

Section 3: Managing water on your property

- How to manage your water tanks and septic system
- Understanding water drainage to avoid flooding

Water supply

If you're not connected to the municipal water supply, the supply of water for use in your home and on your property is your responsibility.

It's really important you have the right number and type of water tanks for your property. Rainwater tanks come in different shapes and sizes and the right tank for you will depend on several factors:

- what you use water for (drinking, hygiene, outdoor use, laundry, toilet, livestock, etc.)
- how much water you can collect from your roof
- how much space there is for a tank (underground or above ground)
- the number of household occupants and/or animals the tank will cater for.

You'd be surprised by how much water you, your whānau and animals use each day. For information on average household water requirements and daily litres used per person and animal see Appendix 2.

Monitoring your water use

It's important to keep an eye on the water level in your tanks, especially during the drier summer months. You'll find a range of inexpensive and easy to install water tank level gauges available at most DIY stores. Fit them to all your water tanks and check the levels regularly.

Think about installing flow restrictors on taps and showers as well. They're cheap to buy and can seriously reduce the volume of water used without affecting the quality of your shower or waterflow from taps.

Don't forget that drier than normal conditions often result in long wait times for private operators to deliver water. Long dry spells could get more frequent due to the impacts of climate change.

TIP: Make sure you know who your local water supplier is and book your water deliveries early to avoid running out of water.



Keeping water safe for use

Unless you keep an eye on them, water supplies can become unsafe. Roof water can be corrosive or become contaminated with ash, dust, leaves, agricultural spray, and bird or possum droppings. Sediment can become an issue when tank water levels are low.

To improve the quality of rainwater you collect from your roof:

- Ensure your roof surface is suitable for collecting quality rainwater.
- Inspect your tanks annually and get them cleaned if necessary. Ideally, tank cleaning should be carried out by tank cleaning contractors.
- Install a filter or screen to prevent leaf debris getting into your water tank from the roof. If you can't cover all the guttering, make sure you have the filter or screen over the spouting downpipes.
- Keep a copy of your tank operation and maintenance manual.
- If you're concerned about the quality of your drinking water, contact your local Council.

Even if your property is connected to the municipal water supply, you might want to consider installing a rainwater tank. It'll save you money and ensure you have water if the network is damaged.

WARNING: If you enter the tank to clean it, ensure there is adequate ventilation, and another person is present.

Wastewater

A septic tank, or onsite wastewater system, works by separating wastewater into three layers:

- scum, which floats on the surface
- liquid, middle layer

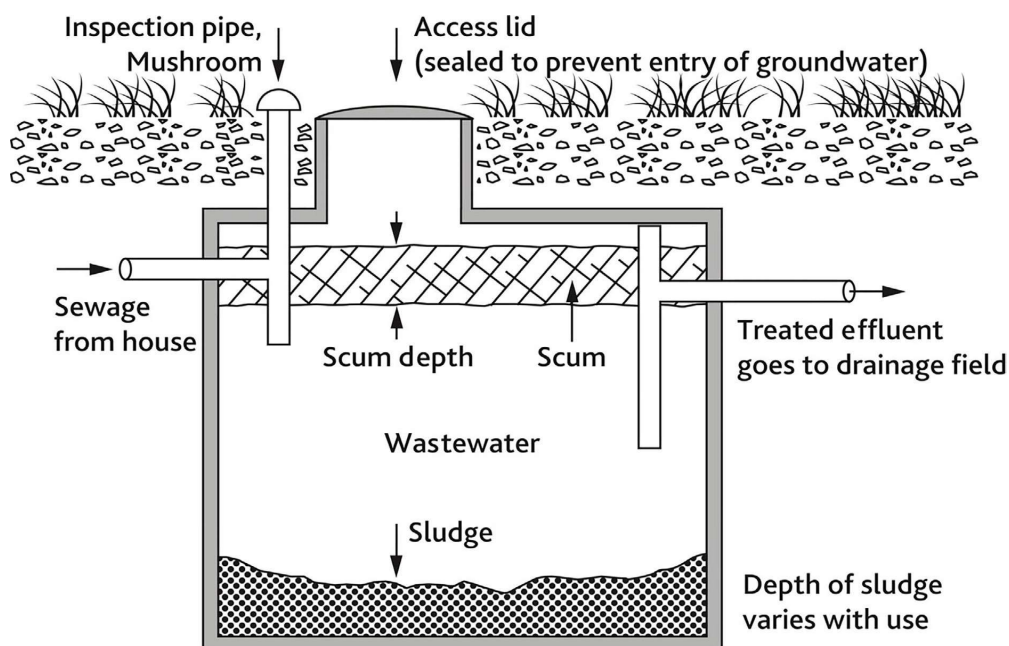
- solids/sludge, which sink to the bottom of the tank.

The liquid layer is treated in the tank, reducing pathogens and excess nutrients. The liquid is then distributed into the disposal field where it can soak into the ground. Your whole septic system needs to be checked and serviced every three years to keep it working well. Several companies can help with servicing your wastewater system. Sludge and excess scum should be pumped out of your tank as needed so it continues to work well.

High-tech treatment systems are available if a standard septic tank isn't compatible with your needs. These systems are designed to treat wastewater to a higher quality using pumps, aeration or filters and need maintenance and servicing every six months. They're a good option for smaller sites.

You could also consider composting toilets and vermiculture systems. They still need regular checks but are generally more resilient to power cuts and provide an option for greywater separation.

It's worth noting that powered wastewater systems won't operate in the event of a power cut. They're generally built with additional capacity so they can cover at least one day without power.



Looking after your septic tank

Septic tanks need careful management and maintenance to manage wastewater and protect the environment. Here are a few simple rules:

- Get your whole system checked regularly.
- If something smells, or flashes, get it checked.
- Fit an outlet filter to prevent solids entering the disposal field.
- Watch what you put down the toilet and drains – use septic friendly or natural cleaning products and minimise the use of antibacterial cleaners.
- Avoid flooding your system – spread out your laundry, dishwasher use, and shower to avoid a water ‘rush hour’.

Water drainage

As a landowner you’re required to keep all watercourses on your property clear of any blockage or obstruction, which could lead to flooding. A watercourse is a natural or man-made open channel where water collects and flows. It can be a river, stream, gully, ditch, drainage channel, culvert or pipe that replaces a natural open channel.

Rivers and streams

The best way to manage a river or stream is to use nature to do the work for you. The right selection of plants, combined with the careful placement of rocks and logs, can often achieve the same result as more expensive, engineered solutions like concrete channels or culverts.

The healthiest rivers and streams are those with trees and plants on their banks - a riparian buffer. The vegetation works like a sponge by slowing the flow and helping protect the land from flood damage.



There's more information on planting a riparian buffer on the Dairy NZ website - bit.ly/planting-waterways

Stormwater pipes and drains

You are responsible for maintaining private stormwater assets on your property. This includes catchpits, drains, rain tanks, ponds, wetlands, detention tanks and soakage pits and bores.

Surface flooding

Many parts of Hawke's Bay are prone to bursts of intense rainfall that can cause significant amounts of surface water. This surface water will naturally concentrate and flow downhill to the sea or a lake.

This overland flow happens naturally and can be effectively managed across private property by following some simple guidelines.

- Ensure your driveway and other surfaces have appropriate shape and levels to direct surface flow away from your garage and house.
- Avoid blocking the path of overland flow at both the upstream and downstream boundaries of your property.
- Ensure ground levels around your home direct surface water away from your house.
- Keep your ditches and storm water channels free of plants and debris so the water can run away.