



Landfill



WELLINGTON LANDFILL
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Where does our rubbish go?

When we put our rubbish in the rubbish bag it gets taken away. But where is away? What does that away look like and is there such a thing as 'away'? What does it do to Papatūānuku?

Where is away?

When you put your rubbish in the rubbish bag, it gets taken to a place called a landfill and guess what? A landfill is a place where the land gets filled up with rubbish. The picture on the front page is from the Wellington landfill. Do you know where your closest landfill is?

A landfill is a giant hole in the ground where rubbish gets dumped. It then gets squashed down by machinery and covered. It is covered daily with clay or sawdust (or sometimes plastic) to stop rats and other vermin coming in and to stop it from getting too wet.

When too much water gets in the landfill then this water trickles through the landfill creating a rubbish juice that oozes out of the bottom. A bit a bit like the leaky rubbish bag from this video.

<https://www.youtube.com/watch?v=aryrXyBkATc>

This rubbish juice is called leachate and can be quite poisonous. Modern landfills are lined with thick plastic liners so that the leachate is collected at the bottom, pumped out, gets filtered and the leftovers are put back in the landfill. In old landfills the leachate leaks into the soil and can get into the underground water tables.

In other words, landfills are not great places, but they are the best option we have so far.

Is there such a thing as 'away'?

For waste to break down air, light and moisture are needed. If waste is buried and they are

missing, waste takes a lot longer to break down.

An American scientist called William Rathje (See picture) did a lot of research on landfills and he found that things don't break down well in landfills.

William and his team dug up some old landfills and some of the things they found were:

a 40-year-old newspaper that was still readable
a 15-year-old steak bone with meat still on the bone

a 10-year-old carrot that was still orange on the inside.



<https://www.ecosia.org/images?q=image+rat+hjie+waste+&id=695402E9A1C1CDEB58458D45264778FC58948B5B>

These items are all organic and break down in less than six months in compost. Organic waste such as plant materials, wood and food don't compost in a landfill because the environment is not right for it.

In other words, when something ends up in a landfill, it will be there FOREVER. There is no such thing as away!

Organic waste in a landfills create methane, which is a powerful greenhouse gas. Greenhouse gases contribute to climate change. This is another really good reason to start composting!

What about burning rubbish?

When you burn rubbish, (and plastic in particular), it creates a thick black smoke that smells really bad. This smoke is in fact, the MOST POISONOUS thing that we, as humans, know. The smoke from burnt rubbish is full of dioxins and dioxins are bad news. The dioxins in smoke particles land on water and land surfaces which are then absorbed by plants, water and animals and go straight into the food chain. Dioxins don't disappear but they build up in body fat which can make humans and animals sick in the long run. Did you know that your brain is your fattiest organ?

Sometimes waste is burnt in special facilities called incinerators. Although some people believe that they are a good option, incineration is not without problems. Even incinerators release smoke with poisonous particles, and the ash that is left after burning waste still needs to go somewhere. The ash is usually very toxic and still gets landfilled.

Burning waste is not an end- solution because we are still left with rubbish in the end.

Looking after Papatūānuku

The only real way to look after Papatūānuku with regards to our waste is to not have any. Waste is a modern invention; everything used to be reusable and compostable so surely we can do that now?

The first thing we can do is REDUCE the amount of rubbish that we create.

Landfills in New Zealand are filling up quickly because we are very wasteful as a country. Did you know that, on average, we throw out about 3.5 kilograms of rubbish, per person, per day!

We are some of the biggest wasters in the world. All our rubbish amounts to around 30 rugby fields of rubbish EVERY MONTH! This is crazy especially if you consider that at least two thirds of that could have been composted or recycled.

So Keep in mind the 3 RS: REDUCE, REUSE and RECYCLE or even better, have a look at the picture below.



Going Circular

Instead of living in a society that takes resources to make things for items that are used for a short time and then are thrown away (This is also called the linear model based on take, make & dispose) people are now looking into a circular model. The circular economy model is based on the natural systems on our planet. Nature doesn't have any waste because everything is reused. Think compost for example; your scraps turn into food for microorganisms which then make food for plants again, tataaaa!

Some links about circular economy:

https://www.youtube.com/watch?v=zCRKvDy_yHmI

<https://www.natgeokids.com/nz/discover/science/general-science/all-about-the-circular-economy/>