

Ardmore Water Treatment Plant

Community safety information



About Watercare

We are New Zealand's largest water utility, supplying safe drinking water and sustainable wastewater services to our communities throughout the Auckland Region.

We draw water from 27 sources and supply it to homes and businesses via a vast network of pipes.

We supply around 400 million litres of water to Aucklanders every day.

We also carry out significant work to upgrade and build infrastructure, so that we can maintain levels of service and provide capacity for a fast-growing population.

At our water treatment plants we make sure the water meets the requirements of the Taumata Arowai Drinking Water Quality Assurance Rules 2022. Every property connected to the Auckland metropolitan network receives Aa grade water – the highest grade from the Ministry of Health.

Ardmore Water Treatment Plant (WTP)

The Ardmore WTP was built in 1956 to treat water from water dams in the Hunua Ranges and today supplies around 60 per cent of Auckland's drinking water.

Raw water from the dams contains contaminants ranging from large debris to micro-organisms. This water undergoes a series of treatment processes at the plant to ensure it is clean and safe to drink. The final stage of the water treatment process involves chlorine disinfection to kill any bacteria and viruses with the primary targets being E.coli and Campylobacter. Chlorine disinfection has been used in this way for over a hundred years and continues to be commonly used today across the world.

At Ardmore WTP, the safety of our staff, the local community and the public is our priority. Chlorine is stored and used on-site under strict regulations. We follow legislative requirements and best practice standards to inform our safety processes and procedures.



Members of the community at the Ardmore Water Treatment Plant, learning about the water treatment process.

Chlorine information

Chlorine storage and safety systems at Ardmore WTP:

- Chlorine is an important part of our water treatment process ensuring water is safe for Aucklanders to drink
- Chlorine has been used in the process at the Ardmore WTP since the plant was first in use
- Chlorine gas dosing is used in the process because it's simple, easy to use and very reliable in treating water to a high standard
- The chlorine gas storage facility at Ardmore WTP has undergone a number of upgrades since being built, most recently in 2021 a gas scrubber was put into operation as part of emergency preparedness measures. The gas scrubber is specifically designed to draw chlorine in the event of a gas leak, reducing the consequences of a chlorine leak
- The chlorine system has a range of safety measures including: vacuum regulators, gas leak detection, automated vessel isolation, forced ventilation and critical alarming, among other industry-standard safeguards
- While an incident involving chlorine is very unlikely, Watercare has a comprehensive emergency response plan to control, mitigate and manage any major incidents
- Safety management at Ardmore WTP is regularly reviewed by Watercare and audited by WorkSafe NZ.

Important facts about chlorine:

- Chlorine has a characteristic odour similar to household bleach
- At low concentrations chlorine gas is not visible and may cause respiratory irritation, coughing and shortness of breath
- At high concentrations chlorine gas is toxic and is a visible yellowish colour
- When chlorine gas is released it tends to travel downhill and in the direction of wind, settling in low lying areas.

Safety and the community at Ardmore

Safety case

A safety case is in place for the Ardmore Water Treatment Plant which outlines the operation of the facility, our health and safety systems, and emergency response protocols. It ensures that we operate the plant safely and in the unlikely case of an emergency, we minimise the risk of harm to our staff and the community.

It was developed by Watercare in consultation with external experts and emergency services. It is also subject to review by WorkSafe NZ to assess and provide oversight of our safety systems and processes.

In the event of an incident

While a chlorine emergency is a very unlikely event, it is important that we plan for worst case scenarios.

As part of our emergency response planning, it is important that you listen to local alerts:

- Neighbours (up to two kilometres from the facility) will initially be warned of any emergencies at the facility by a loud speaker
- An emergency alert may be sent to all mobile phones in, and around, the affected area

In the event of an incident at Ardmore WTP, emergency services will respond and assist Watercare, and lead the community response.

Loud speaker



The immediate public will be warned of an emergency at the plant by a loud speaker which sounds an initial siren followed by the emergency response message to Shelter-in-Place. The sound may be heard up to two

kilometres from the plant. The loudspeaker will repeat the sound in 10 minute intervals while the emergency notice is still in place. Please continue to follow safety steps recommended by the plant and emergency services until the emergency notice is lifted.

Steps to take in the event of an emergency

In the case of an emergency at the plant involving chlorine gas, the response for the local community is to **Shelter-in-Place**.

Steps to take to Shelter-in-Place

In the instance of being alerted to a Shelter-in-Place notice, ensure you take these steps immediately:



An emergency is ongoing until the emergency notice is lifted:

- Emergency updates will be available on our website
- Listen to radio and media for updates
- The loud speaker tells you the emergency is over.

Contacts and information

If you would like further information please contact us.



Phone: 09 422 2222 Please ask for the Ardmore Water Treatment Plant Facility Manager



Address: Ardmore Water Treatment Plant, 250 Creightons Road, Ardmore, Auckland 2582