Technical paper factsheet: **Population and water demand forecast**

When it comes to the development of the draft Central Coast Water Security Plan it was important for us to look at how we have historically used water on the Coast, population growth and its influence on water demand in the future, and our water demand forecasts.

While you read this factsheet, keep in mind that the horizon of this plan is 30 years from 2021 to 2051.

Population growth on the Coast

The population of the Central Coast is expected to increase from 354,915 in 2021 to 478,036 in 2051. This is an increase of 34.7% from 2021 to 2051 or approximately 1.1% year on year growth.

	2021	2026	2031	2036	2041	2046	2051
Total population	354,915	373,925	394,019	414,615	434,504	455,615	478,036
Serviced population	349,606	368,151	387,765	407,883	427,484	448,291	470,392
Estimated dwellings	139,906	148,393	157,333	166,533	174,404	182,757	191,624

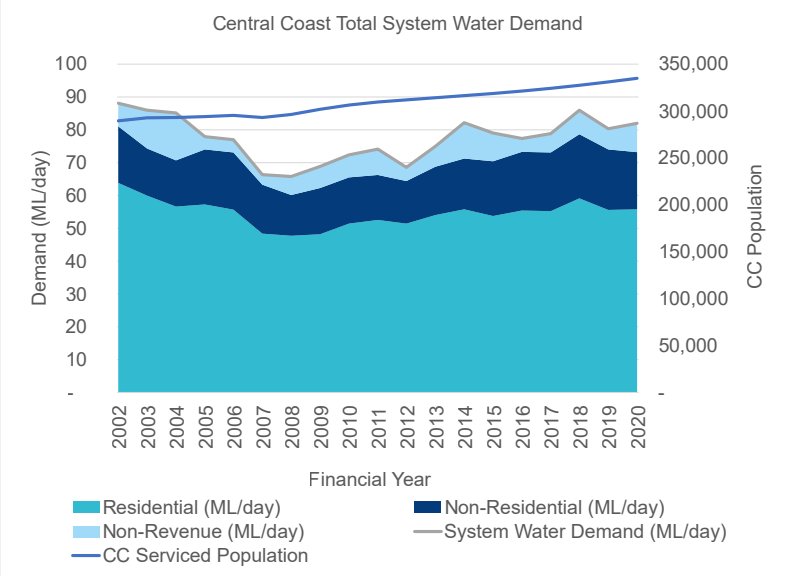
How we've previously used water

Over the past 30 years, the amount of water used by residences and businesses on the Central Coast has reduced, despite a growing population.

Due to the prolonged and intense millennium drought the Central Coast region witnessed a reduction in water demand from the year 2000 due to enforced water restrictions from 2002 until 2012. This event has fundamentally altered how we use water.

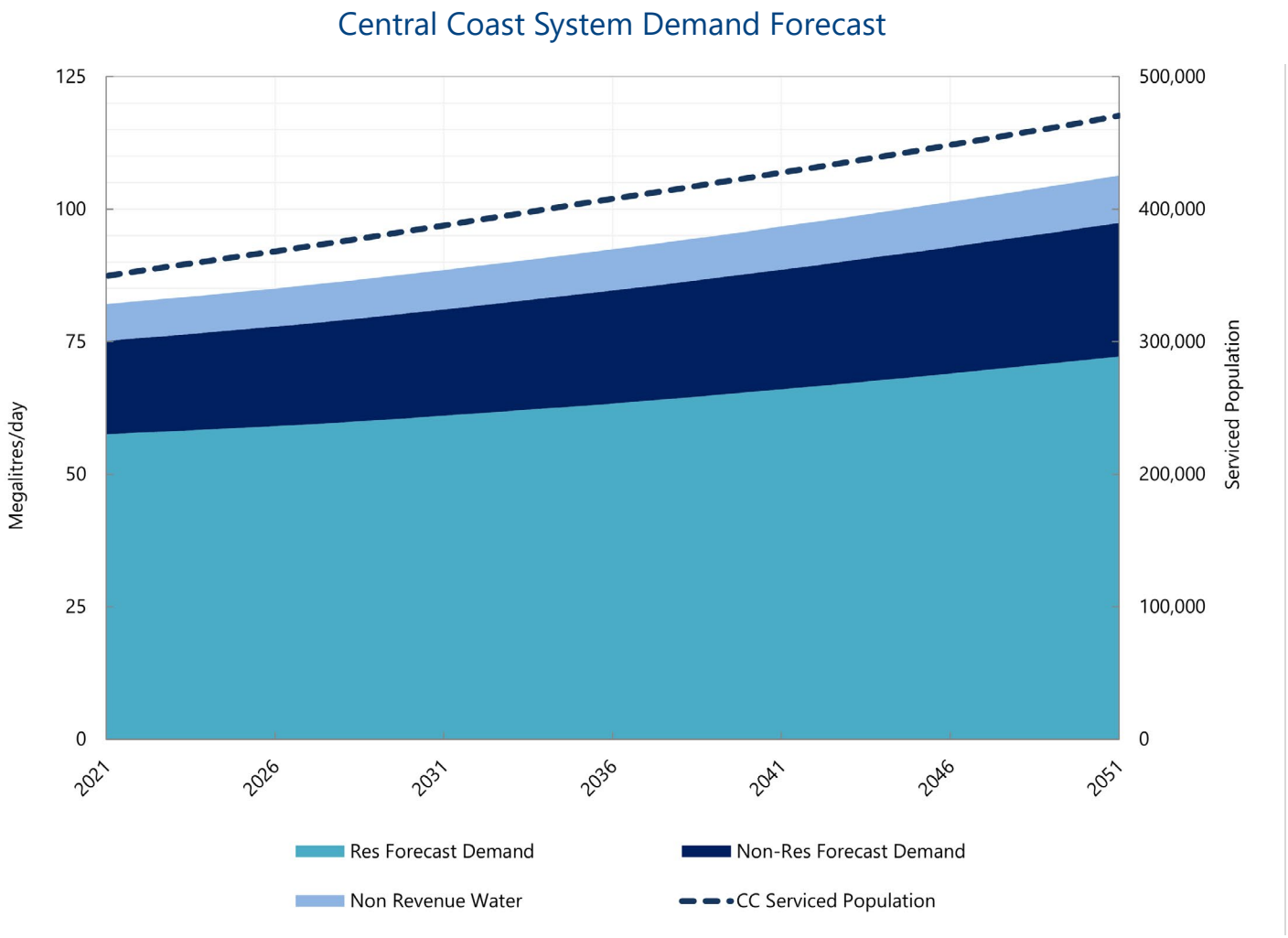
Our average daily demand has reduced by 6 megalitres of water per day – and yet, over the same period, our population has increased by nearly 50,000.

When the millennium drought started (around 2000), on average the residential demand for water was sitting around the 218 litres per person per day. Since 2000 to 2008, the demand for water in the home dropped significantly, by 60 L/p/d. However, with the gradual easing and eventual lifting of restrictions in 2012, the demand is now bouncing back, with the current residential use around 170 litres of water per person per day.



What we expect our future water demand to be

The average demand for the Central Coast is forecast to change from its current level of 82 megalitres a day to 106 ML/day.



Water demand forecasts are developed by combining predicted changes in demographics over time, with any changes in plumbing products and appliances over time – including water efficiency of those products.

We used an end-use approach – which is best industry practice – to forecast our demand for water for various uses within the home such as washing machines, toilets, showers, outdoor watering etc. Additionally, we used a sector-based approach to non-residential use and non-revenue water use/losses.

When we analysed the water demand forecast we also took into consideration the uncertainties of climate change and variability, and population growth.

Over time, the population forecast and the water demand will constantly change based on the data we have at that time, such as census data, and because of this, there will be periodic reviews of these forecasts. For example, the next census (due 2021) will provide some insights into the impacts COVID-19 has on our population on the Coast.

Council has identified further steps so we can continually improve our water demand forecast.

This factsheet is a summarised version of a technical paper used to inform the development of the draft Central Coast Water Security Plan.
If you would like to read the full technical paper, please contact us to request a copy.
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