Future Water Project 2060

This is our plan to ensure the Northern Rivers has a secure and resilient water supply that will meet our needs to 2060 and beyond. It was adopted in 2021 and sets out a three-stage approach that includes more water saving initiatives and an expanded range of water supply sources.

First and second stage actions to secure water in the short term

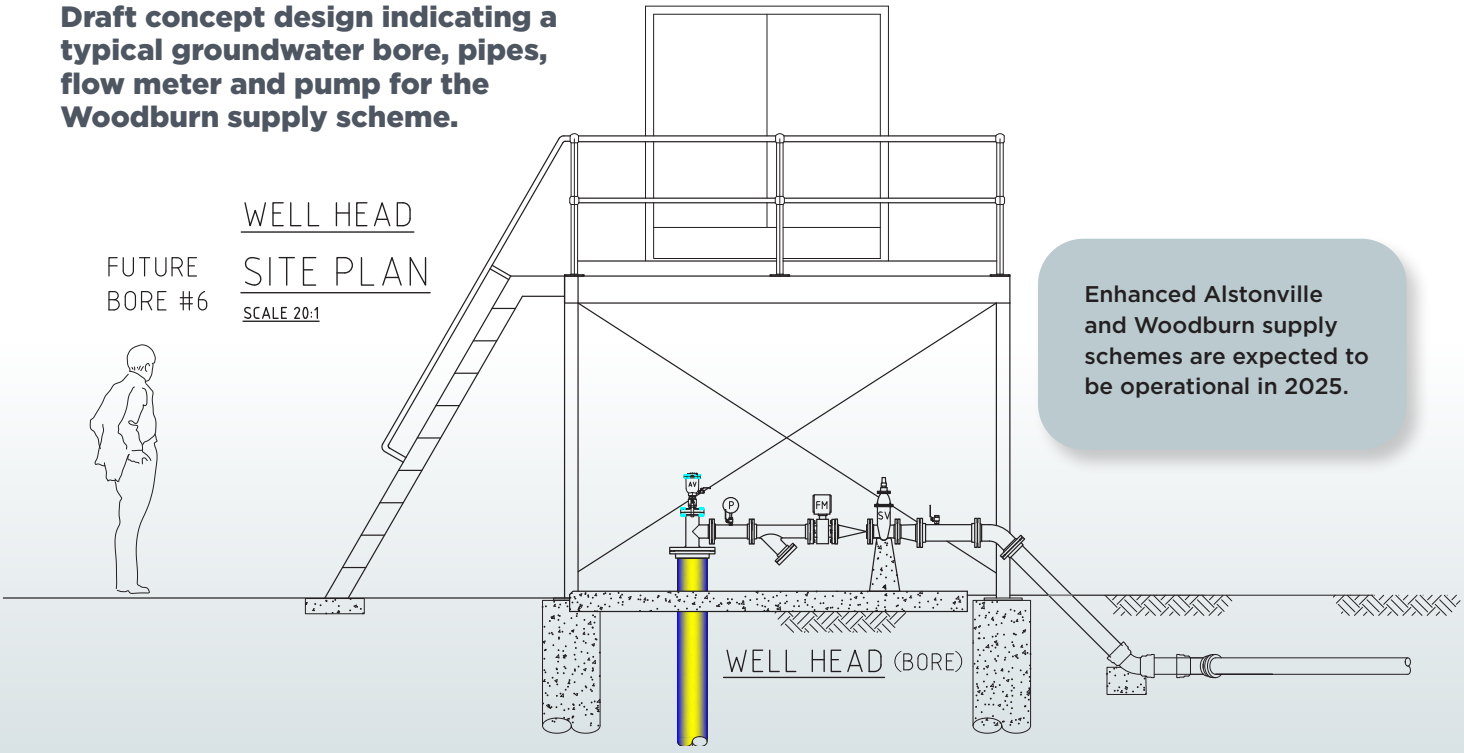
New and enhanced groundwater supply schemes

Rous's plans are transforming the Alstonville water supply scheme to include two new water sources. A new deep bore will supply water from the Clarence Moreton Basin sub-aquifer in addition to water from the shallower Alstonville Basalt Plateau aquifer, which has been used historically. The scheme will also access surface water from Marom Creek. We recently finalised an optimum pipe route to connect water from the three sources to a proposed new water treatment plant, the draft concept design of which is also complete.

At Woodburn, concept designs for three new bores and their connection to a new water treatment plant are complete. The design of the treatment plant includes the construction of a new 200,000-litre raw water tank and the replacement of other key infrastructure that was damaged in the February 2022 floods.

Investigations into the Brunswick Coastal Sands groundwater source near Tyagarah were deferred due to the impact of the 2022 floods. When second-stage studies resume, they will assess the viability of a potential groundwater scheme at Tyagarah, taking into consideration the potential economic, environmental, social and cultural impacts.

Draft concept design indicating a typical groundwater bore, pipes, flow meter and pump for the Woodburn supply scheme.



Enhanced Alstonville and Woodburn supply schemes are expected to be operational in 2025.

Project update

Third stage investigations for long-term water security

Responsible water planning means investigating the technically feasible options that are available to us, including groundwater, purified recycled water, desalination and surface water. Each option presents a complex mix of economic, environmental, social and cultural impacts that need to be considered, assessed and balanced. An adaptable supply of water that's resilient to a variable climate and a growing population may involve a combination of different options.

Purified recycled water for drinking

A multi-year investigation is underway to assess the feasibility of different purified recycled water schemes to supply high-quality drinking water. This study is increasing our understanding of purified recycled water and the viability of this for our region. We have longlisted various scheme options, which are being investigated in further detail.

Alongside this, Rous has conducted a series of workshops with regulators and expert consultants, to better understand the regulatory landscape and develop our investigative approach.

Rous continues to explore the viability of a pilot plant and is also reviewing alternative options (aside from a pilot plant) to build knowledge and engage with the community and regulators.

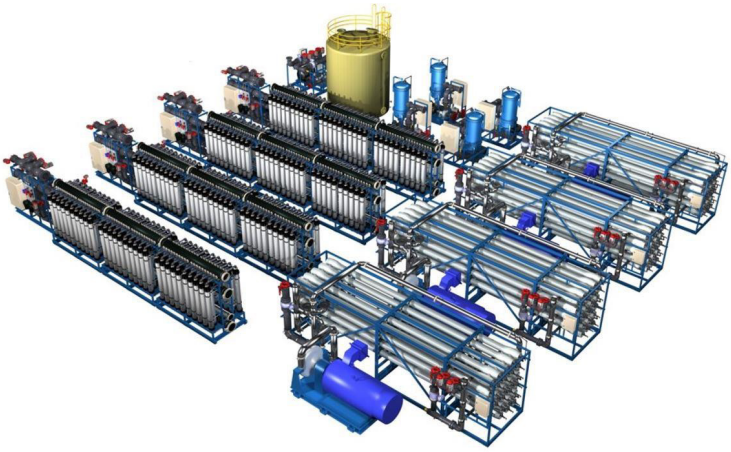
Desalination

Rous has conducted preliminary investigations into desalination as a potential future water source. We are also evaluating temporary and permanent desalination for emergency use in a severe drought. Previous investigations have identified three possible locations for a desalination plant: Byron Bay, Lennox Head and Ballina. These coastal sites have been determined based on their proximity to electrical and water reticulation networks. Key considerations are the capital costs of construction, high energy costs of operation and maintenance, and the impact on coastal and marine environments.

Surface water

In February 2022, Rous Councillors voted in favour of commissioning an independent cultural heritage and biodiversity assessment of a previously proposed area for a new dam west of the village of Dunoon.

Activities undertaken now, such as cultural heritage and biodiversity assessments, will inform our future direction based on decisions made by Councillors. There are no foregone conclusions. We must undertake concurrent assessments of the various options due to the long planning and construction lead times of large and complex infrastructure projects.



A concept design of a 10-megalitre per day desalination plant (seawater reverse osmosis system).

For more information and factsheets, scan the QR code or contact:

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