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.

love water use it wisely

Central Coast Council

Supply option: **Water sharing between regions**

What is it and how does it work?

Water sharing aims to move water across regions to where it is needed most through a network of pipes and pumps.

It optimises existing infrastructure to take advantage of variations in rainfall distribution and storage capacities.

What is currently in place on the Central Coast?

Council and Hunter Water have an existing pipeline connecting the two regions. The pipeline can transfer water in either direction as per a water sharing agreement.

The system offers mutual benefits to both systems with regard to drought security as well as operational benefits by reducing the impact of localised water outages.

Council is currently commissioning the Mardi to Warnervale Pipeline. This pipeline increases water sharing capacity with Hunter Water while also servicing the northern growth corridor at Warnervale-Wadalba. The pipeline has been constructed with future additional increases to water sharing volumes in mind to ensure it is adaptable to future supply upgrades.

Things we need to consider

This option allows water to be shared more efficiently. The reliability depends on the rainfall distribution across the connected regions and whether or not the connection can take advantage of the complementary strengths and weaknesses in the two systems.

Connecting a region with small storage and high yielding catchments (Hunter Water) to a region with large storage and low yielding catchments (Central Coast) for example, can be mutually beneficial to both regions.

Costs to construct can be moderate to high depending on the distances involved between regions, length of pipework and associated storage requirements.

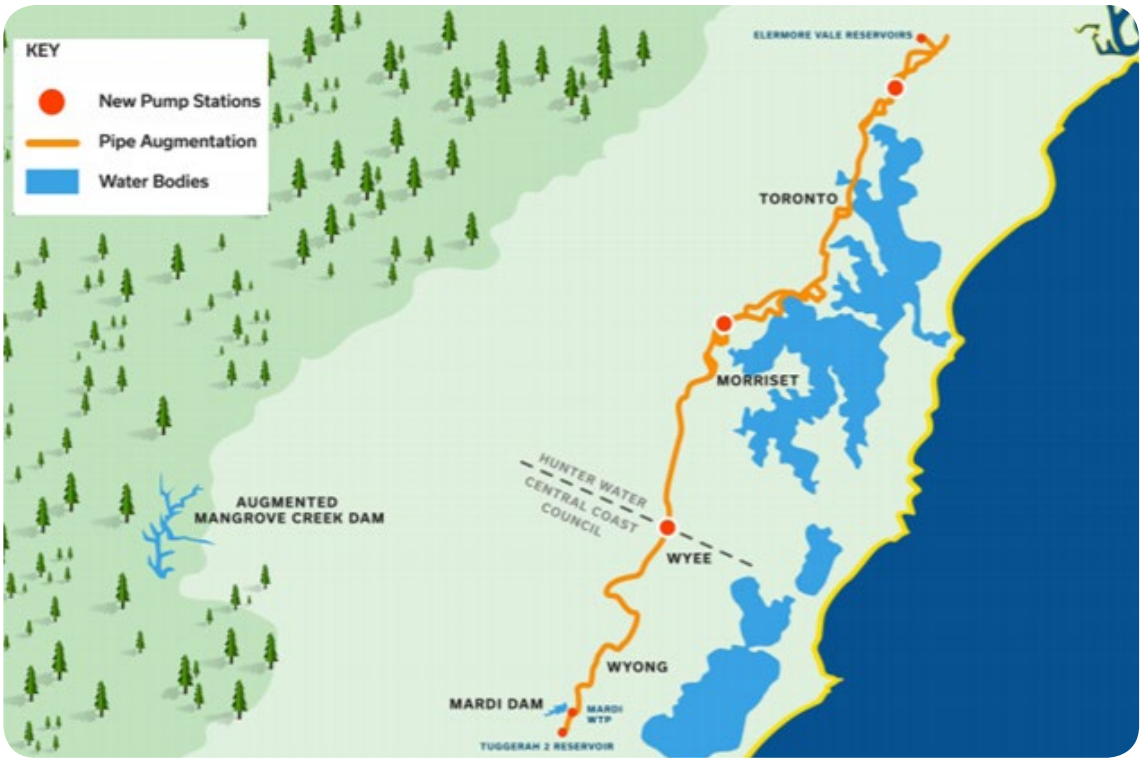
Operating costs are primarily related to pump costs and are relatively low compared to other options.

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

One regional water sharing option is being considered in the Central Coast Water Security Plan which will take advantage of the existing characteristics between the geographic areas to transfer water to where it is needed most and improve the water resilience of the broader region.

This would involve further upgrades to existing water sharing assets with Hunter Water and providing additional storage at Mangrove Creek Dam to maximise the use of water available across the two regions and ensure mutual benefits to both organisations.

While there is an existing small-scale connection to Sydney Water to service residents at Mooney Mooney, there are currently no feasible options for bulk water sharing between those two regions due to the distances and topography involved as well as the layout of the two water supply systems.




Mardi to Warnervale pipeline

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	Medium	Makes use of larger storages on the Central Coast and higher river flows in the Lower Hunter. Has the potential for a relatively high yield of 60ML/day of water when coupled with the larger 80GL enlargement of Mangrove Creek Dam (See Factsheet 2).
Reliability and resilience	Medium	Allows greater utilisation of water available across the two regions. Improves the diversity of our supply system. Relies on rainfall and does not ensure an ongoing supply in a long and severe regional drought.

	Impact	Cost	Additional information
Indicative cost to build	Medium	$100 million	Cost includes additional pipelines, pumping stations and other network upgrades.
Indicative cost to operate	Low	$2 million per year	Lower operation and maintenance costs relative to other options.
Levelised cost	Medium	$5.02/kL	

	Impact	Additional information
Environmental impacts	Low	Relatively low environmental impact for new pipelines, compared to other options.
Cultural and social impacts	Low	Low social impacts relative to other options.
Timeframe for delivery	Medium	Five to 10 years

Some information contained in this fact sheet was sourced from Hunter Water Corporation