CENTRAL HAWKE'S BAY
DISTRICT COUNCIL

Rainwater & Stormwater Tanks

PRACTICE NOTE: SW01

This Practice Note is part of a series of notes developed to assist with the use and implementation of the Central Hawke's Bay District Council's (Council) Stormwater and Water Supply Bylaws 2021, and our Sustainable Water Management Plan 2021-2024.

Purpose

We have written this practice note to provide general information on the intent (purpose), design and use of both rainwater tanks and stormwater tanks in the Central Hawke's Bay District as covered by the Stormwater and Water Supply Bylaws.

Why is there a need for tanks?

There are many benefits for both rainwater tanks and stormwater tanks, these include:

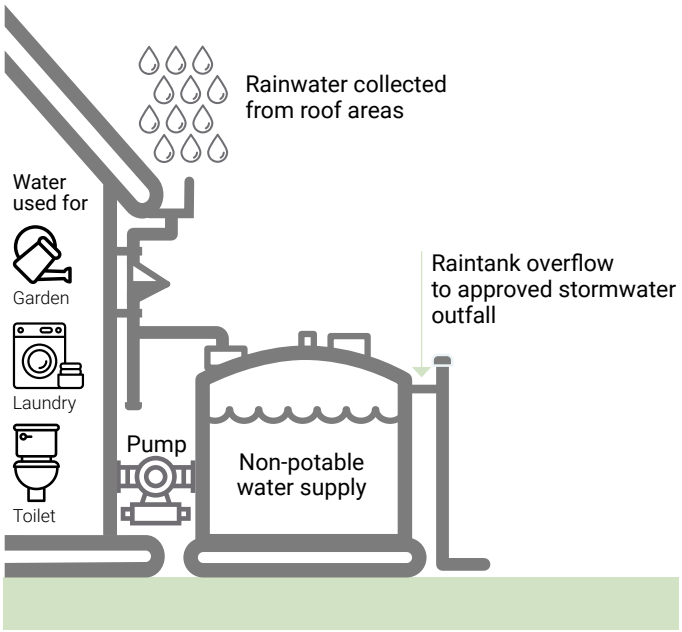
- Rain water tanks help reduce the demand on our public water supplies particularly the use of potable water from the public system for non-potable uses such as garden irrigation.
- Rain water tanks help to create more resilient water systems by storing water that can be re-used if the water supply network is at fault.
- Stormwater detention tanks reduce the peak flows from rainfall events into the Council Stormwater Drainage system.
- Stormwater detention tanks can capture the first flush of runoff which improves water quality (the first flush of contaminants is captured in the tank and not discharged into the Council system and ultimately the streams and rivers).
- Stormwater detention tanks protect the Council Stormwater Drainage System from urban development pressures as stormwater from new developments can place a strain on the existing stormwater infrastructure if it is already near capacity.
- Storage tanks can provide a supply of water if you live in a rural area ('out of area') where a connection to our potable water supply is not possible; this will be covered in a separate practice note.

Types of tanks

Tanks can be above or below ground and can have different functions. The following illustrates the types of tanks and intended purpose under our Stormwater and Water Bylaws.

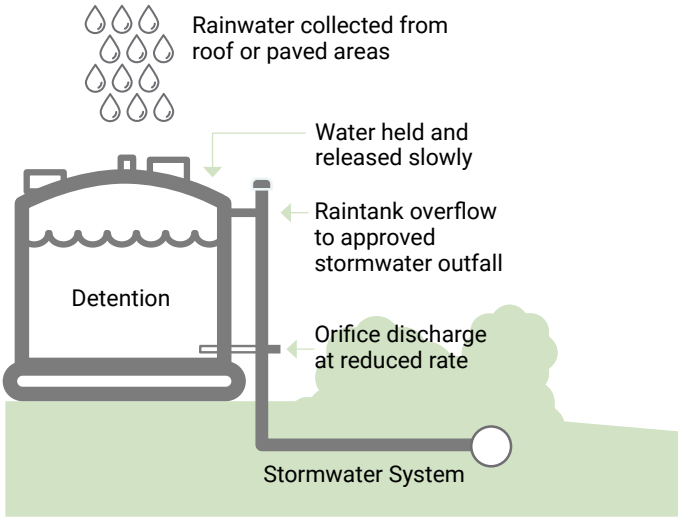
Rain Water Tank (or Retention Tank)

A tank that has the purpose of retaining water by storing runoff during a rainfall event, which can then be re-used for hose taps, toilet use and laundry purposes.



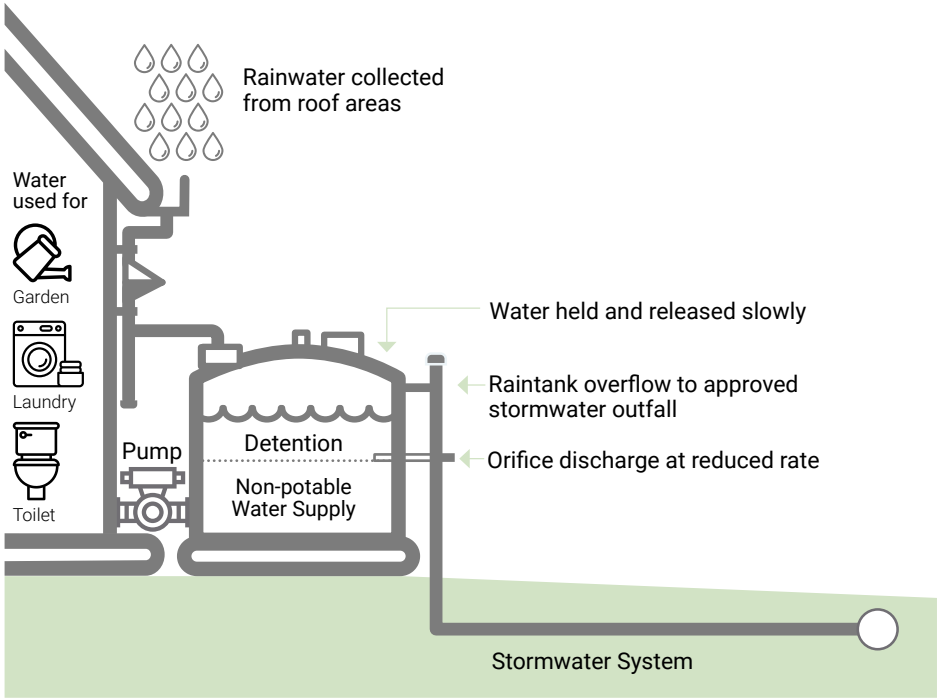
Stormwater Detention Tank (or other device)

A detention tank or other device allows temporary storing of stormwater with a slow and controlled release of the water into the Council system, so that the peak flows are no more than they were before development took place. This may be through use of a tank, or can be landscaped into the premise, for example, in the form of a pond with a controlled outlet to provide that temporary storage.



Dual Purpose Tank

Dual purpose tanks are divided into two sections, the lower volume is for retention (and re-use) and the upper volume is for detention which must have a slow and controlled release to the Council's Stormwater Drainage system.



- You can install any of these tanks on your property as long as they meet the minimum requirements of this Practice Note, District Plan, our Bylaws and the Building Code.
- In addition to stormwater storage, stormwater treatment may be required to remove contaminants; refer to 'Stormwater Drainage Protection Plans' document.

Minimum volume requirements

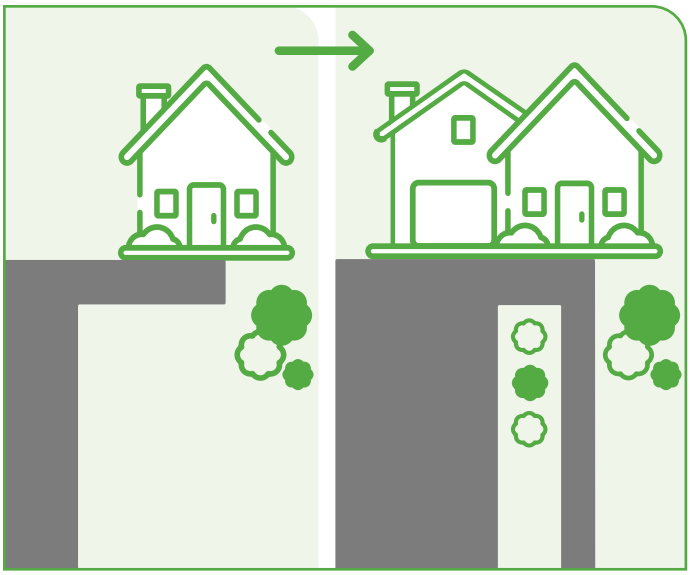
Rain Water Retention Tank

- If you are building a new home you will need to include a rain water retention tank with a minimum capacity of 3,000 L.

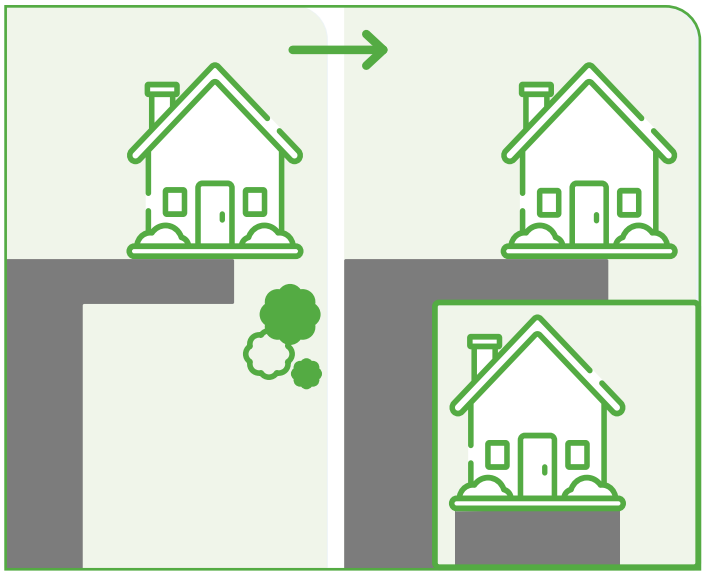
Stormwater Detention

- We have a detention calculator available online which helps determine the minimum detention volume needed for the level of development on the site in order to reduce instantaneous stormwater discharges from the site. Two examples of development that would require stormwater detention are included below, note these do not represent all scenarios.

- It is also important to note that stormwater storage is calculated over and above the minimum rain water retention tank volume.



Extension of house increasing impervious areas



Subdivision of site with new residential house and driveway area

Other preinstallation requirements

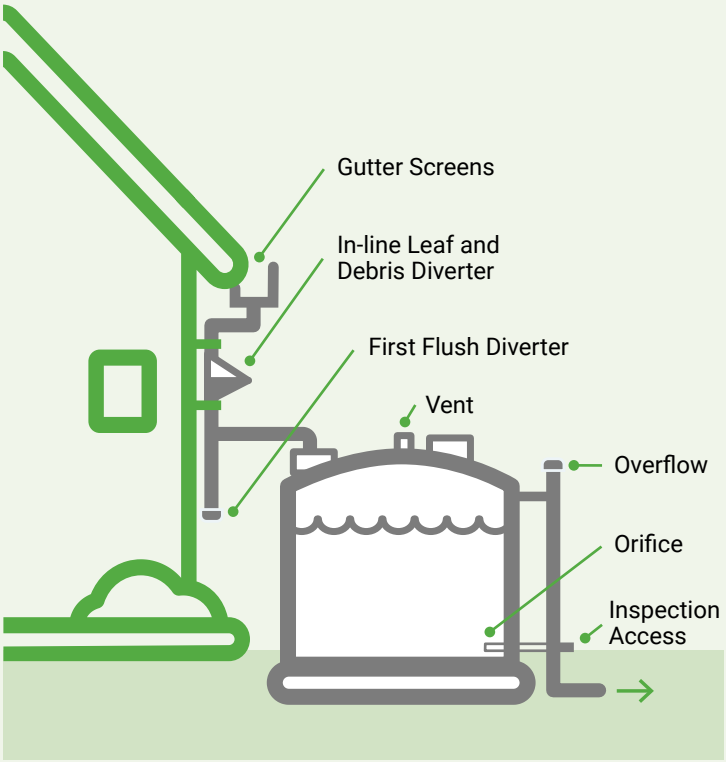
- All rain water tanks should be installed in accordance with Section 4.3.7.8 of NZS 4404.
- Any new tank is to be installed in accordance with the manufacturer's specifications and at the landowner's expense.
- Your application to connect to our Stormwater Drainage Network and your building consent application must include the detention calculator output. Please still include the detention calculator output in your application even if the outcome is that no stormwater storage is required.

Your new tank may require a building or resource consent. As a starting point you can refer to the District Plan for the height and boundary set back rules for the relevant zones and the Building Code for plumbing and drainage requirements. If you are still unsure, you can contact Council on **06 857 8060**.

What do tanks look like installed?

Tanks generally have similar components but there are now tanks that come in many shapes and colours to fit in with your development. An example of proprietary tanks readily available are shown here.

Key tank components



- **Guttering** – provides conveyance from the roof into the tank. A screen/mesh should be placed close to the downspout to prevent leaves and debris entering the tank.
- **Orifice** – the orifice controls the discharge from the detention tank into the receiving environment; the size of the orifice is determined by the Council detention calculator. The outlet must be located above the level of the stormwater drainage network (or your tank will not drain).
- **Position of the orifice (dead storage)** – a dead storage volume is required at the bottom of the tank for sediment build up; this is the volume of water below the orifice or lowest outlet in the tank. The orifice should be at least 100mm above the base of the tank.
- **Access hatch** – this is required for periodic maintenance of the tank such as the removal of sediments. Check this is correctly fitted/sealed.
- **Overflow** – this is the outlet and piping that discharges volumes greater than the storage volume into the receiving environment; this must be positioned lower than the roof/guttering height.
- **First flush diverter** – this device diverts the 'first flush' away from the tank to help improve quality of discharges and limits sediment and debris into the tank. These diverters will need to be checked for sediment and debris in accordance with manufacturers specifications.

Post installation requirements/maintenance

It is important that you undertake regular maintenance to your tank to make sure it is operating as intended, and that there are no water quality issues. You tank should come with an operation and maintenance manual, and it is important you read this manual carefully to make yourself familiar with the maintenance you need to do. The manual should cover maintenance matters such as tank hatches or covers, first flush devices, overflow/outlet pipes/orifices and filters or screens. It is also important that you maintain the area surrounding the tank. This includes clearing any overhanging vegetation around your roof area that will drop material into the guttering.

It is the landowner's responsibility to cover the cost of the maintenance required and any servicing of tanks to ensure that they meet their design performance criteria.

If you are unsure what is required, we recommend that you discuss the specific maintenance requirements with your tank supplier and/or a registered plumber.

For more information

View Council's updated Bylaws on our website: **www.chbdc.govt.nz/our-council/bylaws**

View Council's Sustainable Water Management Plan online:
https://www.chbdc.govt.nz/assets/Uploads/Sustainable-Water-Management-Plan.pdf

If you have further questions or need more information, you can phone Council on **06 857 8060**, email us at **customerservice@chbdc.govt.nz**, visit us at 28-32 Ruataniwha Street Waipawa 4210 or send us a letter, PO Box 127 Waipawa 4240.