

Three Waters Education



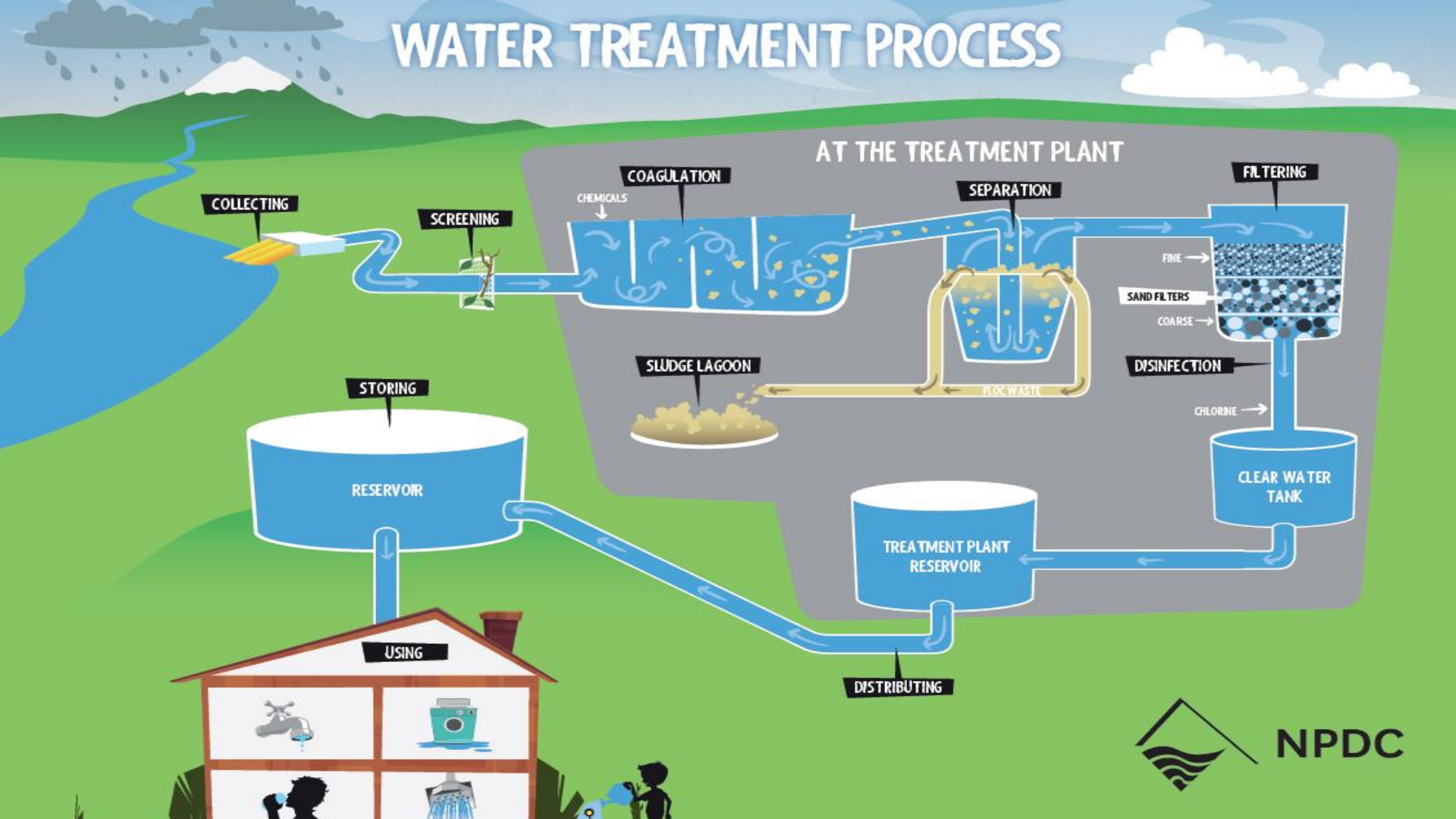
Hi I'm Ian the Inanga



I'm Koro the Kokopu

Water's journey to our taps

WATER TREATMENT PROCESS



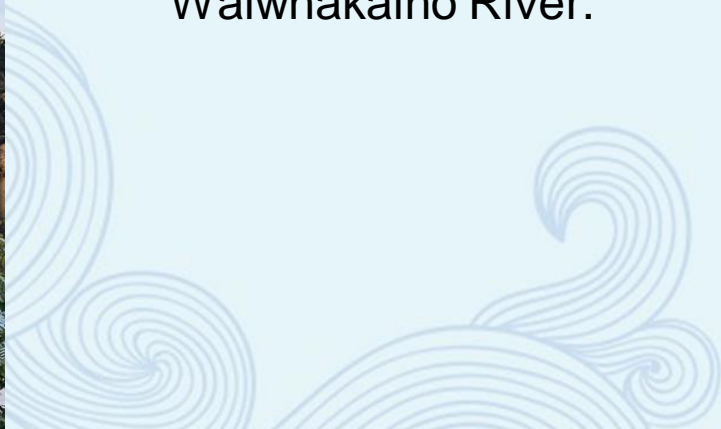
NPDC



The source of New Plymouth water

Rain falls on Taranaki Maunga.

This rain makes its way down the Waiwhakaiho River.



Water collection



Water flows down the Waiwhakaiho River some of the water is piped into Lake Mangamahoe. Water is then collected and piped to the New Plymouth Water Treatment Plant.



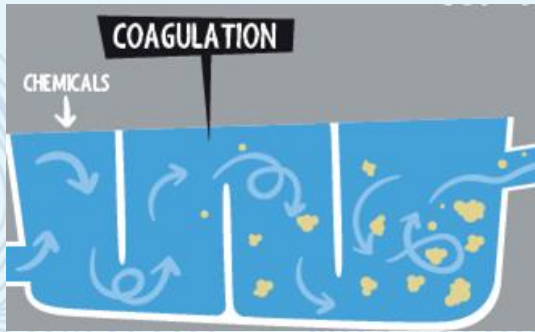
Screening the water



Water is screened after collection. Any leaves or bits of debris are removed from the pipe before it gets to the water treatment plant.



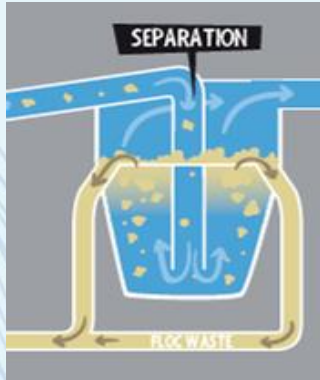
Coagulation



A chemical is added to help the dirt particles clump together to form big pieces of 'floc'.



Separation and clarifying



The water is separated from the sediment and dirt in the clarifiers. Clumped dirt particles sink towards the middle of the clarifier, while the clear water floats on top.



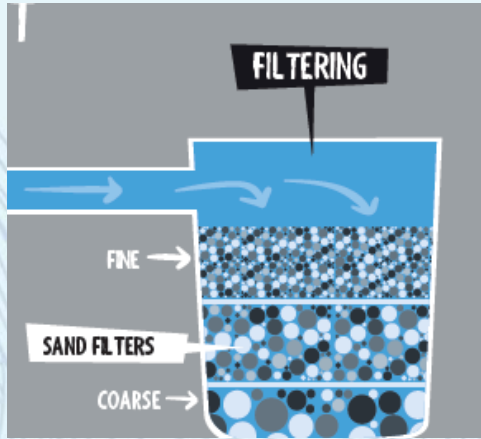
Sludge lagoon



The sediment or sludge from the clarifiers is drained off to the sludge lagoons.



Filtering



The water is then filtered through sand and a layers of coal which remove any remaining bits of dirt.

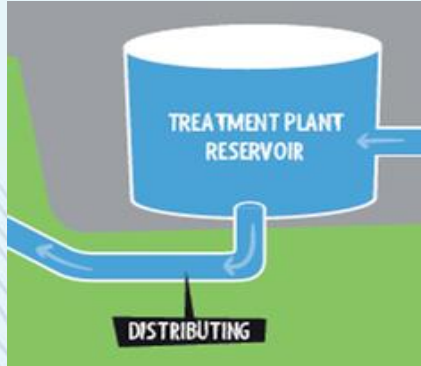


Disinfection

A small amount of chlorine gas is added to the water as a final disinfection to ensure there are no remaining micro-organisms in the water which could make us sick



Storing water



Water pipes underground transport the treated water to big reservoir tanks around the city. The water is stored in the reservoirs until needed.



Getting water to us

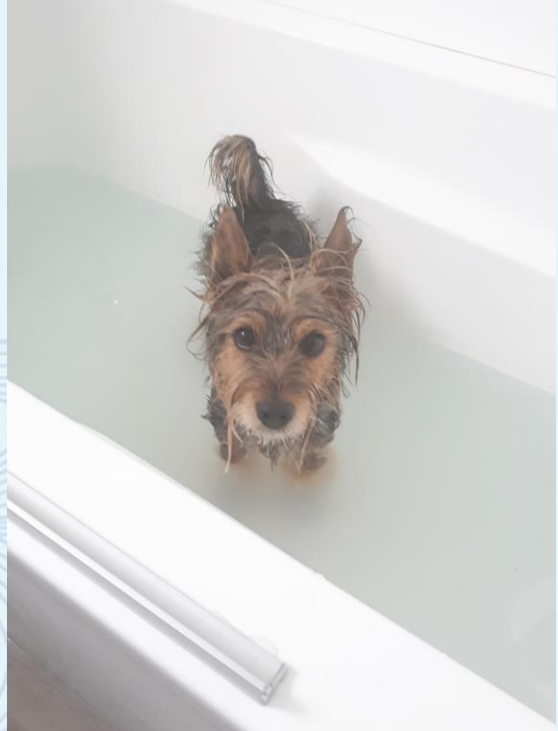


From the reservoir tanks, water is piped to your home or school. It comes all the way to you by gravity.



Water use

We use water for lots of things like cleaning, washing, drinking and watering the garden.



From mountain to tap

Let's use the New Plymouth water supply (which services New Plymouth, Bell Block, Lepperton, Waitara, Tikorangi, and Urenui) as an example of how we get safe drinking water to your home.



NEW PLYMOUTH SUPPLY
Waiwhakaiho River and Lake Mangamahoe



KEY:

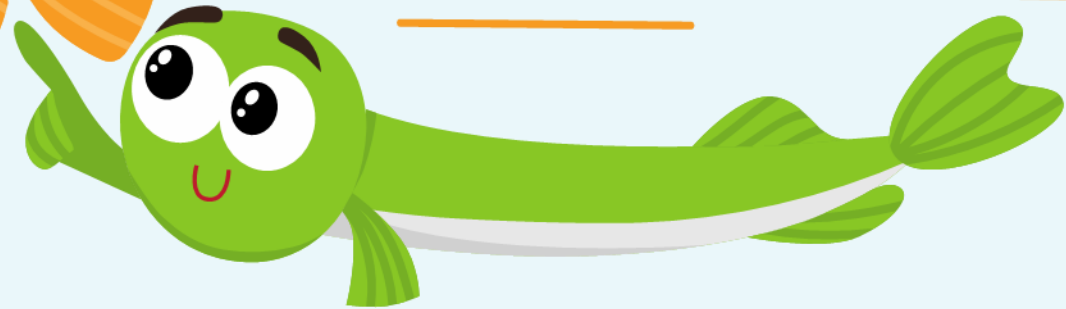
- 1** Rain falls on the mountain.
- 2** Water flows down the Waiwhakaiho River to Lake Mangamahoe.
- 3** Water is taken to the New Plymouth Water Treatment Plant which removes the taste, smell, dirt, algae and bacteria, and adds chlorine.
- 4** Mains pipes take the cleaned water to reservoir tanks.
- 5** Half of a reservoir's water is for household use. The remainder is kept aside for firefighting and civil defence.
- 6** Clean, safe drinking water arrives at your home.

Don't waste our water.

Visit newplymouthnz.com/WaiWarrior



Thanks for joining
us today!



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Education