

What are we doing to reduce overflows?

We are working to reduce overflows in two ways: through network improvements and education.

Over the next 20 years, we will invest \$10.9 billion in our wastewater system to improve treatment processes, reduce wet-weather overflows, improve the quality of our beaches and waterways and cater for Auckland's growth. Construction is currently underway on the Central Interceptor wastewater tunnel, which will reduce overflows in central Auckland by at least 80 per cent when it's completed in 2026. For more information about this project, visit centralinterceptor.co.nz, or to learn more about our wastewater infrastructure programme, download the Asset Management Plan from watercare.co.nz.



Our 'inflow and infiltration' programme identifies issues with public and private wastewater and stormwater pipes. For example, it identifies properties that have stormwater drains connected to the public wastewater network. It also identifies properties with poorly-maintained wastewater drains that allow groundwater to seep in.

We are working to educate people about what they can safely pour down the sink and flush down the toilet. We do this through social media, our customer newsletter Tapped In, our hands-on education programme in schools and with the help of media outlets. Our trade waste team also works to educate food outlet operators on their responsibilities, including cleaning their grease traps.

You can do your bit too

Our customers also have an important role to play in protecting beach water quality.


You can help by:

- Only flushing the three Ps: pee, poo and paper. Most wet wipes, even if they claim to be 'flushable', don't break down in pipes and should not be flushed.
- Disposing of fats and cooking oils by pouring them into newspaper or a paper towel, and putting it in the bin. Fats and oils should not be poured down the sink because they can solidify in pipes, causing blockages that can result in wastewater overflows.
- Checking your stormwater connections and gully traps. If a downpipe from your roof is connected to your gully trap, rain water will enter the wastewater pipe, inundating the network. Please also make sure your gully trap is raised off the ground and is free of any leaves or debris.

A compliant downpipe:

✓


- is separate from a gully trap
- connects to the stormwater pipes on your property



A non-compliant downpipe:

✗


- is connected to a gully trap, so stormwater will enter wastewater pipes
- is blocked with soil, leaves or debris



A compliant gully trap:

✓


- is raised off the ground
- is covered by a grate



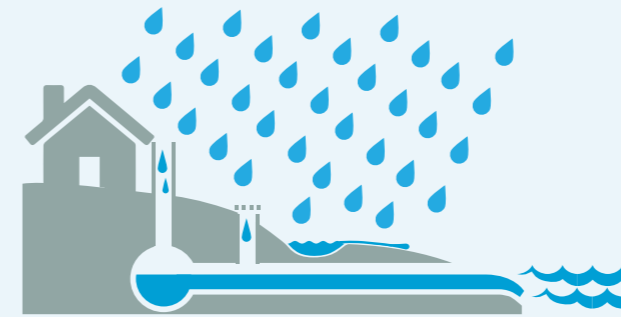
A non-compliant gully trap:

✗

- is level with the ground
- is blocked with soil, leaves or debris



Understanding our networks



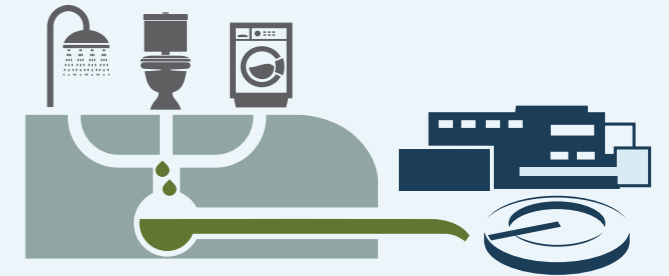
What is stormwater?

Stormwater is the rain that drains from buildings, roads and land into the stormwater network. In Auckland, the stormwater network consists of assets including:

- 6,000km of pipes
- 45,000 manholes
- 6,700 catchment pits
- more than 900 treatment devices.

The stormwater network is designed to release rain water into local waterways, including beaches. This rain water can be affected by its journey into the stormwater pipe: it can pick up bird droppings off rooftops, animal faeces off grass, oil and contaminants of roads, and rubbish. People also carry out activities that affect the stormwater network. For example, allowing soapy water or construction sediment to enter stormwater drains.

Stormwater is managed by Auckland Council.



What is wastewater?

Wastewater is the used water that drains from inside buildings - primarily kitchens, laundries and bathrooms. In Auckland, the wastewater network consists of assets including:

- 8,000+ km of pipes
- 170,000 manholes
- 528 pump stations
- 18 treatment plants

The wastewater network is designed to convey wastewater to a treatment plant where it is thoroughly cleaned before being released back into the environment (for example, the Manukau Harbour or Hauraki Gulf).

Wastewater is managed by Watercare.



Plant operator Abe Tahere holds samples of raw wastewater that enters our treatment plants (left) and the treated wastewater that is ready to be discharged (right).

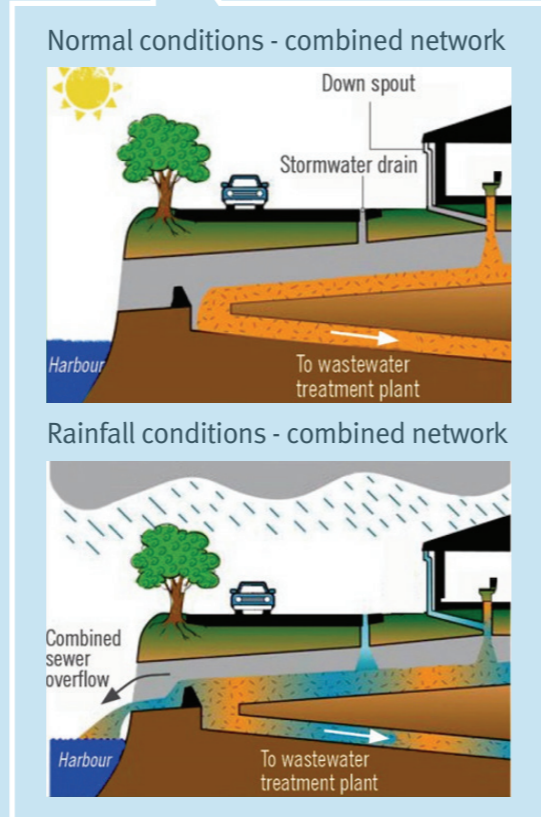
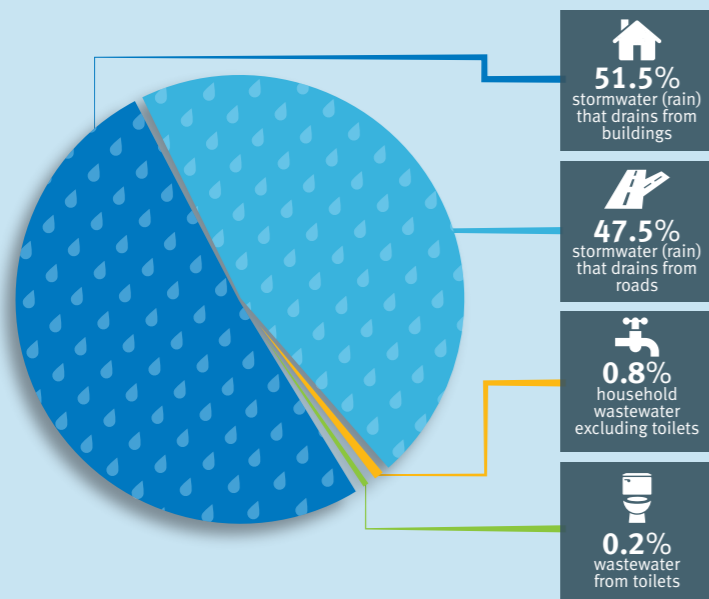
Media enquiries: who can I speak to on different topics?

Auckland Council's healthy waters team	Auckland Council's pollution response team	Watercare
Stormwater	Signage on beaches	Wastewater
Safeswim (in general)		Black pins on Safeswim
Red pins on Safeswim		Investment in the wastewater network
Beach water monitoring		Sewer separation in combined areas
Safe Networks		Trade waste

What is a combined network?

In a combined network, wastewater and stormwater flow into the same pipe. In dry weather, the wastewater is conveyed to a wastewater treatment plant to be thoroughly cleaned. In wet weather, some of the wastewater and stormwater is conveyed to a wastewater treatment plant, and some is released directly into local waterways, including beaches.

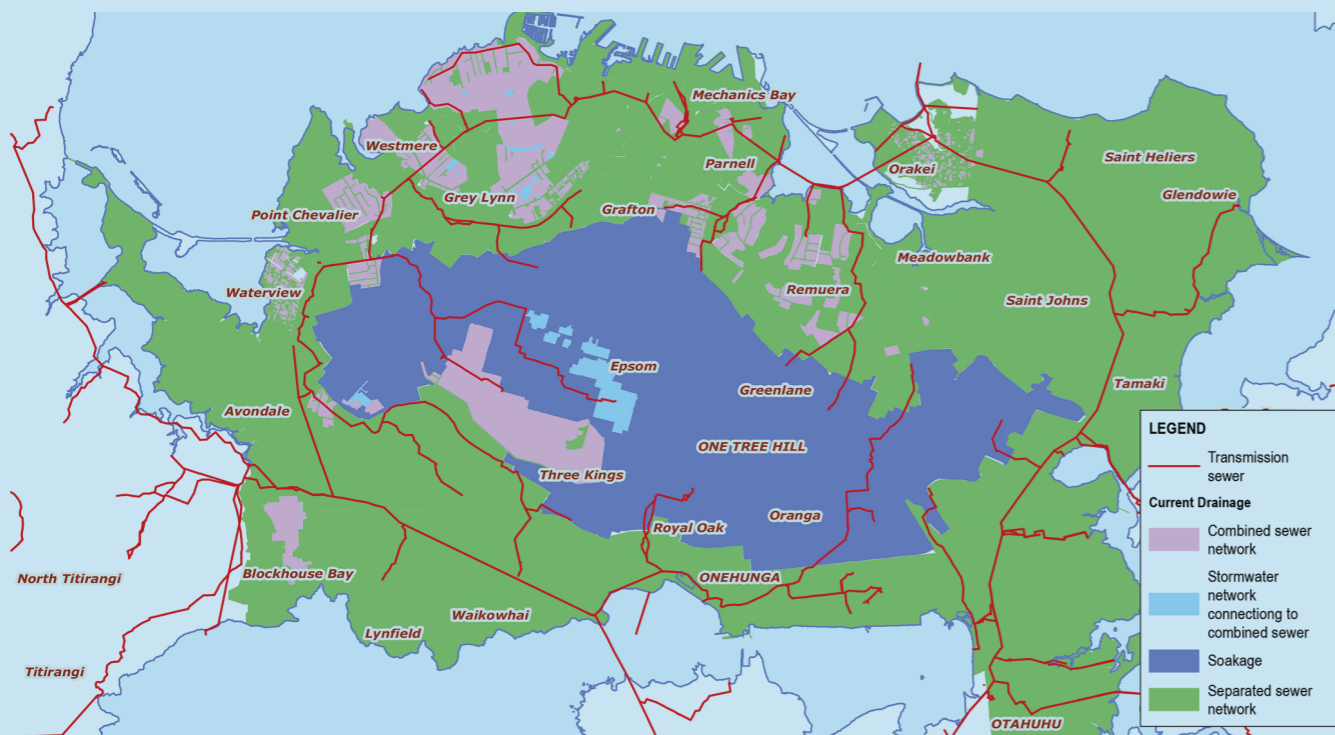
When it rains, the combined flow being released into waterways consists of:



In Auckland, the combined networks are in the older parts of the city such as St Marys Bay, Herne Bay and Orakei. There are around 16,000 properties connected to the combined networks, compared with over 400,000 properties connected to separate networks.

We're planning to extend our Central Interceptor wastewater tunnel to Pt Erin which will significantly reduce overflows into the Waitemata Harbour.

Watercare manages combined networks.



What can affect the health of Auckland's beaches and waterways?

The health of Auckland's beaches and waterways can be affected by the stormwater and wastewater networks.

Given that rain can collect contaminants on its way into the stormwater network (see page1), people are advised to avoid swimming at the beach for 48 hours after heavy rain. This advice is communicated by authorities in towns and cities across New Zealand and internationally (e.g. Toronto and Melbourne). In Auckland, the Safeswim application gives this advice by posting a red water quality pin.

When giving this 48-hour advice, authorities also acknowledge there may be wastewater mixed in with the stormwater. This can happen when:

- private wastewater pipes are incorrectly connected to the stormwater network or vice versa.
- there are cracked or broken stormwater and wastewater pipes close together and they infiltrate each other.
- there is a combined network.

When wastewater gets into the stormwater network, it flows into waterways via stormwater discharge pipes. When stormwater gets into the wastewater network, it overflows into a waterway or onto land via specially-designed overflow structures, manholes or private gully traps.

Some areas in Auckland – for example, Piha, Muriwai and Onetangi – do not have local wastewater networks. Instead, private properties have septic tanks. Sometimes, waterways and beaches in these areas are affected by poorly maintained septic tanks.

What does the black pin mean on Safeswim?

The black water quality pin on safeswim.org.nz signals that the beach has been affected by a wastewater overflow. Safeswim draws on data from continuous monitors (real-time sensors) at pump stations and engineered overflow points at key points on the wastewater network. Safeswim automatically displays a black water quality pin for up to 48 hours at affected sites if sensors detect overflows that are likely to elevate the public health risk from swimming.

In the event of an isolated overflow that could impact beach water quality – for example a pipe blockage or maintenance issue – Watercare staff manually upload water quality alerts to Safeswim.

When there is a wastewater overflow onto a beach, we also notify Auckland Council's pollution response team, who is responsible for erecting public health signage, if required.

Black pins do not mean a beach is closed. However, Auckland Council strongly advises against swimming at a location where there is a black pin on Safeswim as the health risk is higher than normal due to the presence of untreated wastewater.

What does the red pin mean on Safeswim?

A red pin indicates that conditions are most likely high risk, based on previous water quality monitoring at that site. These high-risk conditions are caused by a mixture of sources including bird and animal faeces in stormwater runoff, and wastewater overflows in larger storm events.

The Safeswim website will continue to show red pins when the water quality is predicted to be poor, indicating a high risk of illness from swimming. The pins will only turn black when there is a confirmed discharge of wastewater.



Wastewater manhole overflowing during heavy rain due to stormwater infiltration.



Public health signs were recently put up at Browns Bay.

Has beach water quality declined in recent years?

Auckland's beach water quality has not declined in recent years. The Safeswim application has simply made it easier for Aucklanders to access information about when it is safe to swim.

Watercare and Auckland Council continue to work together to improve the service Safeswim provides. Over the past few years, we've significantly increased the number of sensors on Auckland's wastewater network connected directly to Safeswim.

With more real-time sensors connected to the wastewater network, Aucklanders may notice more black water quality pins. This does not mean our beaches are becoming dirtier – it means Aucklanders now have access to better information to make an informed decision before they swim at an urban beach.

