YOUR GUIDE TO RECYCLING IN P&LMY





When you throw something in the rubbish - do you know where it goes? Does it go away?

No, unfortunately it doesn't. It goes into a big pile with other 'stuff' that we no longer need, never to be seen again. As well as taking up a lot of space, this mountain of 'rubbish' also contains a lot of valuable resources which could have been used if the items were put in the right place.

In nature, once something is used, finished with, or dies, it naturally gets eaten or broken down by other parts of the ecosystem. For example, when a tree dies, it falls over, rots down and creates nutrients that feed other plants. In today's modern world, these natural processes aren't available to things like plastic bottles, old TVs and clothing, so they are put in the rubbish. This means that any value that the item had is now lost. When something is produced, it's likely that some of it was made from virgin materials – materials that are created new or taken

that are created new or taken directly from nature (e.g. wood, or plastic turned into oil). If we avoid throwing things away, we can recover resources and reduce the need for new materials to be extracted from earth to make new things.

What can I do?

REDUCE

Can you buy less, or buy items that don't contain things that can't be reused? Manufacturers can design their products so they are able to be reused, or easily recycled.

REFUSE

Prevent waste from being created by choosing not to purchase something. If you are replacing an item, can you repair it?

REUSE

Instead of buying something new, can you reuse an item?

RECYCLE

If something has reached the end of its life, can it be recycled? Palmy has a good range of materials that can be recycled through the

kerbside collection service or dropped off at our recycling centres around the city.

RECOVER

If something can't be recycled, can you recover energy from it? e.g. some tyres that can't be used anymore can be burnt at a high heat, which creates energy and can be used to make concrete.

RUBBISH

Throwing something in the rubbish should be the last resort.



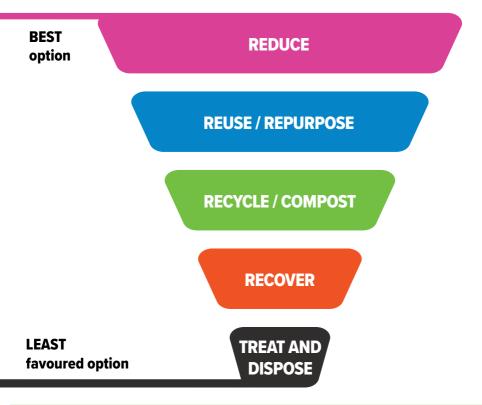
Although there is some waste we can't avoid – did you know that some people only put out one jar of rubbish in a whole year?

Could you do that?

How would you do it?

The waste hierarchy

This hierarchy sets our agenda for reducing waste, and that throwing things out is the last resort. You as consumers can help with the first four steps, and then it's our job to help make it easier to do the last step.



Companies and manufacturers can change how they make their products to ensure that they use less resources or use resources that don't need to be thrown away after they've been used.

They can also design products that last longer or can be repaired easily. Even though we can't change how companies make things, we can still use our 'purchasing power' to buy things that are better for the environment.

Simple switches

Even though it's better than rubbish, recycling still takes a little time, energy and sometimes, money. But there are heaps of "simple switches" we can all make, easy-as!



Put these in your Correcycling bin:



Water bottles, soda bottles



Milk bottles, shampoo bottles, household cleaning product containers





Ice cream containers, large yoghurt bottles



Paper and cardboard



Tin cans





All of these items should be cleaned and can be placed in your kerbside recycling bin.





Please check the number before placing in your recycling bin. We also don't want things like clothing, toys, or nappies in the recycling bins.



Where does my recycling go?

After being picked up outside your house, the recycling goes to our materials recovery facility (MRF, or "Merf" as we call it). The recycling is emptied onto the floor and pushed onto a conveyor belt. It's first taken to the "pre-sort" area where large items that shouldn't be there are removed.

Next, the recycling goes over a screen, and all the small bits are shaken out. This is why we can't put things like lids in our recycling because they will fall through onto the ground and end up in the rubbish.

After this, the recycling goes over another screen that directs flat things like paper and cardboard to one conveyor, and bulky things like plastic bottles, containers and tin cans go to another conveyor. Along each of these conveyors, people separate the items by type. Aluminum cans go into one cage, steel cans go into another, different types of plastic each go into a separate cage, and the paper and cardboard end up in a pile together. All the things that shouldn't be put in the recycling bins end up in the rubbish - this is around 25% of what comes in.



Once separated, the recycling is squashed in a baler into a big cube where it can be easily transported to recyclers. There are different recyclers around the country that process different materials:



Paper and cardboard go to either Auckland to be made into cardboard boxes, or Hawkes bay to be made into paper fruit trays. A small amount of paper is also transported overseas.



Aluminium and steel cans are taken by a local metal recycler. These cans are then sold to processing companies where they are turned into new metal products.



Clear PET (water bottles and lemonade bottles) are taken to Wellington where they are chipped and turned into things like meat trays, fruit containers, sandwich and cake containers.



Milk bottles, shampoo bottles, containers for cleaning products, ice cream containers and large yoghurt containers (remember the small 'six pack' containers can't be recycled) are taken to a local recycler. These are turned into a variety of things including the rubbish bags that line our city's park and street bins.



Liquid paper board, or tetra pak, is collected at
Ferguson Street and then sent up to SaveBOARD's factory in Hamilton, where they process and manufacture low carbon building materials.

What happens to food waste?

It's important to keep organic things like food and green waste out of the rubbish. Not only is this throwing away valuable nutrients, but once this ends up in the landfill, gases (greenhouse gasses) are produced that can damage the atmosphere.

At Awapuni we accept green waste from everyone and food waste just from businesses. After green waste is dropped off, it is shredded, and mixed with stable waste and food waste to make the perfect environment for making good compost. The material is pushed into a big, long pile, called a windrow and left for three months. During this time, the windrow is monitored to ensure that the temperature stays between 55 and 75°C for 14 days. Keeping these hot temperatures ensures the composting process destroys any pathogens that may be present. After three months, the compost is turned to ensure

the whole windrow is mixed and gets a chance to be 'in the middle' and compost properly. This process happens two or three more times. After nine months, a sample of compost is taken to the lab to test it to make sure it meets certain criteria. On the odd occasion that the levels are too high of a certain thing, the windrow is left to compost a bit longer. If the compost is ready, it's then screened to take out any big pieces that need more composting – these will be put back into another windrow for more composting. Now the compost is ready for sale, or to be used in one of the city's parks or gardens.



What about my glass?



Unlike recycling that is sorted at the materials recovery facility, glass is sorted on the kerb. Our glass trucks have three different compartments for each colour. This means that any material that we don't accept is not collected, and the cullet (glass) can be emptied directly into the glass bunker at Awapuni where it is stored before being collected and taken to Auckland to be recycled into new bottles.





MRF tour activity sheet

(listen carefully – all of the answers to these questions are in the presentation!)

1. Name three things that happen at the Awapuni Resource Recovery Park:

2. What used to be located where the Awapuni Resource Recovery Park now is?

3. Why can't certain types of glass be put in your crate?

4. What are three things that can't go in recycling bins?

5. Roughly, what is the percentage of contamination in Palmy's recycling?

6. How long does the composting process take?

7. How hot can it get inside a windrow?

8. What is an example of a simple swap?

9. What action is at the top of the waste hierarchy?



Awapuni Site Tour

С	С	Ρ	L	Α	S	Т	I	С	Κ	R	Μ	Ν	L
0	0	R	Ε	U	S	Ε	R	Т	W	С	0	Ε	Ο
Ν	Ν	Ρ	В	Α	L	Ε	R	I	0	I	U	Α	L
Т	Т	Α	С	F	Ρ	Κ	Ν	Ν	Т	Ε	I	R	Ε
Α	Α	L	W	Α	Α	D	V	С	L	С	Т	Т	Т
Ι	Μ	U	Ρ	Е	R	Е	Ε	Α	0	Е	D	Н	S
Ν	I	Μ	R	Ο	Y	L	I	Μ	L	Α	R	В	Α
Е	Ν	I	W	Ο	L	R	Ρ	С	W	Ν	0	0	W
R	Α	Ν	R	Ο	Ε	0	Y	Α	Ρ	S	Ρ	Т	Ν
R	Т	I	С	Т	S	С	Ρ	R	S	Α	0	Т	Е
Μ	I	U	Α	Т	Ε	U	L	Α	Ρ	0	F	L	Е
Ι	0	Μ	I	R	Ν	Т	L	Μ	0	Α	F	Е	R
Ρ	Ν	Ρ	С	I	Ε	G	R	Ε	D	U	С	Ε	G
Υ	R	Ε	V	0	С	Ε	R	L	R	Α	J	U	F



≫ PAPER	SCONTAINER	≫WINDROW
≫JAR	SCONTAMINATION	SCONVEYOR
⊗ALUMINIUM	≫RECOVERY	≫REDUCE
SCOMPOST	SREEN WASTE	≫PLASTIC
> TRUCK	SCOLLECTION	SEARTH
SGLASS	≫BOTTLE	≫BALER
≫ DROP OFF	≫AWAPUNI	≫REUSE
≫RECYCLE	≫MATERIAL	

Join the action on the left to the description on the right.



Get energy from materials that can't be reused or recycled



Use an item again in a way that will not reduce its value



Disposal of waste to land

Recover

Limit the amount of consumption



Collect materials, process, and make something new out of them



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