



Sewerage - What happens after you flush?

Fact

- The wee, poos, toilet paper and water from the toilet rushes into your household wastewater pipe. This pipe connects to a public sewer pipe outside underneath your street.
- The sewer pipes run all the way to your local wastewater treatment plant where it's treated (or cleaned) and then released in the sea or used to water the land nearby.
- Different wastewater treatment plants have different systems – this is the system the North Shore Wastewater Treatment Plant uses.
- First all the things that shouldn't be in the waste water like rubbish, plastic bags and toys and false teeth (yes, they can get in there too sometimes!) is removed using big screens – like sieves.
- Then the wastewater is held in tanks to let the fats and oils settle on the top and the sludge to settle on bottom. The solids get scraped off.
- Then the water goes through a "trickle filter" This has lots of bacteria and algae that eat the pollutants in the water to make more sludge which gets scooped out.
- Or the water goes into a tank to have air bubbles blown into it. This tank also has lots of bacteria in it that help to make sludge.
- Then it's off to the oxidation ponds for 35 days so the sun's rays can kill off any germs and bad bacteria, before the water is released into the sea.
- The sludge collected from all the tanks gets eaten by bacteria to reduce the amount and then it's spun dried and trucked away to be used as land fill.

Do you know

- Before we had flush toilets people used to collect toilet wastes in a metal tin and once a week a horse and cart would come by to collect the cans at night time.
- At night people kept potties under the bed to save them going to the toilet outside
- The first wastewater treatment plant in New Zealand was built about 130 years ago.

Experiments you can do

Find out about the water treatment plant that your wastewater goes to. Do they use the same system as the North Shore Treatment Plant or do they use other processes. Where does the treated water go? Is it released into the sea or is it used in other ways?

Other Investigations

Find out what people in other countries do with their waste and the types of toilets they use. Find out what people did with their toilet waste 200 years ago, before people settled in New Zealand. They didn't have an underground system of pipes and they didn't treat the sewerage – what they did was really gross!

Jokes

Knock, knock

Who's there?

Poo

Poo who?

Don't be so rude... from Danny Burnett