



AUCKLAND COUNCIL

Te kohikohi wai āwhā mō tō whare

Collecting rainwater for your household

He kupu ārahi hei kōwhiri kura wai āwhā

A guide to choosing a rainwater tank

aucklandcouncil.govt.nz



He aha te take me kohikohi wai āwhā?

Why collect rainwater?

There are many benefits to using a rainwater tank to collect water from your roof. It can help you increase your household's water resilience, save money on your water bill, and reduce the impacts of stormwater runoff on the environment.

Increasing your household water resilience

Climate change means that weather patterns are changing. We are experiencing longer dry spells and bursts of intense rainfall. This may lead to an increase in water supply restrictions as occurred recently during the 2020/21 Auckland water shortage.

Having a rainwater tank enables you to collect and store rainwater for household use, either in an emergency or all year round to reduce the strain on Auckland's water reserves.

connected to Auckland's centralised water supply but use water from your tank for some household activities, this will reduce your intake from the centralised supply and should also reduce your water bill.

Helping the environment

Stormwater runoff is an environmental issue that Auckland will continue to face as our population growth is driving greater urban intensification. This results in an increase in sealed (impervious) surfaces such as roads, pavements and roofs and less natural ground cover. Rain runs more quickly across sealed surfaces leading to localised flooding and stormwater networks becoming overwhelmed as well as erosion of stream banks, rivers and coastal waterways.

Saving money on your water bill

Rainwater tanks capture water that falls onto your roof which you can use for indoor and outdoor household activities. If you are

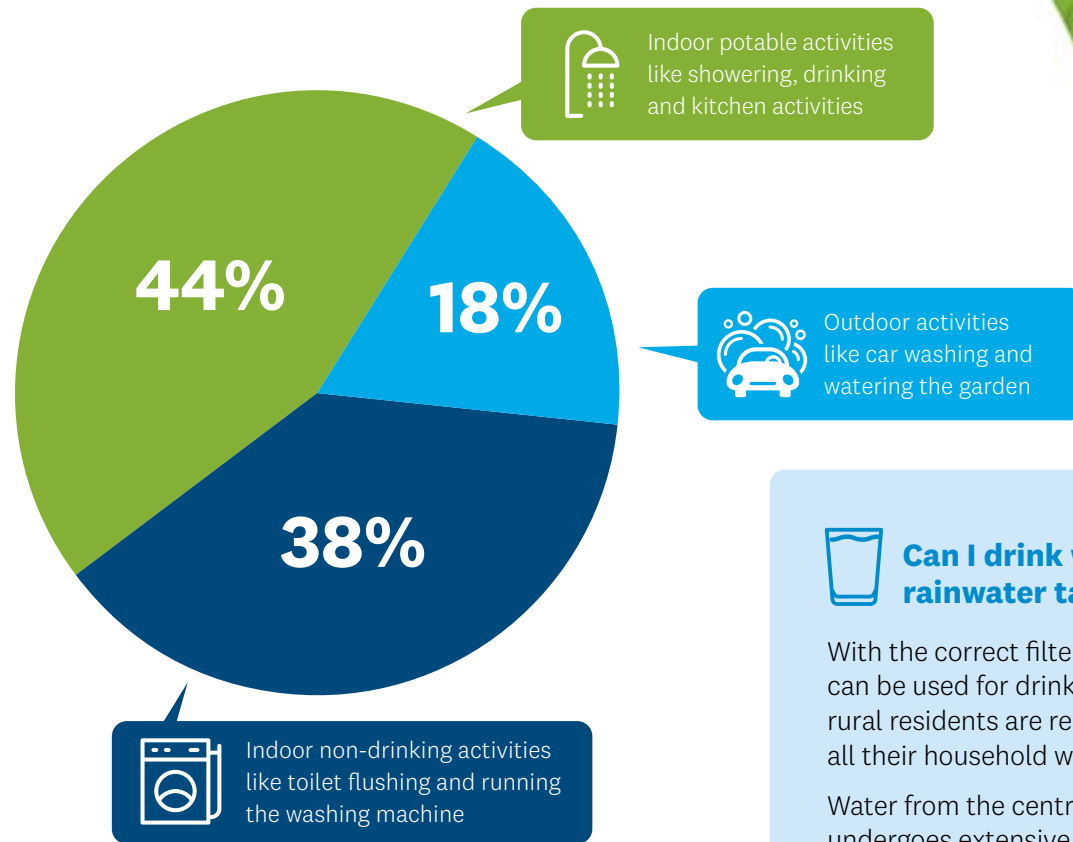
Rainwater tanks help to manage stormwater runoff. They collect some of the rain falling onto sealed surfaces, helping to reduce the water load being placed on Auckland's pipe networks and waterways.



Hei aha te wai āwhā?

What can I use rainwater for?

For the average household, approximately 56% of water is used for non-potable (non-drinking) purposes, which a rainwater tank can help you collect.*



*Source: Auckland water use study, BRANZ.



Can I drink water from my rainwater tank?

With the correct filters and plumbing, rainwater can be used for drinking and showering. Many rural residents are reliant on rainwater tanks for all their household water needs.

Water from the centralised mains network undergoes extensive treatment to ensure it meets the Ministry of Health's Drinking Water Standards. If you are connected to the mains water supply, it is recommended that you use this for your drinking water needs.








Te whiriwhiri i tētahi kura hei kohikohi wai āwhā

Choosing a rainwater tank

Rainwater tanks come in many different shapes, sizes, colours and materials and can be used for different purposes. They can also be installed above or below ground. The best tank for you depends on what you want to use it for, how much space you have, and whether you are dependent on tank water to service all your water needs.

Common tank types

TYPE	TYPICAL USE	TYPICAL SIZE
 RAIN BARREL	Easy to set up, generally small and used for outdoor watering only	Storage ranges from 100 – 1,000 litres
 SLIMLINE TANK	Good for areas with restricted space. Can be tall due to smaller base. Suitable for indoor and outdoor water uses	Storage ranges from 800 – 5,000 litres
 STANDARD TANK	Most commonly round and installed above ground. Suitable for indoor and outdoor water uses	Storage ranges from 1,000 – 20,000 litres
 LARGE TANK	Used on commercial sites and rural households who are not connected to mains water. Suitable for complete water supply	Storage ranges from 20,000 – 35,000 litres
 UNDERGROUND TANK	Good for space-restricted sites, including commercial sites. Earthworks will be required to bury the tank	Storage is upwards of 2,000 litres

It is good practice to do your own research and talk to experts to understand the type of tank that best suits your needs. Ensure you check for a manufacturer's guarantee and warranties to ensure the tank you choose meets New Zealand quality standards.

Kia pēhea te nui o te kura hei whai māku?

What size tank do I need?

The right tank size for your household will depend on several factors, including:



1. Whether your property is connected to the mains water supply



2. What the water will be used for (outdoor, laundry, toilet etc)



3. What your roof size is for collecting water



4. The number of people in your household






5. How much space there is for the tank

How much water can I collect with a tank?

AVERAGE YEARLY PERCENTAGE OF WATER DEMAND SUPPLIED*

(BASED ON 150M² ROOF)

		RAINWATER TANK CAPACITY (LITRES)						
USE	WATER USE PER DAY	200L	1,000L	3,000L	4,500L	9,000L	25,000L	
 OUTDOOR USE ONLY	125L	46%	83%	97%	99%	-	-	
 NON-POTABLE - INDOOR AND OUTDOOR USE	325L	-	52%	73%	80%	89%	99%	
 FULL WATER SUPPLY	500L	-	-	-	63%	72%	81%	

* Data based on water balance analysis using daily rainfall in Auckland over the last 30 years

A minimum of 50,000L is recommended if you are not connected to the main water supply network. However, if there is a prolonged dry period, this may need supplementing. Consider installing a top-up tank and planning ahead for water deliveries.

Find the best rainwater tank size for you with our [tank size calculator](#).

Ngā wāhanga matua o te pūnaha hei kohikohi wai āwhā

Main components of a rainwater tank system

1. Roof

You can collect rainwater from most roof types including pressed metal and clay tiles. Your roof, flashings and gutters must not contain lead (including lead paint) as this can dissolve and contaminate your water supply.

2. Gutters and downpipes

Made from PVC, aluminium or galvanised steel, gutters and downpipes should be properly sized and sloped to maximise rainwater collection.
Tip: Add a leaf guard or first flush diverter to prevent debris entering your tank.

3. Rainwater tank

The tank should be long-lasting, watertight with an opaque exterior and requires a tight cover to prevent evaporation and to keep out insects, birds and rodents which could contaminate water.

4. Overflow outlet

This is to ensure excess water flows back into your existing onsite stormwater discharge point (where the stormwater would have gone before the rain tank existed).

5. Pump

While gravity-fed systems are an option, most households placing their tank on the ground will require a pump to create adequate pressure for water to circulate around the house. Your pump will require a power supply and annual maintenance. We recommend using a registered electrician.

IMPORTANT



All plumbing work should be carried out by a certified plumber to ensure NZ Building Code standards are met



For non-drinking and untreated water systems, ensure that 'Not suitable for drinking' signs are displayed on the tank and next to all connected taps



Backflow prevention devices need to be installed to prevent potentially untreated, contaminated water entering the mains water system (if connected to internal plumbing and the main water network) and must be installed by a certified plumber



Me aha au ki te whakapai ake
i te kounga o taku wai?

How can I improve my water quality?

Water treatment devices ensure water is clean and safe for your household. While these are optional for non-drinking uses, we recommend you consider them and speak to a professional.

- **Gutter screen/ Leaf guards:** These can be installed at the top of downpipes to prevent leaves and debris entering your tank
- **First flush diverters:** The first flush of rainfall usually carries most of the contaminants from your roof (dirt, debris and bird droppings). This device will divert the “dirty” water away from your tank and help improve the quality of water captured by your tank
- **Filters:** These include simple cartridges, fine mesh and UV filtration systems which can remove sediment, harmful microbes and alter the pH balance of your water. The intended use for your water will determine which if any of these systems you need, however all filters will require maintenance and replacement
- **Chlorination:** Similar to those used in spas and swimming pools, consider adding chlorine tablets to improve the quality of your water and prevent algae forming

Various parts of your water collection system will require regular maintenance and cleaning to ensure they operate effectively and to prevent water quality issues. There are some general guidelines available on the [Auckland Council website](#) but we recommend taking advice from a registered plumber or installer.

Typical costs

The cost of buying, professionally installing and plumbing a standard rainwater tank system for non-drinking purposes could range from \$3,000 - \$6,000 depending on the type of set-up you have.

For a full water supply system this is closer to \$10,000. A simple rain barrel typically is less than \$1,000.

These costs do not include council consents if they are required.

Note: If your property is also connected to the mains water network then a meter may be required to monitor and charge for wastewater. Visit the [Watercare website](#) for more details.



Me whai whakaaetanga ā-hanga
whare mō te whakatū i te kura wai āwhā?

Do I need a building consent to install a rainwater tank?

Where your tank will be placed and whether it will be plumbed to your internal plumbing or not can determine if a building and/or resource consent is required and if it will need to be installed by a registered plumber.

Building consent

Building consent checks for health and safety requirements under the NZ Building Code including structural stability, earthquake risks and safe drinking water.

You *will* need building consent for your tank if:



- Your tank is for indoor use and/or connected to any internal plumbing.

You *may* need a building consent for your tank if:



- Your tank will be on top of a supporting structure instead of being placed on the natural ground. Whether it needs a building consent will depend on the volume (litres) of the tank in relation to the height of the structure.

Obtaining a building consent is a relatively simple process. This will enable you to connect your rainwater tank to your internal plumbing, increasing your long-term savings and the uses for your collected water.

Consent fees: Building consent fees depend on the complexity of your system but typically have a minimum lodgement fee of \$1,130.*

*Based on rain tank being plumbed to house for non-potable uses and overall project value being under \$4,999

Me aha e kore ai au e mate ki te whai whakaaetanga ā-rawa wāhi?

How can I avoid needing a resource consent?

If you plan carefully where your tank is sited on your property and it is not in a special or historic zone, then you may not need a resource consent.

Some general rules to avoid needing a resource consent are:

- Place your tank at least 1m away from the side boundary and 1m away from the rear boundary (6m for Large Lot Zones)
- Place your tank at least 10m away from a stream, 30m away from a lake or 10m away from the coastline.
- If the rainwater tank can be seen from the street, consider screening it with landscaping or fencing.
- Avoid placing your tank between the house (building frontage) and the street.
- Avoid placing your tank above a retaining wall or on unstable ground (for example, steep slopes or land subject to erosion) or in an area prone to flooding.

Properties within the Special Character Area or Historic Heritage overlay have additional specific requirements and require a resource consent.

Keep front of property clear

Avoid placing tank between front of house and the street

Screening to obscure your tank from the street

Consider placing your tank next to the side of your house

Allow an access way down the side of your property

'Keep Clear' areas

Side boundary (1m) and rear boundary (1m)

Urban stream

Minimum 10m distance from tank

Ensure your rainwater tank overflow drains to the existing onsite stormwater drain

This is where the rainwater from your guttering would have gone **before** you installed a rainwater tank

Consider placing your tank at the back of your property

Make sure it does not block any windows and allows for a minimum 20m² outdoor living



E wātea mai ana rānei ōna tautoko i a au?

Is support available to help me?

More information about rainwater tanks, including maintenance, suppliers and consent requirements is available on [Auckland Council's website](#).

You can also use the online '[Do I need a Consent?](#)' tool to find out if a building and/or resource consent will be required for your rainwater tank.

If a resource consent is required, remember that Auckland Council has waived the application fees (in most scenarios) and offers services to help you with your application.

Email hwrainwatertank@aucklandcouncil.govt.nz for more information.

To enable Aucklanders to collect more rainwater, Auckland Council is working on a Unitary Plan Change to simplify the resource consent process and make installation of a rainwater tank a permitted activity in many scenarios. If successful, this change will take effect later in 2021.

