



Tyabb-Somerville Recycled Water Scheme

May 2024



The Tyabb-Somerville Recycled Water Scheme has been investigated by South East Water and Mornington Peninsula Shire Council with support from the National Water Grid Authority. This has included an expression of interest process with potential customers. The supply of recycled water to Tyabb and Somerville has the potential to offer a climate-independent and reliable water source to plant nurseries, market gardens and a limited number of open spaces on the Mornington Peninsula.

The potential scheme involves the supply of Class A recycled water from the South Eastern Outfall near Baxter to existing market gardens in the Tyabb-Somerville region via a pump station, transfer main (10.9km) and four reticulation networks (4.8km) (see map overleaf).

South Eastern Outfall (SEO)

The SEO carries 350 ML of Class A recycled water per day from the Eastern Treatment Plant at Bangholme to Boags Rocks near Gunnamatta Beach, where it discharges to Bass Strait.

Class A recycled water is suitable for various agricultural and industrial applications as well as greening of open space and various household uses. Customers along the SEO currently utilise recycled water for vineyards, market gardens, golf courses and sports grounds.

Work to date

To date, \$400,000 has been spent investigating the scheme, including feasibility level assessment, design and costing as well as an economic assessment and business case.

Based on the analysis completed, the scheme would require a significant capital contribution from one or more third parties for it to be financially feasible.

Costs and water demand

The capital cost estimate for the scheme is over \$40-\$50 million, based on a 2022 cost estimate, cost escalation and contingency.

In 2022, the demand was assessed at 1,150 ML per year supplied over the irrigation season. This included 200 ML per year for new demands. Potential customers indicated that the scheme would add to their portfolio of water sources, rather than replace or substitute their surface water or groundwater entitlements.

Market gardeners advised that high land prices in the region limits their ability to expand operations through buying new land. This means that the scheme is focused on supporting existing businesses to adapt to the impacts of climate change rather than driving large scale expansion of irrigated agriculture in the region.

Cost and price considerations

In 2022, the scheme had a positive benefit cost ratio (BCR estimate = 1.47), albeit with a gap in its potential beneficiaries' capacity to finance its costs.

Taking into consideration the cost of constructing the scheme and associated operational costs, the price of water would have needed to be approximately \$1,350 per ML for it to be financially viable. To date, prospective scheme customers have indicated a capacity to pay of \$500 per ML.

With a substantial majority of the scheme benefitting the private realm (approx. 95%), there is limited capacity under the economic regulatory framework for South East Water to cross subsidise it using revenue generated from its broader residential and business customers.

The proposed project displaces a limited amount of potable water (~50 ML – 100 ML). Using South East Water's calculation for delayed infrastructure this equates to \$3m - \$6m. Therefore, taking into consideration potable water savings and our customer contributions, the amount of funding South East Water could contribute equates to \$10m – \$13m of the \$40m – \$50m required to deliver the project.

For other projects, where there has been a funding shortfall, we have identified sources of additional

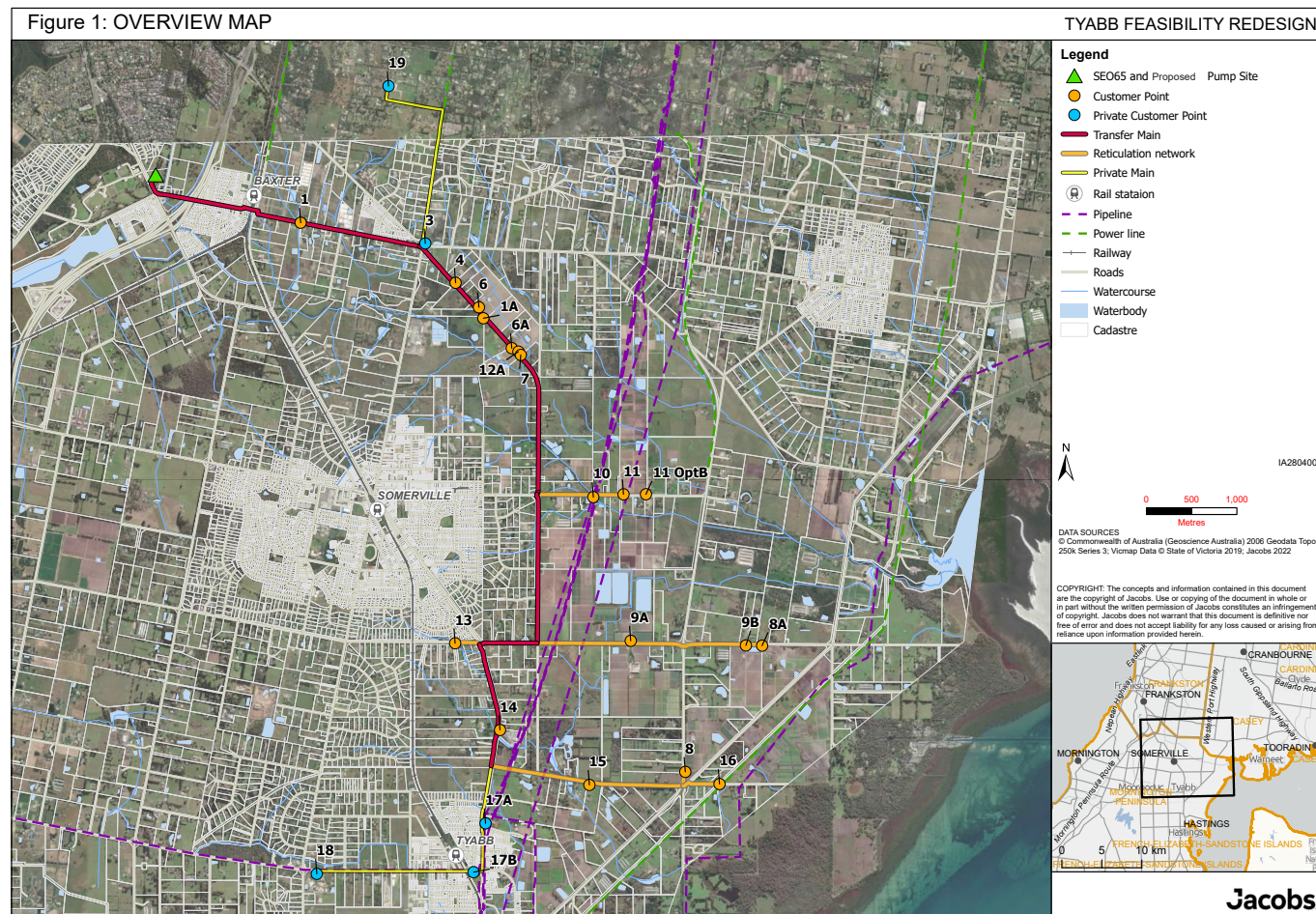
funding when there are benefits for Traditional Owners, the environment, the public and/or productive use. These criteria are essential for a project to be eligible for Australian Government funding.

South East Water would welcome engagement with potential third parties with an interest in realising the scheme's benefits and investing in bridging the gap between prospective customers' capacity to pay and the cost of establishing the scheme.

Relative cost of recycled water

Prices for recycled water are determined on a scheme-by-scheme basis considering each of the following:

1. Cost and benefits of the project
2. Scheme customer capacity and willingness to pay
3. Ability to attract external funding
4. Customer and community willingness to pay
5. Potential to reduce demand for drinking water.



Schematic of the Tyabb-Somerville Recycled Water Scheme from SEO65 (green) with 10.9 km of trunk main (red), four reticulation networks (orange) plus allowance for private mains (yellow) to three open space areas.

¹Price based on a 2022 30-year net present value mode. It is likely that for a scheme of \$40-\$50 million CAPEX value, this would have subsequently increased.

For more information and enquiries

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South East Water proudly acknowledges the Traditional Owners of the land on which we work and live, and pay respect to their Elders past, present and emerging. We acknowledge their songlines, cultural lore and ongoing connection to the land and water. We recognise and value the rich cultural heritage and ongoing contributions of Aboriginal people and communities in our society in Victoria.