

# Storm Water Attenuation



Many councils around the country are moving to specifying stormwater control systems of either above ground gravity or below ground with pumping systems. The purpose is to hold water during a rain event and slowing release it into the stormwater system. The Objective is peak flow rates and the associated risk of flooding and also improve the quality of water entering our rivers and oceans.



## Our simple solution

is a series of water tanks connected in a series to provide the attenuation capacity required but also allow the incorporation of water storage for use around the home and as an emergency water supply. Our system is modular in that it can be adapted to any site restrictions. Multiple dwelling on a single site could have a mini system feeding a larger common system as an example. The tanks are round to provide better stability, strength and backed by a 20 yr warranty. Seismic restraints are not required up to and including Zone 0.13 which covers nearly half of New Zealand's Population.

## Typical above ground attenuation capacity requirements are:

House roof area	Rainwater tank capacity
> 40m <sup>2</sup> to < 100m <sup>2</sup>	1,600 litre
≥ 100m <sup>2</sup> to < 200m <sup>2</sup>	3,200 litre
≥ 200m <sup>2</sup>	5,600 litre

The purpose of rainwater tanks is to temporarily store runoff from your roof, slowly releasing this water back into the stormwater network over a longer duration. Water will flow out from the tank via an orifice and outlet pipe and an overflow pipe should the tank reach its capacity. During a storm the peak runoff from your house will be significantly reduced as water is stored in your tank.

In this design scheme, water flows from the roof into the first tank which is fitted with a leaf screen. This tank fills and is available for use around the home. It overflows into 4 tanks with an attenuation capacity of 3200L. At the base of the last tank is a 15mm ID hose connection to the stormwater pipe. The stormwater pipe is also connected to the last tank at the top for storm surge overflow.



## Strong and Stable - Modular - EWS and Garden watering options - Slimline profile

### Key Tank Features

- Individual 800L tanks - stack together to increase capacity 2 x = 1600L etc
- Pricing per tank is \$490 plus freight and required accessories.
- Built in leaf strainer and lid unit
- 1 x 15mm BSP fitting at bucket height for a tap
- 2 x 32mm BSP fittings at the base for tank to tank, and tank to pump connection
- Dimensions - 1970mm total height, 770mm diameter
- Birch Grey colour kept in stock - other colours available upon request to coordinate with a range of coloursteel colours.
- 20 Yr warranty

All tanks are manufactured to industry best practice with materials that meet:

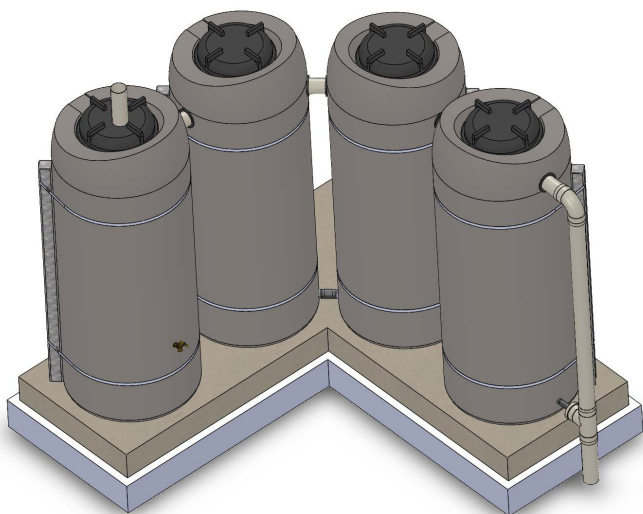
- AS/NZS 4020: 2002 Potable (Drinking) Water Standard
- AS/NZS 2070: Part 1 and Part 8 Australian Standards for Food Contact

	Birch grey
	Dark green
	Olive green
	Mist green
	Black
	Beige
	Light grey
	Slate Grey
	Mountain Blue
	White
	Clay brown

## Other configuration options



1600l of water storage and  
1600l of attenuation



Multiple configuration options -  
we can customise positioning and  
provide a full layout plan.

# Accessories for Stormwater Attenuation Systems

Some councils may require additional items to improve water quality.

## Rain Heads

Easy to install and available in a range of options to suit your needs, our signature rain heads improve the quality of the rainwater you harvest by keeping leaves, mosquitoes and other insects out of your Rain Harvesting system.

### Product benefits

- Keep leaves and debris out of your pipes and tank to prevent clogging, blockages, anaerobic fermentation and tannin leaching
- Prevent the entry of mosquitoes, insects and vermin with 0.955mm stainless steel mesh screen
- Prevent mosquito intrusion to charged lines (in wet systems)
- Reduce the risk of eaves flooding by preventing downpipe blockages and backflow
- Paint to match your property's architecture



#### Leaf Eater Slimline

A sleek, streamlined rain head with an anti-splash cover and red overflow indicator. Ideal for decks, verandas and for a stylish finish to any home.

RHSL201 80mm



#### Leaf Eater Ultra

A feature-packed rain head that keeps leaves and mosquitoes out of your pipes - and looks good doing it.

RHUL200 80mm / 100mm (Dual fit)



#### Leaf Beater

A mid-size rain head for tighter spaces with an outlet that swivels to suit horizontal and vertical downpipes.

RHLB221 80mm / 100mm (Dual fit)



#### Leaf Catcha Square

A simple, bucket-style rain head ideal for easy-to reach places that can also be used as a catchment device for tank overflows.

RHLC01 90mm / 100mm (Dual fit)

# First Flush Diverters

Sold in kit form for easy installation and customisation, our first flush diverters play an essential role in protecting your rainwater quality. By isolating the first flush of contaminant-laden water from your roof, they keep organic and inorganic fine particles out of the rainwater you harvest so you enjoy the benefits of cleaner rainwater for your property.

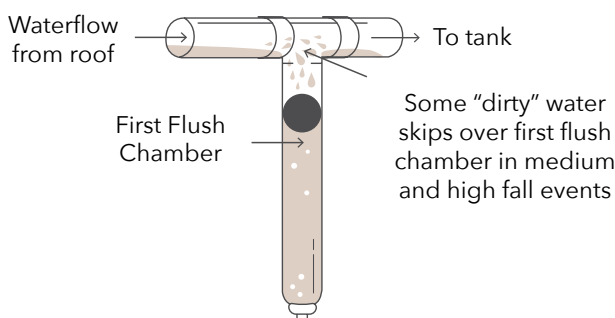
## Product benefits

- Minimise suspended and dissolved organic and inorganic fine particles entering your tank
- Reduce sediment build-up in your tank and sediment load on your post-tank pumps and filtration systems
- Protect household fixtures and appliances (i.e. washing machines, toilet cisterns, etc.) by lowering sediment and tannin deposits
- Drain wet system pipes to prevent anaerobic fermentation and tannin leaching
- Diversion volume easily custom built through use of standard pipes
- Only way to keep fine and dissolved particles out of your tank
- Automatic reset valve drains after rainfall events
- Comes in kit form

## How it works

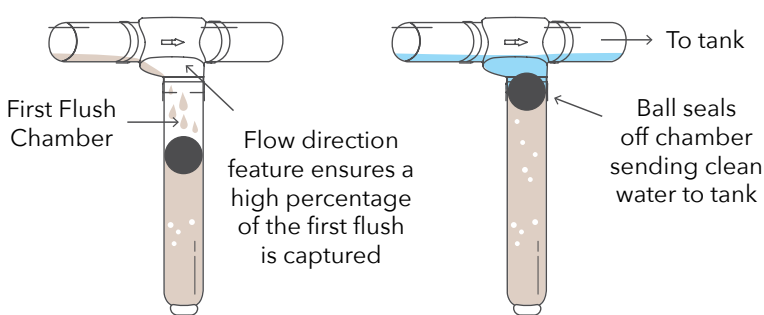
First flush diverters are installed at each downpipe that supplies water to the tank, or where the downpipes enter the tank. They utilise a dependable ball and seat system. As the water level rises in the diverter chamber, the ball floats and, once the chamber is full, the ball rests on a seat inside the diverter chamber, preventing any further water from entering. The subsequent flow of water is then automatically directed along the pipe system to the tank.

### Standard Tee



The standard First Flush tee allows some "dirty" water to skip over the entry to the first flush chamber in medium to high rainfall events and enter your rainwater tank.

### First Flush Plus Tee



The First Flush Plus Tee's patented design allows less "dirty" water to skip over or bypasses the first flush chamber. The tee incorporates a unique flow direction feature that forces fast-flowing water into First Flush chamber. Flow direction feature ensures a high percentage of the first flush is captured. Ball seals off chamber sending clean water to tank the diversion chamber, preventing the dirtiest water from entering your rainwater tank. In a medium rainfall event\*, four times less "dirty" water bypasses the first flush diversion chamber = 97% of the first flush is diverted.

# Tank Overflows and Screens

## Product benefits

- Effectively manage overflowing water
- Prevent entry of mosquitoes, insects and pests into your tank
- Fit standard plumbing fittings to your tank

KIT



### Tank Overflow Kit High

Manage your tank overflow while increasing capacity by approximately 80mm and mosquito proof your tank with this all-parts-supplied, easy install kit.

TATO211 80mm

KIT



### Tank Overflow Kit High

Manage your tank overflow while increasing capacity by approximately 105mm and mosquito proof your tank with this easy install kit.

TATO23 100mm

KIT



### Tank Overflow Kit

Stop mosquitoes getting in through your tank overflow with this all-parts-supplied, easy - install 100mm standard overflow kit.

TATO24 100mm



### Air Gap

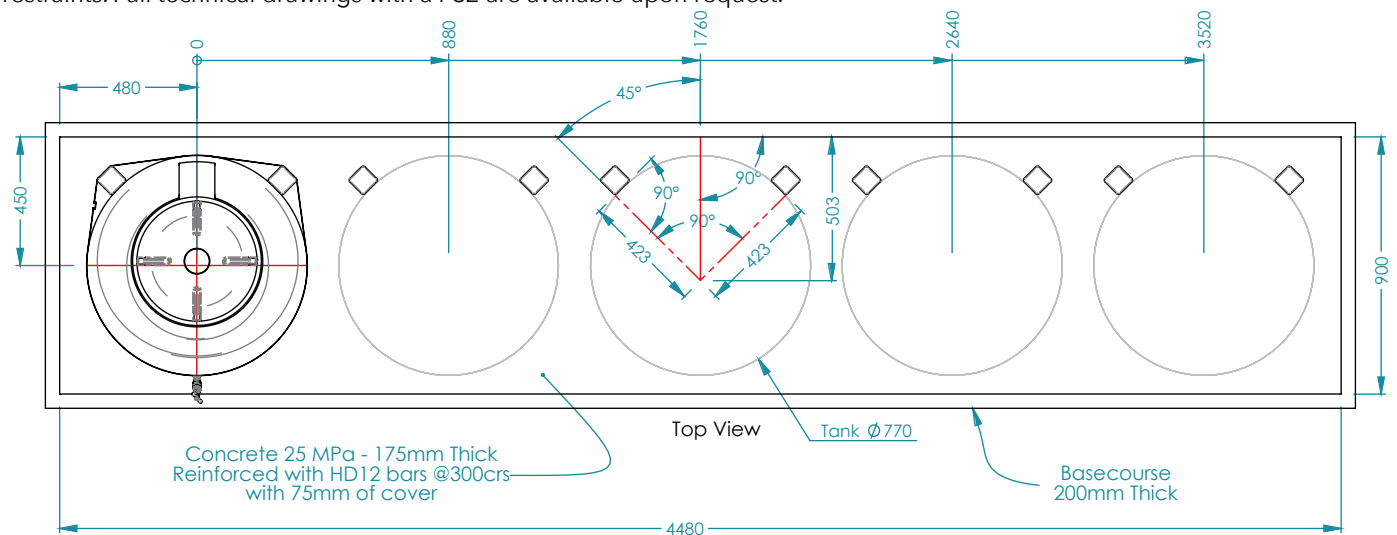
Protect your rainwater from contamination by preventing stormwater backflow - and mosquitoes - entering your tank through your outlet pipes.

TAAG201 80mm

## Wind and Seismic Restraint

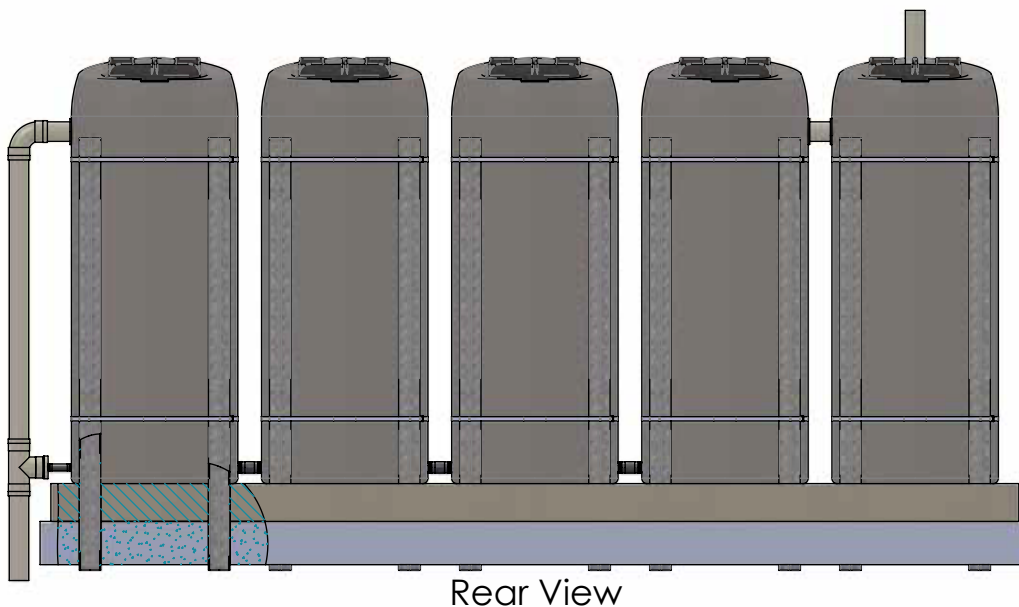
Each council inspector may have its own view on this, as attenuation tanks they are mostly empty between rain events, and as storage tanks they will be full most of the time. NZSEE Seismic Design of Storage Tanks recommendations would place this tank system at a low level of importance, only requiring a 50 year return period design requirement. On this basis, the tank with restraints would also be code compliant in zone 0.42, but without seismic restraint, friction limits the tank to zone 0.13. This 0.13 zone encompasses nearly half New Zealand's population.

We have developed a design scheme consisting of concrete base with supporting posts and simple-flex stainless steel restraints. Full technical drawings with a PS2 are available upon request.



Example of a 4 tank set up

5 tank set up rear view





# Tank Maintenance

Depending on the house surroundings particularly regarding tree cover the following steps are recommended at the end of each season. If the home has little tree cover then six monthly checks are recommended.

- Check and clean gutters
- Check and clear out the leaf screen on the tank.
- Empty the rainwater storage tank via the base outlet bung to clear any debris
- Check and clear any debris from the 15mm hose connection to the stormwater pipe.

## Technical Stuff

We have available upon request the following

- Technical drawings for tank setup
- Technical drawings for restraints design scheme and base foundations
- Tank Specifications
- Producer statements
- Tank installation documentation and warranty details.

**Modular - EWS and Garden watering options -**  
Slimline profile- Strong and Stable

Contact us  
**027 526 8840**



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