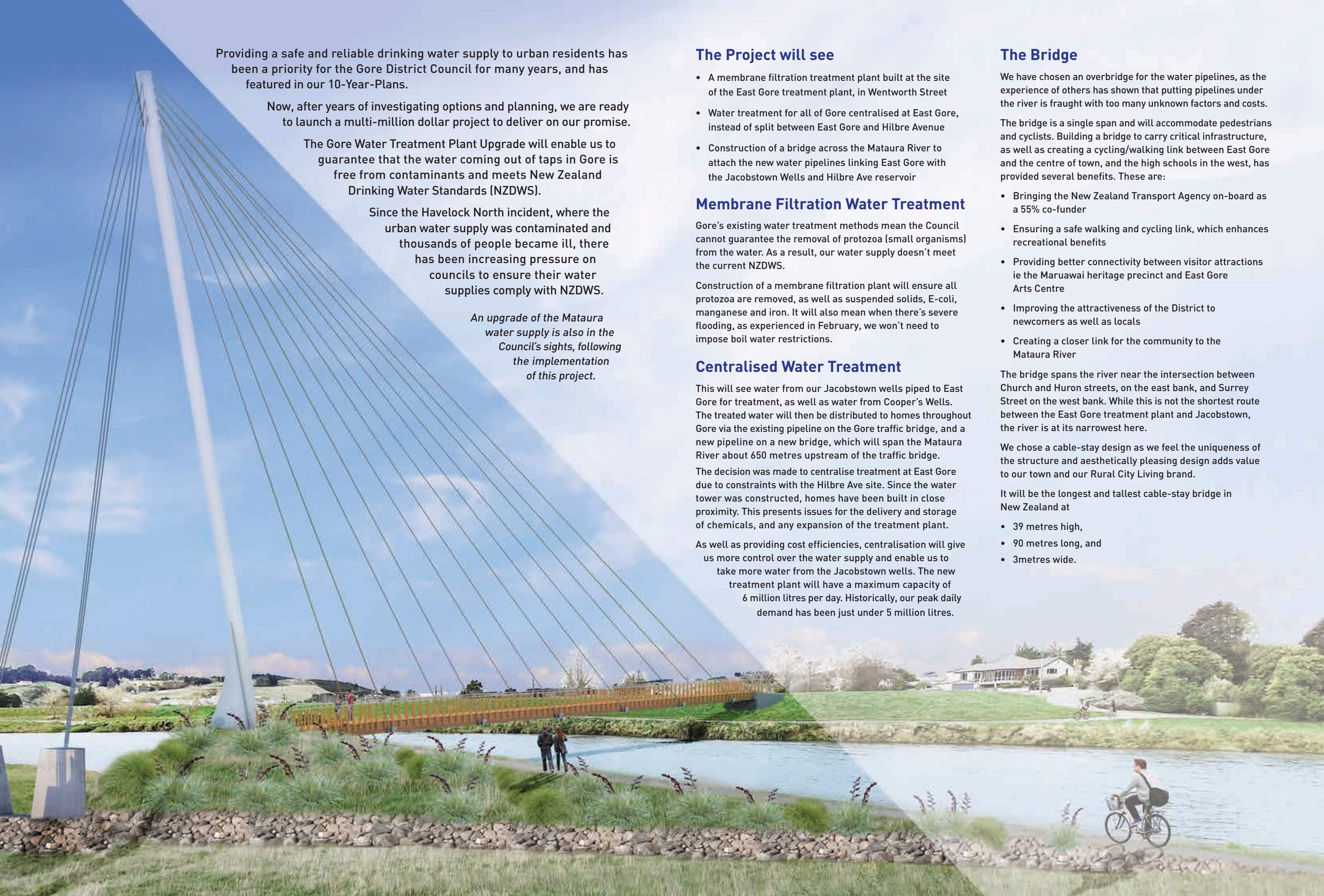




OUR PATHWAY TO HEALTHIER WATER

Gore Water Treatment
Plant Upgrade





Providing a safe and reliable drinking water supply to urban residents has been a priority for the Gore District Council for many years, and has featured in our 10-Year-Plans.

Now, after years of investigating options and planning, we are ready to launch a multi-million dollar project to deliver on our promise.

The Gore Water Treatment Plant Upgrade will enable us to guarantee that the water coming out of taps in Gore is free from contaminants and meets New Zealand Drinking Water Standards (NZDWS).

Since the Havelock North incident, where the urban water supply was contaminated and thousands of people became ill, there has been increasing pressure on councils to ensure their water supplies comply with NZDWS.

An upgrade of the Mataura water supply is also in the Council's sights, following the implementation of this project.

The Project will see

- A membrane filtration treatment plant built at the site of the East Gore treatment plant, in Wentworth Street
- Water treatment for all of Gore centralised at East Gore, instead of split between East Gore and Hilbre Avenue
- Construction of a bridge across the Mataura River to attach the new water pipelines linking East Gore with the Jacobstown Wells and Hilbre Ave reservoir

Membrane Filtration Water Treatment

Gore's existing water treatment methods mean the Council cannot guarantee the removal of protozoa (small organisms) from the water. As a result, our water supply doesn't meet the current NZDWS.

Construction of a membrane filtration plant will ensure all protozoa are removed, as well as suspended solids, E-coli, manganese and iron. It will also mean when there's severe flooding, as experienced in February, we won't need to impose boil water restrictions.

Centralised Water Treatment

This will see water from our Jacobstown wells piped to East Gore for treatment, as well as water from Cooper's Wells. The treated water will then be distributed to homes throughout Gore via the existing pipeline on the Gore traffic bridge, and a new pipeline on a new bridge, which will span the Mataura River about 650 metres upstream of the traffic bridge.

The decision was made to centralise treatment at East Gore due to constraints with the Hilbre Ave site. Since the water tower was constructed, homes have been built in close proximity. This presents issues for the delivery and storage of chemicals, and any expansion of the treatment plant.

As well as providing cost efficiencies, centralisation will give us more control over the water supply and enable us to take more water from the Jacobstown wells. The new treatment plant will have a maximum capacity of 6 million litres per day. Historically, our peak daily demand has been just under 5 million litres.

The Bridge

We have chosen an overbridge for the water pipelines, as the experience of others has shown that putting pipelines under the river is fraught with too many unknown factors and costs.

The bridge is a single span and will accommodate pedestrians and cyclists. Building a bridge to carry critical infrastructure, as well as creating a cycling/walking link between East Gore and the centre of town, and the high schools in the west, has provided several benefits. These are:

- Bringing the New Zealand Transport Agency on-board as a 55% co-funder
- Ensuring a safe walking and cycling link, which enhances recreational benefits
- Providing better connectivity between visitor attractions ie the Maruawai heritage precinct and East Gore Arts Centre
- Improving the attractiveness of the District to newcomers as well as locals
- Creating a closer link for the community to the Mataura River

The bridge spans the river near the intersection between Church and Huron streets, on the east bank, and Surrey Street on the west bank. While this is not the shortest route between the East Gore treatment plant and Jacobstown, the river is at its narrowest here.

We chose a cable-stay design as we feel the uniqueness of the structure and aesthetically pleasing design adds value to our town and our Rural City Living brand.

It will be the longest and tallest cable-stay bridge in New Zealand at

- 39 metres high,
- 90 metres long, and
- 3metres wide.

The Cost

The entire project - membrane filtration plant, pipelines, and bridge - will cost an estimated \$10.8 million.

The bridge component (including design, consenting, the business case, site works and construction) will cost \$3.7million. With NZTA as our funding partner, the cost to the Council is \$1.6m.

The Council will fund this entire project by way of loan, which spreads the cost across generations of beneficiaries ie Gore residents.

Other Bridge Options

There were three other options considered. These options and the reasons they were discounted are:

Attach the new pipelines to the existing traffic bridge

- Cost - \$4.5million
- Did not qualify for NZTA funding partnership
- The age of the bridge
- The bridge is not a Council-owned structure

Build a standalone arch network pipe bridge on the shortest route between the East Gore water plant and Jacobstown

- Cost - \$4 million
- As a standalone bridge, it did not qualify for NZTA funding partnership
- The bridge's location was at the widest part of the Mataura River. This issue, combined with the significant earthworks required to raise the bridge level for flood protection, contributed to the high cost.

Build an arch network pipe footbridge at the preferred location

- Cost - \$3.4 million
- Delivers little additional value to the project
- The arch network bridge was comparable in cost to the more aesthetical cable-stay structure
- There were concerns about significant cost increases due to hydraulic and geotechnical inputs



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