruption durations and is unable to satisfy this new output measure. Council can, however, undertake system changes to facilitate this data collection, and obtain a baseline over the next determination period to allow adoption of this output measure in a future determination period. Council requests that this performance measure be delayed until a baseline can be obtained.

4.1.4 Stormwater drainage

For the 2019 determination, IPART introduced an output measure for assessing low-impact stormwater drainage applications to be completed within 15 working days of receiving a complete application (Table 16).

As of 1 July 2019, a total of 12 applications and seven enquiries have been received through Council's customer request module. For the 12 applications, an average turnaround time of 13 days was achieved. For the seven enquiries, an average turnaround time of 10 days was achieved.

Table 16: Stormwater drainage output measures for Councils 2019 IPART Determination (Table B4 IPART (2019))

Output measure	Output
Low-impact application process	Percentage of low-impact applications completed within 15 working days of receiving a complete application.



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4.2 Proposed performance 2022-26

4.2.1 Water



Central Coast Council proposes the following IPART output measures for treated water quality:

Compliance with Australian Drinking Water Guidelines –

microbial guideline values in the water supply: 100%

Compliance with Australian Drinking Water Guidelines –

chemical guideline values in the water supply: 100%

Water quality complaints per 1000 properties: 8 (as per 2022)

Council proposes the following output measures with respect to treated water main breaks with the proposed level of funding:

Number of water main breaks per 100 km of main: 16 (as agreed by IPART for 2022)

Number of water main breaks per 100 km of main: 14 (as agreed by IPART for 2023) in 2025 with the proposed additional funding

Council proposes the following output measures with respect to water supply continuity:

Average frequency of unplanned water service interruptions per 1,000 properties: 115



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4.2.2 Sewer



Central Council proposes the following output measures with respect to sewer overflows, and main breaks and chokes:

Sewerage (sewer) main breaks and chokes per 100km of main: 34 (as agreed by IPART for 2021)

Sewerage (sewage) overflows per 100 km of main: 30 (as agreed by IPART for 2021).

Sewerage (sewage) overflows reported to the environmental regulator, per 100km of main: 2.4 (based on the recent performance)

Sewerage (sewage) overflows reported to the environmental regulator, per 100km of main under dry weather conditions: 1.5 (aspirational – to establish a baseline)
Council will be able meet the aspirational output measure of 1.5 complaints per 1000 properties.

4.2.3 Stormwater Drainage

Central Coast Council proposes the following IPART output measures for stormwater drainage:

- Low impact application processing: Within 15 working days (as agreed by IPART for 2021)
- Length of stormwater drainage infrastructure per annum: 5.4km in 2022-23 (varies subject to the financial year and nature of capital projects)
- Stormwater drainage maintenance requests received per annum: 2,545 (based on 2019 Determination average – to establish a baseline).



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5 Environmentally responsible

Council Water, Sewer and Stormwater Drainage businesses, like other Water Supply Authorities, must be compliant with environmental regulators and legislation. In addition, there is an expectation and trust from the community that Council's environmental performance is both responsible and sustainable, and that natural resources are used wisely.

5.1 Case Study

Investment in our Sewer Treatment Plants to keep our waterways and beaches cleaner

Council's Water and Sewer Directorate is proposing to invest \$16 million across its eight currently underperforming Sewage Treatment Plants (STPs).

With multiple environmental breaches occurring, increased risk of future service failure and associated costs to maintain the situation is unsustainable. A change is required to avoid environmental and service impacts, partly attributed to the age and condition of these assets.

Council proposes to adopt a new risk-based management approach that will include improving:

- The skill base and number of resources
- Processes to align with good practice
- Data collection and management to support evidence-based interventions
- Alignment with the Council's Strategic Business Plan
- Several risk-based projects to reduce risk to service levels and environmental breaches to an acceptable level
- Regulatory requirements (EPA requirements)
- Alignment with relevant standards and industry best practice
- A model that reasonably reflects the demand for assets.

This change demonstrates efficiency as it will be implemented in line with the Council's procurement policies. The estimated costs are based on a combination of historical expenditure, quotes and existing contract rates. The change will also lead to reduced overall operations and maintenance costs due to decreased energy demand, treatment chemical use and reduced unanticipated repairs and maintenance.



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5.2 Case Study

Protecting our catchments

Council is proposing to invest \$1.9M for its 725km² of drinking water catchment as well as groundwater catchments. Proactive management of these drinking water systems is critical to ensure compliance with regulatory obligations, and to achieve suitable water quality and a stable supply for the region.

Council proposes:

- Additional monitoring within the Wyong River and Ourimbah Creek catchments
- Increased allowance for groundwater monitoring program
- Allowance for weir and fishway maintenance
- Allowance for water quality monitoring buoy maintenance
- Allowance of hydrometric flow gauging
- Permanent Catchment Management Officer
- Reducing water quality risks within the water catchments
- Providing information for future projects and decision making
- Ensuring all regulatory obligations are met.



This project aligns with the Council's Strategic Business Plan and Asset Management Plan and with relevant standards and industry best practice.



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5.3 Case Study

Trunk Water Main Renewal North Avoca/Avoca Beach



Council is proposing to invest \$2.4M in the Avoca trunk water main renewal project. Soil subsidence under the trunk water main is causing significant threat to water main breaks in the area. The objective of the project is to maintain the trunk water main at the North Avoca side where past failures have occurred. The trunk water main running under Avoca lagoon is critical to the supply of water to customers in that area.

It is anticipated that once corrected there will be less risk of asset failure, environmental damage will be minimised and the level of service will improve.

It has been established that if trunk water main breaks are not repaired within 3 days, customers located in North Avoca, Avoca Beach, Copacabana and MacMasters Beach are heavily impacted. The renewal/upgrade of the 450mm trunk main will provide significant operational flexibility in the event of a major break-down.



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6 Quality drinking water

Council is required to provide safe drinking water in accordance with the NSW Public Health Act 2010, the Public Health Regulation 2012, Fluoridation of Public Water Supplies Act 1957, and Fluoridation of Public Water Supplies Regulation 2017.

A key requirement for drinking water suppliers is compliance with a quality assurance program in the form of a Drinking Water Management System.

A Drinking Water Management System (DWMS) consists of documents, procedures and other supporting information for the safe supply of drinking water. The DWMS must address the elements of the Framework for Management of Drinking Water Quality (Australian Drinking Water Guidelines) relevant to the operations of the supplier. The framework is defined by Critical Control Points (CCPs) - activities, procedures or processes critical to controlling a water quality hazard (for example chlorination and filtration/particle removal).

Council maintains a catchment-to-tap water quality verification program, with Critical Control Points established at critical barriers in the drinking water supply system to identify and act to protect the health of customers. In addition to the internal water quality monitoring program, Council also participated in the independent water quality verification program maintained by NSW Health Forensic and Analytical Science Service (FASS).



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7 Water conservation

Council is in the process of reviewing its Central Coast Water Security Plan (CCWSP) (currently WaterPlan 2050) as part of ongoing planning, risk management activities and regulatory compliance. The outcomes from this project will inform the long-term strategy for water security for the Central Coast. Council will assess the long-term supply/demand balance and update its Drought Management Plan accordingly. The merits of more diversified supply sources will be considered using an 'all options on the table' approach. This is required to ensure the Central Coast's water security needs can be met for a range of potential water futures.

The CCWSP is being undertaken in parallel and in close collaboration with the review of the Lower Hunter Water Security Plan (LHWSP) conducted by the NSW Department of Planning Industry and Environment (DPIE) and Hunter Water Corporation (Hunter Water). The purpose of collaboration is to identify mutually beneficial options through greater cooperation between the two regions.

Yield modelling for the CCWSP has been undertaken using a new joint headworks model (WATHNET) that was jointly developed by Council and Hunter Water for the two regional water plans. The model utilises updated hydrology (rainfall/runoff model) for the Central Coast catchments and reflects all current Water Sharing Plan rules. Alignment of the yield methodology has been implemented for the LHWSP (via DPIE Governance Panel) to address key considerations:

- Allowing utilisation of synthetic climate data to better assess risk associated with inherent climate variability and overlapping droughts between the Hunter and Central Coast regions. Overlapping droughts influence the operation of the Hunter-Central Coast pipeline which can transfer approximately 35% of Central Coast average daily demand in either direction
- Integration of drought management planning into yield assessment to ensure the Central Coast has an enduring supply pathway that prevents the community from running out of water
- Allowing consistent assessment of the merit and required timing of any joint investment opportunities between Council and Hunter Water.

As no single water supply option is likely to meet all the needs of the Council, a portfolio approach has been followed that considers various combinations of supply options. A long list of water demand and supply options was shortlisted based on merit and feasibility. These options were then arranged into four portfolio themes and progressively refined into five



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shortlisted portfolios (Figure 22) to address the estimated yield shortfall of 6.3GL/yr in 2051 (planning horizon of the CCWSP).




























Portfolio		Incremental option delivery					
			2034	2037	2038	2043	
1	Climate independent (staged desalination capacity)						
		Water conservation	5 ML/d Groundwater	1.1 ML/d Recycled Water (non drinking)	6 ML/d PRW*	20 ML/d Desalination	
2	Climate independent (upfront capacity)						
		Water conservation	5 ML/d Groundwater	1.1 ML/d Recycled Water (non drinking)	6 ML/d PRW*	30 ML/d Desalination	
3	Surface Water (traditional sources)						
		Water conservation	5 ML/d Groundwater	1.1 ML/d Recycled Water (non drinking)	Rainwater tank scheme	80 GL Dam Enlargement	6 ML/d Weir to Dam Water transfers
4	Enhanced water sharing with Hunter Water Corporation)						
		Water conservation	5 ML/d Groundwater	Up to 60 ML/d Sharing water	80 GL Dam Enlargement	1.1 ML/d Recycled Water (non drinking)	
5	Traditional transitioning to climate independent						
		Water conservation	5 ML/d Groundwater	1.1 ML/d Recycled Water (non drinking)	40 GL Dam Enlargement	6 ML/d PRW*	20 ML/d Desalination

Figure 22: Shortlisted CCWSP Portfolio

Each of the five shortlisted portfolios had been designed to meet the 2051 yield target for the median demand scenario, as well as identifying an additional option (or alternate operating rules) that would achieve the high demand forecast scenario.

Council has undertaken an economic Cost Benefit Analysis (CBA) of the portfolios to identify the least cost portfolio that meets the required yield for the Central Coast customers (discounted cashflow of capital and operating costs), as well as the overall Cost-Benefit characteristics of each portfolio at a 'whole of New South Wales' level, to identify the broader benefits of inter-regional investments being considered under the LHWSP.

The plan is scheduled for public exhibition in September 2021 and will be distributed to DPIE for review at the end of 2021. This will allow overlap with the LHWSP, scheduled to go to NSW Cabinet for consideration in early 2022. At the time of writing, Council's preferred supply option is portfolio 2.



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8 Form of regulation

Council provides water, sewer and stormwater drainage services to the Central Coast community. These services are considered natural monopolies and as such, consumer protection in relation to pricing and delivery of service, is regulated by the Independent Pricing and Regulatory Tribunal (IPART). Regulation helps protect consumers by setting parameters to manage the potential risks of monopoly pricing (such as overcharging or poor service).

The current IPART regulatory framework ensures:

1. Cost reflective pricing for the community
2. Community views are embedded into Council's pricing proposal
3. Investment in capital works aligns to mandatory standards, is efficient and prudent
4. A level of operational efficiency is identified by the business.

The current regulatory method used by IPART is "price capping" which sets a cap on the service and usage charges Council can apply each year of the determination period². The price is determined by the amount of revenue IPART deems necessary for Council to operate an efficient and reliable service for the community. The revenue required is essentially an expenditure review where Council will put forward the expenditure it deems necessary to maintain and renew its assets. This is determined by IPART's Building Block Model (BBM).

Council is putting a case forward for a 4-year determination period from 1 July 2022 to 30 June 2026 (current determination period is 3-years). Council considers that the additional year will enable bill certainty for customers, reduce administrative and regulatory burden, and provide additional revenue stability.



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9 Capital expenditure

Council's water business is unique. The water business must meet its regulatory obligations managing risk, ensuring service continuity while operating within a Local Government context.



Council has made several improvements to its processes and systems in the current determination period to help support and guide its investment decisions. These supporting systems, and a focus on IPART's capital works expenditure drivers, ensure that Council's capital investments are prudent.

Improvements and supporting systems to Council's investment planning include:

- Capital Project Review Team Governance Process
- Community engagement for key projects and strategies
- Central Coast Water Security Plan to guide water resource investments
- Risk management processes (Pressure Main Risk and Criticality Assessment)
- Growth and development (DSP)
- Asset management systems (IPS)
- Procurement delivery initiatives.



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9.1 Performance 2019-2022

An overview of historical capital expenditure for the Water Sewerage and Drainage Funds is provided in Figure 23.

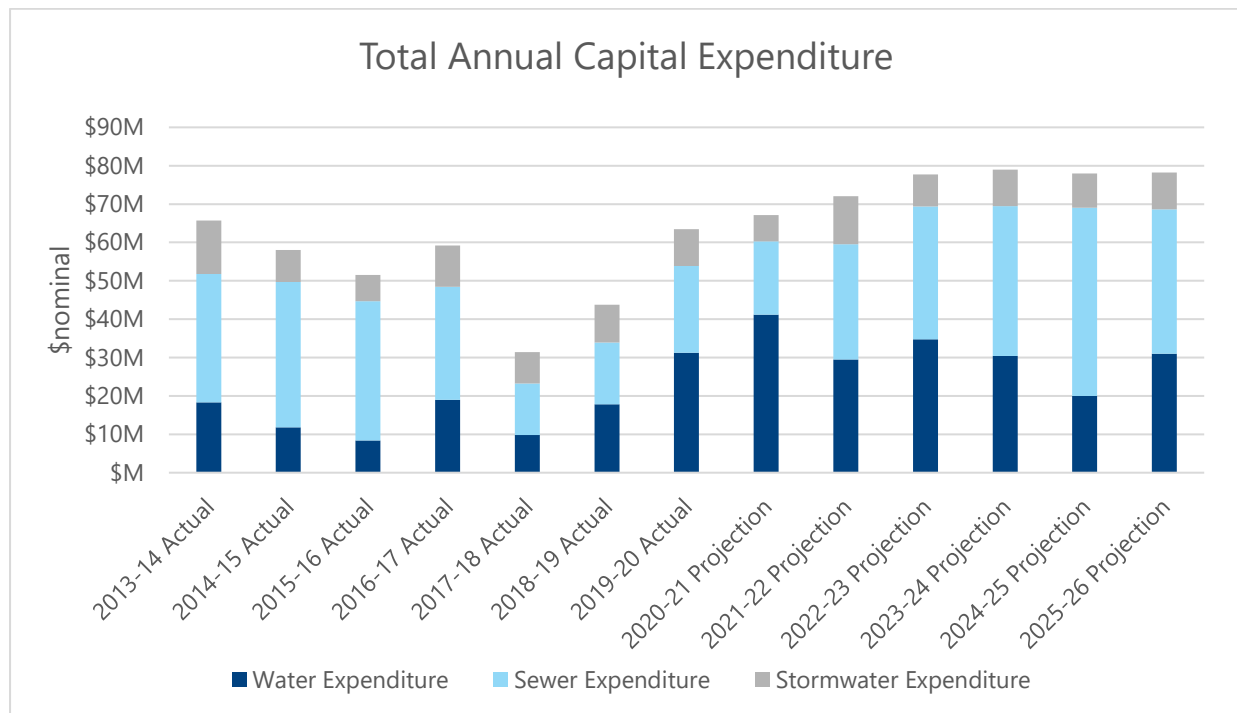


Figure 23: Historical and forecast capital investment for Water, Sewer and Stormwater drainage

Capital expenditure has been predominately made up of mandatory standards and asset and service reliability (see Figure 23). The recent increase in expenditure is attributed to the construction of the Mardi to Warnervale Pipeline, and securing water and sewer infrastructure grants for both Gosford CBD and Warnervale Town Centre to support future development in the regions.



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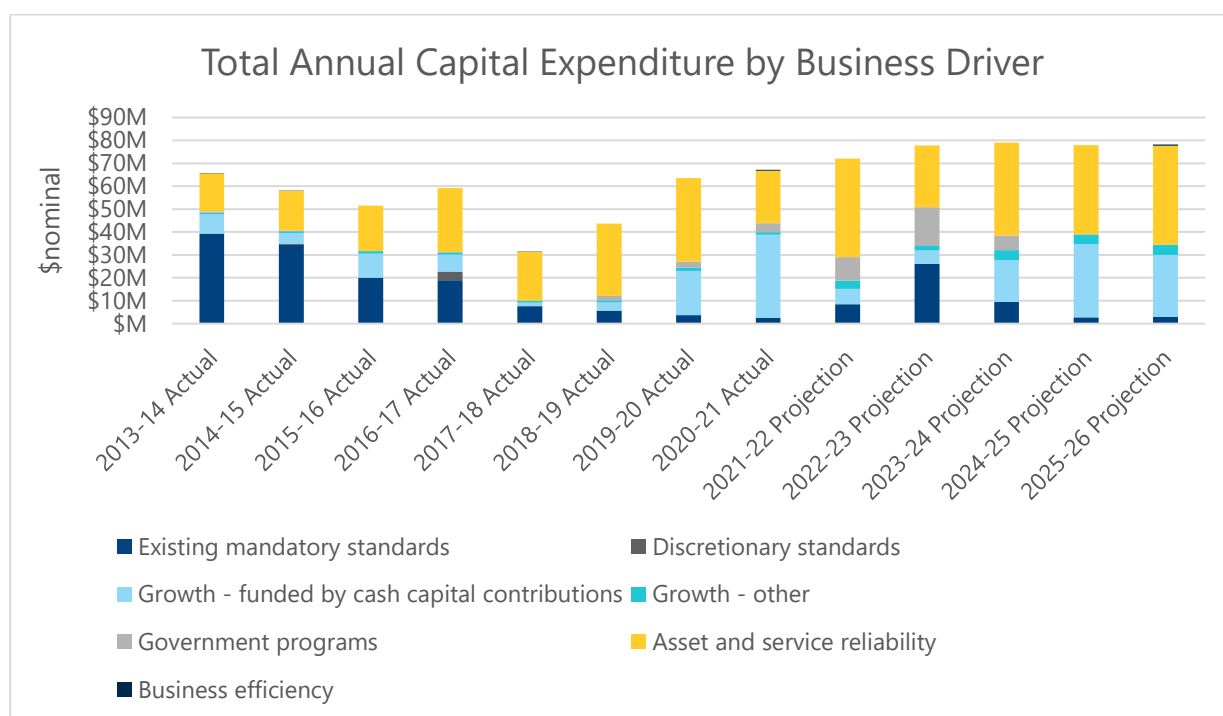


Figure 24: Total Capital investment by business driver

Council's reported capital expenditure during the current price path comprises actual expenditure from 1 July 2019 to 1 July 2020 and forecast expenditure for the remainder of the price path.

The composition of expenditure is shown by product in the Table 17.

Table 17: Capital expenditure in the current price path by product (\$million)

\$M	2019-20 \$nominal	2020-21 \$nominal	2021-22 \$nominal	Total \$nominal	Total \$2021-22
Water	32.0	41.5	29.5	102.9	105.5
Sewer	22.5	17.2	35.9	75.5	77.1
Stormwater Drainage	9.6	6.2	11.4	27.1	27.8
TOTAL	64.0	64.8	76.7	205.6	210.4

During the current price period, Council expects to spend \$117.2M to meet mandatory standards and ensure asset and service reliability, and \$68.2M on growth primarily through capital contributions. The remaining \$16.9M will be spent on government programs (funded by the NSW State Government).



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Despite the challenges Council has faced, Council is forecasting 100% delivery of the proposed expenditure for the current determination period. It is likely water expenditure will moderately exceed IPART's recommended level of expenditure.



This is mainly due to the successful delivery of the Mardi to Warnervale pipeline within the current determination period. Council considers its historical capital expenditure to have been prudent and efficient.

Table 18: Actual to forecast expenditure compared to IPARTs 2019 determination allowance

\$M	2019-20	2020-21	2021-22	Total	Total
	\$nominal	\$nominal	\$nominal	\$nominal	\$2021-22
Water Expenditure					
IPART Decision	14.1	43.5	38.2	95.7	97.5
Actual Expenditure	32.0	41.5	29.5	102.9	105.5
Allowance Variance (\$)	-17.9	2.0	8.7	-7.2	-8.0
Allowance Spent (%)	227%	95%	77%	108%	108%
Sewerage Expenditure					
IPART Decision	24.3	25.9	27.3	77.6	79.4
Actual Expenditure	22.5	17.2	35.9	75.5	77.1
Allowance Variance (\$)	1.8	8.8	-8.6	2.1	2.4
Allowance Spent (%)	92%	66%	131%	97%	97%
Stormwater Drainage Expenditure					
IPART Decision	9.8	9.8	9.1	28.7	29.4
Actual Expenditure	9.6	6.2	11.4	27.1	27.8
Allowance Variance (\$)	0.2	3.6	-2.3	1.5	1.6
Allowance Spent (%)	98%	63%	125%	95%	94%
TOTAL					
IPART Decision	48.2	79.2	74.6	202.0	206.4
Actual Expenditure	64.0	64.8	76.7	205.6	210.4
Allowance Variance (\$)	-15.9	14.4	-2.1	-3.6	-4.0
Allowance Spent (%)	133%	82%	103%	102%	102%



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9.2 Proposed investment

Council is proposing \$313M of capital investment over the coming four-year price path. This is a 16% increase from the current determination's annual average allowance of \$67M to a forecast annual average of \$78M.

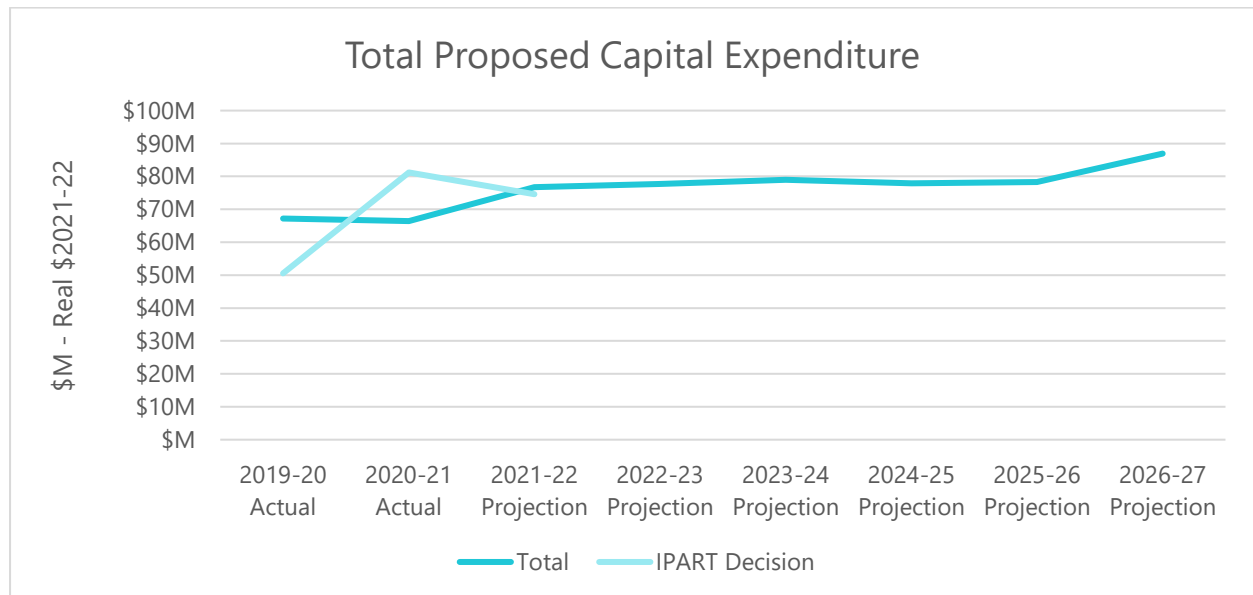


Figure 25: Proposed investment 2022-26

9.2.1 Water

Council proposes a \$116M investment in water capital works over the determination period. This is an average of \$29M per annum, a slight decrease on the 2019 determination period.

Council has developed a Capital works program portfolio for the next IPART determination. The following summarises the capital works program by water asset classes and drivers:

- Water meters
- Groundwater assets
- Water pump stations
- Water reservoirs
- Water network assets
- Water treatment plants
- Water mains
- Water headworks.



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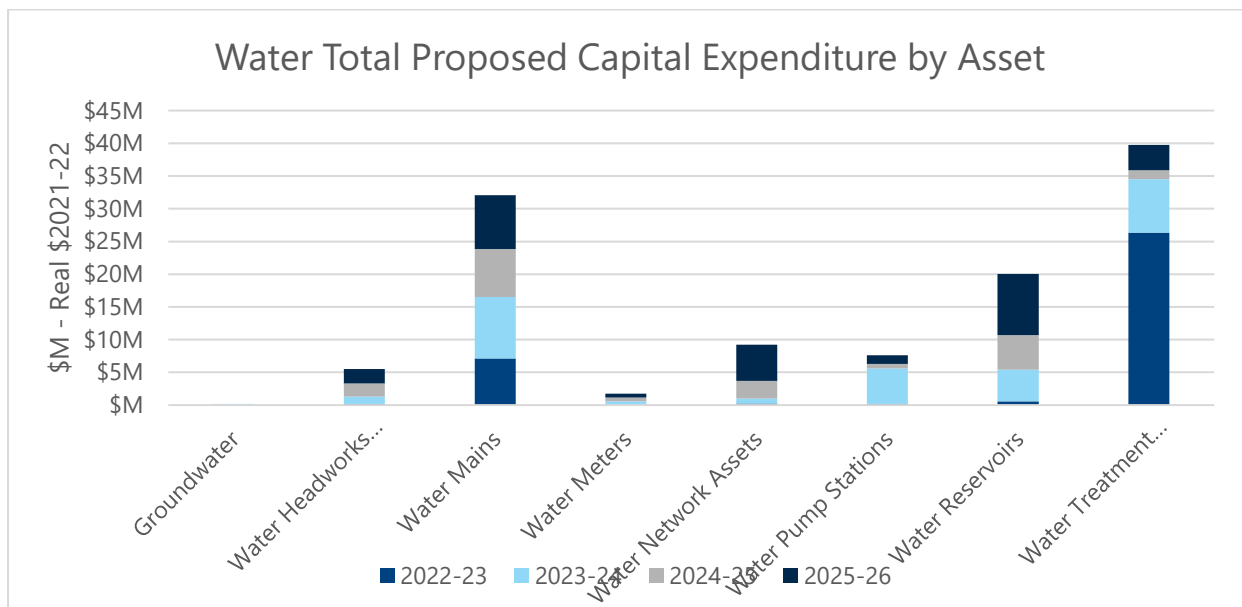


Figure 26: Water Investment by Asset type

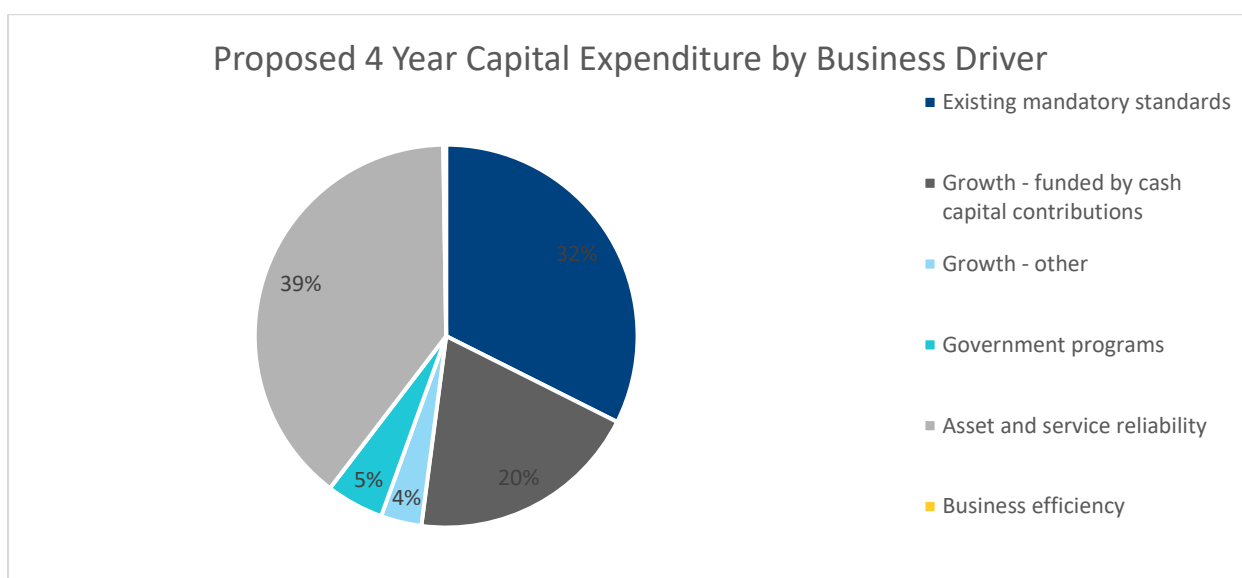


Figure 27: Proposed 4-year Investment by Business Driver

9.2.2 Sewerage

Council proposes a \$160M investment in sewer capital works over the determination period.

This is an average of \$40M pa and represents an increase of 68% from the 2020-22 determination period. This increase is largely due to an increase forecast in growth and development driven sewer infrastructure upgrades of \$40M over the determination period.

Council has developed a Capital works program portfolio for the next IPART determination that summarises the capital works program by water asset classes and drivers, including:



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- Sewer mains
- Sewer network assets
- Sewer pump stations
- Sewer treatment plants
- Sewer low pressure and vacuum systems.

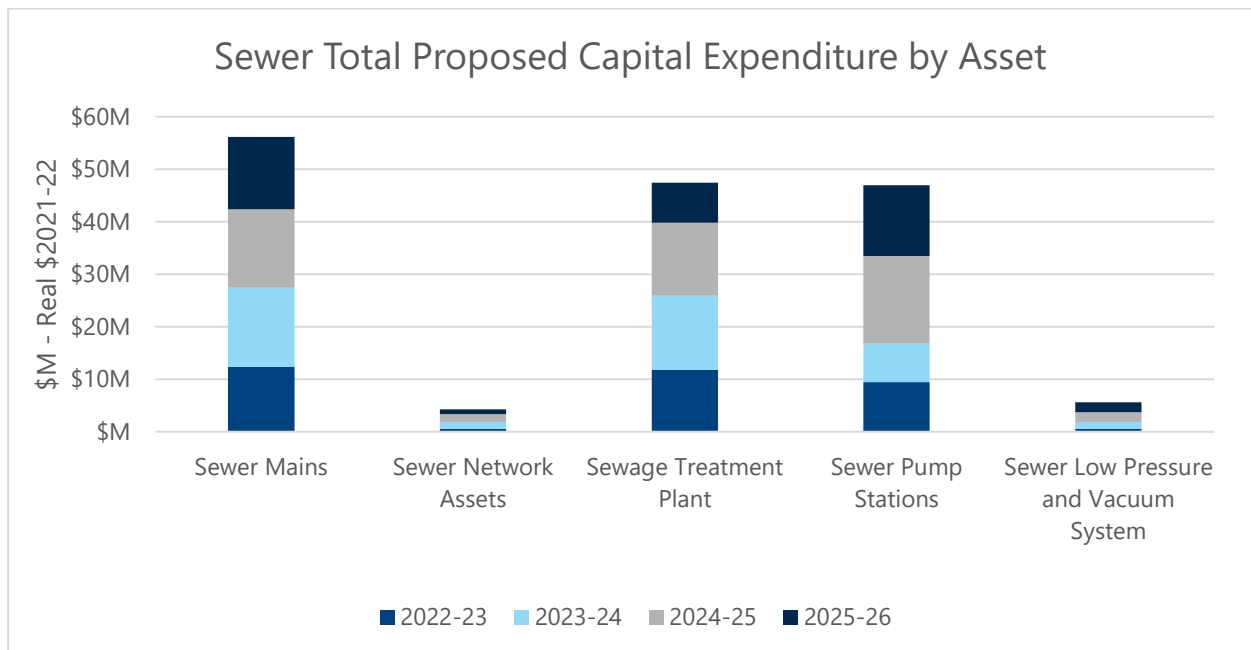


Figure 28: Sewer total Investment by Asset

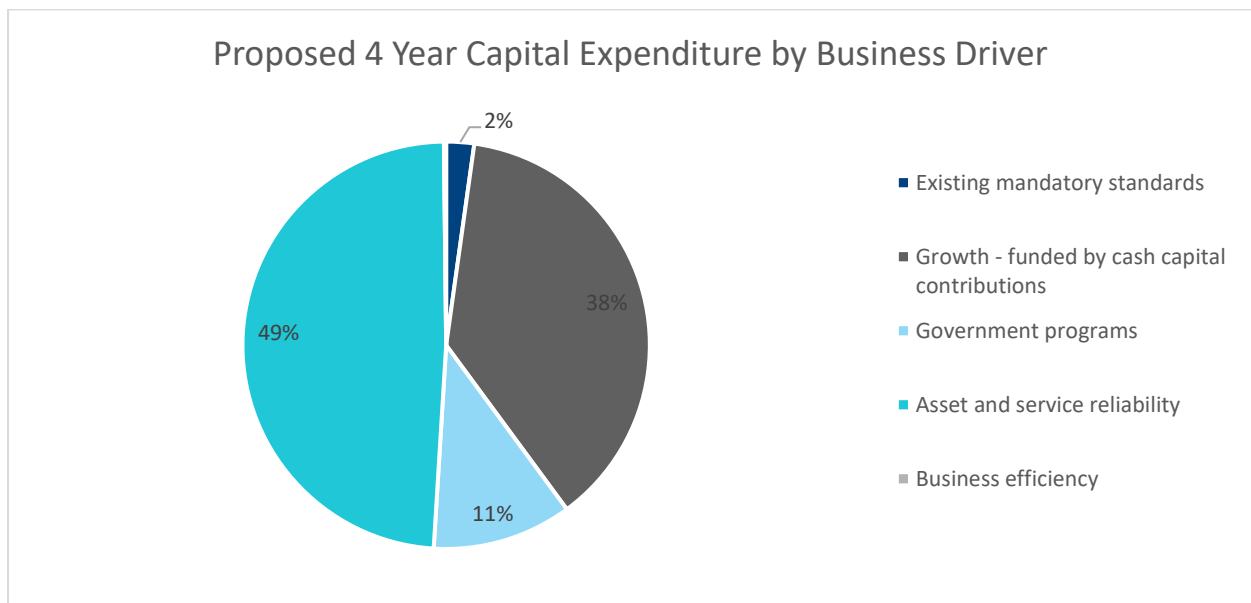


Figure 29: Proposed 4 Year investment by Business Driver



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9.2.3 Stormwater drainage

The definition of stormwater drainage remains unchanged from prior IPART Determinations. Stormwater drainage capital projects have been defined in line with Council's Drainage Asset Management Plan and include the following asset types:

1. Stormwater drainage pits, pipes, culverts and headwalls
2. Flood mitigation works such as levees, detention basins and open channels
3. Water quality infrastructure such as gross pollutant traps and sediment basins.

The proposed stormwater drainage capital program is based on a consistent level of revenue on average of \$8.8M per annum, with increases on a year to year basis where Contributions are available to support Growth driven projects:

- Floodplain risk management projects
- Stormwater drainage renewal and upgrade projects
- Stormwater drainage growth projects
- Stormwater quality improvement projects.

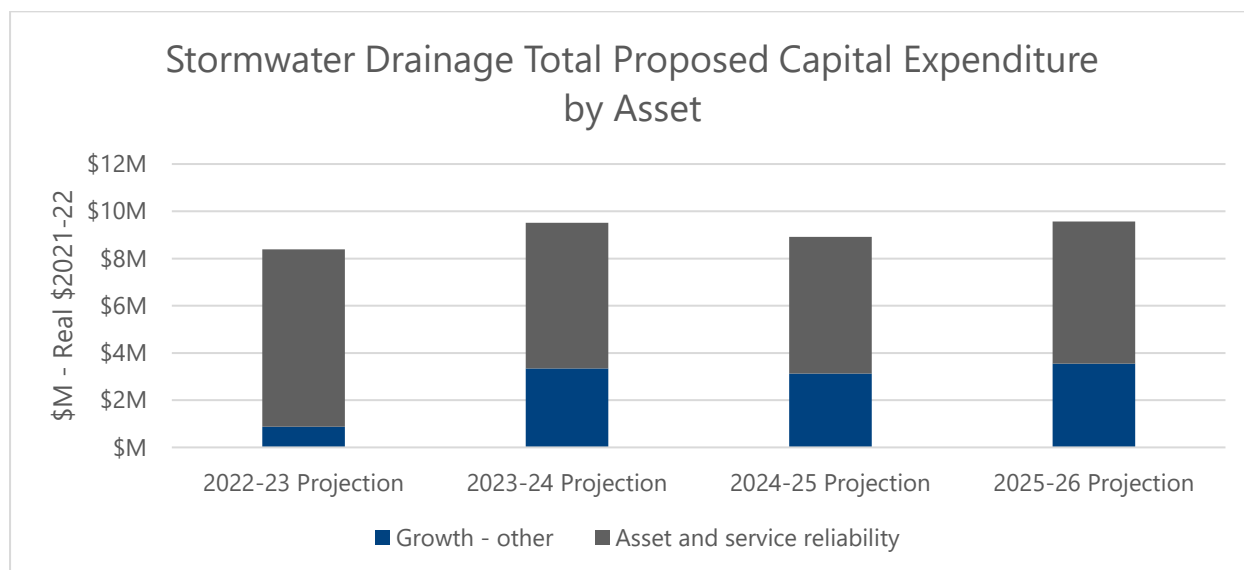


Figure 30: Investment by Business Driver



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Proposed 4 Year Capital Expenditure by Business Driver

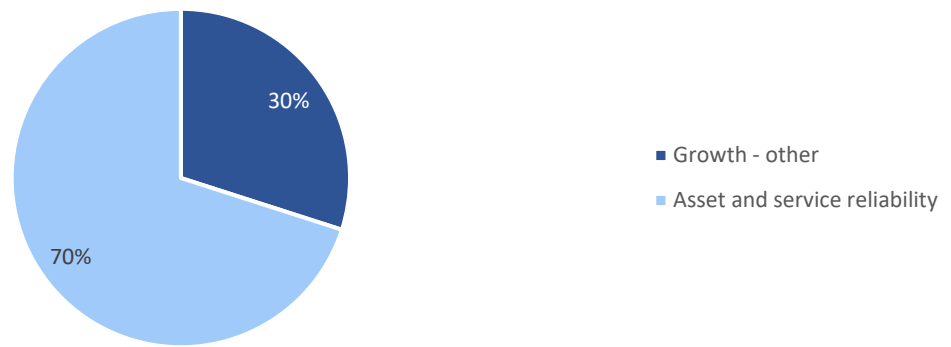


Figure 31: Proposed four-year Investment by Business Driver



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10 Operational expenditure

Council endeavours to deliver its services as efficiently as possible while maintaining low pricing for its community.

Currently customers on the Central Coast have the lowest bills for water and sewer in New South Wales as reported to the National Performance Review. The typical bill for residential customers fell 16% from 2018-19 to 2019-2020 due to the most recent IPART price determination.

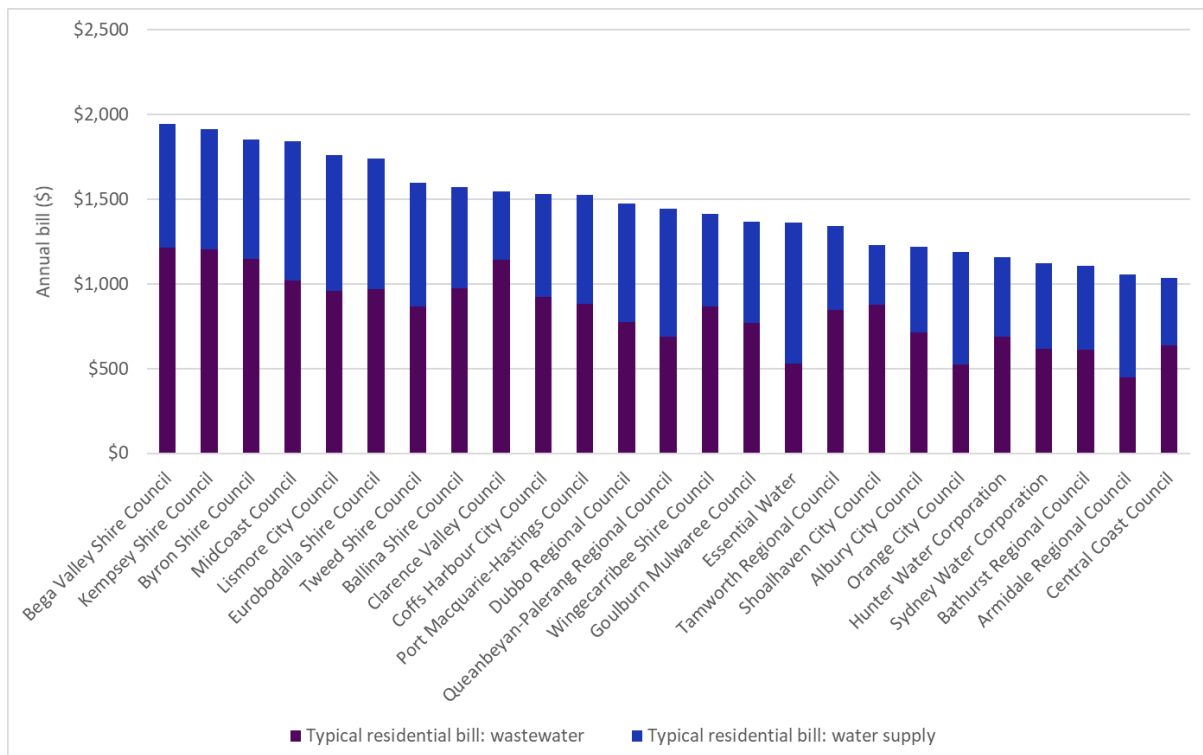


Figure 32: Water and Sewer components of a typical bill.

Note: Based on average water and Sewerage use within water business. Source: Bureau of Meteorology 2021, National performance report 2019–20: urban water utilities, part A, Bureau of Meteorology, Melbourne.

10.1 Performance 2019-2022

Table 19 shows how Council's water, sewer and stormwater drainage businesses have performed over the 2019-22 determination period against IPART's expenditure allowance.

Council is proposing the operating expenditure to be \$21M higher in the 2022 price period than IPART's 2019 Determination (or 8%).



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Table 19: IPART allowance versus actuals/forecasts \$M in nominal \$ for \$2021-22 SIP multipliers are used

IPART allowed \$M	2019-20 \$Nominal	2020- 21 \$Nominal	2021- 22 \$Nominal	Total	Total \$2021- 22
IPART Determination	91.1	91.7	93.9	276	284
Actual/Forecast	112.6	105.9	93.5	312	320
Variance \$	21.5	14.2	-0.4	36	36
Variance %	19%	14%	0%	13.3%	13%

The large variance in 2019-20 can be attributed to:

- The increase in Corporate Overheads which exceeded the IPART allowed expenditure for that cost category by \$8.3M (\$2019-20). The IPART allowance was \$20.6M and the actual expenditure was \$28.9M
- The anticipated increase in Plant and Fleet which exceeded the IPART allowed expenditure for that cost category by \$3.9M (\$2019-20). The IPART allowance was \$3.8M and the actual expenditure was \$7.8M
- The uncontrolled events due to flooding, fires and COVID-19 expenditure that occurred in 2019-20 which increased the cost categories of Hire and Contracts, Labour and Materials by approximately \$1M
- The other increases to expenditure were due to uncapitalised labour, an increase in labour expenditure charged to Water and Sewer by other areas of Council, an increase in tipping fees resulting from higher tonnages of sludge collected from the treatment plants, and the unrealised efficiencies defined in the IPART 2019 determination
- Electricity costs were also lower than anticipated due to new energy contracts
- For the 2021-22 financial years there is a significant reduction in expenditure, due to the requested cuts to expenditure from the recent Council financial crisis.



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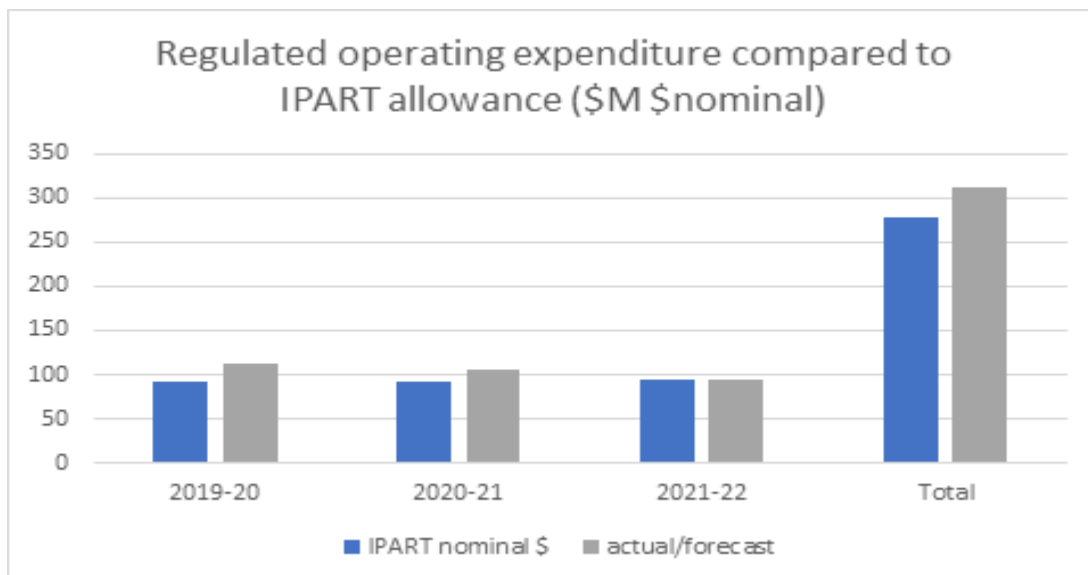


Figure 33: IPART allowance compared to actuals/forecasts 2019-22 \$nominal

Central Coast Council categorises water, sewerage and stormwater drainage regulatory operating expenses (OPEX) into eight cost categories. These categories are:

- Employee costs
- Consultants
- Hire and Contacts
- Materials
- Energy
- Other
- Corporate Overheads
- Plant and Fleet.

Regulatory OPEX does not include:

- Depreciation
- Interest on loans
- Unregulated OPEX (e.g. rental accommodation)

The proportion of operating expenditure by cost category for the 2019-20 actuals is represented in Figure 34.



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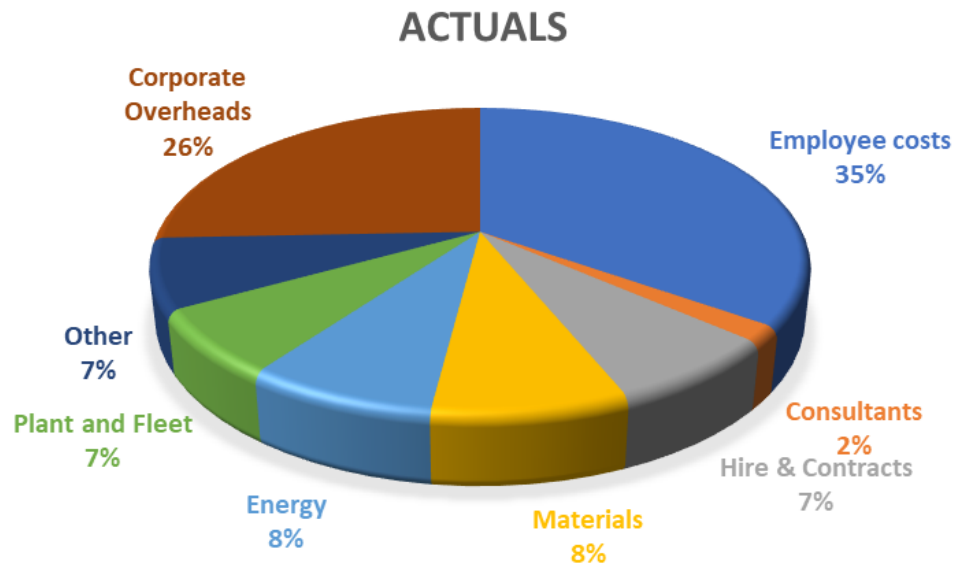


Figure 34: Proportion of OPEX to cost categories 19/20 actuals

10.1.1 Proposed investment 2022-26

The impacts over the last six years are resulting in a reduction in operational service delivery.

Meeting regulatory requirements such as EPL's and Drinking Water standards are also being impacted, resulting in:

- Environmental Protection Licence (EPL) breaches related to suspended solids, oil and grease and total nitrogen
- An increase in sewer overflows, odour complaints and water quality complaints that are above service level targets
- The highest sewerage service complaints in Australia
- The lowest workforce in NSW per 1000 properties (compared to other Local Water Utilities)
- 30% increase in customer service calls (based on 2018-19 trends)
- 50% increase in SCADA alarms (based on 2018 trends)
- Lost time injury rate is at 16 (2019-20) for Council's water and sewer business compared to 7 at HWC and 5 at Sydney Water.

For the 2022-2026 determination period, Council has requested additional operational expenditure to improve its maintenance regime, re-introduce floodplain risk and stormwater quality management, reduce the current EPL and EPA breaches, and address the increase in lost time injuries.



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Table 20: Total proposed expenditure 2020-2026 (\$2021-22)

Product	2022-23	2023-24	24-25	25-26	Total 22-26	26-27	Total
Water	55.9	57.2	61.7	60.1	234.9	62.8	297.7
Sewer	53.2	56.0	56.4	55.3	220.9	54.4	275.2
Stormwater drainage	17.1	17.2	17.1	17.2	68.6	17.3	85.9
Total	126.1	130.4	135.1	132.6	523.9	134.5	658.8

Note: may not add due to rounding

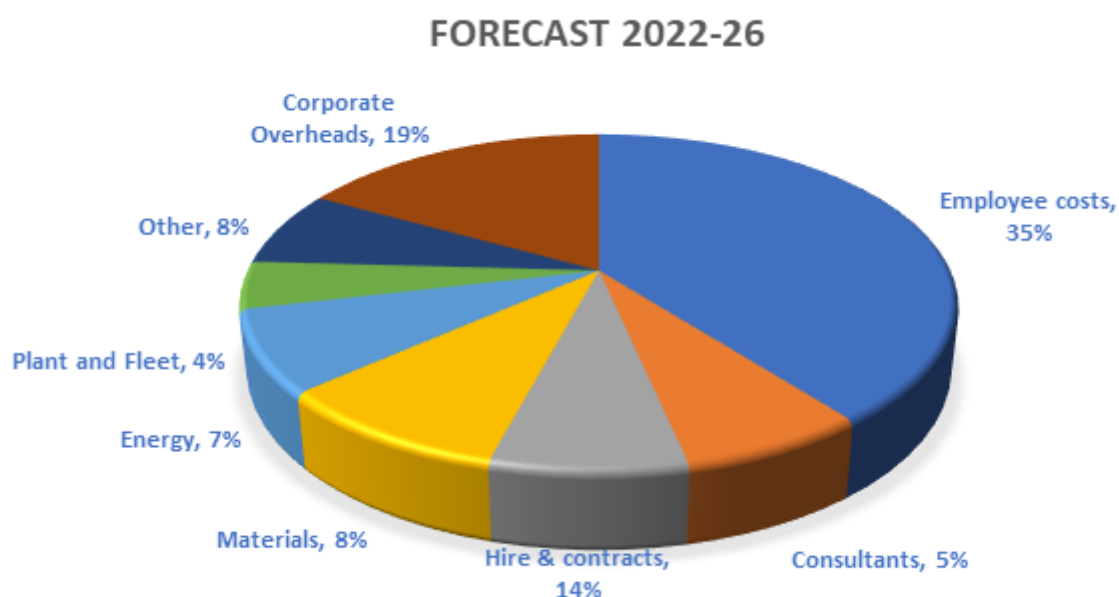


Figure 35: Estimated expense ratios for forecasting 2022-26

10.1.2 How are we becoming more efficient?

In the Operations and Maintenance unit, the additional funding will be used to:

- Improve Workplace Health and Safety
- Implement transition strategy to improve proactive maintenance and improvement of risk management planning of critical water and sewer assets
- Improve rectification programs, pump station analysis and reduce sewage pump station overflows
- Increase mains cleaning programs to improve water quality
- Increase sewer inspections and maintenance programs
- Improve workspaces to improve onsite oil storage, part management, cleaning pumps
- Reduce risk for chemical storage, improve and monitor odour and reduce wet weather chemical usage
- Utilise SCADA alarm rationalisation to reduce environmental overflows



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- Reduce risk of uncontrolled switchboard failure for ARC flashes (safety)

In the Headworks and Treatment Unit, the additional funding will be used to:

- Initiate STP improvement program including clean out of the grit chambers, aeration tanks and digesters, as well as improvements in sludge management
- Improve sampling results with a quality database
- Improve Council's bushfire management practices by reducing hazards, reducing water quality risks and maintaining a balanced ecology protecting water and sewer assets
- Improve catchment management practices by elimination or minimisation of all sources of impurity in the catchments resulting in clean and safe water, reducing the costs of treatment and protecting the environment
- Ensure that standards in relation to dam safety are met
- Improve outfall monitoring thus reducing ecological impacts of effluent to ocean outfalls
- Utilise additional operational expenditure resulting from the Mardi Treatment Plant upgrade.

In the Planning and Delivery Unit, the additional funding will be used for:

- Improvement of the Asset Management and Inspection programs
- Water conservation and resilience studies
- Improved strategic management.

In the Roads and Drainage Infrastructure unit, the additional funding will be used to:

- Ensure the standards are met in relation to dam safety
- Undertake critical asset inspections, cleaning and repair to inform forward planning, manage risk, reduce reactive maintenance requirements and prevent catastrophic asset failure.

In the Environmental Management unit², the additional funding will be used to:

- Deliver floodplain risk management planning required to guide sustainable development and strategic prioritisation of stormwater drainage upgrade works
- Improve stormwater quality management to maintain the health of waterways
- Implement Plans of Management for creeks identified as critical to maintaining flood planning levels and preventing flooding of existing properties.

² These functions were deemed prudent in prior (former Council) Determinations but were excluded from the 2019 Determination as were funded by a Stormwater Levy under the Local Government Act. This Levy has now ceased, and Council is simplifying the delivery of stormwater management for customers by bringing all functions under the single Stormwater Drainage Charge.



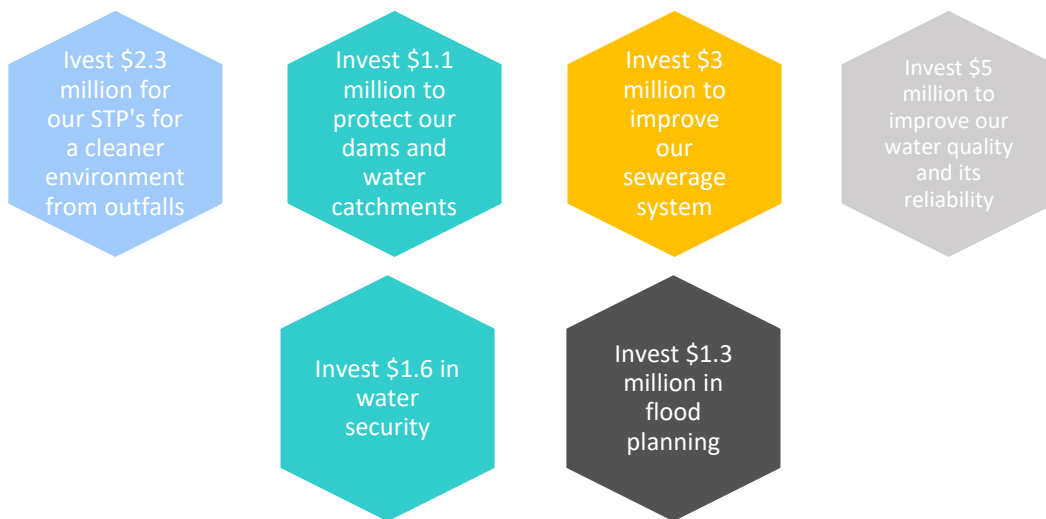


Figure 36: Investment Breakdown



11 Revenue

Most of Council's revenue for water, sewer and stormwater drainage comes from both our residential and commercial customers.

Central Coast Council has calculated target revenues required over the four-year period to 30 June 2026 using IPART's building block approach. The building block approach allows a utility to charge prices that recover efficient costs through the calculation of an annual 'notional revenue requirement' that reflects these costs. The notional revenue requirement is the sum of the following cost allowances:

- Operating expenditure
- An allowance for a return on capital investment in the business - Regulatory Asset Base (RAB) multiplied by the weighted average cost of capital (WACC)
- An allowance for a return of capital (depreciation)
- A working capital allowance
- A tax allowance

In the 2019 IPART final determination, the annual revenue was set at \$160.4M per year (\$2018-19).

PROPORTION OF REVENUE PER SERVICE

■ Water ■ Sewer ■ Stormwater

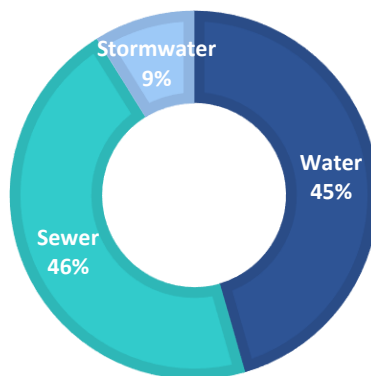


Figure 37: Proportion of revenue split 2019



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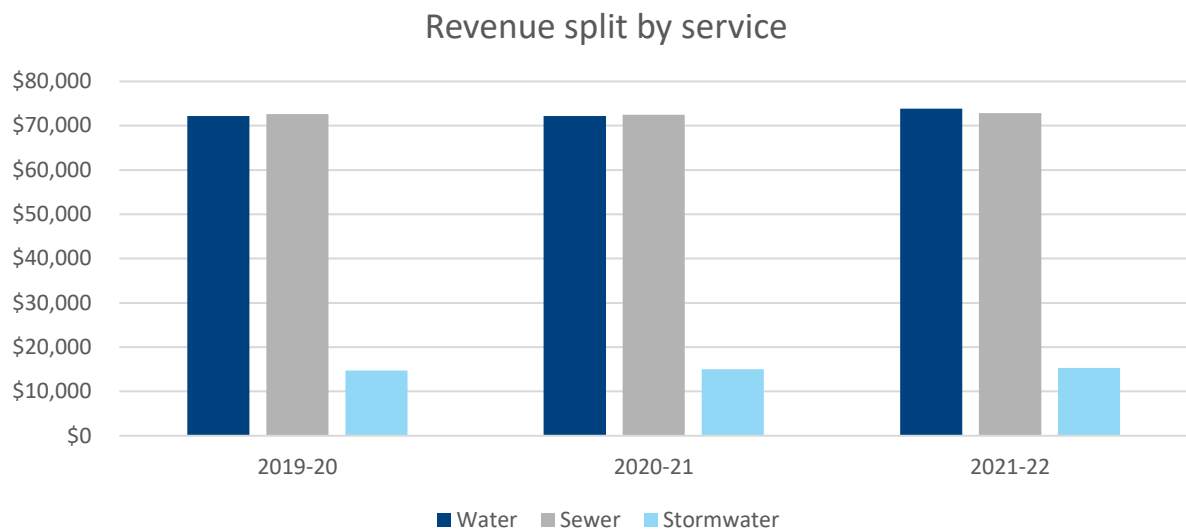


Figure 38: Revenue split by service 2019-22 (\$2018-19) \$'000)

The expected revenue from trade waste and ancillary charges was approximated at \$2M (\$2019-22).

11.1 Approach to calculating revenue requirements

To calculate its revenue, Council has used the Building Block Methodology (BBM) used by IPART to calculate its notional revenue for water, sewer and stormwater drainage.

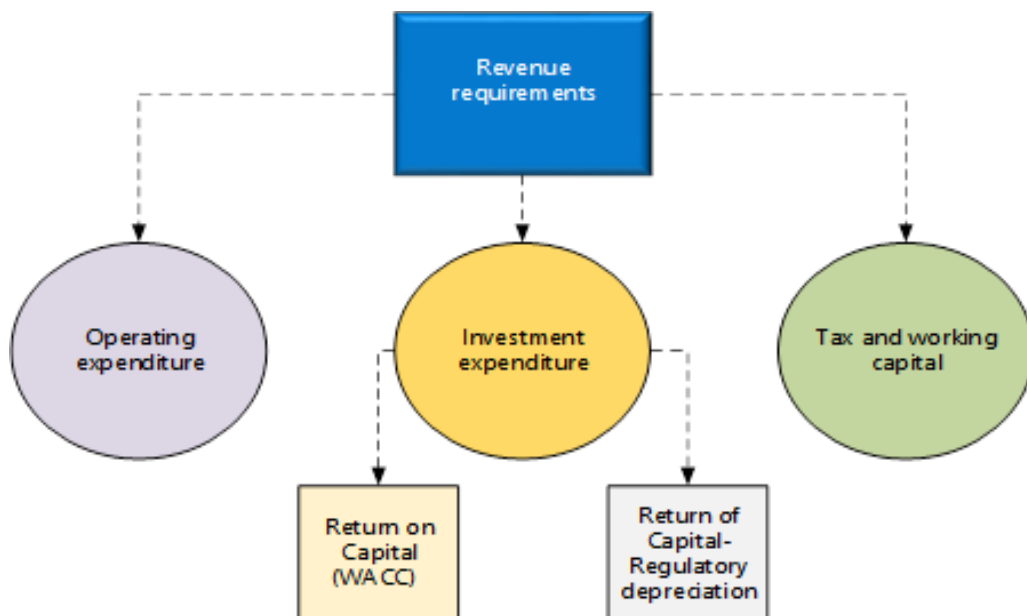


Figure 39: Building Block Model



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Council's water, sewer and stormwater drainage total proposed regulated revenue requirement for the 2022-26 determination period is \$873M (\$2021-22). On average the revenue per annum will be \$218M (\$2021-22).

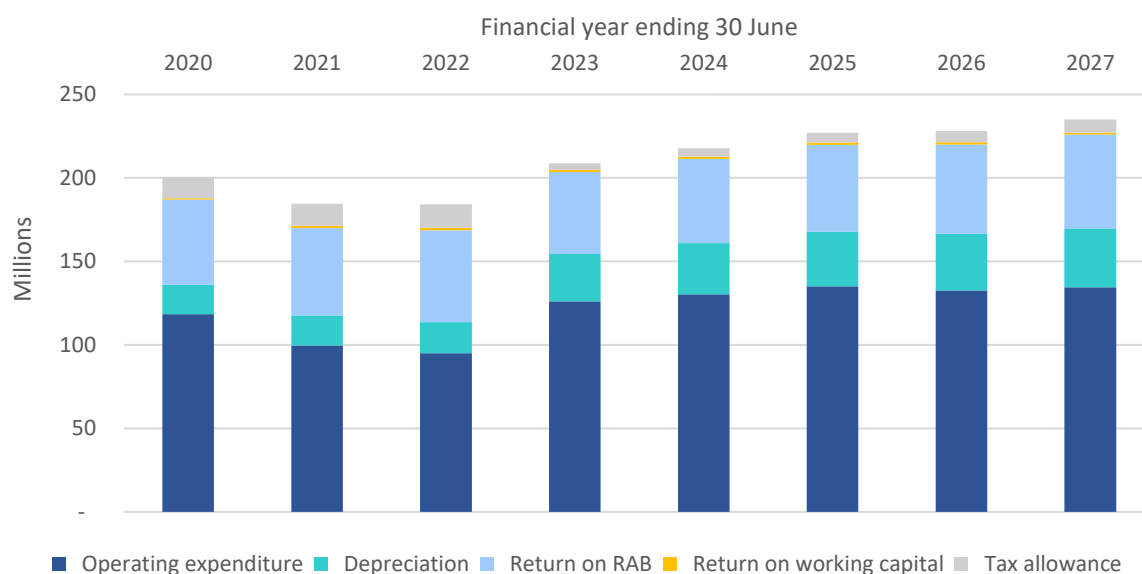


Figure 40: Proposed revenue

The target revenue is the total Council proposes to recover from customers through pricing over the 2022-26 regulatory period and can be found in further detail in Technical Paper 6.

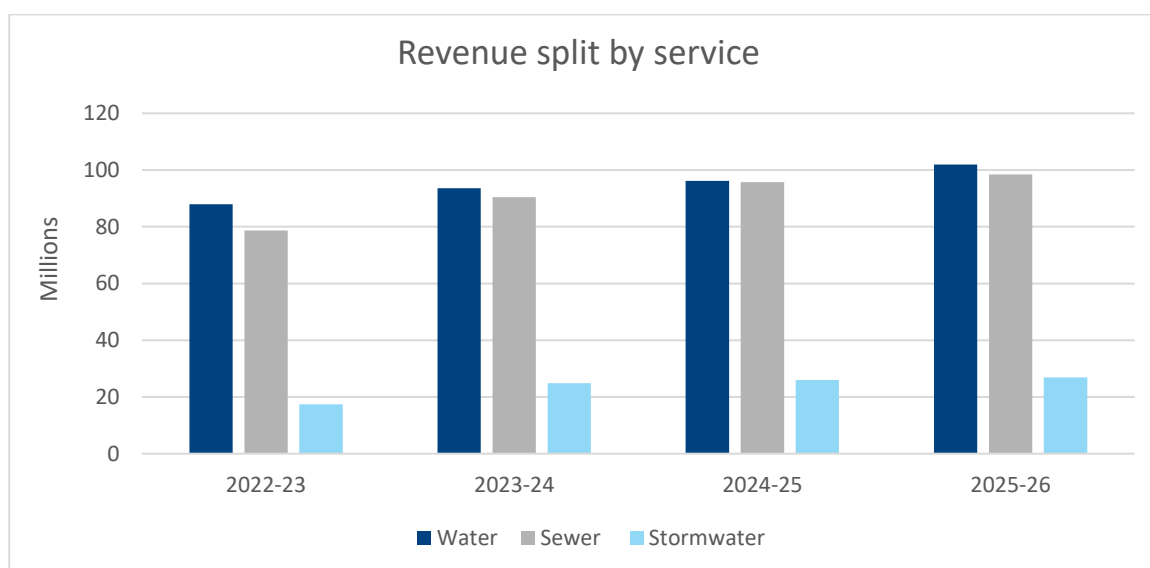


Figure 41: Revenue split by service

Overall, Council is proposing an increase in the revenue requirements, and the movement in the revenue requirements will vary by product.



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IPART uses a set methodology for calculating the weighted average cost of capital (WACC). This is a large component of Council's revenue. The WACC Council has used in the modelling is based on IPART's biannual February 2021 update of 3.31% (post tax real WACC). The tables below show the revenue as unsmoothed, meaning that it is represented as fluctuations in revenue occur from one period to the next. Revenue can also be smoothed, which uses an accounting technique to level out fluctuations in revenue from one period to the next.

Table 21: Notional revenue requirement (\$millions) (\$2021-22) unsmoothed

Financial year ending 30 June \$M	2022-23	2023-24	2024-25	2025-26	2026-27
Operating expenditure	126.1	130.4	135.1	132.6	134.5
Return of capital (depreciation)	27.9	29.9	31.9	33.2	34.5
Return on RAB	48.2	49.4	50.8	52.0	54.7
Return on working capital	1.5	1.3	1.4	1.4	1.2
Tax allowance	3.8	4.7	5.7	6.5	7.4
TOTAL	207.5	215.6	224.9	225.7	232.3

Table 22: Revenue from tariffs by service (\$2021-22) unsmoothed

Financial year ending 30 June \$M (\$2021-22)	2022-23	2023-24	2024-25	2025-26	Total \$2021- 22)	4- year aver age	2026-27
Water	90.7	94.1	100	98.8	383.6	95.9	102.8
Sewer	83.7	92.6	95.1	96.1	367.5	91.2	97.1
Stormwater drainage	23.3	25.4	26.2	27.0	101.9	25.5	28.8
Total	197.7	212.1	221.3	221.9	853.0	212.6	228.7



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12 Forecast water sales and customer numbers

The Central Coast Council region has a current population of approximately 355,000 based on Council's Consultant (.id-informed decisions) population forecasts. Not all the population living in Central Council Local Government Area (LGA) is serviced for water, sewer and stormwater drainage. Council utilises estimated resident population in private dwellings data provided by the consultant "*.id-informed decisions*", to forecast customer numbers for these services. More detailed population data can be found in Technical Paper 7.

The demand for urban water supply is largely driven by the demographics of the region. The population, type of dwelling and occupancy (persons per dwelling) are key elements for water demand modelling. These demographics and growth forecasts are informed by the previous analysis by Council's Consultant (.id-informed decisions).

Forecast connections

Central Coast Council's LGA has a mix of dwelling types and uses ABS data to determine the future population in single and multi-dwellings. This data is combined to provide the total number of occupied dwellings, subdivided into standalone houses and units/flats. The ratio of single dwellings to total dwellings was then calculated and is assumed to decrease in future. Technical Paper 7 gives further detail regarding existing and forecast dwellings used for water demand /sales forecasting.

12.1 Water demand over current determination

In 2019, IPART determined the Council's water forecast sales for the period 2020 to 2022 as provided in Technical Paper 7. The actual sales are on average 6.95% less than the IPART determined figures for years 2019-20 and 2020-21.

12.2 Water demand over next determination

Over the proposed determination period, potable water consumption is forecast for average climate conditions and reflects population and dwellings growth, latest available water fixtures, water use appliances and customer behaviour. Technical Paper 7 provides the forecast water sales for residential and non-residential sectors in megalitres/year for the pricing period.



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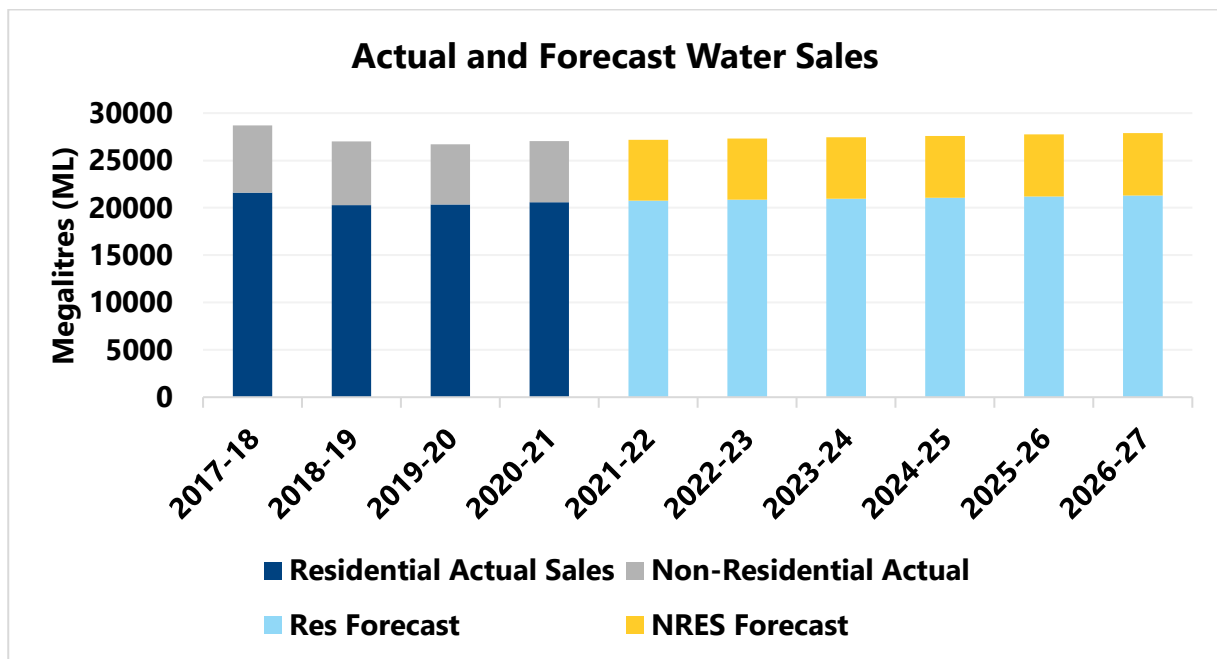


Figure 42: Actual and forecast Water Sales

12.3 Sewerage usage over next determination

Sewerage usage for residential customers is based on property type and levied at a fixed charge to reflect the deemed usage. The deemed Sewerage usage is as follows:

- 125kL for standalone residential properties
- 80kL for residential properties within multiple or mixed multiple premises.

Non - residential customers within mixed multiple premises have a deemed sewerage usage of 125kL and are levied a fixed charge to reflect this. All other non-residential customers are liable for a volumetric sewerage usage charge.

Sewerage discharge volumes are a function of water sales. A sewer discharge factor is applied to water sales to reflect the estimated portion of metered water usage discharged into the sewerage system.

Only three of Council's non-residential customers are separately metered for sewage discharge. For other non-residential customers, a customer-specific discharge factor is applied based on the nature of the individual customer's business. Technical Paper 8 provides more detail on the deemed sewage discharge allowance and sewage discharge factors.

Variances between forecast and actual sewage discharge volumes reflect variances in overall non-residential water demand as well as the mix of non-residential customers with different discharge factors. See Technical Paper 7 for volumes.



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12.4 Customer connections

12.4.1 Water connections

Forecast of connections is based on the rate of historic connections, population and dwellings growth and is divided into 3 different categories:

- Residential (includes Exempt)
- Non-Residential (excluding Exempt)
- Non-Residential Exempts.

Overall, the increase in water connections is in line with the housing activity and business growth.

The proportion of residential units and flats is increasing compared to single dwellings which impacts the proportion of billable customers (properties) within the residential charges. The latest forecast available is 2020-21 Q3 data extracted at March 2021. This information is used as the baseline to forecast billable customers based on estimated population increases, which will increase the number of billable customers (properties). Technical Paper 7 provides actual and forecast residential water connections. The overall average growth of Non-Residential (excluding Exempt) is forecast at around 0.48%.

12.4.2 Sewerage connections

Residential sewerage connections as the proportion of the water service connections in 2020-21 are 97.8%. The properties that do not have a sewerage connection, have onsite sewer management. It is anticipated this proportion will be maintained during the pricing period. Technical Paper 7 provides actual and forecast sewerage connections for the residential and non-residential customers.

Methodology for forecasting sewerage connections is based on current non-residential sewerage customers as a percentage of non-residential water customers, as the percentage varies for each meter size and not all customers are connected to the sewerage network.

12.4.3 Stormwater drainage

Forecasts are based on the annual movement in customer numbers from 2019-20 to 2020-21. There is limited information on customer changes as the new fixed and area-based charges were implemented from 1 July 2019. Customer information for 2020-21 is based on customer information available at March 2021 and can be found in further detail in Technical Paper 7.



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Forecasts are based on:

- Annual movement for each residential customer type and forecasted growth in dwellings (properties) as this is based on forecasted population growth
- Annual movement for each property type for non-residential customers.



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13 Proposed prices – water, sewer and stormwater drainage

Central Coast Council (Council) has calculated water, sewer and stormwater drainage prices that allow for the recovery of proposed target revenues. The proposed pricing allows Council to recover the revenue between residential and non-residential customers via the fixed and usage charges for water and sewer and via standard charges for stormwater drainage. This pricing reflects IPART's best practice principles and past IPART decisions.

The bills have been calculated to remain consistent in real terms throughout the proposed determination period. This was done by summing up the total revenue required for the proposed 4-year determination period and smoothing the billing evenly so the only increase will be the application of the Consumer Price Index (CPI) per annum.

Summary of bill impacts are provided in the table below for residential properties, showing combined movement in prices from the:

- 2013-2019 previous determination period
- 2019-2022 current determination period
- 2022-2026 proposed determination period

Table 23: Historical, current and proposed billings (\$2022-23)

Assumptions 3 bed house 1x20mm meter Annual metered water usage of 150kL*	2013- 2019 Previous Determination Former Wyong LGA (\$22-23)	2013- 2019 Previous Determination former Gosford LGA (\$22-23)	2019 Current Determination Former Wyong LGA (\$22-23)	2019 Current Determination Former Gosford LGA (\$22-23)	2022 Future Determination Central Coast Council LGA (\$22-23)
Water Service	176.30	211.15	89.47	89.47	238.33
Water usage (per kL)	364.50	364.50	322.87	322.87	337.50
Sewer service (includes usage @125kL x usage charge)	517.62	720.57	502.12	539.42	614.96
Stormwater drainage	137.35	133.25	110.70	110.70	181.70
TOTAL bill	\$1,195.77	\$1,429.47	\$1,025.16	\$1,062.46	\$1,372.49

These pricing impacts while large on a year to year basis, are below the NSW average, and have a relatively minor impact on long term trends. Council has undertaken engagement on the price increases.



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13.1 Water proposed prices

Council's proposal for the 2022 determination requests that prices be closer to those in 2018-19, with further details outlined in Technical paper 8.

Table 24: Residential water bills (\$2021/22) & (\$2022-23) 20mm service applied CPI of 2.5%

Financial year ending 30 June	Current prices (\$2021-22)	Proposed prices 2022-2026 (\$2021-22)	Proposed prices 2022-2026 (\$2022-23)
Connection charge	87.29	232.52	238.33
Usage charge (based on 150kl)	315.00 (\$2.10)	330.00 (\$2.20)	337.50 (\$2.25)
TOTAL	402.29	562.52	575.83
Connection charge change (%)	0%	40%	
Usage charge change (%)	0%	4.7%	

Note: the service charge applies equally to those living in houses, apartments, multi premises, mixed multi premise and unmetered properties. Exempt properties pay for water & sewer usage only

Table 25: Non-residential water bills 25mm and above (\$2021-22) and (\$2022-23) applied CPI of 2.5%

Financial year ending 30 June (assume 300kl p.a)	Current prices (\$2021-22)	Proposed prices 2022-2026 (\$2021-22)	Proposed prices 2022-2026 (\$2022-23)
Service charge 25mm	136.39	363.31	372.39
Usage charge (based on 300kL)	630.00	660.00	675.00
Total	766.39	1,023.31	1,047.39
Total change (%)		33.8%	
Service charge 32mm	223.46	595.25	610.13
Usage charge (based on 300kL)	630.00	660.00	675.00
Total	853.46	1,255.25	1,285.13
Total change (%)		47%	
Service charge 40mm	349.15	930.08	953.33
Usage charge (based on 300kL)	630.00	660.00	675.00
Total	979.15	1,590.08	1,628.33
Total change (%)		62%	
Service charge 50mm	545.55	1,453.25	1,489.58
Usage charge (based on 300kl)	630.00	660.00	675.00
Total	1,175.55	2,113.25	2,164.58



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Financial year ending 30 June (assume 300kl p.a)	Current prices (\$2021-22)	Proposed prices 2022-2026 (\$2021-22)	Proposed prices 2022-2026 (\$2022-23)
Total change		80%	
Service charge 80mm	1,396.61	3,720.32	3,813.32
Usage charge (based on 300kl)	630.00	660.00	675.00
Total	2,026.61	4,380.32	4,488.32
Total change		116%	
Service charge 100mm	2182.19	5813.00	5958.32
Usage charge (based on 300kl)	630.00	660.00	675.00
Total	2,812.19	6,473.00	6,633.32
Total change		130%	
Service charge 150mm	4909.98	13079.25	13406.23
Usage charge (based on 300kl)	630.00	660.00	675.00
Total	5,539.98	13,739.25	14,081.23
Total change		148%	
Service charge 200mm	8,728.85	23,252.00	23,833.30
Usage charge (based on 300kl)	630.00	660.00	675.00
Total	9,358.85	23,912.00	24,508.30
Total change		155%	
Service charge 250mm	13,638.83	36,331.25	37,239.53
Usage charge (based on 300kl)	630.00	660.00	675.00
Total	14,268.83	36,991.25	37,914.53
Total change		159%	
Service charge 300mm	19,639.91	52,317.00	53,624.92
Usage charge (based on 300kl)	630.00	660.00	675.00
Total	20,269.91	52,977.00	54,299.91
Total change		161%	
Service charge 350mm	26,732.10	71,209.25	72,989.48
Usage charge (based on 300kl)	630.00	660.00	675.00
Total	27,362.10	71,869.25	73,664.48
Total change		162%	
Service charge 400mm	34,915.40	93,008.00	95,333.20
Usage charge (based on 300kl)	630.00	660.00	675.00
Total	35,545.40	93,668.00	96,008.20
Total change		163%	



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The table above sets the price for the meter sizes in Councils current fleet. The prices to be charged for any meter not currently in Councils fleet the following formula to be used: (meter size mm)² x water services charge for a 20mm Meter /400 e.g. for a 25mm = 363.31 (\$2021-22). Note. the sewerage usage of 300kL is indicative only as sewerage usage for non-residential customers varies across different business types and water consumption.

Pensioner rebates residential

Currently Council provides pensioners with a reduction of 50% of the water supply service and water usage charges levied up to a maximum of \$87.50 per annum. A further reduction of 50% of sewerage service and sewerage usage charges is levied up to a maximum of \$87.50 (residential customers only).

The pensioner rebate is calculated based on the percentage ownership of the property. For example, where a property is jointly owned and only one property owner is an eligible pensioner, the maximum pensioner rebate is 50%. Maximum rebate is \$43.75 per annum being \$87.50 x 50%. Table 26 and Table 27 show potential pricing relevant to the application of the pensioner rebate.

The following is an illustration of the pensioner rebate against proposed prices for the 2022 determination. There is no rebate shown against the usage charge as it is expected that the service charge will increase, and the total rebate will be applied. If this is not the case and the service charge remain low, then the usage charge will again be used to apportion the total rebate. Pensioner rebates are applied to service charges first and then to usage charges if there is any remaining pensioner rebate.

Table 26: Water bills including pensioner rebate where the eligible pensioner has 100% ownership of the property (150kL p.a.)(2022-23 applied CPI of 2.5%)

Financial year ending 30 June	Current prices (\$2021-22)	Proposed prices 2022-2026 (\$2021-22)	Proposed prices 2022-2026 (\$2022-23)
Connection charge	87.29	234.46	240.32
Pensioner rebate	(45)	(88)	(88)
Usage charge	315	330	337.50
Pensioner Rebate	(43)	-	-
Total	314.29	476.46	489.82
Total rebates	(88)	(88)	(88)



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13.2 How we arrived at the prices

Step 1: Determine the recovered revenue required from charges

Step 2: Calculate the water usage charge based on the Long Run Marginal Cost (LRMC)

Step 3: Calculate how much revenue we forecast to recover from usage charges

Step 4: Calculate the residual revenue that we need to recover from service charges

Step 5: Calculate the water service charges by dividing the residual revenue by the forecast number of connections based on 20mm equivalents

For more detail on bill impacts, refer to Technical Paper 8.

13.3 Sewerage proposed prices

For sewerage services, owners of apartments pay less than owners of a free-standing dwelling. This is attributed to a deemed sewer usage allowance that is 125kl per annum for houses and 80kl per annum for apartments. Mixed multi premises also have a deemed usage allowance of 125kl per annum. This deemed allowance³ assumes the discharged amount to the sewerage network is 75% of the water that enters the property.

Non-residential customers do not have a deemed discharge allowance, instead the sewerage usage is based on the volume measured by the water meter with a discharge factor applied to that water consumption. The discharge factor is based on their type of business.

For this proposal, Council is not proposing location-based pricing.

Table 27 and Table 28 detail Council's proposed sewer prices for the 2022-2026 determination. All residential meters are based on 20mm.

Table 27: Residential sewer bills (\$2021-22) includes 75% discharge allowance. (\$2022-23) applied CPI of 2.5%

Financial year ending 30 June	Current prices (\$2021-22)	Proposed prices 2022-2026 (\$2021-22)	Proposed prices 2022-2026 (\$2022-23)
Connection charge (\$ pa) former Gosford	416.27	486.54	498.71
Connection charge (\$ pa) former Wyong	379.88		

³ The 'discharge factor' is the percentage of metered water consumption that is estimated to be discharged to the sewerage system.



Usage charge 125kl	110.0	113.75	116.25
Usage charge 80kl	70.4	72.80	74.40
Total charge % change		51%	
Usage charge (\$/kl)	0.88	0.91	0.93
Connection charge change (%) Gosford		17%	
Connection charge change (%) (Wyang)		29%	
Usage charge change (%)		3%	

Note: the service/connection charge applies equally to those living in houses, apartments, multi premises, mixed multi premise and unconnected properties

Table 28: Non-residential sewer prices (\$2021-22) & (\$2022-23)

Connection size Non-residential	Current prices (\$2021-22)	Proposed prices 2022-2026 (\$2021-22)	Proposed prices 2022-2026 (\$2022-23)
20mm Gosford	555.03	648.73	664.94
20mm Wyong	506.50		
Service charge change average (%)	530	23%	
25mm Gosford	867.24	1,013.64	1,038.98
25mm Wyong	673.51		
Service charge change average (%)	770	32%	
32mm Gosford	1,420.88	1,660.74	1,702.26
32mm Wyong	1,103.48		
Service charge change average (%)	1,262.18	32%	
40mm Gosford	2,220.13	2,594.92	2,659.79
40mm Wyong	1,724.18		
Service charge change average (%)	1972	32%	
50mm Gosford	3,468.96	4,054.56	4,155.92
50mm Wyong	2,694.03		
Service charge change average (%)	3081	32%	
80mm Gosford	8,880.54	10,379.68	10,639.17
80mm Wyong	6,896.73		
Service charge change average (%)	7,888	32%	
100mm Gosford	13,875.83	16,218.25	16,623.70
100mm Wyong	10,776.15		
Service charge change average (%)	12325	32%	
Exempt (usage only)	0.88	0.91	0.93
Sewer usage charge	0.88	0.91	0.93



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Connection size Non-residential	Current prices (\$2021-22)	Proposed prices 2022-2026 (\$2021-22)	Proposed prices 2022-2026 (\$2022-23)
Usage charge change (%)		3%	

These prices do not include the discharge factor –but the maximum to be paid. Exempt properties pay for sewer usage only based on water consumption and discharge factor (usage charge). The table above sets the price for the meter sizes in Councils current fleet. The prices to be charged for any meter not currently in Councils fleet the following formula to be used: (meter size mm)² x service charge for a 20mm Meter /400 .

Pensioner rebates residential

Table 29: Sewer bills including pensioner rebate where the eligible pensioner has 100% ownership of the property (\$2022-23 applied CPI of 2.5% (Service charge is the average of the two former LGA's with application of a 75% discharge factor usage based on 80kl)

Financial year ending 30 June	Current prices (\$2021-22)	Proposed prices 2022-26 (\$2021-22)	Proposed prices 2022-2026 (\$2022-23)
Service charge	398.07	486.54	498.71
Pensioner Rebate	(88)	(88)	(88)
Usage Charge	69.90	72.80	74.40
Total Charges	379.97	471.34	485.11
Total Rebates	(88)	(88)	(88)

13.4 How we arrived at the pricing

Step 1: Determine the recovered revenue required from charges

Step 2: Calculate the sewer usage charge based on the Short Run Marginal Cost (SRMC)

Step 3: Calculate how much revenue we forecast to recover from usage charges by multiplying the usage charge by the forecast volumes of sewerage sales

Step 4: Calculate the residual revenue that we need to recover from service charges

Step 5: Calculate the sewer service charges by deducting the usage revenue from the total revenue required then dividing the result by the number of sewerage connections (based on 20mm equivalents).

Pricing for houses, apartments and farmland customers and non-residential customers classified as low impact is a standard charge per year. The prices for other non-residential customers are based on the land area of their property.

Table 30 details Council's proposed stormwater drainage charges for the 2022-26 determination.



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Table 30: Proposed stormwater residential bills (\$2021-22) & (\$2022-23) applied CPI of 2.5%

Residential	Current prices (\$2021-22)	Proposed prices 2022-2026 (\$2021-22)	Proposed prices 2022-2026 (\$2022-23)
Property	108.00	177.27	181.70
Residential Property Charge change (%)		61%	
Multi-premise	81.00	132.95	136.27
Mixed Multi-premise	81.00	132.95	136.27
Residential Property Charge change (%)		64%	
Farmland	108.00	177.27	181.70
Residential Property Charge change (%)		61%	
Vacant Land	81.00	132.96	133.96
Residential Property Charge change (%)		64%	

Table 31: Stormwater Drainage Area Non-Residential based bills (\$2021-22) (\$2022-23 applied CPI of 2.5%

Non-Residential	Current prices (\$2021-22)	Proposed prices 2022-2026 (\$2021-22)	Proposed prices 2022-2026 (\$2022-23)
Multi-premise	81.00	132.95	136.27
Mixed Multi-premise	81.00	133.95	136.27
Property Charge change (%)		64%	
Low Impact	108.00	177.27	181.70
Property Charge change (%)		61%	
Area Based			
Small(<1000m2)	108.00	177.27	181.70
Property Charge change (%)		61%	
Medium (1,001- 10,000m2)	189.01	310.22	317.97
Property Charge change (%)		70%	
Large (10,001-45000m2)	891.02	1,462.47	1,499.03
Property Charge change (%)		70%	
Very large (>45,000m2)	2700.07	4,431.75	4,542.54
Property Charge change (%)		70%	
Vacant Land			
All customers	81.00	132.95	136.27
Property Charge change (%)		64%	



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13.6 How we arrived at the pricing

Step 1: Determine the revenue required that we need to recover from charges

Step 2: Determine the property types i.e. house, multi premise, farmland, business

Step 3: Determine if businesses are zoned recreation, environmental or waterways

Step 4: Determine the number of residential equivalents

Step 4: Divide revenue by number of residential equivalents taking into account the area-based ratios for medium, large and very large properties



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14 Ancillary charges

Council's Water and Sewer Directorate provides additional trade waste and miscellaneous services to the Central Coast businesses and the wider community. It is imperative that the Liquid Trade Waste (LTW) discharge be monitored to avoid fat build up in the sewerage systems.

14.1 Trade waste

Council's sewerage infrastructure receives trade waste from business customers via property connections. The treatment plants also receive tankers that deliver sewerage from customers with onsite sewerage systems.

Liquid trade waste (LTW) is any discharge other than sewage of domestic nature (i.e. wastewater from a hand wash basin, shower, bath, toilet or domestic laundry) to a sewerage system.

Sewerage systems are designed to safely collect, transfer, treat and dispose of sewerage that is mostly of domestic origin. However, sewerage systems may also accept LTW discharges provided they are planned, approved and controlled within LTW acceptable limits.

Sound regulation and pricing of sewerage and LTW is a key component of the NSW Best Practice Management of Water Supply and Sewerage Framework (July 2016). The Department of Planning, Industry and Environment (DPIE) develops and updates Liquid Trade Waste Management Guidelines (2021) and related documents to assist councils in regional NSW with best-practice regulation of sewerage and trade waste. DPIE has developed guidelines and documents in relation to:

- Approval to discharge
- Liquid Trade Waste (LTW) Management Guidelines.

Council has an extensive suite of administrative and mass charges applying to the management of the discharge of LTW to Council's sewerage system. These services relate to commercial and industrial customers where there is available capacity and capability at the receiving sewer treatment plant (STP).

Council has reviewed its LTW charges to ensure they are robust, appropriate and aligned with IPART's trade waste principles.



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Figure 43: View of a manhole with build-up of fat choking a sewer main

There are approximately 1218 LTW approvals within the Central Coast Council local government area (LGA) (approvals may have multiple dischargers attached). These consist of:

- Category 3 approvals - 26
- Category 2 approvals - 1005
- Category 1 approvals - 165
- Category S (Tanker) approvals – 22.

A more detailed summary of Trade Waste Agreement types and Risk Classifications can be found in Technical Paper 9 as well as an overview of the IPART Pricing Principle.

For the 2022 determination we are proposing to maintain our pricing structure, which is based on risk, Central Coast Council Trade Waste policy and the LTW regulations guidelines (2021).

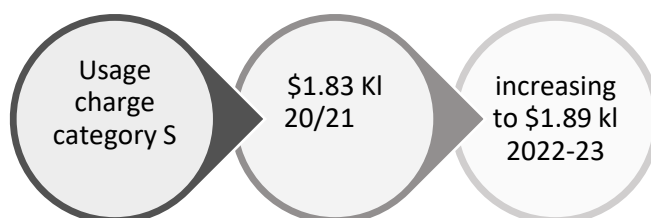


Figure 44: Usage charge increase



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14.2 Miscellaneous charges

Council provides miscellaneous customer services where no alternative supply exists, and relative to the supply of other monopoly services.

The cost basis for miscellaneous and ancillary charges per service calculation includes both on costs (inclusion of payroll tax, superannuation) and corporate overheads. It has been aligned to IPART's pricing principles of full cost recovery for services provided.

Minor construction and plumbing services are often provided by Council's contract plumber. Cost is determined by the cost the provider charges Council for provision of the customer service and includes materials cost and labour.

New charges

The new Water Service Connection and Inspection of Asset charges proposed for this pricing period can be found in Technical Paper 9.

Adjust charges

Application for adjustment of water service

- The proposed charge will allow Council to recoup the costs associated with assessing an application and granting an adjustment of water service or denying an application.

Section 305 application

- Developers are required to obtain a Section 306 requirements letter, explaining the requirements for a Section 307 Certificate, stating that the development complies with the Water Management Act 2000. The new charge proposed will allow Council to recoup the costs associated with processing requests from developers for this service. Refunds for the admin component of the Water Management Act (WMA) charge will be denied.

Removed charges

Water reconnection

- Council does not disconnect water services for non-payment of outstanding bills. If a customer has applied for disconnection, then wishes to reconnect, an application will be made under item 10 - Water service connection.

Water Service Connection



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- Water service connection short service
- Water service connection long service
- Council proposes to phase out 32mm water service connections and instead offer 40mm connections if a larger capacity service is required.

Plumbing and drainage inspection

- This service is now deemed to be a Council service, not an IPART- reviewed service provided by Water and Sewer.

Section 307 Certificate

- Development without requirement
- This service will now be provided via the new Service 23 Section 305 application.

Cancellation of water and sewer application

- This service was associated with item 19 – Plumbing and Drainage Inspection so will be discontinued as it is now deemed to be a Council service, not an IPART- reviewed service provided by Water and Sewer.

Read more on our trade waste and ancillary charges in Technical Paper 9

14.3 Recycled Water

Recycled water is defined by IPART as sewerage or stormwater that has been collected and treated by a public water utility, for reuse in urban irrigation, industrial processes, environmental flows and non-potable residential purposes.

Council operates several STPs and stormwater capture systems, both of which yield water for reclamation useful where potable water is unnecessary. Council currently supplies recycled water to a variety of different end users such as residential customers, ground keepers, holiday parks, construction companies, and for reuse within some of the STPs.

IPART classifies Council as having “voluntary recycled water schemes” and “other” schemes that service the sewer treatment plant where they are located. Council does not have mandatory or section 16A schemes. Figure 45 lists the recycled water schemes in the Central Coast local government area (LGA). The sewer treatment plants (STPs) and stormwater reuse sites in the LGA are shown.

Council does not presently include recycled water infrastructure in the developer servicing charges.



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Central Coast Council's recycled water schemes

Mandatory schemes	Voluntary schemes	Section 16A	Other
N/A	▼ Bateau Bay ▼ Toukley ▼ Kincumber	N/A	▼ Woy Woy ▼ Charmhaven ▼ Gwandalan ▼ Mannering Park ▼ South Wyong

Figure 45: Central Coast Council recycled water schemes

Council has separately identified and reported amounts representing recycled water in accordance with IPART's requirements. Recycled Water is classified as a non-regulated activity and as such is outside the current determination.



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15 Council's regulatory framework

Council's water, sewer and stormwater drainage operations are regulated through a range of legislative and other controls. A more detailed overview of the current regulatory framework can be found in Technical Paper 10. Some legislation is relevant to more than one category and is presented in its dominant category.



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16 List of technical papers and abbreviations

16.1 Technical papers

Technical Paper 1 Engaging with our Customers and Community

Technical Paper 2 Service Levels

Technical Paper 3 Form of Regulation

Technical Paper 4 Capital Expenditure

Technical Paper 5 Operational Expenditure

Technical Paper 6 Revenue Requirements

Technical Paper 7 Demand for Services

Technical Paper 8 Pricing Water, Sewer and Stormwater Drainage

Technical Paper 9 Pricing Other Services

Technical Paper 10 Our Role and Operating Context

16.2 Abbreviations

ADWG	Australian Drinking Water Guidelines
BOD	Biochemical Oxygen Demand
CAPEX	Capital Expenditure
CCCWSP	Central Coast Council Water Security Plan
CCCSNTP	Central Coast Council Sewer Networks and Treatment Plan
CCTV	Closed Circuit Television
DRC	Depreciation Replacement Cost
DWMS	Drinking Water Management System
ECM	Efficiency Carryover Mechanism
EPL	Environmental Protection Licence
FAR	Fixed Asset Register
FASS	Forensic and Analytical Science Service
IPART	Independent Pricing and Regulatory Tribunal
LGA	Local Government Agency
LIS	Line in the Sand
LRMC	Long Run Marginal Cost
LTW	Liquid Trade Waste
MWTP	Mardi Water Treatment Plant
NPR	National Performance Reporting
OPEX	Operational Expenditure
RAB	Regulated Asset Base
SCADA	Supervisory Control and Data Acquisition
SRMC	Short Run Marginal Cost



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WACC	Weighted Average Cost of Capital
YVOC	Your Voice Our Coast



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17 Appendix

17.1 Issues from current determination

In IPARTs final report in 2019 (current determination) there were several issues that IPART required Council address in this proposal. Council's response to each issue as required below:

17.1.1 Changes in price structures

IPART Description

IPART recommended that Council considers changes to price structures as follows.

"We recommended the council considers implementing changes gradually over a number of years when proposing significant changes to how water, sewerage and stormwater prices are structured. For example, in the 2019 price determination, we phased in the council's proposed changes to sewerage service charges for non-residential customers in Wyong to prevent bill shock and introduced a transition to area-based stormwater prices to avoid excessive price increases for customers with larger property area sizes. We consider having a transition period for large price changes is important to mitigate the impact on affected customers."

Council's Response

While Council acknowledges that smoothing charges to avoid price shock is important for customers, Council has submitted prices that is consistent throughout the regulatory period (in real terms). This enables the community to budget through consistently, predictable charges and avoids large price increases towards the end of the regulatory period.

17.1.2 Better information on the costs of providing sewerage and trade waste services

IPART Description

In the June 2018 Issues paper, IPART recommended that Central Coast Council prices for sewerage should consider using the Long Range Marginal Cost (LRMC) for its calculation of the sewerage usage charges.



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"An alternative would be to set the price of sewerage discharges (\$ per kilolitre) with reference to estimates of the long run marginal cost (LRMC) of treating, transporting and disposing of one additional kilolitre of domestic-strength sewage. The LRMC of supply reflects the costs of supplying services over the longer-term, including any future costs of augmenting distribution networks and treatment plants that may be required to meet demand.

IPART also recommended that the trade waste pricing principles be adopted by Council and include the following:

Applying appropriate pricing principles to trade waste requires that:

- *Standards for acceptance should be based on the capacity of current systems to transport, treat and dispose of the waste, having regard to the health and safety of Sewerage workers*
- *Trade waste prices should cover the efficient costs to the water supplier of handling the waste, including an allocation for corporate overhead*
- *Prices should vary to reflect differences in the cost of treating waste to the required standards at particular locations*
- *Water suppliers should set prices and standards in a manner that is transparent and accurate. The method of measurement should be reliable and the basis for setting prices should reflect costs incurred, as far as possible.*

Where environmental reasons are made for variations from the above pricing principles then sufficient evidence needs to be available to justify these variations. The basis for calculating greater-than-cost prices where environmental justifications exist should also be justified.

Council's Response

Central Coast Council is currently working on the Water Cycle Management Plan (WCMP), a regulatory requirement from the Department of Planning and Environment (DPIE). The WCMP is comprised of two parts:

- Central Coast Council Water Security Plan (CCCWSP)
- Central Coast Council Sewer Networks and Treatment Plan (CCCSNTP).

The CCCWSP analyses the long-term water security for the Central Coast and reviews headworks capacity and water sourcing. This part of the WCMP has been completed.

The CCCSNTP analyses the increased capacity required on existing systems for both treatment and transport (networks). This includes (but is not limited to):



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- Understanding future capital costs per catchment up to 25 years x application of appropriate WACC
- Application of efficiency factor to CAPEX delivery (assuming 10%)
- Estimate future growth per catchment to understand future demand
- Estimate both biological and hydraulic capacity per treatment plant
- Understand existing transport costs
- Understand existing treatment plant costs, which may include load concentration costs
- Understand future operational costs to both treatment plants and transport assets based on increase in demand and asset augmentation.

The modelling for the CCCSNTP based on the above requirements is still at a preliminary stage and will not be available for this submission. DPIE has revised the framework and extended the delivery of this modelling to December 2024.

Trade waste levy charges are in line with the Department of Planning, Industry and Environment (DPIE). Discharge factors are used to determine the quantity of liquid trade waste discharged to the sewerage network, (a cost for discharging substances above domestic deemed concentrations).

For Central Coast Council, trade waste is regulated under the Local Government Act, Water Management Act and Protection of the Environment Operations Act. Trade waste charges are those set by DPIE.

Discharge factors are dependent on industry category and type:

- **Category 3** industrial businesses, that discharge over the deemed domestic load. Currently these customers forward the load concentration data (per substance) to Council to understand the load and define the billing based on the actual load concentration (up to 48 substances) per kilogram.
- **Category 2** are businesses that do not have high loads, charging is based on an average load per kilogram x volume of sewerage (with applicable discharge factors dependent on the industry). This additional charge price per kL is set by DPIE.

Substances discharged for example are: (but not limited to)

- Biochemical Oxygen Demand (BOD)
- Suspended solids
- Oil and grease
- Dissolved solids
- Nitrogen
- Phosphorous.



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These above substances (load) attract a trade waste charge as they increase the process operation required at the treatment plant (aeration run times, chemicals etc.)

IPART requested that Council set the trade waste charge based on the catchment.

Broadly IPART is requesting Council to bill the BOD for Category 3 customers based on the BOD per kL charge per treatment plant, replacing the current postage stamp pricing set by DPIE. The remainder of the 47 substances would use an average load price, SWC engaged a consultant to calculate this charge.

Trade-waste catchment modelling and therefore pricing will not be part of this submission (as agreed with IPART).

17.1.3 Asset lives and disaggregation of the Council's RAB.

IPART Description

We recommended the Council further analyse the economic lives of its water, sewerage and stormwater assets.

This would allow the Council's RAB to be better disaggregated into asset classes that more closely reflect the underlying economic lives of its assets, promoting more cost-reflective prices and supporting the Council's financial sustainability

Council's response

Council has disaggregated the asset base for its water, sewer and stormwater drainage assets for this submission.

Disaggregation of the assets means that the asset categories in the Regulated Asset Base (RAB) need to go to a lower level than the existing water, sewer and stormwater drainage while not changing its value.

This meant breaking the current RAB asset categories of water, sewer and stormwater drainage assets. The proposed disaggregation is as follows:

Stormwater drainage

- Non-depreciating
- Mechanical/electrical



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- Civil
- Equipment

Water supply

- Buildings
- Mechanical/electrical
- Civil
- Equipment/telemetry

Sewerage north

- Non-depreciating
- Buildings
- Mechanical/electrical
- Civil
- Equipment/telemetry

Sewerage south

- Non-depreciating
- Buildings
- Mechanical/electrical
- Civil
- Equipment/telemetry

The value for these categories was calculated by referencing the Weighted Average Useful Lives in the Fixed Asset Register (FAR). In addition, Council reduced the value of depreciation replacement cost (DRC) for Assets built prior to the Line in the Sand (LIS)⁴ for Assets built prior to 1st July 2000.

17.1.4 Customer Engagement

IPART Description

We recommended the Council takes steps to improve its engagement with customers.

⁴ In the 2000 IPART determination the LIS valued council's operator's existing assets using a discounted cash flow analysis. The 'line in the sand' approach was used to ensure that only new and efficient capital investment was paid for by consumers. An advantage deemed by IPART, that it appropriately reflected the fact that many of the assets represented a legacy of previous capital expenditure..



This was because we found the Council's consultation for the 2018-19 price review was not sufficiently representative. We identified a lack of customer awareness about the Council's proposed stormwater prices, and it was not clear that proposed price changes were communicated clearly enough to elicit an informed view from customers.

Further, the Council's proposed expenditure programs and capital works could be better informed by customer preferences, including customers' willingness to pay to maintain assets to a certain quality.

Council's Response

Council's Water and Sewer Directorate has undertaken considerable engagement with customers over the past two years. Technical Paper 1 details Council's customer engagement focus for this submission.

17.1.5 Funding of Stormwater Services

IPART Description

We consider there is a strong economic rationale that stormwater charges should be part of the Council's general rates and not levied separately with water and wastewater services.

In the 2018-19 price review, the Council committed to investigating alternative funding sources for stormwater drainage services during the upcoming determination period.

Council's Response

Council acknowledges IPART concerns regarding the manner in which we deliver stormwater management when compared to other Water Supply Authorities. In line with recommendations from the last Determination, Council has investigated a range of options to achieve stronger industry alignment. This has included:

- High level benchmarking against other Water Supply Authorities and Councils
- Modelling various stormwater drainage definitions to analyse the impact of transitioning to a 'trunk drainage' approach
- Investigating alternate funding sources
- Revising our capital works planning approach to show stronger alignment with IPART drivers and industry approach.



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Given Council's financial position and recently approved Special Rate Variation as well as the risks, administrative complexities and potential to confuse customers – Council does not consider it the right time to pursue a major structural change to the customer charging approach for stormwater drainage.

While no changes are proposed within the next IPART Determination period, Council will pursue resolution of the above matters to coincide with commencement of the following IPART Determination. This will mitigate any impact on service levels, support stable revenue forecasting and financial planning, and ensure the provision of a consistent, stable and prudent stormwater drainage service to customers.

17.2 Other issues IPART requested to be addressed

IPART further requested the following be addressed in Council's proposal.

17.2.1 Bulk water transfer price

IPART Description

- *What is Council's view on the best methodology for setting the maximum price (or prices) for bulk water transfers between Hunter Water and the Council (and vice-versa)?*
- *What is Council's view on whether we should update the Bulk water transfers price determination as part of the 2021-22 price review, given the provision for an unregulated pricing agreement?*

Council's Response

A major pipeline link between Council's supply network and Hunter Water's supply network was established during the millennium drought to enable water transfer during times of water shortage. The transfers reduce the rate of decline in the bulk water storages of the affected region until the conditions improve and the storages recover. The Independent Pricing and Regulatory Tribunal (IPART) determines the maximum price (or prices) at which utilities can trade water with each other, and reviewed these prices during the recent pricing determination (2019-22).

Both Hunter Water and Council proposed setting the price based on the higher Short Run Marginal Cost (SRMC) of the two utilities which would have resulted in a transfer cost of \$0.33/kL. The key reasons for this included:

- Provides flexibility to manage the uncertainty of volumetric transfers



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- Is equitable in that the utilities' capital investment is recovered from their respective customer bases (as it provides drought security for customers in both regions)
- Is consistent with the objective of not constraining the transfer of water between the regions as a drought security response
- Allows for revenue neutral outcomes when water is transferred for maintenance purposes only.

Discussions have since occurred between senior staff at Central Coast and Hunter Water, resulting in the attached proposal to vary the existing Hunter Central Coast Pipeline Agreement, in line with the proposal to base the transfer rate on the higher of the two utility's SRMC (\$0.33/kL). It is noted that this is Central Coast's SRMC, with Hunter Water's SRMC in the order of \$0.12/kL.

The key aspects of this variation are:

1. Set the inter-region transfer cost between Hunter Water and Central Coast Council to \$0.33/kL in both directions, with price irrespective of inflation to simplify administration
2. Commence the variation from the date of signage of the document by both parties
3. Terminate the variation on 30 June 2022, the date that the current IPART determination is due to expire.

The current agreement expires on the 30th June 2022 and a renewal is proposed, and Council intends to further extend a nonregulated pricing agreement with Hunter Water Corporation.

17.2.2 Efficiency Carryover Mechanism

IPART Description

- *Is the Council proposing any carryover of operating expenditure efficiency gains realised in the current determination period?*
If so, the Council should populate and submit the IPART ECM⁵ (Efficiency Carryover Mechanism) worksheet in the SIR Excel file along with its pricing submission. We will then use the populated ECM worksheet to inform the expenditure review.

Council's Response

The Efficiency Carryover Mechanism (ECM) carries forward to the next determination any efficiency gains in OPEX that occurred in any year of the current determination.

⁵ ECM refers to Efficiency Carryover Mechanism



Council (as per HWC and SWC) agreed to participate in this process for this determination. Regardless of the year efficiency is realised, the reduction is carried forward. This eliminates the "gaming of OPEX" occurring in the earlier years when normally the penultimate year is used for base OPEX. Any reduction in actual OPEX 19/20, 20/21 and 21/22 will mean the efficiency can be carried forward and reflected in reduced revenue at a point in the next determination, allowing CCC to benefit from current OPEX reductions. It is envisaged that there will be no efficiency gains in OPEX for this determination that can be carried forward.

17.2.3 Water Sales

IPART Description

Did the Council's actual water sales vary from forecast sales by more than 5% (+ or -) over the 2019 determination period?

- Does the Council have any views on our demand volatility adjustment approach developed as part of the 2019-20 Sydney Water and Hunter Water price reviews?*

Council's Response

The Demand Volatility Adjustment Mechanism is a safeguard used by IPART to address actual water sales that depart from IPART's forecast water sales over the current determination period. This mechanism is designed to protect the consumer if Council underestimates the demand and over-recovery revenue, or alternatively protect Council if demand is overestimated, and results in an under-recovery revenue. IPART's final report for Council specified a plus or minus 5% neutral zone for this determination, where an adjustment can be made to address the over or under recovery of revenue as follows:

- A material variation is defined as more than 5% (+ or -) over the whole determination period
- IPART will only consider adjusting variation greater than 5% (+ or -)
- As part of the next price review, IPART will consult on the application of a volatility mechanism if a material variation occurs.

For the 2019 determination period, IPART adjusted Council's water sales as listed in Table 32.



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Table 32: Councils proposed versus IPARTs decision

	2019-20	2020-21	2021-22
Council Proposal			
Houses	18,267	18,383	18,497
Apartments	2,830	2,843	2,856
Non-residential	6,075	6,127	6,176
Meter exempt properties	0	0	0

The forecast of consumption is always estimated for the final year of the current determination period. However, current trends suggest the consumption set by IPART was higher than forecast, resulting in less than expected revenue. Figure 46 shows the forecast trends.

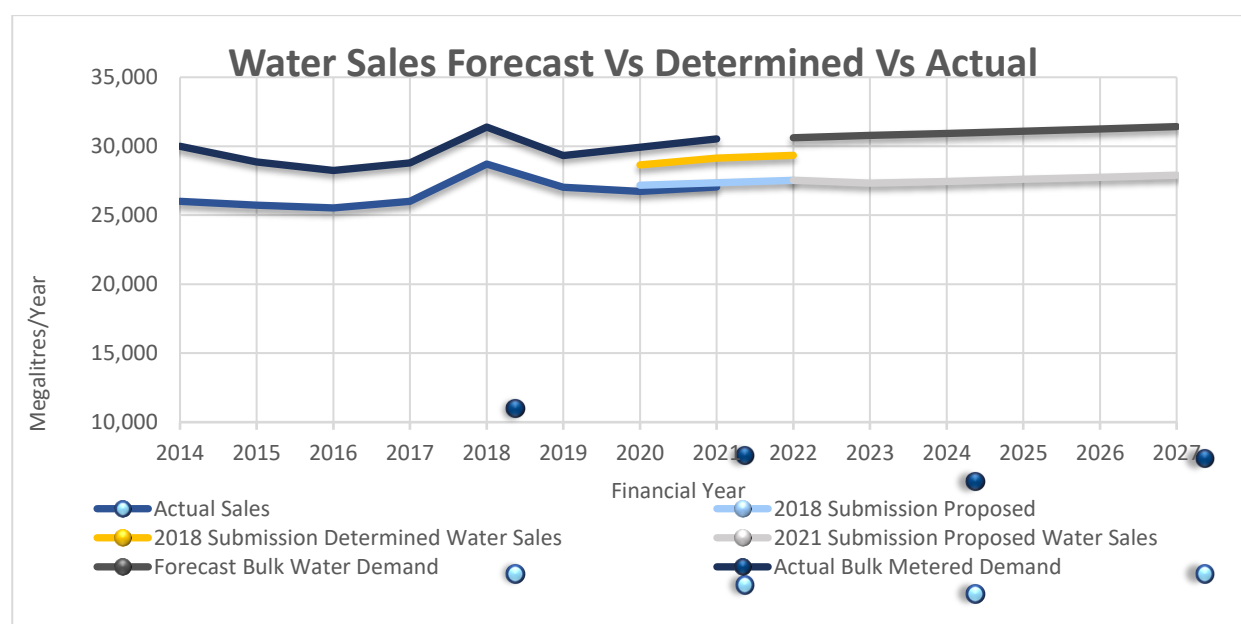


Figure 46: Water sales forecast v Determined v Actuals

17.2.4 Climate Change Fund True-up

IPART Description

Was the council required to make contributions to the Climate Change Fund over the 2019 determination period

Council's Response

Council was not required to make contributions to the Climate Change Fund over the 2019 determination period.



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