

Planning our water future

Central Coast Council is planning for our future now to ensure our region has a sustainable and resilient water system that can adapt and respond to change. We need to consider new sources of water (supply) and find new ways to reduce the water we all use (demand). This series of information sheets provide an overview of the potential water supply and demand option types we are discussing with our community as we plan our water future together.

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water
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Supply option: Rainwater tank scheme

What is it and how does it work?

Rainwater tanks are for capturing the rain that falls onto the roof of a house which drains to the rainwater tank via the guttering and downpipes of the house.

In the absence of a rainwater tank, the rainwater captured by the roof, would have drained to the gutters, downpipes, then underground stormwater pipes, and eventually into the street gutter where it would continue to gravitate to the stormwater system and eventually to the nearest local waterway such as rivers and creeks. This stormwater run off typically washes debris, road contaminants and rubbish into our natural waterways.

A small pump in the rainwater tank, pumps the water to the garden tap or internal plumbing that it is connected to, when in use.

There are generally two types of rainwater tank connections:

1. External (only) – where water from the tank is only connected to an outdoor, garden tap. This type of connection is not subject to water restrictions during times of drought.
2. Internal/external – where the tank is connected to the garden tap as above, and also to the internal plumbing of the house so that it can fill toilet cisterns, washing machines, and sometimes laundry taps. These types of connects are subject to water restrictions during drought, as the tank is topped up by town supply water if the tank nears empty.

What is currently in place on the Central Coast?

There are currently around 28,000 existing rainwater tanks within the Central Coast Council area, with approximately 60% connected externally, and 40% connected internally and externally. Rainwater tanks are also required for new dwellings under BASIX and development control policies, to encourage sustainability.

There are however risks with domestic rainwater tanks as we have observed that not all of these are properly maintained by the home owners and future replacements of pumps may not occur when needed. This uncertainty leads to an overall low reliability of supply relative to other options.

Things we need to consider

This program can be modified based on the uptake of the program and its performance.

It can improve the diversity of water sources in our supply system.

It has four main key impacts: it reduces nutrient discharges to local waterways, reduces the intensity of rainfall on local water ways, increases energy use, and also has an increased footprint within the existing garden.

We need to consider uncertainties such as the unknown uptake of residents on the program, the level of Council's subsidy, the percent of internal vs internal/external plumbing, the actual cost of installations, and how climate change can affect the amount of water captured.

How we're considering this option for the Central Coast Water Security Plan

This option aims to create a large-scale rainwater tank subsidy scheme that would provide financial assistance to residents, in the form of a rebate, to retrofit a rainwater tank to their existing dwelling.

The scheme would target the installation of over 40,000 rainwater tanks over a 10 year period. Customers would organise and pay for their own installation, then apply for a Council rebate post installation.

Installations of both externally connected tanks, and Internal and externally connected tanks are eligible for this rebate.

This option aims to reduce demand at the source through a combination of indoor and outdoor usage and can provide benefits to downstream catchments by reducing urban stormwater runoff.



Key results

The table below provides further detail about how this option is being considered in the plan.

	Category	Additional information	
Potential additional water available	Low	This option has the potential to produce around 3.4 ML/day which is relatively low compared to other options.	
Reliability and resilience	Low	This option is climate dependent and will not contribute to water supply needs during an extreme and prolonged drought. The maintenance also remains the responsibility of the customer which research has shown, often does not maintain or replace parts as required, to keep their rainwater tank operational. Hence, due to these two reasons, the reliability for this option is low.	
	Impact	Cost	Additional information
Indicative cost to build	High	\$224 million	This is the total cost of the installation to both the customer and Council (in the form of a rebate).
Indicative cost to operate	Low	\$2.2 million	This is the estimated cost to operate the rainwater tanks.
Levelised cost	High	\$12.82/kL	This is a high cost relative to other options. Levelised cost takes into account the cost to build, cost to operate, and yield.
	Impact	Additional information	
Environmental impacts	Low	The environmental impact is low for this option compared to other options as it benefits the environment by reducing the nutrient and pollution load to local waterways, and reduces the intensity of rainfall to local waterways. However, the drawbacks are that it uses electricity for the small pump inside the tank, and has a minor footprint in the garden.	
Cultural and social impacts	Low	Residents are empowered to contribute to water recycling and reuse within their own home and property. The cost of running the pump intermittently is typically negligible. Hence the impacts are mostly positive.	
Timeframe for delivery	High	The scheme would be spread over a 10 year period which is relatively long compared with other options.	