# Auckland Regional Landfill proposal



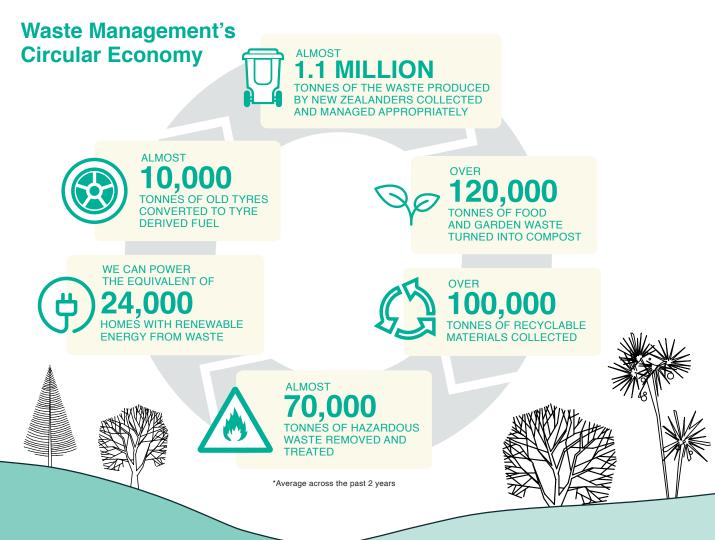
### Auckland Regional Landfill

Right now, our city has a big problem. Each year, Auckland sends over 1.6 million tonnes of rubbish to landfill, and that number is going to rise as our city gets bigger. Within the next ten years, Auckland's biggest landfill will close and, without a replacement, we won't be able to keep up with all the waste the city produces. It's vital to continue to reduce and recycle waste wherever we can, but to keep Auckland able to grow and function, we need to find a new site to safely contain our rubbish while protecting our environment. And construction needs to start very soon. Waste Management operates the country's largest modern landfills. We use the best technology to safely capture all of the leachate (liquid from the waste) and over 90% of the gas that comes from the waste at our facilities. We even convert most of that gas into electricity – capable of powering 24,000 homes. Below, you'll find some of the common concerns people have shared with us and some information that we hope will be reassuring.



## Why can't Auckland minimise waste rather than build a new landfill?

New Zealanders absolutely need to reduce the amount of waste we produce. Much of our business at Waste Management is in resource recovery, with 17 materials recovery facilities around the country which recover a combination of metals, timber, plastics, glass, green waste, polystyrene, concrete, gypsum and more. In some regions we manage e-waste, batteries, oil and last year we recycled 10,000 tonnes of old tyres. But even with waste minimisation efforts, better recycling and new technology, Auckland is still going to be produce an amount of residual waste that needs to be safely disposed of.





We've run an extensive process to find a new site for Auckland's next regional landfill. We've assessed over 75 different locations to find somewhere that will avoid sites of significance for tangata whenua, minimise disruption for local residents, has the right transport links and will have the smallest impact on the environment.

After a lengthy process over many years, we've identified the Wayby Valley site. It's important to note the site is not in Dome Valley or the Dome Forest, which is DOC protected land. In total we've purchased 1,000 hectares of land, but the landfill

will only be 60 hectares of the site. The area of exposed waste will be no more than 0.64 hectares (80m x 80m) at any one time and all waste will be covered at the end of the day. The rest of the land will provide a 1km buffer between the landfill and the nearest neighbours, and will be either left untouched, developed into wetlands or planted with native trees, and areas will be opened up to the public with walking and cycling tracks.

We know that everyone would always prefer a facility like this is built somewhere else – but if Auckland is going to be able to keep functioning as a city, we need a new modern landfill.

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35km from the Kaipara Harbour and represents 0.009% of the Kaipara catchment.



## Is there a risk the landfill could contaminate the local waterways?

No. We've selected this site to limit exposure to waterways. The landfill is 3.5km stream distance away from the Hōteo River, 35km from the Kaipara Harbour and represents 0.009% of the Kaipara catchment. It is also 50m higher than the Hōteo River and well above the flood plain.

The facility is designed with a state-of-the-art lining system, so that no liquid from waste can escape before it is captured and treated. The lining system's base is 90cm of low permeability clay, which will last a million years, covered by another two liners which will last for hundreds of years after the landfill stops being used. By then leachate produced from the waste will be insignificant. Beneath the landfill, underdrains will be constructed to manage any naturally occurring groundwater sources, and any water which flows down the valley will be managed on-site in stormwater treatment ponds. We'll install a series of dams and wetlands to protect water quality and will have a constant monitoring system to confirm sediment is reduced compared to existing land uses.



#### What happens if there is a major weather event?

While this may impact on older dumps, located close to the coast or major waterways, modern engineered landfills are located away from the coast and major waterways and have protections to keep them safe from flooding.

Auckland Regional Landfill will sit at the top of a valley, so there's little or no upstream stormwater that might wash the waste away.

Stormwater systems are designed to handle 100-year storms, with an extra allowance for increases in rainfall volume and intensity likely to be experienced due to climate change. The base of the landfill will be 3.5km stream distance away from the Hōteo and 50m above the river level, so will not be affected by the river flooding.

A similar lining system has been installed at Kate Valley Landfill & Energy Park in Canterbury.





## Shouldn't we invest in recycling to reduce Auckland's waste?

Yes. Waste Management invests heavily in recycling technology and supports efforts to reduce, reuse and recycle. However not all materials can be recycled, and some materials can only be recycled a limited number of times after which they need to be disposed of safely. We have to be realistic about the fact that major cities do produce waste, and the waste that can't be recycled has to go somewhere. If we don't plan for that, we're setting future generations up for a major problem.



An option that has been suggested is an incineration plant. The problem is that burning the rubbish, such as plastics, causes significant carbon emissions, as well as producing toxic ash. Not only that, but to be economically viable, incinerator plants need ongoing amounts of rubbish – just at the time New Zealand is looking to reduce the amount of rubbish and plastics we use. Overseas, countries that have incineration plants need expensive taxpayer subsidies to make them work, and even then they often have to import waste from other countries – producing even more carbon emissions that damage the environment. We don't believe Kiwis should pay this type of subsidy, which can be more than four times the cost of a landfill.



### How will traffic be impacted?

Our design includes a bin exchange area which will mean truck movements can be spread out to avoid Auckland traffic peaks. We've been running a similar system at Kate Valley Landfill in Canterbury and it's a good solution. Through the construction phase to 2028, the impact on traffic will be minimal. Once the landfill is operational, the increased load of heavy trucks will only be around 1.5% of the average weekday peak on State Highway 1.



## How have you engaged the community?

We've engaged extensively with community groups, including tangata whenua, and will continue to do so. We acknowledge the important connection tangata whenua has with the awa, whenua and Kaipara moana. We agree on the need to protect Papatūānuku, Ranginui, the awa and moana. We've taken on board all of the cultural values assessments of tangata whenua, as well as feedback at the Council hearing, and made improvements to our proposal based on this.

This includes around 89ha of native revegetation and wetland enrichment and 30km of offsite riparian planting. Close to 300 hectares of native vegetation and wetlands will also be protected by covenant, we propose a pest eradication / control plan to protect native wildlife on over 450 hectares of Waste Management and Department of Conservation land.

Sediment control ponds at Redvale Landfill & Energy Park, with an area that has stopped receiving waste and has its final soil cap in the background.



#### About us

Waste Management started in Auckland in 1894 as a cartage company and moved into waste in the 1930s. In the 1980s we introduced wheelie bins to New Zealand along with the side loading truck for collecting residential waste. We also introduced front loading and hook trucks, which clear most commercial waste. Today we are the largest composter in New Zealand, we recycle well over a quarter of Aotearoa's recycling, we are the largest wasteto-energy provider and have the largest commercial electric fleet in New Zealand, all powered by electricity from waste.



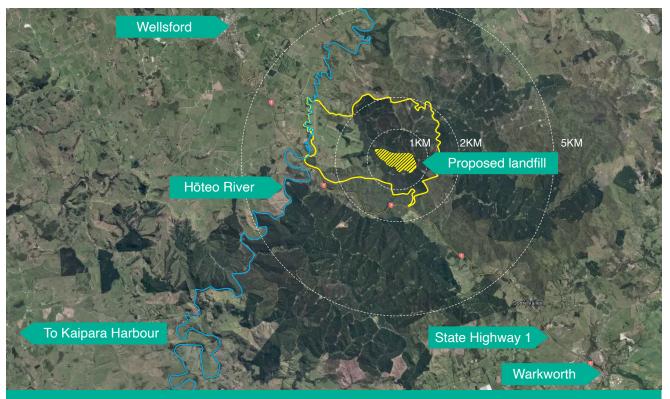
## Does an offshore owned company really care about our environment?

Yes. Deeply. Over the years Waste Management has been owned by New Zealanders, Americans and Australians and now Chinese. Beijing Capital Group (BCG) is the municipal authority for Beijing with investments in real estate, infrastructure and environmental services including being the fifth largest water company in the world. Since the purchase of Waste Management in 2014, BCG has taken a long-term view of our business, investing over \$500 million back into our economy and sustainable technology, and employing an additional 350 New Zealanders. Today 1700 Kiwis work at Waste Management and we all want the very best waste solutions for the environment and Aotearoa.

### Want to learn more?

If you'd like to learn more about how a modern, engineered landfill operates please watch our video at www.wastemanagement.co.nz/landfill-video or email arl@wastemanagement.co.nz and register your interest to visit Redvale Landfill and Energy Park.

#### Site Location



#### Key site information

- 1000 hectares of Waste Management land, landfill footprint of 60 hectares, 0.64 hectares of operating area on any working day
- 3.5km stream distance from the Hoteo River
- 35km stream distance from the Kaipara Harbour
- 5km from Dome Valley
- 29km of riparian planting
- 89ha of new native vegetation and wetland enhancement
- · 456 hectares of pest eradication / control on WM and DOC land



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