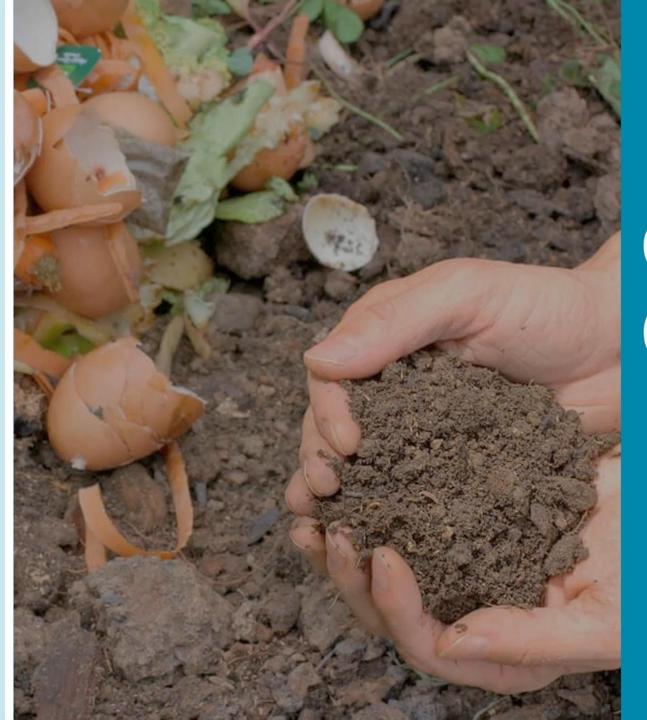




WED 29 | 11.00-12.30

KUA HUA TE MARAMA - CIRCULAR SYSTEMS





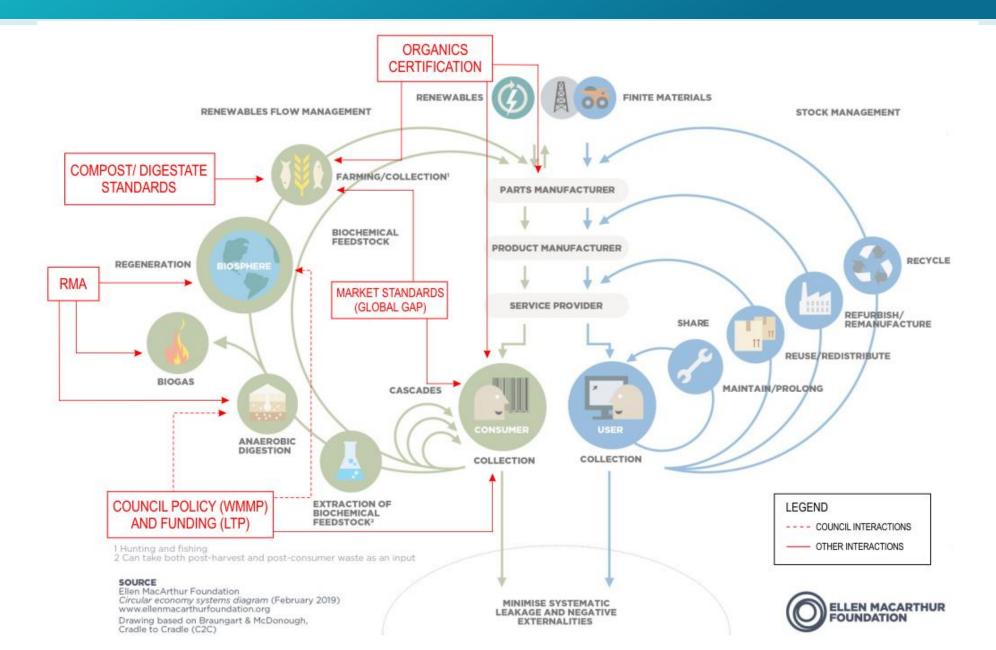
Circularising Organics Project

waikatoregion



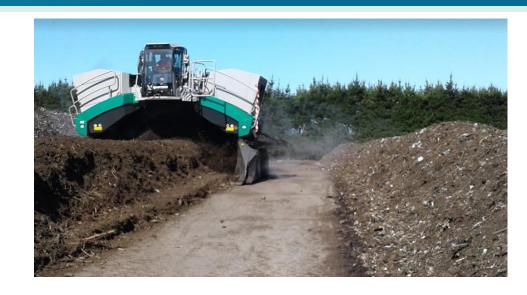


Situation overview & Decision making support



元 Tonkin+Taylor

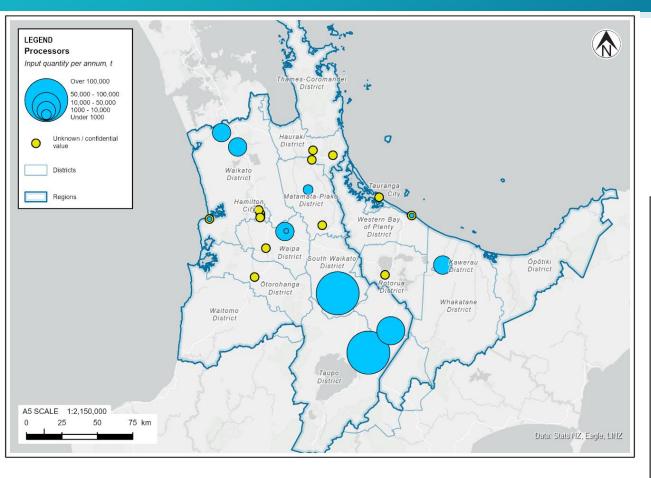


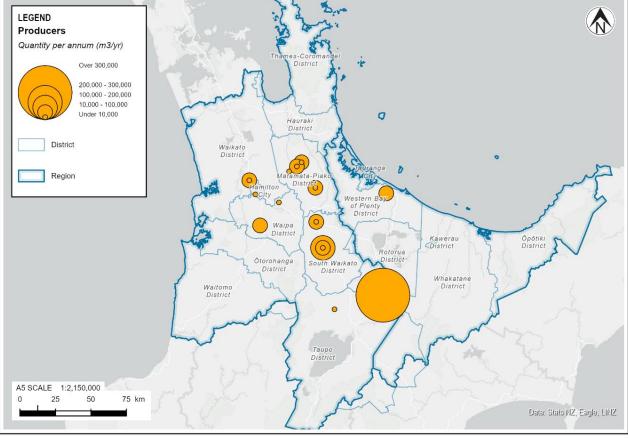






Title Tonkin+Taylor







Decision Making Tool

Waikato

Supporting informed decision making for organic material processing

Introduction

This decision making tool has been developed as part of the Circularising Organics Project. This tool is designed to help council staff and decision makers navigate the decision making process on the appropriate management for organic materials. The logic contained in this tool complements the findings from the Circularising Organics project and should be used in conjunction with these reports to support individual decision making.

This decision making tool assumes that all measures to reduce organic materials at source have already been implemented and where suitable edible food rescue options have already been explored.

The Circularising Organics project was possible with funding from the Waste Minimisation Fund, which is administered by the Ministry for the Environment as well as funding from the Waikato Wellbeing Project. The Ministry for the Environment and the Waikato Wellbeing Project do not necessarily endorse or support the content of the publication in any way.

Instructions

- 1. Start at 1. Material Collection and fill in the dropdown options from top to bottom.
- 2. Continue onto 2. Processing approach and fill in the dropdown
- 3. Finally, go to 3. Processing markets. The dropdown selection will be pre-filled and the same as step 2.
- 4. For any other considerations see the relevant Considerations page

Note: If you want to clear all the options from a page, click the 'Clear all options' button

Disclaimer: Some data values have not been reviewed or edited and may be subject to change. Data users are cautioned to consider carefully the provisional nature of the information be using it for decisions that concern personal or public safety or the conduct of business that involves substantial monetary or operational consequences.

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1. Material Collection

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Clear all options

	Complementary material streams	
Food & Green Materials	Timber (bark and sawdust)	
Step 2: What is the source of materials?	Considerations for material source	
Households	There is an opportunity for households and smaller commercial facilities to come the use of local drop off locations, but style facilities and/or milk run based collections (small scale commercial for example offices). Note these are likely limited in the volume of organic materials which can be accepted and may be of a wider network of drop off facilities, hubs and/or milk run based collection the bringing together of organic materials close to their source.	un based are likely to be nd may be part
Step 3: Are there any complementary material streams available for collection?	Considerations for material source	
Timber (bark and sawdust)	-	
Timber (bank and sameday	Depending on the source of organic materials, it may be that other organic materials are required to be introduced by processors to support efficient processing. It is important for the right mix of organic materials and it may be other complementary materials are required and/ or a bulking agent for exan may be required. This is usually a consideration for the processor, however it an important consideration at this stage, given that you may also be/ know o complementary materials which are suitable.	nple is still
Timber (bank and sameday	materials are required to be introduced by processors to support efficient processing. It is important for the right mix of organic materials and it may be other complementary materials are required and/ or a bulking agent for exan may be required. This is usually a consideration for the processor, however it an important consideration at this stage, given that you may also be/ know o	nple is still of

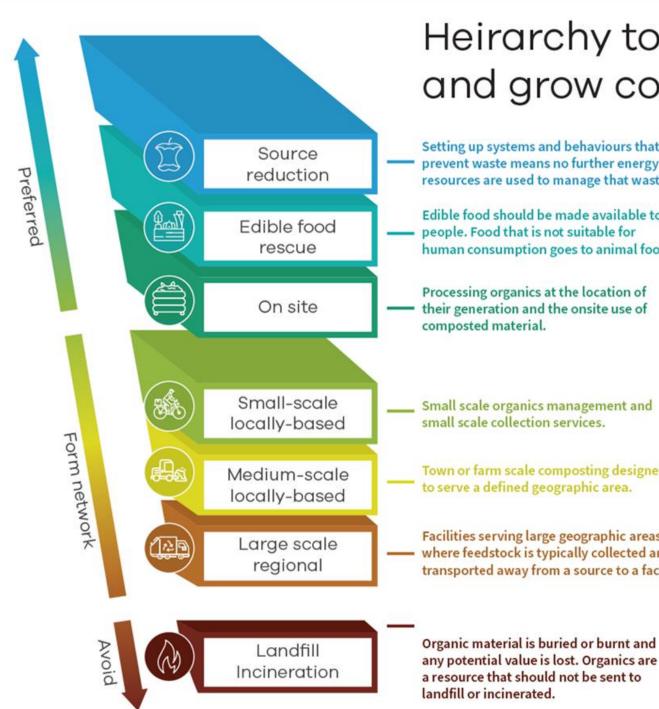
Reflections

 Take a broad perspective - consider the system, don't take a singular or narrow view.

Chase value not diversion.

 Anticipate changing the way you approach issues/possibilities as you work with others. Literature Review on contamination

Centralised vs Localised process



Heirarchy to reduce food waste and grow community

- Setting up systems and behaviours that prevent waste means no further energy or resources are used to manage that waste.
- Edible food should be made available to people. Food that is not suitable for human consumption goes to animal food.
- Processing organics at the location of their generation and the onsite use of composted material.
- Small scale organics management and small scale collection services.
- Town or farm scale composting designed to serve a defined geographic area.
- Facilities serving large geographic areas — where feedstock is typically collected and transported away from a source to a facility.

For example, turning old bread into croutons rather than sending for processing or disposal. Love Food Hate Waste is a nationwide campaign suggesting household source reduction steps. Source reduction also applies to other locations, such as businesses and industry.

For example, Kaivolution in Kirikiriroa/Hamilton rescues food to distribute to people.

The on site processing of organics and on site use of the resulting material reduces transport costs/energy and connects users to the system in use. This could include composting, vermi-composting or small scale anaerobic digestion at locations such as the home, business or Marae. On farm processing of material generated on the farm would also be considered "on site". The tonnes per annum could vary considerably with on site processing and could be small or large.

This could include neighbourhood scale compost clubs or services processing roughly <1-10 tonnes per site per annum. Small scale may enable bicycle pick up or allow community members to drop off, such as at Kaicycle in Wellington.

For example, systems that handle roughly up to 500 tonnes of material per annum. Xtreme Zero Waste in Raglan services the Whaingaroa geographic area and processes roughly 300 tonnes per annum. Could be a single site or a network of sites that process a similar quantum of material.

For example, facilities and services that process roughly over 500 tonnes per annum. A large-scale, centalised facility is Hampton Downs, which accepts food scraps from both Hamilton and Tauranga.

Walking Households distance (<250m) With garden



neighbourhood

reservoir

Many per district

Small bulking material

Professionally managed

Free compost collection

Bulking material delivery (weekly)



Semi-central recycling stations

1 per municipality

Short-term compost

material

sharing

Preparation of bulking

storage for municipal



Pick-up of surplus compost (monthly)

Bulking material delivery (weekly)



Central treatment facility

- 1 per region
- Long-term storage and sale of surplus compost
- Treatment of commercial organic waste (excluded)



Pick-up of surplus compost (monthly)











Selectively collected green waste





Backyard gardening

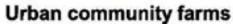


Home

composting



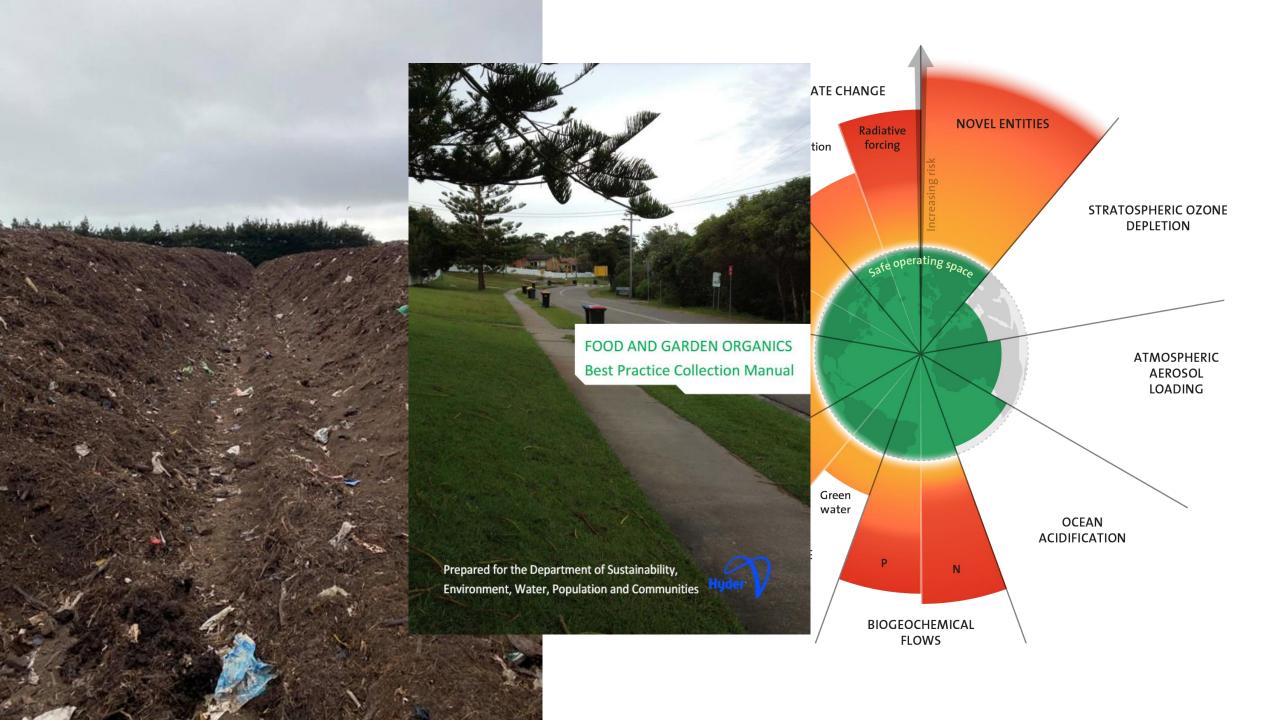
Indoor use







Peri-urban agriculture



Understanding the role of community in the collection and processing of organic waste

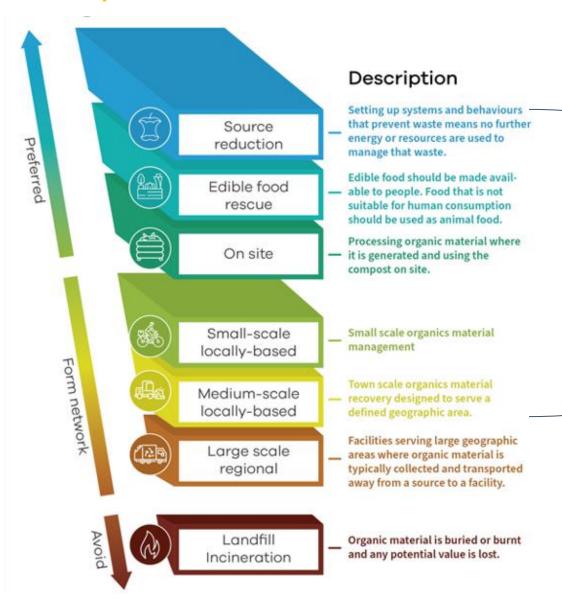


Methodology & Participants

20 Participants

Experienced and operating

Community Enterprises Businesses Charities Schools



Majority OSMS

Prevention & behaviour change key driver for most



Figure 1: An organic material processing hierarchy

Key takeaways

- Active and passionate community
- Localised model critical for food security, sovereignty and regeneration
- Opportunity to scale out using existing networks – CRRCs, Schools, Community Centres
- Integrated with kerbside collection / larger scale facility
- Social, cultural, environmental and economic outcomes to underpin the model



Recommendations

- Engage with experienced organisations who have a vision for a regional circular economy
- Review, amend and introduce regulation / bylaws that encourage community participation
- Remove resource consenting / zoning constraints & make the process accessible
- Upskill existing council staff and recruit staff that have expertise
- Provide funding for operations
- Implement a social / sustainable procurement strategy



Thank you



Waste Minimisation Fund



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