



Tāmaki Makaurau is home to stunning beaches, waterways, and parks. Unfortunately, from time to time, our beautiful environment is affected by wastewater overflows.

During fine weather, overflows can happen when there is a build-up of fat or items like wet wipes in a pipe. These things can form large clumps – sometimes called fatbergs – that block pipes and cause private gully traps and public manholes to overflow with wastewater. Our crews aim to respond to all dry-weather overflows within an hour. They clear the blockage, sometimes using sucker trucks, and then thoroughly clean up and disinfect the affected area. On rainy days, overflows can happen when rain gets into wastewater pipes and overwhelms them. It causes manholes and purpose-built structures to overflow with stormwater and wastewater into our creeks and streams.

We're doing our bit to reduce the impact of wastewater overflows by carrying out inspections and tests on the public wastewater network and improving our infrastructure. You can do your bit by being mindful of what you pour down the sink and flush down the toilet and by ensuring your property's private plumbing is correctly installed and maintained.

In this edition of *Tapped In*, we highlight ways we can reduce overflows together so we can continue to enjoy Auckland's beaches, waterways, and backyards.

# In the 12 months to 30 June 2023...



**3701** wastewater overflows caused by blockages occurred in Auckland.



# Understanding our wastewater network

Stormwater is collected into a public stormwater network. This is

managed by Auckland Council.

#### Wastewater overflows occur when wastewater spills out from

gully traps, manholes, engineered overflow points or pump stations.

overflow on ou (09) 442 2222

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, also known as sewage, is the used water that goes down sinks from washing machines, showers, baths, and toilets. Most of it is water, but occasionally food scraps, cooking oils and rubbish end up in the wastewater network. This causes blockages in pipes and results in wastewater overflows.

Households

534 pump stations

These are buildings with machinery for pumping wastewater from one place to another.

### **11,311** manholes

These are holes in the ground, covered by a lid, that provide entry to the wastewater network.

### 8,650km of wastewater pipes

Businesses

Wastewater drains into private wastewater pipes that connect to the public wastewater network which carries household wastewater to treatment plants.

### **18** wastewater treatment plants

At the treatment plants, wastewater is cleaned so that it is not harmful to people or the environment and can be released to sea, rivers or land. We manage the public wastewater network.

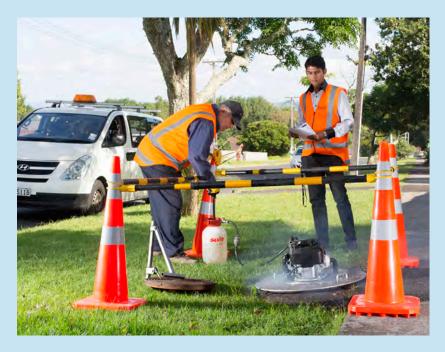
# What we're doing to reduce overflows

#### We're investing \$10.6 billion in wastewater projects over the next 20 vears.

Part of this investment includes working closely with Auckland Council to test and inspect the public wastewater and stormwater network and private drainage.

We inspect wastewater pipes, stormwater downpipes and gully traps to ensure stormwater is not entering the wastewater network. We do this in a variety of ways, including:

- Smoke testing harmless smoke, similar to what is used in discos and theatres, is used to pinpoint any places on a property where stormwater is entering our wastewater network or vice versa.
- Dye testing non-toxic dye is poured down a specific • drain so we can trace where the water ends up.
- CCTV camera inspections a camera is inserted down the pipe to inspect internal conditions.



### Upgrade at Pukekohe Wastewater Treatment Plant improves water quality

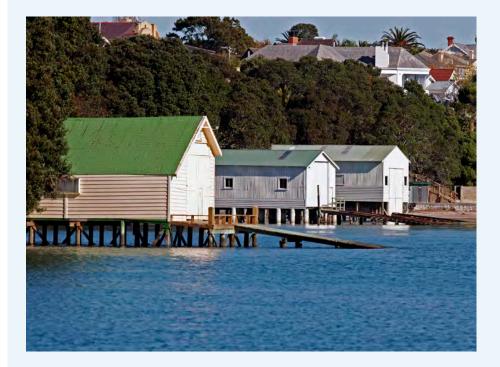
Earlier this year, we completed a \$128 million upgrade at the Pukekohe Wastewater Treatment Plant that doubles its capacity from 30,000 households to 60,000. It also improves water quality in the Parker Lane Stream.

The Pukekohe Wastewater Treatment Plant is one of the best domestic treatment plants in New Zealand. Its sophisticated treatment processes treat wastewater to such high quality that it improves the water quality in Parker Lane Stream, where it's discharged to.

The plant treats the wastewater from Pukekohe, Buckland, Tuakau, Pokeno and Patumahoe. This upgrade caters for population growth in this rapidly growing area.



# New wastewater pipe aims to deliver cleaner waterways and beaches



We're building a new wastewater pipe in Herne Bay to significantly reduce overflows and improve the quality of waterways and swimmable beaches in the area.

The proposed wastewater pipe will support the extension of the Central Interceptor wastewater tunnel. It will ensure combined overflows are captured and transported to the Māngere Wastewater Treatment Plant for safe treatment.

The original proposed St Marys and Herne Bay wastewater separation project was deferred due to an unaffordable escalation in costs. Instead, the Herne Bay wastewater pipe will offer a more cost-effective solution to support future separation, while providing less disruption to the community.

Construction is expected to start next year in parallel with the proposed Point Erin Central Interceptor extension project.

## New technology improves performance at Helensville Wastewater Treatment Plant



A \$17million upgrade of the Helensville Wastewater Treatment Plant has vastly improved the quality of the treated wastewater. This means the plant – which treats wastewater from about 1600 homes and businesses in Helensville and Parakai – is better able to cope with peak flows in wet weather.

The upgrade includes New Zealand's first installation of a 'membrane aerated biofilm reactor' (MABR) to improve performance and discharge quality. This process involves an army of bugs in the MABR tanks that eats the carbon in liquid wastewater and reduces the amount of organic compounds and ammonia nitrogen.

The new technology went into service in April and it has exceeded expectations, meaning we're now discharging much higher quality treated wastewater to the Kaipara River.

# How to prevent overflows

## Only flush the three Ps: pee, poo, and paper

Remember, only human waste and toilet paper should be flushed down the toilet. Anything else will not break down in pipes.

## Dispose of fats and cooking oils correctly

Fats and oils should not be poured down the sink because they can solidify in pipes, causing blockages that can result in wastewater overflows. Instead, you can dispose of cooled fats and oils into newspaper or a paper towel and put it into your rubbish bin or Auckland Council food scraps bin. You can use a sink waste disposal unit for food scraps if you have one, however, composting is a much more environmentally friendly option

### Check your stormwater connections and gully traps

If a downpipe from your roof is connected to your gully trap, rainwater 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.



# True or false?

#### 'Flushable' wet wipes can go down the drain.

**False.** Even if they claim to be 'flushable', they don't break down in pipes and should not be flushed.

### Flushing unwanted medicine down the drain can harm our environment.

**True.** Some medicines contain chemicals which can contaminate our waterways. Unwanted medicine should be returned to a pharmacy so it can be disposed of properly.

#### Using hot water and detergent to flush fats, oils and grease will prevent blockages.

**False.** It only moves the fat, oils and grease further down the line which creates a blockage that can result in a wastewater overflow.

#### Overflows can occur if your downpipe is connected to your gully trap.

**True.** This is an example of a non-compliant downpipe which can inundate the network and result in an overflow.

### TAPPED IN

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