




The wastewater network


KEY PUMPING STATIONS

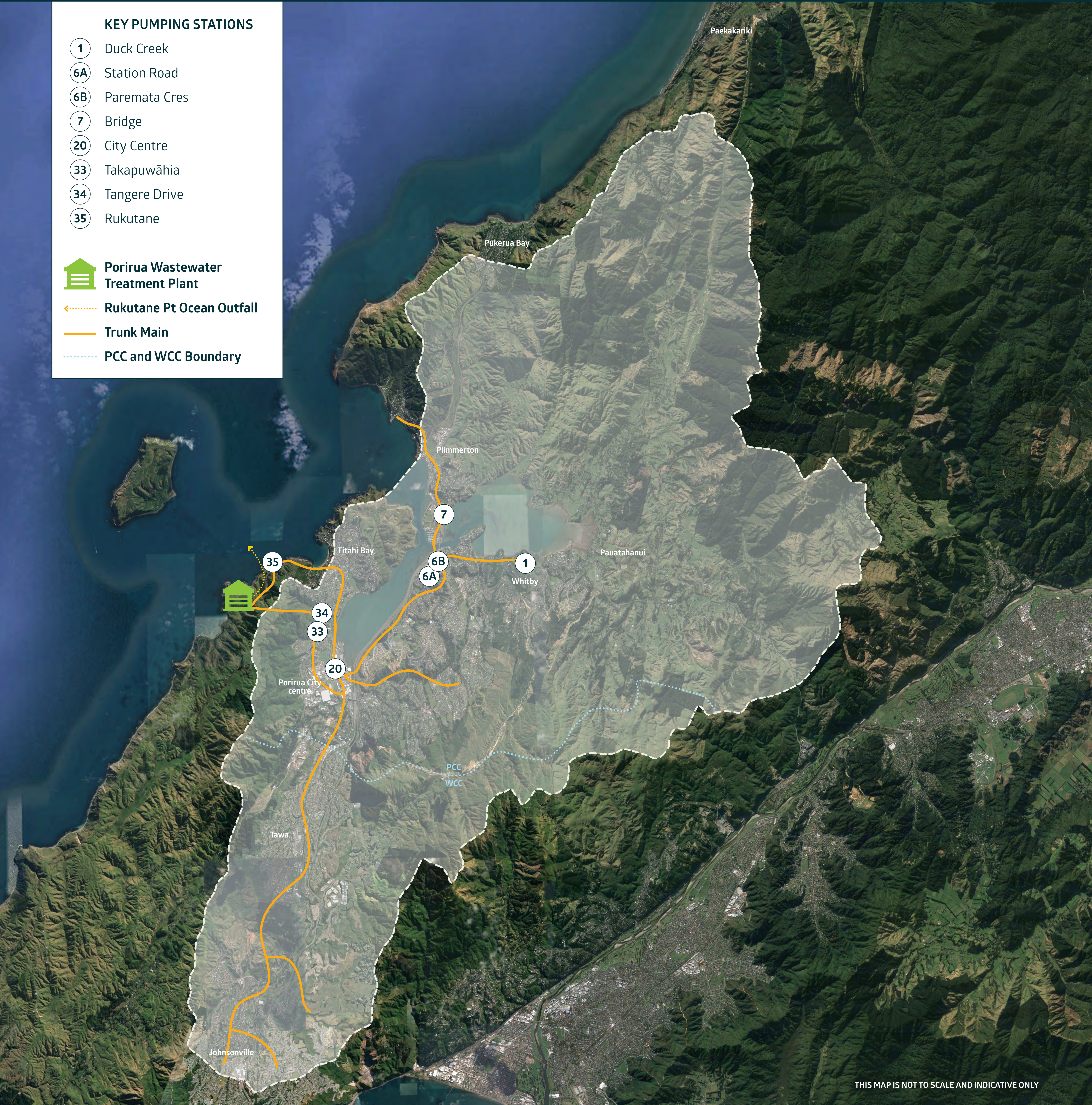
- ① Duck Creek
- ⑥A Station Road
- ⑥B Paremata Cres
- ⑦ Bridge
- ②0 City Centre
- ③3 Takapuwhāhia
- ③4 Tangere Drive
- ③5 Rukutane

 Porirua Wastewater Treatment Plant

 Rukutane Pt Ocean Outfall

 Trunk Main

 PCC and WCC Boundary



THIS MAP IS NOT TO SCALE AND INDICATIVE ONLY

For more information go to wellingtonwater.co.nz/PWP
or email poriruwastewater@wellingtonwater.co.nz

Your water in Porirua

What does the water system in Porirua look like?

The water system in Porirua is an extensive and complex network of infrastructure that looks after the 'three waters':



Drinking water

Stores and delivers safe drinking water to every household, business and facility in the community



Stormwater

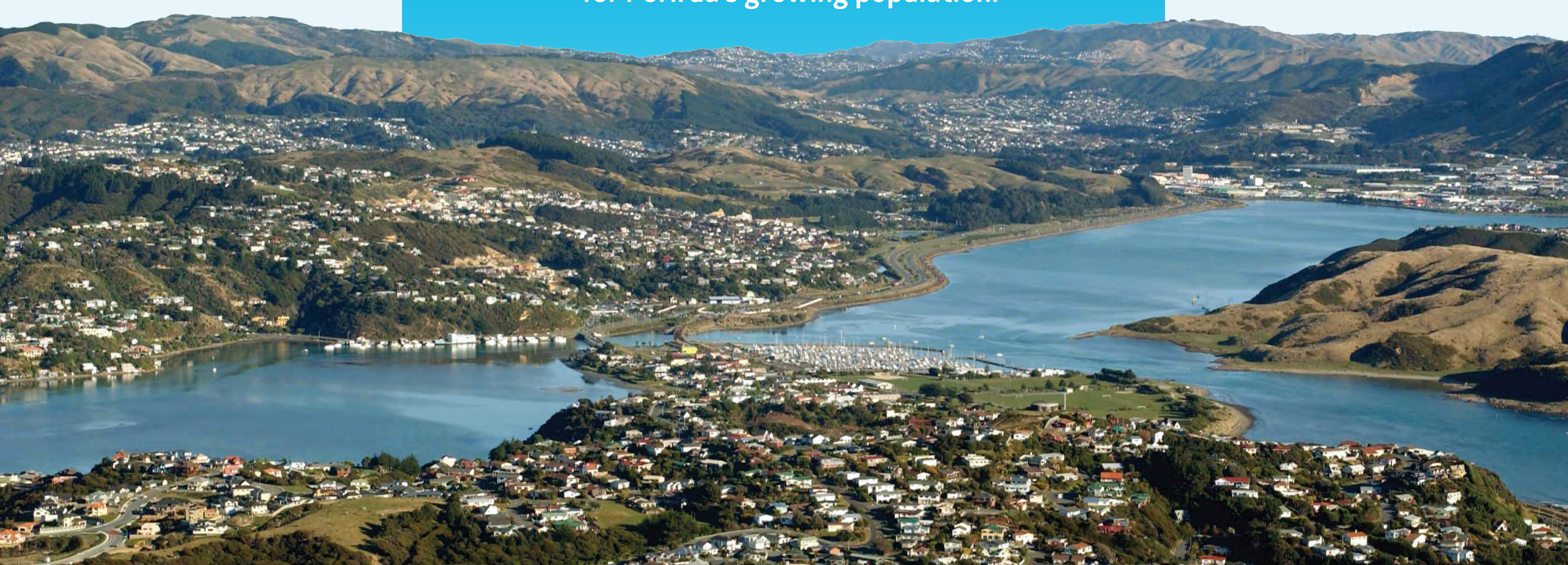
Carries rainwater from the roads, footpaths and gutters and diverts it into our streams, rivers and eventually out to sea



Wastewater

Carries wastewater from the bathrooms, kitchens and laundries of every home, business, and public facility to a wastewater treatment plant where it is treated before being discharged out to sea

These information panels focus on your wastewater system and what we are doing to upgrade and improve it so it can continue to cater for Porirua's growing population.



For more information go to wellingtonwater.co.nz/PWP or email poriruawastewater@wellingtonwater.co.nz

Your wastewater journey

Private network

The wastewater network starts on your property with plumbing, a gully trap and lateral pipes. You are responsible for maintaining this to ensure it does not contribute to poor water quality in your community.



Inflow and infiltration

Inflow is rainwater entering from the surface via incorrect plumbing, damaged gully traps or holes in manholes.

Infiltration is groundwater seeping in through cracks or bad joints in wastewater pipes or manholes.

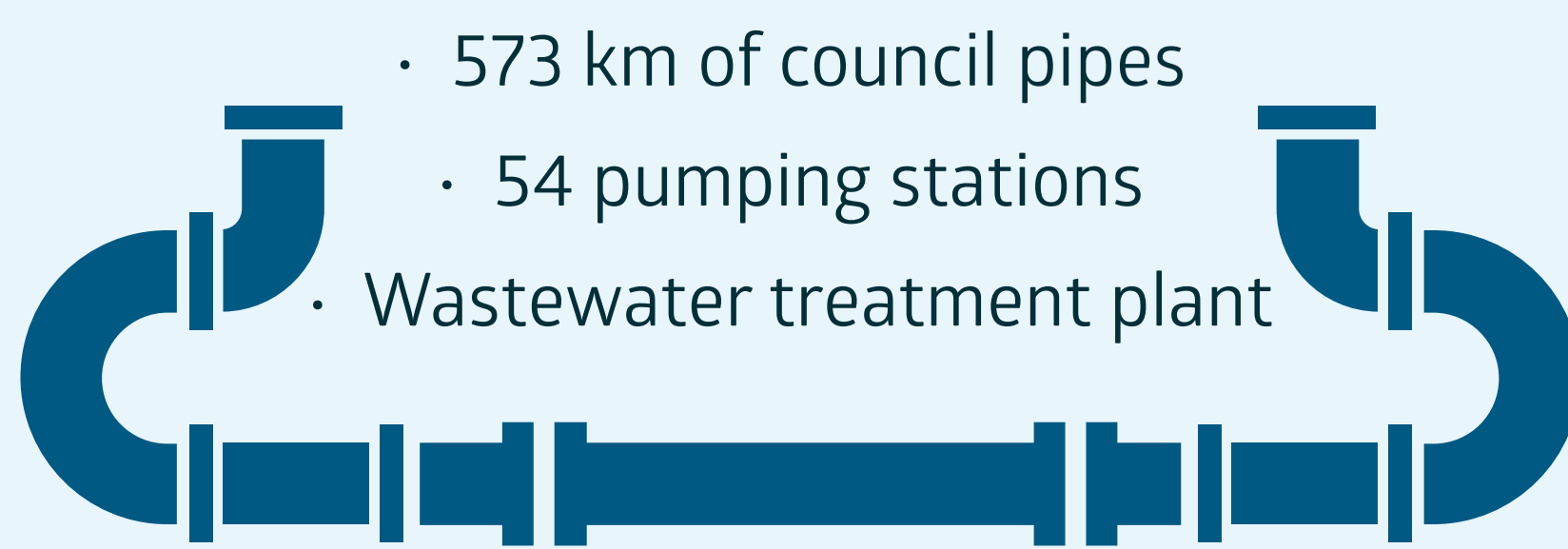
Wet weather and dry weather network overflows and leaks

Wet weather overflows from the network can happen in heavy rainfall, resulting in discharges into streams and the harbour.

Dry weather overflows can occur when there is a blockage in the network. Leaks are from a hole or break in the pipe.

Public network

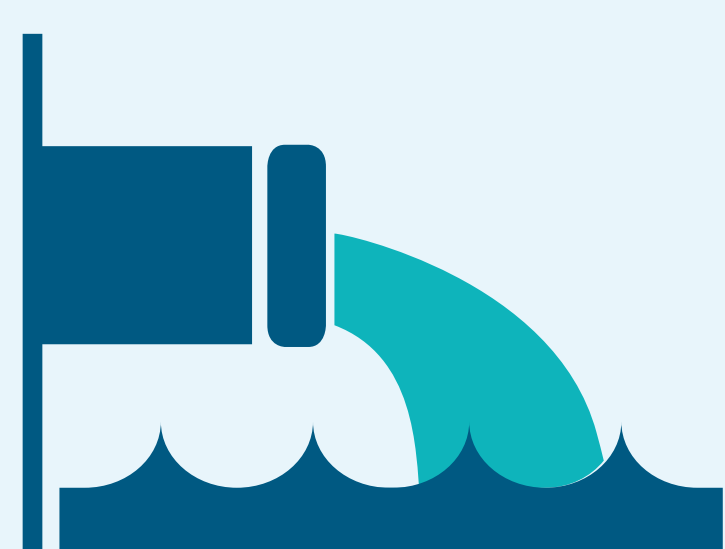
Starts outside your property and is funded by Porirua City and Wellington Water is responsible for maintaining it.



- 573 km of council pipes
- 54 pumping stations
- Wastewater treatment plant

Porirua Wastewater Treatment Plant

- Near Rukutane Point
- Treats 1,000 litres of wastewater per second (about 1750 pints of beer!)
- 25 million litres per day (about 10 Olympic pools)
- Wastewater treatment plant



Bypasses at the plant

happen when wastewater inflow exceeds the plant's capacity to fully treat it. This partially treated wastewater is combined with fully treated wastewater and discharged from the Rukutane Pt outfall. Heavy rainfall can cause these overflows.

Looking after your wastewater

Our wastewater system is only designed for poo, pee and toilet paper.



Never pour cooking fats and oils down the kitchen sink – put them in your rubbish bin or garden.



Don't rinse coffee grounds down the sink – compost them or put them in your rubbish bin.



Avoid using a food disposal unit – compost where you can.



Don't flush sanitary items – put them in the rubbish bin or a sanitary bin.



Choose environmentally friendly washing machine detergents.

For more information go to wellingtonwater.co.nz/PWP or email poriruawastewater@wellingtonwater.co.nz

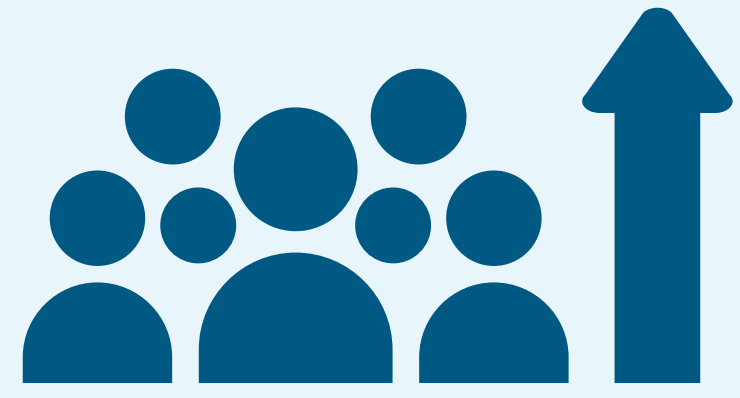
Improving the treatment plant

What we have done

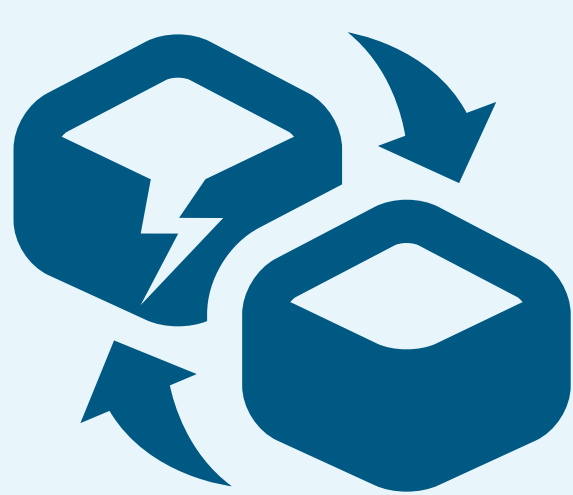
Over the past seven years, we have carried out ongoing upgrades enhancing the plant's capacity and significantly improving quality of the discharge at Rukutane Point. This work has included:



adding a third clarifier tank



increasing aeration capacity for a population of 93,500



replacing sludge pumping system



increasing treatment flow capacity from 825 to 1,000 litres per second

We have also put in place a new manager, Veolia, an international water treatment plant manager, that has successfully operated the region's largest treatment plant at Moa Point, Wellington since 2005.

How is the plant performing?

The plant currently treats an average flow of 25 million litres a day, with capacity to treat around 1,000 litres per second, to a high standard.

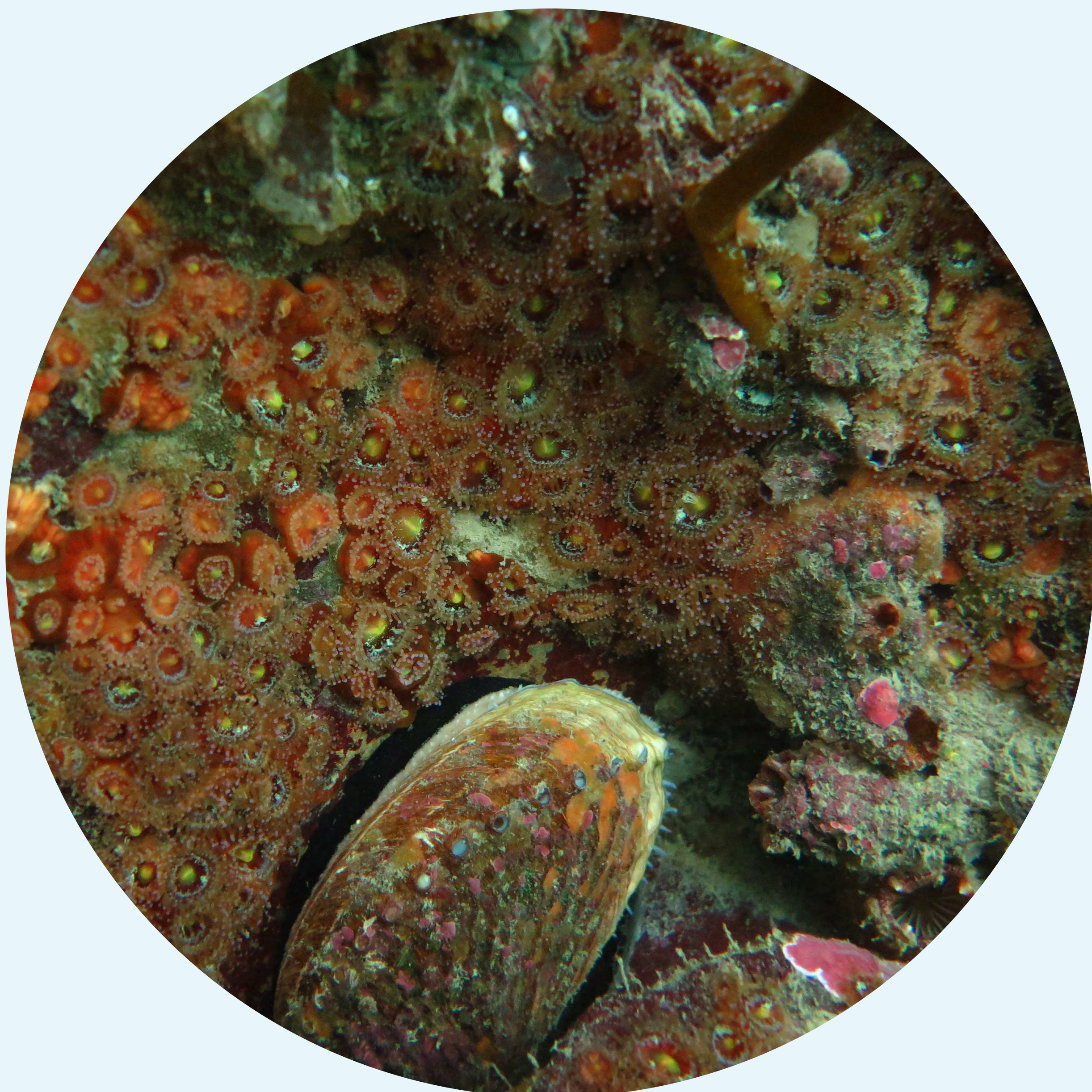
In heavy rain, flow increases as stormwater gets into the wastewater pipes and can reach up to 1,300 litres per second.

This causes some of the wastewater to bypass the treatment process and partially treated wastewater being discharged off Rukutane Point. This occurs about 12 times a year. But on a yearly basis, 99.5% of the wastewater is fully treated.

What's the impact on coastal ecology?

Our coastal ecology is rich in algae and abundant kelp beds populated by fish and invertebrates such as pāua, kina and crayfish.

Surveys by the Cawthron Institute, New Zealand's largest science organisation, suggest that the existing fully treated discharge is not having a marked effect on the local ecology. In fact, there are more pāua around the existing outfall as people don't harvest there.



Photos of marine life around 50m from the existing outfall at Rukutane Point. Photo: Roberta D'Archino, NIWA.



For more information go to wellingtonwater.co.nz/PWP or email poriruawastewater@wellingtonwater.co.nz

What we are planning to do next

The treatment plant's discharge consents expire in 2020 and need to be replaced. As part of re-consenting, we will retain the existing short outfall at Rukutane Point, 900m west of Titahi Bay while:

- increasing the treatment capacity of the plant from 1,000 to 1,500 litres of wastewater per second
- making other technical improvements

What will this mean?

Once these improvements have been made the treatment plant will be 'fit-for-purpose', enabling it to treat all wastewater flows that reach it and avoid bypassing events.

What about Titahi Bay?

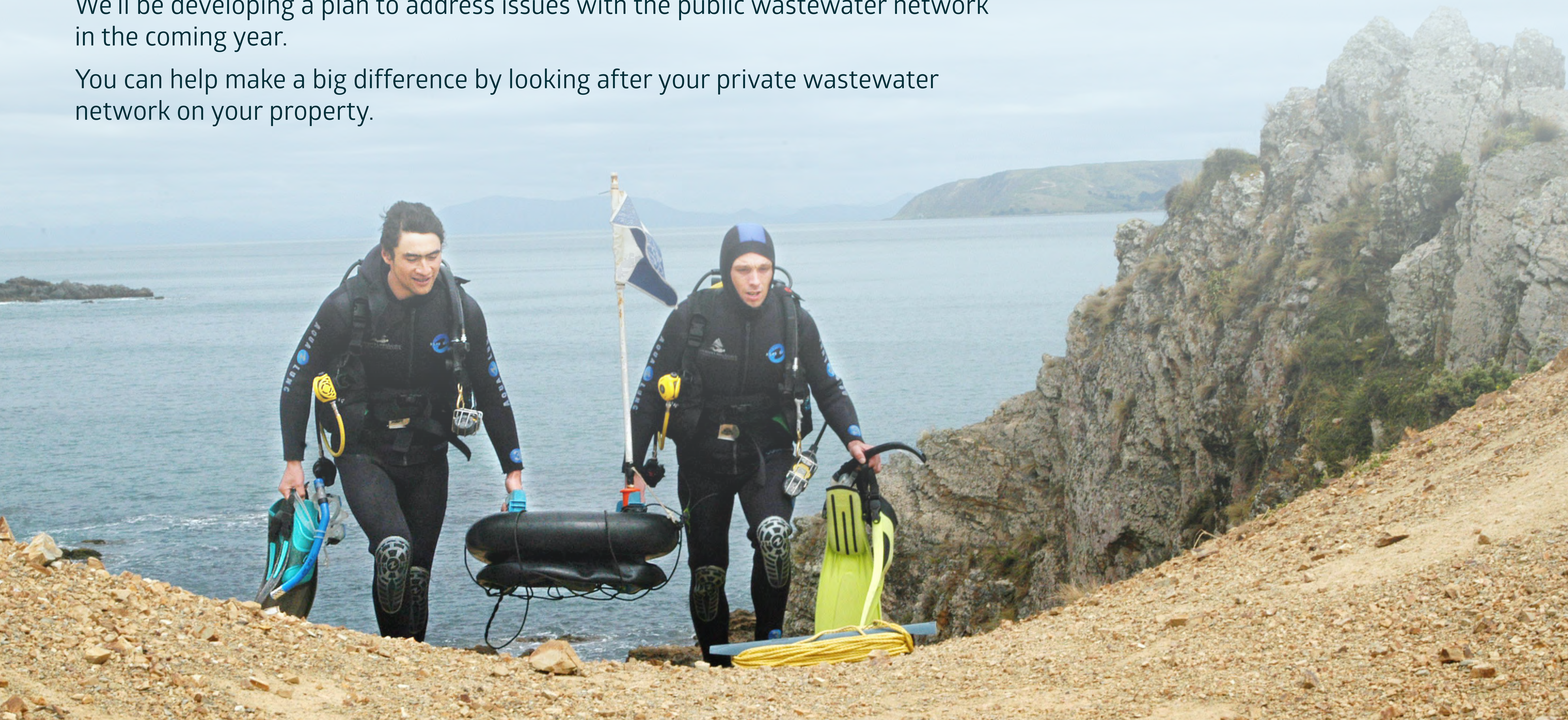
Preventing bypasses will make an important difference to the public health risks associated with the treatment plant discharges. This is important for the upcoming consent process.

However, as in all urban areas, the risk to bathing water quality at the beach will remain from the stormwater runoff, wastewater overflows and leaks, and plumbing on private properties. These are substantial challenges.

Beyond investment in the treatment plant, we can improve water quality overall for Porirua and Porirua Harbour through further investment in the network.

We'll be developing a plan to address issues with the public wastewater network in the coming year.

You can help make a big difference by looking after your private wastewater network on your property.

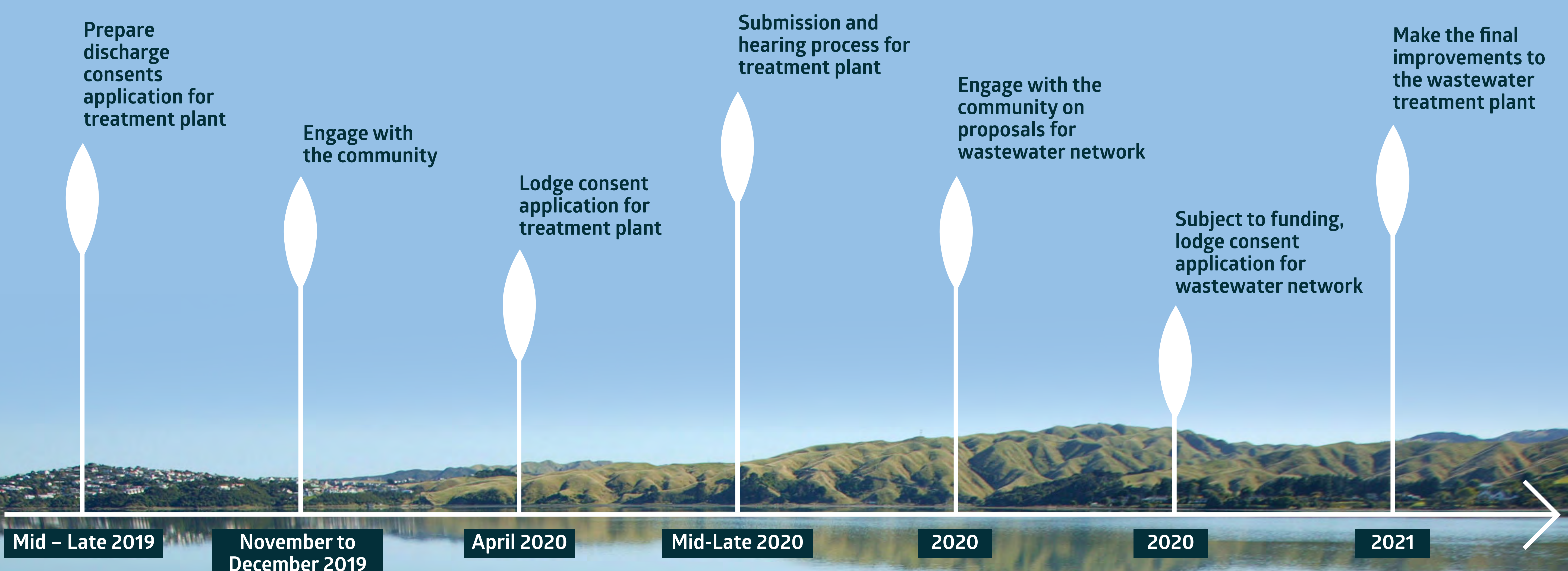


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Costs and next steps

The wastewater treatment plant is jointly owned by Porirua City Council and Wellington City Council as it treats water from Porirua and Wellington's northern suburbs. Costs for running the treatment plant are shared between the two councils.

- Six million dollars has been set aside to pay for the upgrades to the treatment plant.
- Next year, we will be progressing proposals to improve the wastewater network. The network requires a much bigger investment over a longer timeframe – in the realm of hundreds of millions of dollars.



For more information go to wellingtonwater.co.nz/PWP
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What are your views?

Your feedback is important to ensuring we get this right.

This board is your space to express. So, grab a pen and a post-it note and let us know your thoughts and ideas. We will take on board your views as we seek to renew the resource consent for the treatment plant discharges and planning to improve the network.

Here are a few starters for ten:

Environment

What matters to you when it comes to our environment in Porirua?

Values

What are your values around discharge of treated effluent into this environment?

Infrastructure

What do you think of the planned upgrades?

Funding

Upgrading the capacity of the treatment plant will mean it can treat all flows that reach it, preventing bypass events. Planning will then start around larger, long-term improvements to the wastewater and stormwater networks. Do you agree with this approach?

Want to know more about wastewater?

Find out more and learn some tips on how to look after your wastewater network
Wellingtonwater.co.nz/your-water/wastewater/

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