Central Coast Council Water and Sewer Performance Report



Water and Sewer

2023-2024

Central Coast Council



Contents

Director's message	4
Transparency and education	5
How we've kept our community updated over the last 12 months	6
Good quality water	9
Effective planning	10
Reliable service	16
Environmental focus	21
Quality treatment	24
Affordable	27
Get in touch	29

Director's message

Across the last 12 months we have continued to listen to our customers. Our community has reviewed Council's Water and Sewer performance and targets—these new insights will help to further guide our future focus and inform our forecast expenditure.

In addition to the performance results in this edition of the Water and Sewer Annual Performance Report, I'm pleased to share some key statistics with you, around the services we provide:

Since July 2023, Council's Water and Sewer department has:

- Attended to over 39,000 customer calls
- Flushed more than 80km of mains
- Surveyed over 1600km of mains for water leaks
- Attended to 357 water main breaks
- Attended to 1,100 sewer breaks and chokes
- Completed 976 new water services and adjustments to existing services.

This year's report also shares some story highlights, which includes the most ambitious water infrastructure upgrade the region has seen this decade, and our commitment to continual improvement as we deliver on our customers values and build a resilient and sustainable water future.

We want to make special mention to all that participated in our engagement and education activities and thank everyone for their enthusiastic and well-considered feedback. Participation in our face-to-face forums, online surveys, telephone surveys and pop-up stalls demonstrated keen



Jamie Loader, Director Central Coast Council Water and Sewer

interest from our community and provided us valuable insights that will help us prepare our next pricing submission.

We're implementing diverse and innovative engagement methods as part of our ongoing program, reaffirming our commitment to ensuring our customers remain at the centre of everything we do.

Finally, thank you to the Central Coast Council Water and Sewer team for your dedicated service to our community as we work towards our Vision:

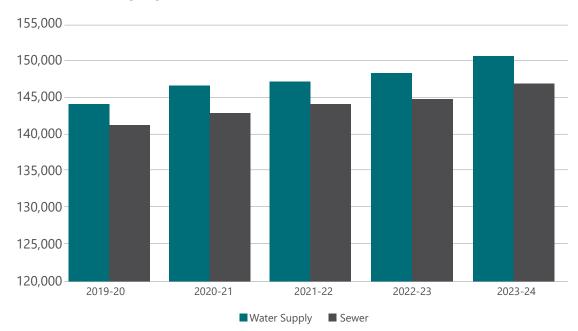
To be a trusted service provider for the Central Coast community and place our customers at the centre of everything we do.



Share your feedback about Water and Sewer reporting in our quick survey. Scan the code or click here.

Transparency and education

"Getting truthful answers and transparency...around water issues." 2024 Community Engagement Participant



Number of properties connected to our water and sewer networks

Council continues to monitor projected growth in our region and plans infrastructure upgrades accordingly. This includes major infrastructure works in the Gosford CBD as well as the upgrade of Charmhaven and Gwandalan sewage treatment plants.



Council delivers water to over **150,000** homes and businesses



Our sewage network is a system of more than **2,500 kilometres** of pipes and 320 pumping stations



Our water supply network consists of over **2,200**



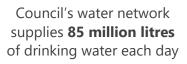
8 sewage treatment plants



3 water treatment plants



We treat **87 million litres** of sewage daily



Council has a water sharing agreement with Hunter Water that improves the water security of both regions

How we've kept our community updated over the last 12 months

Central Coast Council Social Media

- 62,000 Facebook followers
- 14,200 Instagram followers
- 6,156 'X' followers
- 13,000 LinkedIn followers

Post topics included:

- Love Water; water conservation and education
- Water and sewer community engagement
- Salvinia removal from Wyong River
- Sydney Water Leak Detection Dogs visit to Central Coast Council
- New water and sewer pipeline assessment tool saves water



- New tech decreases disruptions to water supply during essential maintenance works
- New online Water and Sewer Performance Reporting
- Environmental sewer discharge and overflow alerts
- Water and sewer main breaks, service interruptions and restoration



174 radio broadcast mentions



TV broadcast mentions



98 Community / Business News (article) mentions

Newsletters / Direct Mail (projects)

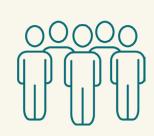
- 11,200 letters or emails to our customers
- 773 letterbox drops
- 723 door knocks
- 56 site visits
- 27 issues of 'Coast Connect' e-newsletters sent with water and sewer stories
- 4 Water and Sewer Quarterly Rates Newsletters issued
- 8 updates sent to Water and Sewer email subscribers
- 1,515 new Water and Sewer email update subscribers





Contact with our customers

- 14,513 Water and Sewer customer requests received
- **39,454** phone calls received or made from our Water Operations Centre



Engagement forums

- **4** face to face deliberative forums in Wyong and Gosford with 84 participants
- 23 businesses engaged
- **7** community organisations engaged
- 23 in depth interviews with Aboriginal and Torres Strait Islander People, Culturally and Linguistically Diverse residents, large business customers and young people aged between 16 -18
- **12** Pop Up engagement stalls
- 1 outreach event with
 1 homelessness service
 provider
- **1** ideas wall with 43 responses
- Ongoing targeted engagement with dissatisfied customers to gauge opportunities to improve customer satisfaction

Surveys



- **2** surveys conducted in November 2023 and February 2024 to gauge community sentiment regarding the potential connection of unserviced properties to the water and/or sewer network and potential funding models
- Online survey Your water and sewer services **146** completions
- Telephone survey Your water and sewer services – 100 completed

Your Voice Our Coast (YVOC) website our engagement platform



Your water and sewer services

- **2,027** site visits
- **3.21** seconds average time on site
- 16 document downloads

Public Exhibitions



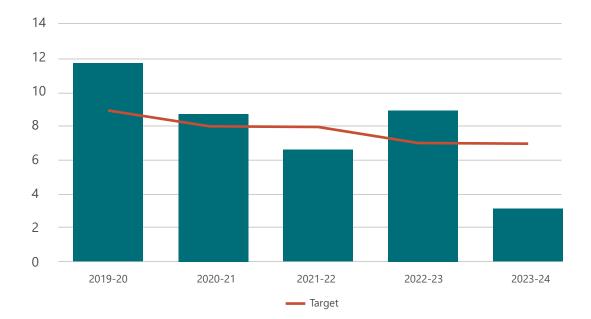
- Draft Water and Sewer Community Engagement and Education Strategy
- Customer Charter Complaints Management Framework

Counci	Reports presented at Council meetings
July 2023	Security of Critical Infrastructure – Risk Management Approach
July 2023	Draft Water and Sewer Customer Charter and Complaints Management Framework for Public Exhibition
September 2023	Central Coast Water and Sewer Delivery Plan 2022-2026 - Progress Report for January - June 2023
September 2023	Water and Sewer Performance Report 2023
September 2023	Adoption of Water and Sewer Customer Charter and Complaints Management Framework
September 2023	Draft Water and Sewer Community Engagement and Education Strategy for public exhibition
November 2023	Outcome of Public Exhibition - Water and Sewer Community Engagement and Education Strategy
February 2024	Water and Sewer Delivery Plan Progress Report (July - December 2023)
May 2024	Determination of water, wastewater and stormwater drainage charges for 2024-25
June 2024	Draft Water and Sewer Developer Servicing Plans - For Public Exhibition
June 2024	Water and Sewer 2026-2031 IPART Pricing Submission Approach

	Media Releases
July 2023	Council's water and sewer Customer Charter on public exhibition for comment
November 2023	Become a water-wise legend this National Water Week
September 2023	Council's Water and Sewer delivering on promise to listen to customers
November 2023	National Water Week wrap up
November 2023	Council adopts Water and Sewer Community Engagement and Education Strategy
June 2023	Council improving water services with new technology
January 2024	Customer feedback on water and sewer future plans
January 2024	Detection dogs helping save water by sniffing out leaks across the Coast
February 2024	Water and sewer services customer satisfaction survey results show gradual improvement
February 2024	Council's Water and Sewer continues to work collaboratively with the community
March 2024	New pipeline technology set to improve water and sewer planning, service reliability and environmental impact
March 2024	Removal of Salvinia weed on Wyong River
April 2024	Mardi Water Treatment Plant upgrade
May 2024	Sewer main works commence along Henry Parry Drive
May 2024	Council moves into year three of IPART determination
June 2024	Council provides new online Water and Sewer performance reporting
June 2024	Sewer works commence along The Entrance Road, Wamberal
June 2024	Council continues to gather customer feedback on water and sewer services
June 2024	Avoca Lagoon watermain replacement works – update of working hours

Good quality water

"Routine quality control measures. Ensuring consistently high water quality." 2023 Community Engagement Participant



Water quality complaints, per 1,000 properties

This favourable result can be attributed to an increased flushing program and the reduction in dead end mains. Discoloured water remains the main water quality complaint. Monthly heat mapping of water quality complaints is helping guide our water main cleaning programs.

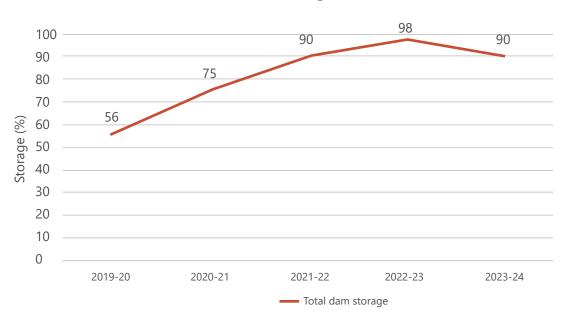
NPR Indicator Name	Unit	2019-20	2020-21	2021-22	2022-23	2023-24
Water sampling/results - microbiology	Number of tests performed	3,356	3,333	3,206	3,292	3,186
Water sampling/results - microbiology	Number of results not compliant with ADWG health guidelines	1	0	4	0	0
Water sampling/results - chemistry	Number of tests performed	2,647	2,607	3,128	3,226	3,202
Water sampling/results - chemistry	No. results not compliant with ADWG health guidelines	0	3	0	3	0

Water sampling results

As part of our extensive testing program, all results were within the health guidelines specified by the Australian Drinking Water Guidelines (ADWG). Monitoring of drinking water quality is performed independently by NSW Health.

Effective planning

"They (Council) need to have a fair knowledge of what the population growth will be and we need more infrastructure to plan for that." 2024 Community Engagement Participant



Total dam storage level

The Central Coast region experienced a period of drought between June 2023 and March 2024. This resulted in an overall decline in storage levels due to lower rainfall and streamflow that is required fill the region's water supply dams. The region's demand for water also increased inline with a drier climate, which increases the demand for outdoor water usage.

Mangrove Creek Visitor Centre Dam Day Out

The June 2024 long weekend saw Council's inaugural Dam Day Out event hosted at the Mangrove Creek Dam Visitor Centre. This event marked Water and Sewer's participation in Harvest Festival 2024, attracting approximately 400 attendees.

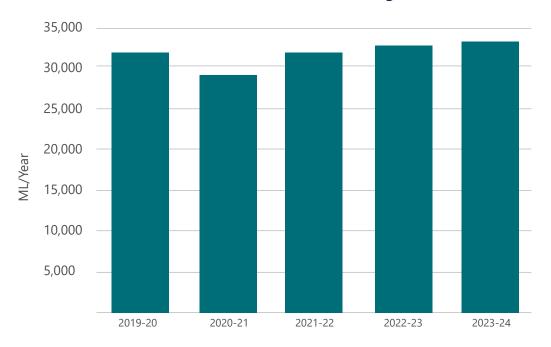
Dam Day Out featured a variety of activities for all ages. A representative from Darkinjung Aboriginal Land Council opened the event with a Welcome to Country. Younger participants delighted in free face painting and live, water-education themed theatre performances of 'Walter Smart' by the local company Gibber. Adults skilled-up in free water-wise workshops learning the benefits of wicking beds and other resilient gardening techniques, presented by Synergy Permaculture.

Educational pop-ups from the Kulnura Rural Fire Service, Local Land Services, and Central Coast Council's Waterways and Water and Sewer Education Teams provided interactive learning experiences, whilst North Gosford Rotary and Coast Shelter offered a delicious BBQ, coffee, and sweet treats for attendees.

Visitors also explored the new interactive education centre to learn about the history of Mangrove Creek Dam, gain insights into the water supply system, and appreciate the natural environment and cultural heritage of the surrounding area.

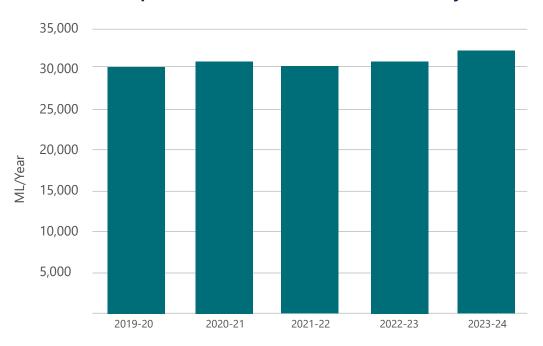
To learn more search 'mangrove creek dam visitor centre' at lovecentralcoast.com





Water extracted from our storages

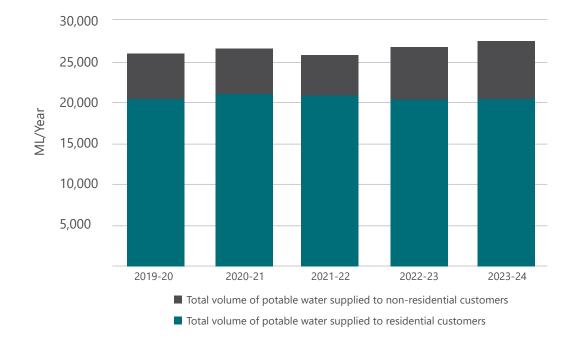
This graph shows the amount of water extracted from our storages to meet our customers demand and includes transfers between Hunter Water and Council to manage long-term storages. Demand was higher in 2023-24 in response to a period of drought across the Central Coast region. This was on top of an overall increase in demand associated with a growing region.



Water produced for the Central Coast community

This graph does not include transfers to Hunter Water but does include transfers from Hunter Water to Council for supply to our customers.

Annual water consumption



Demand was higher in 2023-24 in response to a period of drought across the Central Coast. This is on top of an overall increasing demand associated with a growing region. Water delivered to our residential and non-residential customers (consumption) is measured using customers' water meter readings.



Infrastructure upgrades and new infrastructure projects – planned and completed

We have progressed with several projects to improve Council's water and sewer assets and their performance. Projects include but are not limited to:

- Commencement of a major upgrade to Mardi Water Treatment Plant that will help to secure water supply for the future and improve water quality for our customers.
- Commencement of design and construction work on major sewage treatment plant upgrades at Bateau Bay, Charmhaven, Wyong South and Gwandalan to cater for a growing region and minimise impacts to the environment.
- Commencement of the refurbishment of nine sewer pump stations to maintain sewage service levels to the community.
- Commencement of planning for the upgrade of five critical sewer rising mains to minimise the risk of environmental impact and extend the life of the assets. System upgrades cater for increased growth in the region, ensuring the system can operate effectively as capacity increases.
- Completion of three critical sewer rising main renewals.
- Construction using trenchless technology at a major water main renewal at Avoca Lagoon to help minimise potential environmental risks.
- Renewal of 25km of ageing sewer mains to improve network performance.
- Renewal of 2.8km of ageing water mains.
- Award of major ongoing contracts for the renewal of water and sewer mains, water service connections and water meter replacements.
- Renewal of the general construction panel contract which will ensure efficient and timely delivery of water and sewer asset renewals.
- Completion of critical valve installations in the Kanangra water supply zone which will allow for the major upgrade of the storage reservoir, scheduled to commence in 2025.
- Completion of the Mardi High Lift Transfer Connection which allows greater water sharing ability between Central Coast and Hunter regions during times of drought, providing shared water security for both regions.

Learn more, search 'capital works program' at centralcoast.nsw.gov.au



Mardi Water Treatment Plant upgrade to secure the region's water supply

Shovels hit the ground in May to secure our region's water future with the commencement of the upgrade of Mardi Water Treatment Plant. Council worked with Abergeldie Contractors across the year to deliver the most ambitious water infrastructure upgrade the region has seen this decade.

Mardi Water Treatment Plant typically provides around half of all drinking water to the Central Coast and future proofing this asset, ensuring it can continue to deliver safe and secure water to the region is a key priority.

This upgrade will deliver several benefits towards the security and better management of our precious drinking water throughout the water supply network.

Estimated for completion in late 2025, Mardi Water Treatment Plant will have the capacity to treat up to the equivalent of 64 Olympic-sized swimming pools per day (160ML), providing quality drinking water to over 210,000 businesses and homes across the Central Coast and lower Hunter regions, including during algal blooms in Mardi Dam.

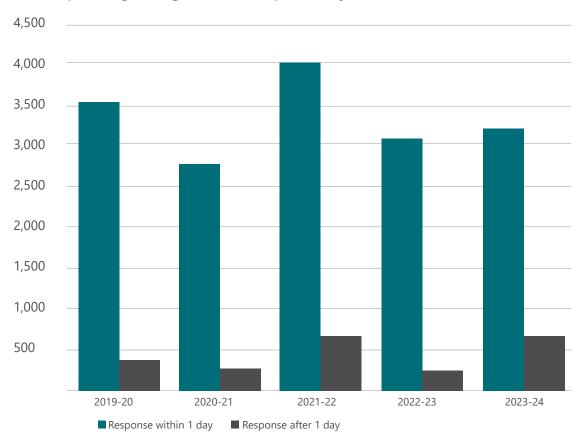
This \$82.5 million project is being delivered by Central Coast Council in partnership with the NSW Government's Restart Safe and Secure Water Program which has contributed \$6.85 million.

More information on the project can be found by searching '**Mardi Water Treatment Plant upgrade**' at **centralcoast.nsw.gov.au**



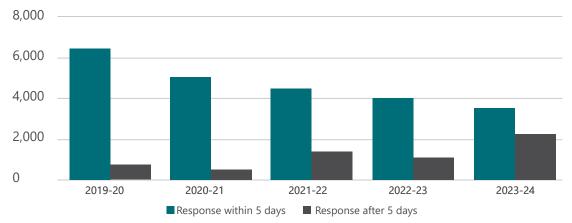
Reliable service

"...it is important that there is little impact to the community during planned and unplanned works." 2024 Community Engagement Participant



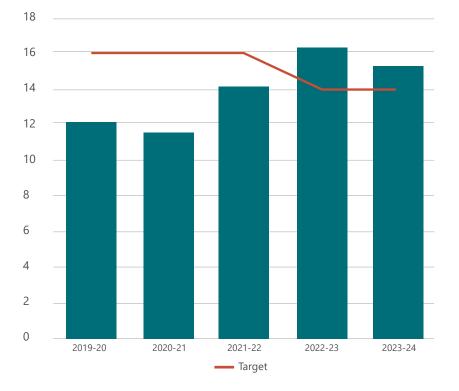
Responding to urgent issues reported by our customers

As a percentage, 81% of urgent issues were responded to within 1 day with 19% responded to after 1 day.



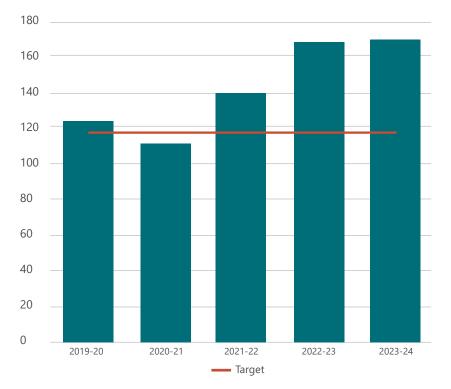
Responding to non-urgent issues reported by our customers

As a percentage, 61% of non-urgent issues were responded to within 5 days with 39% responded to after 5 days.



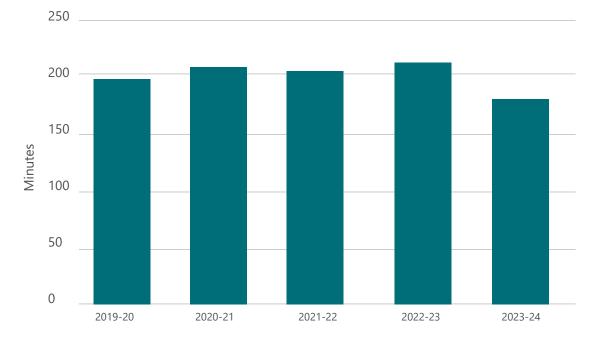
Water main breaks, per 100km of main

To improve these results, our water main renewal program continues to increase in line with our asset management plans



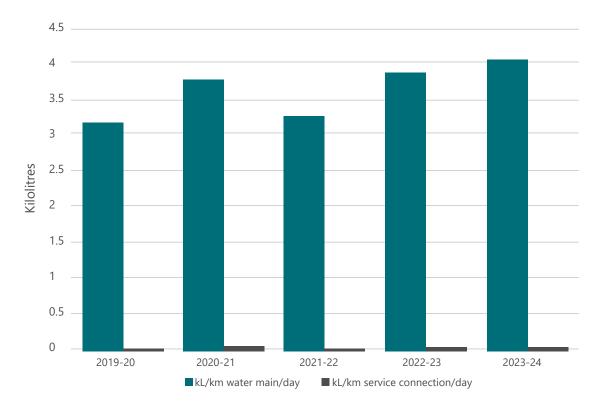
Number of unplanned water supply outages, per 1000 properties

To improve these results, we are increasing our water main renewal program, as well as a renewed focus on connections to customer's properties, which are a significant contributor to outages. Council is continuing to improve the notification process when works are required that impact our customers.



Average duration of unplanned water interruptions to water supply





Includes leakage and overflows from Council's water mains, reservoirs and customer connections. Council is continuing to ramp up its active leak detection program including the trial of leak detection dogs as outlined in the following story.

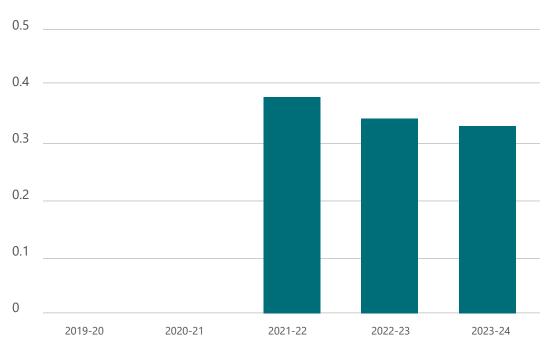
Dogs sniff out leaks across the Coast

As part of our proactive leak detection program, this year we met with Sydney Water to learn how 'man's best friend' can help solve leaking issues in the water and sewer network.

This is beneficial, as once a break occurs, it can be vastly more disruptive to the public, cause more damage, take longer and cost more to repair.

Read more, search '**detection dogs**' at **centralcoast.nsw.gov.au**

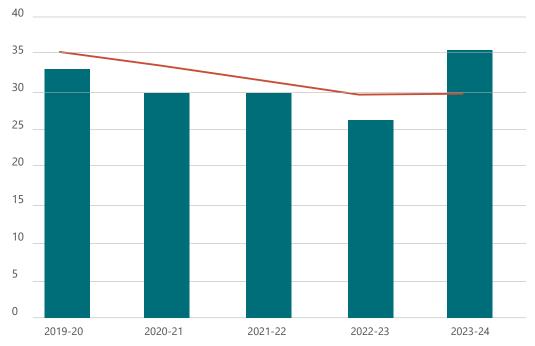




Number of water pressure complaints per 1,000 properties

*Data regarding pressure complaints was not captured prior to 2021-22, due to system limitations.

Only small pockets of the Central Coast are subject to low pressure complaints, mainly due to regional topography. Council is finalising a trial of domestic pressure boosting pumps to assist managing certain low pressure hot spots.



Sewer main breaks and chokes, per 100km main

The main cause of breaks and chokes is tree roots entering pipes and maintenance chambers. Climatic conditions can also influence the rate of tree root ingress into ageing sewer infrastructure as well as ground movement. Council is increasing its inspection and maintenance of sewer maintenance chambers which have been contributing to increased chokes. Council is also continuing its existing gravity sewer pipeline inspection and renewal program. A community education program on what to flush and what not to flush has also been implemented to assist in reducing the number of chokes.

Visit lovewater.centralcoast.nsw.gov.au for more information.

New tech set to improve water services

We've added new tools in our belt. The innovative 'p-CAT' pipeline assessment tool offers numerous advantages focusing on customers, cost efficiency and the environment. The technology will assist Council with planned water and sewer renewals and upgrades. It is also expected to reduce water outages and decrease environmental and safety risks during pipeline maintenance and repair works.

We are also trialling the roll-out of new technology which will decrease disruptions to our customers' water supply. The new type of 'S' Gate Valve does not require the water to be turned off during essential maintenance works or when we are replacing large water main valves.



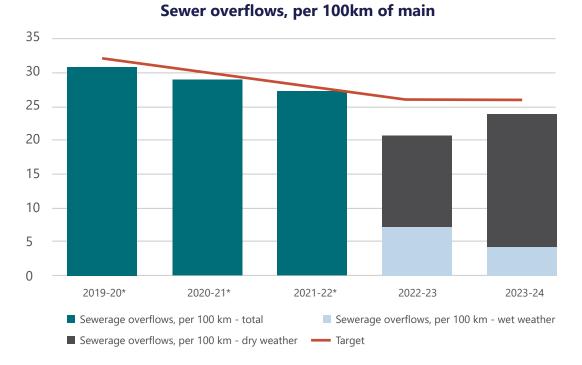
The technology will also reduce water wastage by up to 95,000 litres per job.

The \$200,000 investment is part of our long-term plan to deliver on our customer values and environmental commitment.

For more information, search 'water and sewer new technology' at centralcoast.nsw.gov.au

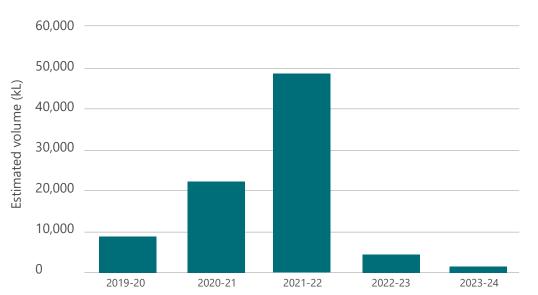
Environmental focus

"We need to be more mindful of how we impact the environment around us, which means in the future being more sustainable" 2023 Community Engagement Participant



*Results prior to 2022-23 were not split into wet/dry weather categories, due to system limitations.

In addition to the works being undertaken on our sewer mains, Council is also undertaking a program of mechanical and electrical renewals on its ageing sewer pump stations, to improve their reliability.



Volume of sewage overflows

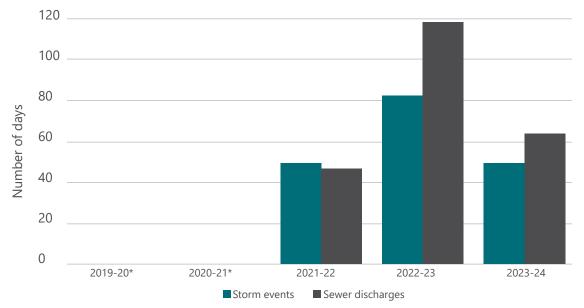
While the total number of chokes and breaks has increased, the severity of these events was low, primarily due to overflows caused by minor blockages.

3 2.5 2 1.5 1 0.5 2 2019-20 2020-21 2021-22 2021-22 2022-23 2023-24 - Target

Number of sewer overflows reported to the environmental regulator, per 100km of main

Council is required to report back to one of our regulators, namely the New South Wales EPA (Environment Protection Authority), on sewage overflow events. Events reported are primarily those that enter waterways either directly through sewage overflows or indirectly with sewage entering a stormwater system.

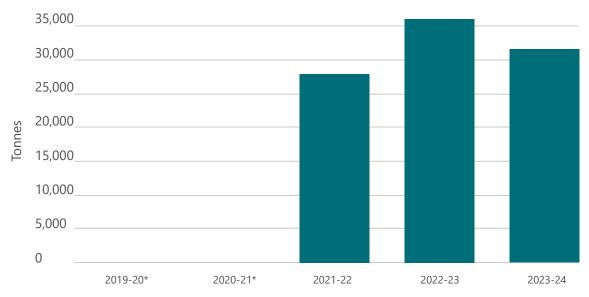
Number of days that beaches and lagoons are not swimmable as a direct result of mains breaks of discharges



*Detailed data on days of beach and lagoon closure following a sewage discharge event were not retained prior to 2021/22. Data prior to that period is not reported due to the likelihood of misrepresenting trends between these reporting years. The total number of days above represents an accumulation of the days where beaches/lagoons were closed. There may have been multiple individual beach/lagoon closures which simultaneously occurred.

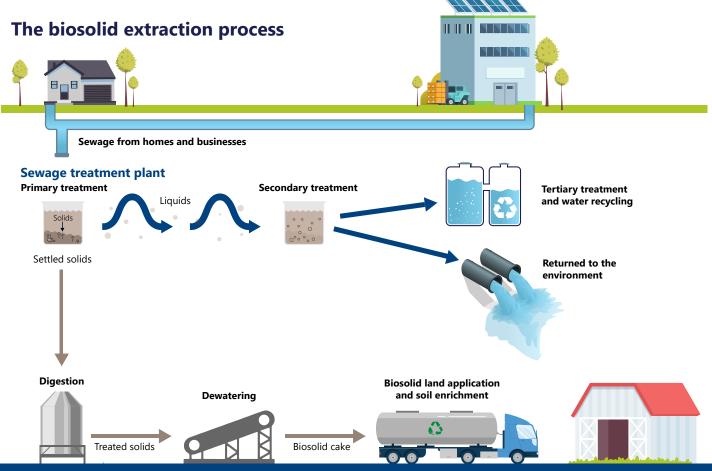
Council continues to implement various programs to target a reduction in overflows across the entire sewage pipeline network. Some of these are aimed at finding issues quickly while others focus on long-term change. These include leak detection programs, sewer main renewals and relining, large sewer pressure pipeline renewals and sewer maintenance access hole resealing programs.

Volume of biosolids reused



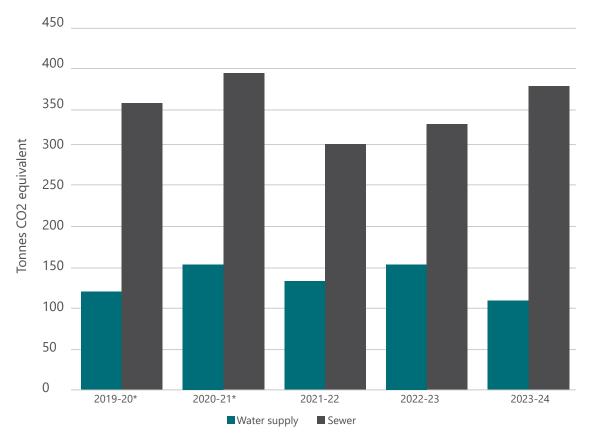
*Biosolid data has not been included for the years prior to 2021-22, due to a changeover in reporting software.

Biosolids are derived from wastewater sludge, mainly a mix of water and organic materials that are a byproduct of the sewage treatment process. The volume shown represents all biosolids entering Buttonderry Waste Management Facility and biosolids from Woy Woy and Kincumber Sewage Treatment Plants which are applied to land. Some of these biosolids are delivered to a network of farms for land application, carried out under strict biosolids guidelines. The other portion is composted to produce stable composts and soil conditioners. The decrease in volume from the previous financial year was primarily due to contractor availability.



To learn more see 'Our water supply and sewerage system' at youtube.com/@centralcoastcouncil2543/playlists

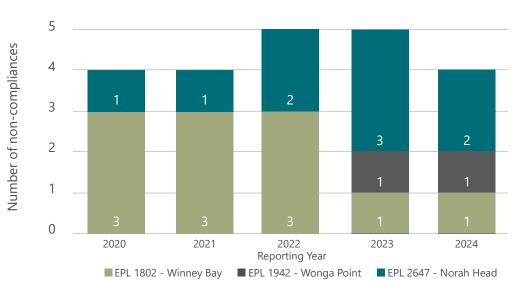
Net greenhouse gas emissions per 1,000 properties



Increased greenhouse gas emissions from sewage treatment can be due to a range of factors including increased energy demand to pump and treat sewage, increased organics load, changes in sludge management, and sludge digestor efficiency.

Quality treatment

"It is important to have environmentally responsible services" 2024 Community Engagement Participant



Number of Environment Protection Licence (EPL) non-compliances

Council is issued Environmental Protection Licences by the NSW Environment Protection Authority (EPA) for the operation of its sewage systems. Council is required to submit an Annual Return for each licence to the EPA, on the licence anniversary date.

EPL 1802 - Winney Bay:

Performance outlier: Calculated load of total nitrogen was 263,160 kg, greater than the load limit of 227,682.20 kg specified in the EPL.

Reason: As the works associated with the process improvements for the Kincumber and Woy Woy Sewage Treatment Plants are yet to be completed, the nitrogen load continues to be elevated.

EPL 1942 Wonga Point:

Performance outlier: Ammonia concentration of 37 mg/L was above the EPL limit of 30 mg/L.

Reason: Foaming occurred during the early part of the reporting period, primarily due to increased loading during the holiday period which impacted on ammonia removal during this time.

EPL 2647 Norah Head:

Performance outlier: Calculated annual total nitrogen and total suspended solids were greater than the load limits specified in the EPL.

Reason: A combination of ongoing process issues at Charmhaven sewage treatment plant and the transfer of treated solids from Charmhaven and Wyong South sewage treatment plants whilst pumping out water from the wet weather ponds.



Nitrogen: a nutrient essential to all life but may interfere with ecological processes in high concentration.

Ammonia: an essential nutrient but may cause toxic effects at high concentration.

Suspended solids: undissolved solid components of effluent that may produce visible plumes and interfere with biological processes at high concentration in an aquatic environment.

Working to improve native fish migration

This year Central Coast Council collaborated with the University of New South Wales (UNSW) in testing a new way to encourage Australian native fish to move across creek and river weirs improving native fish migration. Across January to March, we welcomed the use of Mangrove Creek and Ourimbah Creek to test the new design currently being pilot tested across Australia.

The Central Coast's waterways are valuable water resources and ecosystems that support our drinking water supply, and Council's weirs are essential mechanisms in the water harvesting process. If fishway tests are successful, the new design could support and improve our existing mechanisms in our creek weirs.

The project is funded by State Government grants including NSW Government Recreational Fishing Trust.

To learn more search 'fishway' at centralcoast.nsw.gov.au

Photo: UNSW Supervisor Dr Jasmin Martino (left) and PhD Student Hiruni Kammanankada (right) from the Water Research Laboratory and The Centre of Ecosystem Science, UNSW Sydney.



Affordable

"I would like to know more about where my costs are going in an actual sense – I feel like a more detailed breakdown of my bill is needed." 2024 Community Engagement Participant

The majority of revenue we receive from customers is used to make sure that safe, clean drinking water comes out of your tap and take away and treat any of the used water that goes down your drains, sinks, toilets, laundries, showers and baths. Council treats this water to protect the health of our beaches and waterways. **From every \$100 we receive from you, here is how we use it.**

Business Services

Our customer support services including water meter reading, billing, customer service, call centre and communications.

Water Transport

The maintenance, repair and replacement of over 2,399 km of water mains, 51 water pump stations, 64 water storage reservoirs and energy required to move water across the region.

Water Storage and Treatment

Managing and operating our three water treatment plants to treat our water ensuring it meets the Australian Drinking Water Guidelines.

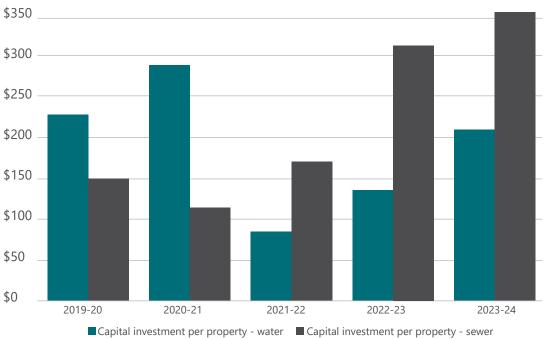


Sewage Transport

The maintenance, repair and replacement of over 2,679 km of sewer mains and 332 sewer pump stations across the region, that collect used water and transport it to our sewage treatment plants.

Sewage Treatment

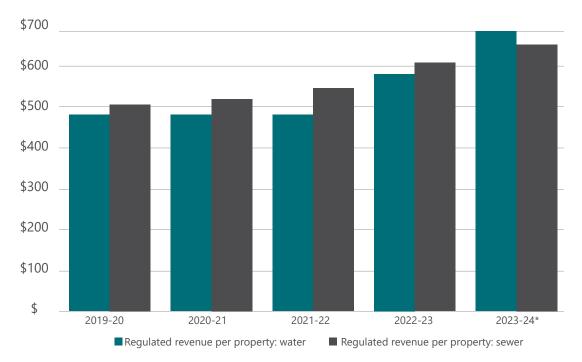
Across the Central Coast we have eight sewage treatment plants that treat used water from homes and businesses for recycling and reuse or meet environmental requirements set in our Environmental Protection Licenses for the discharge of treated effluent to waterways.



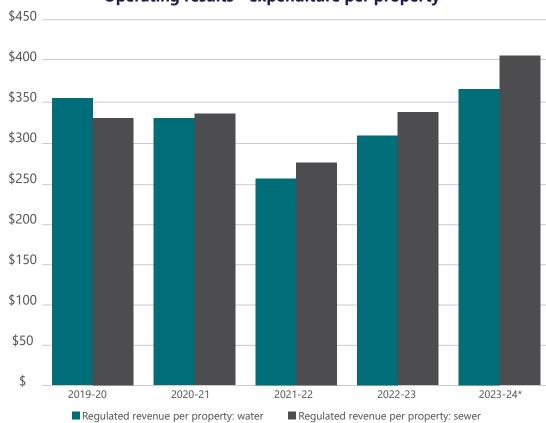
Capital investment per property

Capital investment projects involve spending money on long-term improvements to our water and sewer infrastructure. This graph represents the investment per property on the Central Coast.





This graph shows average income per property, received by Council via payment of water and sewer rates.



Operating results - expenditure per property

Regulated expenditure excludes depreciation, borrowing costs and capital expenditure.

* 2023-24 are considered draft as unaudited.

*2023-24 are considered draft as unaudited.

Get in touch

Our customer service centre can assist you anywhere anytime if you'd like to report an issue, make a request, or offer feedback.

General enquiries, billing and payment difficulties

([]) (02) 4306 7900 - 8:30-5:00pm Monday-Friday

If you have hearing or speech impairments, call the National Relay Service on 13 36 77, and guote Council's contact number 02 4306 7900.



(@) ask@centralcoast.nsw.gov.au Search '**customer help**' at

centralcoast.nsw.gov.au

Council office 2 Hely Street, PO Box 20, Wyong NSW 2259

Faults, services and emergencies

(🗋) (02) 4306 7900 - 24 hours/7 days

Search 'water service interruptions' at centralcoast.nsw.gov.au

Contact us about issues with:





PRESSURE





We invite you to

Take part in local community forums, in person or online, to provide feedback and learn about our projects and programs. Visit:

(m) yourvoiceourcoast.com

Attend Council meetings. For more information, search 'council meetings' at centralcoast.nsw.gov.au

Keep in touch and up-to-date

Sign up to Coast Connect e-newsletter centralcoast.nsw.gov.au/enews

Read the latest news online



(
 centralcoast.nsw.gov.au/enews

Be water wise

(
 lovewater.centralcoast.nsw.gov.au



