



AGENDA

Taranaki Solid Waste

Thursday 20 August 2020, 10.30am

Taranaki Solid Waste Management Committee

20 August 2020 10:30 AM - 12:00 PM

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Membership of Taranaki Solid Waste Management Committee

Neil Walker	Taranaki Regional Council
Alan Jamieson	Stratford District Council
Brian Roach	South Taranaki District Council
Richard Handley	New Plymouth District Council

Health and Safety Message

Emergency Procedure

In the event of an emergency, please exit through the emergency door in the committee room by the kitchen.

If you require assistance to exit please see a staff member.

Once you reach the bottom of the stairs make your way to the assembly point at the birdcage. Staff will guide you to an alternative route if necessary.

Earthquake

If there is an earthquake - drop, cover and hold where possible.

Please remain where you are until further instruction is given.



Date 20 August 2020

Subject: **Confirmation of Minutes - 21 May 2020**

Approved by: G K Bedford, Director - Environment Quality
M J Nield, Acting Chief Executive

Document: 2563908

Recommendations

That the Taranaki Regional Council:

- a) takes as read and confirms the minutes and resolutions of the Taranaki Solid Waste Management Committee meeting held via zoom on Thursday 21 May 2020 at 10.30am
- b) notes that the unconfirmed minutes of the Taranaki Solid Waste Management Committee meeting held via zoom, on Thursday 21 May 2020 at 10.30am, have been circulated to the New Plymouth District Council, Stratford District Council and the South Taranaki District Council for their receipt and information.

Matters arising

Appendices/Attachments

Document 2505166: Minutes Taranaki Solid Waste Emergency Management - 21 May 2020



Date: 21 May 2020, 10.30am
Venue: Via audio-visual link (Zoom)
Document: 2505166

Present	Councillors	N W Walker R Handley B Roach A Jamieson	Taranaki Regional Council New Plymouth District Council South Taranaki District Council Stratford District Council
Attending	Councillors	D McIntyre M Chong M Bellringer Mr G Bedford Mrs H Gerrard Miss L Davidson Mr P Ledingham Mrs K Hope Mrs V Araba Ms J Dearden Mr H Denton Ms M Cashmore	(Taranaki Regional Council) (New Plymouth District Council) (South Taranaki District Council) (Taranaki Regional Council) (Taranaki Regional Council) (Taranaki Regional Council) (Taranaki Regional Council) (New Plymouth District Council) (Stratford District Council) (New Plymouth District Council) (South Taranaki District Council) (Taranaki District Health Board)

Apologies Apologies were received from Miss V Moyle and Mr D Miller, South Taranaki District Council, Mr M Downer, EnviroWaste and Mr D Langford, New Plymouth District Council.
 Roach/Handley

Notification of Late items There were no late items.

1. Confirmation of Minutes – 20 February 2020

Resolves

That the Taranaki Solid Waste Management Committee:

- a) takes as read and confirms the minutes and resolutions of the Taranaki Solid Waste Management Committee meeting held at the Taranaki Regional Council chambers, 47 Cloten Road, Stratford on Thursday 20 February 2020 at 10.30am
- b) notes that the unconfirmed minutes of the Taranaki Solid Waste Management Committee meeting held in the Taranaki Regional Council chambers, 47 Cloten Road, Stratford, on Thursday 20 February 2020 at 10.30am, have been circulated to the New Plymouth District Council, Stratford District Council and the South Taranaki District Council for their information and receipt.

Jamieson/Roach

Matters arising

There were no matters arising.

2. Impact of Covid-19 on Taranaki Solid Waste Services Preliminary Assessment

- 2.1 Ms K Hope, New Plymouth District Council, spoke to the memorandum providing a preliminary assessment of the impact of Covid-19 on solid waste services in Taranaki and the changes to solid waste kerbside, transfer station and MRF Services during the Covid-19 Alert levels 2, 3 and 4.
- 2.2 It was clarified that in the event of a civil defence emergency, such as an extreme flooding event, where the landfill waste could not go South to Bonny Glenn, Taranaki would work with Bonny Glenn to send the refuse elsewhere. Taranaki has two closed landfills that are consented to reopen in emergency situations and Colson Road landfill is still consented to take refuse. It was noted that Taranaki Civil Defence Emergency Management also have a contingency plan in place for Civil Defence emergency refuse.
- 2.3 Household recycling bin collection has started up again however, there is a high level of contamination. This is currently not being policed but monitoring and stickering will be starting up again in the next two weeks.
- 2.4 The Chairman, Mr N W Walker expressed his thanks to the District Councils for their work in this space through the Covid-19 situation.

Resolves

That the Taranaki Solid Waste Management Committee:

- a) receives the memorandum Impact of Covid-19 on Taranaki Solid Waste Services Preliminary Assessment.

Walker/Roach

3. Regional Waste Minimisation Officer's Report

- 3.1 Ms J Dearden, New Plymouth District Council, spoke to the report providing an update on activities undertaken by the Regional Waste Minimisation Officer (RWMO), in collaboration with the New Plymouth, Stratford and South Taranaki District Councils and providing information on activities in the wider community and matters of interest to the Committee from March – May 2020.
- 3.2 It was noted that September is not great timing for AGrecovery One-stop events for farmers and these dates are not confirmed at this stage.
- 3.3 The Taranaki District Health Board is working on waste minimisation and management plans and sustainable procurement policies to align with the District Councils.

Resolves

That the Taranaki Solid Waste Management Committee:

- a) receives the memorandum and notes the activities of the Regional Waste Minimisation Officer
- b) endorses the four councils supporting the AGrecovery One-Stop events proposed for late this year.

Walker/Jamieson

4. District Council Submissions on National Environmental Standards for Outdoor Storage of Tyres

- 4.1 Ms K Hope, New Plymouth District Council, spoke to the memorandum presenting for Members information, the joint New Plymouth, Stratford and South Taranaki District Councils' submission sent to the Ministry for the Environment on the Proposed National Environmental Standards for the Outdoor Storage of Tyres (NES-OST).

Resolves

That the Taranaki Solid Waste Management Committee:

- a) receives the memorandum entitled Ministry for the Environment Consultation (MfE) – Proposed National Environmental Standard for the Outdoor Storage of Tyres.

Roach/Handley

5. Taranaki Regional Council Submission on the National Environmental Standard for the Outdoor Storage of Tyres

- 5.1 Mr G K Bedford, Taranaki Regional Council, spoke to the memorandum presenting for Members information the Taranaki Regional Council submission sent to the Ministry for the Environment on the Proposed National Environmental Standards for the Outdoor Storage of Tyres (NES-OST). The submission was received and endorsed by the TRC at the Ordinary meeting on Tuesday 7 April 2020.

Resolves

That the Taranaki Solid Waste Management Committee:

- a) receives the memorandum entitled Submission on National Environmental Standards for Outdoor Storage of Tyres.

Jamieson/Roach

6. General Business

6.1 Mixed plastic recycling

A discussion was held around recycling of mixed plastics. It was noted that for mixed bales of plastics to be sent overseas there would be need for a permit under the Basle Convention, and that would involve needing to know where it is going. However if plastic is baled as only one type of plastic a permit would not be required. For Taranaki types one and two are separated but types 3-7 are baled together. There is also currently no market for plastics overseas.

6.2 Plastic in road surfacing

A trial is still being evaluated. The first section was laid but was very difficult to use, they are now working on getting the formula right. Once they have the technical aspects of this sorted they will then need to look at the financial impact to determine if it is both a viable and cost effective process.

There being no further business, Committee Chairperson, Councillor N W Walker declared the meeting of the Taranaki Solid Waste Management Committee closed at 11.39am.

Confirmed

Chairperson

N W Walker

20 August 2020



Date 20 August 2020

Subject: **Enviroschool's activities**

Approved by: G K Bedford, Director - Environment Quality
M J Nield, Acting Chief Executive

Document: 2563909

Purpose

1. The purpose of memorandum is to introduce Lauree Jones, the Enviroschools Regional Coordinator & Facilitator.

Recommendations

That the Taranaki Solid Waste Management Committee:

- a) receives the presentation by Lauree Jones on Enviroschools activities in Taranaki.

Discussion

2. Lauree Jones will speak to the Committee about Enviroschools activities relating to Waste Minimisation within Taranaki.

Decision-making considerations

3. Part 6 (Planning, decision-making and accountability) of the *Local Government Act 2002* has been considered and documented in the preparation of this agenda item. The recommendations made in this item comply with the decision-making obligations of the *Act*.

Financial considerations—LTP/Annual Plan

4. This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

5. This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks

including, but not restricted to, the *Local Government Act 2002*, the *Resource Management Act 1991* and the *Local Government Official Information and Meetings Act 1987*.

Iwi considerations

6. This memorandum and the associated recommendations are consistent with the Council's policy for the development of Māori capacity to contribute to decision-making processes (schedule 10 of the *Local Government Act 2002*) as outlined in the adopted long-term plan and/or annual plan. Similarly, iwi involvement in adopted work programmes has been recognised in the preparation of this memorandum.

Legal considerations

7. This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.



Date 20 August 2020

Subject: **Regional waste minimisation officer's activity report**

Approved by: G K Bedford, Director - Environment Quality
M J Nield, Acting Chief Executive

Document: 2563786

Purpose

1. The purpose of this memorandum is to inform the Committee members of significant activities undertaken by the Regional Waste Minimisation Officer, in collaboration with the district council officers of NPDC, STDC and SDC.

Recommendations

That the Taranaki Solid Waste Management Committee:

- a) receives the memorandum and notes the activities of the Regional Waste Minimisation Officer.

Discussion

2. The regional waste minimisation officer's activity report is attached.

Decision-making considerations

3. Part 6 (Planning, decision-making and accountability) of the *Local Government Act 2002* has been considered and documented in the preparation of this agenda item. The recommendations made in this item comply with the decision-making obligations of the *Act*.

Financial considerations—LTP/Annual Plan

4. This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

5. This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks including, but not restricted to, the *Local Government Act 2002*, the *Resource Management Act 1991* and the *Local Government Official Information and Meetings Act 1987*.

Iwi considerations

6. This memorandum and the associated recommendations are consistent with the Council's policy for the development of Māori capacity to contribute to decision-making processes (schedule 10 of the *Local Government Act 2002*) as outlined in the adopted long-term plan and/or annual plan. Similarly, iwi involvement in adopted work programmes has been recognised in the preparation of this memorandum.

Legal considerations

7. This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

Appendices/Attachments

Document 2563791: Regional waste minimisation officer's activity report



When replying please quote: ECM 8342534

Agenda Memorandum

Date: 11 August 2020

Memorandum to Chairperson and Members Taranaki Solid Waste Management Committee

SUBJECT: REGIONAL WASTE MINIMISATION OFFICER'S ACTIVITY REPORT

June - August 2020

Purpose

The purpose of this memorandum is to report on significant activities undertaken by the Regional Waste Minimisation Officer (RWMO), in collaboration with the district council officers of NPDC, STDC and SDC.

This report provides information on activities in the wider community, and matters of potential interest to the Committee from June - August 2020.

Recommendation

That the Taranaki Solid Waste Management Committee:

1. Receives the memorandum and notes the activities of the Regional Waste Minimisation Officer.

Discussion

AGrecovery – 'One stop shop events' confirmed *NPDC* *STDC* *SDC*

The three districts have engaged with AGrecovery to hold an 'AGrecovery ONE-STOP SHOP EVENT' in the region in early 2021. It has been confirmed and agreed that the three district councils and the Taranaki Regional Council (TRC) will support the events through funding and holding three events, one in each district for the rural community of Taranaki. The RWMO met with AGrecovery representatives in July to discuss how these events will run in the region. The discussion centred on what types of waste will be accepted for disposal and how the public can register to dispose of specific farm waste. On the advice of Councillors, it was decided that a week in May 2021 would best suit the region for this event to maximise attendance and participation as farmers would have more time in May rather than September. The RWMO is working on the MOU that will be ready for September in collaboration with the councils.

WHEN:	MAY 2021	FUNDING AGREED:	\$2-\$3000 PER COUNCIL
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AGRECOVERY

Plastic Free July 2020 *NPDC* *STDC* *SDC*

When: July 1st- July 31st 2020

Plastic Free July encourages the community to make a positive choice in going plastic free during July. The theme adopted by councils this year was 'Simple Swaps' promoted through both Plasticfreejuly.org and WasteMINZ. Regionally councils agreed to promote this concept through various platforms such a council websites, blogs and social media. The RWMO gave away some Plastic Free July prize packs to FIVE lucky people who posted about their commitment to Plastic Free July.

In addition to this NPDC funded a series of workshops through Sustainable Taranaki held at The Junction during the month of July. These workshops focused on reuse and reduce with the target audience being families and children as these were held over the school holiday period. These workshops were promoted in the Midweek, and Sustainable Taranaki's and the Zero Waste Taranaki websites.

Two public tours of the MRF were also held and sold out; more could be planned for next year given the demand.

THE Junction
 ZERO WASTE HUB

Plastic Free July Events

Come along to these fun workshops centred around sustainable living. Suited to all ages and well timed for the school holidays!

Low Waste Tips & DIY Beeswax Wraps with Isabella Kirk

Thursday 9th July – 5.30pm-7.30pm
 Sunday 26th July – 10am-12pm

The Junction, Recycling Education Space, Colson Road, New Plymouth

Learn how to reduce plastics in your daily life and create your own beeswax wraps to start your journey.

Re-Create with 'Waste' Plastics (all ages) with Wayne Morris & Sunset

Tuesday 14th July – 9.30am-12.30pm
 Sunday 19th July – 9.30am-12.30pm

The Junction, Recycling Education Space, Colson Road, New Plymouth

Be creative and make plants out of plastics. Learn more about reducing waste at home.

\$10 per workshop
 \$5 for Community Service Card holders
 (email tours@sustainabletaranaki.org.nz for your discount code)

Discounts offered!

Register now:
www.sustainabletaranaki.org.nz/workshops



New Plymouth District Council and SDC ran an in house commitment board for staff to get on board with the concept of 'Simple Swaps'. South Taranaki District Council and SDC promoted Plastic Free July on their Council webpages with hints and tips for the community to partake in.

<https://www.southtaranaki.com/our-services/rubbish-and-recycling/plastic-free-july>



Waste Free with Kate – parenting and food lovers classes *NPDC* *STDC*

The RWMO coordinated the online delivery of the Kate Meads Waste Free workshops in May, rather than face to face due to Covid -19 restrictions.

In the Waste Free Parenting workshop in New Plymouth, 18 out of 25 tickets with accompanying packs sold. The workshops were very well received with 30% responding attendees rating it 5/5, and 70% rating it 4/5. While survey responders did note that they would have preferred to attend a face-to-face public workshop, they were pleased with the virtual workshop and found it worthwhile.

Feedback included:

- “Great workshop and info, good to know we are on the right track in the things we already do”
- “I thoroughly enjoyed the workshop with Kate”
- “I have watched this a couple of times and each time have new ideas on how to be more waste free”



Based on the feedback and survey responses the following estimate of diversion from landfill was calculated.

a. Intended Cloth Nappy Usage Rate	b. Intended % and No. from Workshop	c. No. Of Disposable Nappies Diverted per Baby	d. Potential No. Of Disposable Nappies Diverted per Baby per Workshop (b X c)	e. Weight of Potential Disposable Nappies Diverted (d X 0.15 kg's)
Full Time (6.6 nappies/day)	30% = 3	6,000	18,000	2,700 kg's
Most of the Time (4.9 nappies/day)	60% = 6	4,500	27,000	4,050 kg's
Part Time (3.3 nappies/day)	20% = 2	3,000	6,000	900 kg's
One Per Day	-	912	-	-
			= 51,000	= 7,650 kg's

Total Potential Landfill Diversion from Workshop(s)	= 122,400 nappies
= (d X Intended Number of Babies per family per Workshop [2.4])	= 18,360 kg's
= (e X Intended Number of Babies per family per Workshop [2.4])	= 18.4 Tonnes

The Food Lovers Master class was solid out. Feedback from workshop participants from New Plymouth indicate this workshop were very well received with 27.3% of attendees who filled in the survey rating it 5/5, and 63.6% rating it 4/5.

Feedback included:

- “Great workshop with some good info. Thanks for the opportunity to access this online at my convenience!”
- “Loved all the ideas on how to save money and great tips on storing and saving food”
- “Great content and easily expressed”

STDC has similar feedback with the Food Lovers Master class selling 11 out of 25 online packs. One hundred percent of responding attendees rating it 4/5 or 5/5, and 80%, rating the free incentive packs 5/5.

Feedback included:

- “Enjoyed this more than I thought I would”
- “Great value for money”
- “Always great, Kate”

September Workshops: Proposed

	NPDC	STDC	SDC
Kate Meads Food Lovers Master Class and Waste Free Parenting class	September \$19 per ticket which includes a \$120 gift pack	N/A	N/A
Kate Meads Menstrual cup workshops in schools	September in schools NPDC funded (6 schools)	September in schools STDC funded (3 schools)	September in schools SDC Funded (3 schools)



Food Lovers Masterclass	Waste Free Parenting
3 SEPTEMBER 2020	4 SEPTEMBER 2020
New Plymouth District Council Chambers 84 Liardet Street, New Plymouth	New Plymouth District Council Chambers 84 Liardet Street, New Plymouth
Thursday September 3rd 2020 6:30pm - 8:30pm	Friday September 4th 2020 9:30am - 12:00pm
Tickets from \$19 - Includes a Goodie Bag worth \$120	Tickets from \$19 - Includes a Goodie Bag worth \$120
Purchase	Purchase

Menstrual Cup workshops *NPDC* *STDC* *SDC*

The RWMO and Three Waters Education Officer attended a promotional session at New Plymouth Girls High School for 900 year 9-12 students to explain the upcoming Menstrual Cups Workshops with Kate Meads. Our aim is to reduce the use of single use sanitary products going to landfill and give young women the knowledge and opportunity to make a choice for change.

Waste Free with Kate

Our aim is to reduce the use of single use sanitary products being used.

Waste Free Workshop

- ▶ September 3rd at NPGHS
- ▶ Sign up and attend
- ▶ All attendees will receive a cup or 2 reusable pads
- ▶ The workshop is FREE and fully funded by NPDC



- ▶ Discussion around the products and use of products.
- ▶ A safe environment / with fun chat about new period products.
- ▶ Discussion on environmental and sustainability issues on our planet around waste going to LANDFILL.
- ▶ Increasing student knowledge and choice around New Reusable menstrual products with a professional facilitator.
- ▶ For more information: www.katemeads.co.nz





Love Food Hate Waste (LFHW) Easy Choice Recipe Books - *NPDC* *STDC* *SDC*

The three districts continue to support the Love Food Hate Waste initiative although the national project has ceased. All three district councils have been distributing the “Easy Choice Recipe Books”.

The RWMO has been working with Taranaki District Health Board and Barnardo’s Charity to distribute the Easy Choice recipe booklets to the community. Two thousand Easy Choice recipe books were printed after coming out of Covid - 19 lockdown. This is a fantastic result as last August 2019 we reported around 600 printed in the month of June.



The recipe booklets can be downloaded from the Love Food Hate Waste website and will be added to our Zero Waste Taranaki regional website in September to be promoted in line with our Regional Education Plan.



Figure 4. Easy Choice recipe book covers

<https://lovefoodhatewaste.co.nz/food-waste/resources/posters-and-infographics/>

Behaviour Change Strategy/Education Plan *NPDC* *STDC* *SDC*

The RWMO has been coordinating the writing and development of a Regional Behaviour Change Strategy (RBCS). This is covered in a separate agenda item.

WITT Open Day 29th July *NPDC*

The RWMO, NPDC Solid Waste Contracts Officer and NPDC Three Waters Education Officer ran an information booth at the end of July on kerbside practice and promotion of the upcoming plastic recycling changes in September. This was very informative for the public and a positive day out.

What we learned:

- The majority of students had sharp knowledge around the time bins needed to be at the kerbside and the four different bin types and colour.
- Students were less certain on whether plastic bags were recyclable or not – although most “believed” or “thought” they were not accepted.
- The vast majority of students were unaware that they could not put compostable materials (e.g. takeaway coffee cups or biodegradable bin liners) in their food scraps bin.
- Most were also unaware that feminine sanitary products could not be flushed.

Waste Levy Contestable Fund – July –September 2020 *NPDC*

The RWMO has been working with the NPDC Commercial Waste Minimisation Officer to streamline the application process for the NPDC Waste Levy Contestable Fund. The application document has been redesigned to be accessible online. The new web page has been designed to outline the process clearly for business and community applicants who would like to access waste levy funding for waste minimisation projects. The levy funding round was open from 15 July to 14 August.

<https://www.newplymouthnz.com/Council/Community-Partnerships/Funding-and-Grants/Waste-Levy-Fund>



Application timeline:

- Applications open: 15th July 2020
- Applications close: 14th August 2020
- Approval process by evaluation panel: 15th August- 30th August 2020
- Notification of successful applicants: September 2020

The purpose of the NPDC Waste Levy Fund is to boost the district's performance in waste minimisation, by supporting local initiatives.

The project should benefit New Plymouth District and lead to measurable reductions in waste to landfill, or other waste improvements.

What will we fund?

Only waste minimisation projects are eligible for funding. Projects must promote or achieve waste reduction through initiatives that avoid, reuse, recycle or recover waste, or make use of resources diverted from landfill.

Funded projects include but are not limited to:

- Educational or behaviour change projects that promote waste minimisation activity to the public or a particular target audience.
- Infrastructure that helps divert resources from landfill.
- Projects focused on understanding existing waste quantities and composition, behaviour or economic incentives, as a precursor to effectively reducing waste and/or increasing reuse, recycling and recovery of waste materials.
- Design of product stewardship schemes or other solutions that promote and achieve waste minimisation.
- Other initiatives that contribute to the actions and strategic priorities of New Plymouth District Council and the NPDC Waste Management and Minimisation Plan.

Prepared by

Miss Jessica Dearden

REGIONAL WASTE MINIMISATION OFFICER



Date 20 August 2020

Subject: **Change to what plastics will be accepted for recycling**

Approved by: G K Bedford, Director - Environment Quality
M J Nield, Acting Chief Executive

Document: 2563824

Purpose

1. The purpose of this report is to outline the upcoming change to what plastics will be accepted for recycling in Taranaki.

Recommendations

That the Taranaki Solid Waste Management Committee:

- a) receives the memorandum and notes the upcoming changes to the acceptance of plastics for recycling.

Discussion

2. The New Plymouth District Council memorandum titled 'Change to what plastics will be accepted for recycling' is attached.

Decision-making considerations

3. Part 6 (Planning, decision-making and accountability) of the *Local Government Act 2002* has been considered and documented in the preparation of this agenda item. The recommendations made in this item comply with the decision-making obligations of the *Act*.

Financial considerations—LTP/Annual Plan

4. This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

5. This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks including, but not restricted to, the *Local Government Act 2002*, the *Resource Management Act 1991* and the *Local Government Official Information and Meetings Act 1987*.

Iwi considerations

6. This memorandum and the associated recommendations are consistent with the Council's policy for the development of Māori capacity to contribute to decision-making processes (schedule 10 of the *Local Government Act 2002*) as outlined in the adopted long-term plan and/or annual plan. Similarly, iwi involvement in adopted work programmes has been recognised in the preparation of this memorandum.

Legal considerations

7. This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

Appendices/Attachments

Document 2563827: Change to what plastics will be accepted for recycling



When replying please quote: 8347022

Date: 12 August 2020

To: **Taranaki Solid Waste Management Committee**

SUBJECT: **CHANGE TO WHAT PLASTICS WILL BE ACCEPTED FOR RECYCLING**

Purpose

The purpose of this report is to outline the upcoming change to what plastics will be accepted for recycling in Taranaki.

Background

1. Plastic Types

Plastic is primarily made from seven different types that are numbered 1 to 7 (including non-recyclable plastics) as detailed in Appendix 1. The type of plastic is usually stamped on the base of the packaging item in a triangle symbol. Demand, financial value and accessibility to recycling markets for the different types of plastic varies considerably. Plastic bottles, especially un-coloured bottles, achieve the best prices as they are easily recyclable (types 1 & 2). Coloured plastic is less desirable due to the inclusion of colour, which cannot be removed.

At the moment, the councils accept all plastic containers numbered 1 to 7 (excluding soft plastics, plastic bags, non-labelled plastics and expanded polystyrene).

The New Plymouth Material Recovery Facility (MRF) accepts recycling from the three district councils in Taranaki and commercial companies. At the MRF, plastic containers are sorted into higher value types (1 and 2), with the remaining lower value plastics (some coloured type 2, and types 3-7) placed into mixed plastic bales, all of which are then sent on to their final recycling destination.

In Taranaki plastic types 1 and 2 make up 11% of the total recycling stream (paper, cardboard, plastics, tin and aluminium) at the MRF, and mixed plastics (types 3-7) 3%. In New Zealand 70% of all single-use plastic containers used are type 1 and 2, and 15% are type 5. The remaining types of plastics make up 15%.

2. The Plastic Problem

Prior to 2018, 50% of the world's waste plastic was exported to China for recycling. Much of this material, particularly the mixed plastic bales, was highly contaminated with general waste or contained plastic that was unsuitable for recycling. This resulted in a rubbish disposal problem along with the associated environmental impact for China.



In August 2017, the Chinese Government announced their intention to restrict the importation of 24 categories of solid waste products from around the world including all plastics, because of environmental impacts and risks to public health. This National Sword policy came into effect 1 January 2018, with further restrictions in early 2019, which means China is no longer accepting imports of these solid wastes. The change has impacted the plastic and fibre (paper and cardboard) recycling industry worldwide and gained large amounts of media attention around the world turning the public's focus towards the often overlooked question of what happens to recyclables after they are accepted for processing.

Once the materials leave New Zealand shores there is no guarantee that these products will be recycled, let alone in an appropriate and sustainable manner. Harmful and inappropriate disposal practices have been uncovered by investigative journalists and environmentalists including burning, dumping in poorly managed landfills or littering into the environment where they can then enter the ocean and pose a risk to marine life and water quality.

In addition, new international requirements (under the Basel Convention) for the trade in plastic waste will come into effect on 1 January 2021. The Government is proposing amendments to the Imports and Exports Order to meet this international requirement. Under these amendments, imports and exports of most mixed plastic waste will require a permit making it more difficult to export mixed plastic for recycling internationally. Imports and exports of separated plastic waste suitable for recycling will not require a permit.

While there are markets and processing options both overseas and within New Zealand for plastic types 1, 2, and 5, international recycling options for mixed plastic are now non-existent and there are no processing facilities in New Zealand for these mixed plastic bales. As a result, the New Plymouth MRF has been stockpiling mixed plastic bales for 12 months, amounting to approximately 420 bales (about 300 tonnes).

The future of national and international recycling markets for mixed plastic is uncertain with no improvements likely in the foreseeable future.

Other options for plastic recycling are being investigated. Last year, a plastic asphalt mix road trial was undertaken in New Plymouth in collaboration with Downer and EnviroWaste Services Ltd. Based on that trial, further work has been done to improve the performance of the asphalt plastic mix and a second trial in Downers yard was completed in May 2020. While this option looks technically promising, it may not be economically viable, and it will not provide an immediate solution for the Taranaki region. Furthermore, the existing stockpiled material is no longer suitable for this option given the reduction in the quality of the plastic, mainly from the exposure to varying weather conditions.

The issues with recycling mixed plastic is not unique to Taranaki. A number of councils have made the decision to reduce the range of plastic types accepted as part of kerbside services. Of the 67 councils in New Zealand, about 55% do not accept plastic types 3, 4, 6, or 7. About 70% of councils accept type 5 plastics and all councils accept type 1 and 2 plastics.



Recycling our waste has always only been an interim solution. In order to make progress towards our vision of Zero Waste we need to engage with our community and support them so that they do not produce these types of waste in the first place. This will necessitate behaviour change including changes to purchasing and consumer habits, as well as focusing on minimising waste at the point of manufacture.

Discussion

Work is currently underway nationally to standardise kerbside collection methods and what recyclable items are accepted to help address these issues. Central Government also have a significant work plan in place to develop policies that drive a more circular economy utilising tools such as product stewardship, increase and expansion of the waste levy, container deposit schemes, and investment in regional resource recovery processing infrastructure. This is also likely to influence what will be recycled in the medium term.

New Plymouth, Stratford and South Taranaki District Councils considered proposed options for dealing with non-recyclable plastics and all three councils approved the option to accept plastic container types 1, 2 and 5 only through council kerbside collection and transfer station services in late July and early August (Table 1). The stockpile of mixed plastics will be landfilled.

Table 1 Date of council resolutions on options for plastic recycling

Council	Decision date
NPDC	21 July 2020
SDC	28 July 2020
STDC	10 August 2020

The three councils have since been collaborating on how to best communicate the change which comes into effect in early September.

A communications plan has been developed and collateral for a range of media platforms is currently being finalised and some examples are provided below. Where possible a regional approach is being used, and the Zero Waste Taranaki website will be the central point of information with links to individual council websites where any district specific information will be available. Information on the change will be available publically by the end of August.

The following key messages will be used in the campaign:

- Recycling is as easy as 1, 2, 5.
- We're adjusting our Taranaki-wide Zero Waste drive to weed out the small amount of problem plastics.
- From Monday 31 August, only put plastics 1, 2 and 5 in your kerbside recycling bin.
- New Plymouth, Stratford and South Taranaki district councils will no longer take the other plastics – 3, 4, 6 and 7 – as we can't recycle these problem plastics and they'll unfortunately have to go to the landfill.
- These problem plastics currently have no market to be recycled. This change is happening throughout New Zealand.
- Check the triangle when shopping – go for plastic numbers 1, 2 and 5, which are easily recycled in New Zealand. If in doubt, leave it out.



- It will be better for the environment and cheaper in the long-run if consumers avoid buying the problem plastics – types 3, 4, 6 and 7. Check out these simple swaps.
- The Zero Waste drive has proved popular with households conscientiously sorting their waste and sending 7,000 tonnes of mixed and glass recycling for recycling over the last 12 months, compared with 10,000 tonnes to landfill, as well as 1,100 tonnes of food scraps (NPDC only) for composting over the last nine months.



Envelope for resident's letter pack

What we are recycling is changing

✓ **Plastics that can be recycled**

1

Sandwich Packaging

2

Milk bottles

5

Margarine/ butter tubs

Clear takeaway food containers

Shampoo bottles

Ice cream tubs

Clear soft drink and water bottles

Cleaning product bottles (Remove trigger)

Large yoghurt containers

REMEMBER!

It's as easy as 1,2,5

Check the triangle

You can still recycle your clean glass, tins, aluminium, paper and cardboard as usual.

✗ Plastics that cannot be recycled

3

Some cracker and biscuit trays

4

Some sauce containers

6

Small dairy containers

7

Some fresh pasta and sliced meat containers

Compostable plastic

Soft / Scrunchable plastic packaging and film

Polystyrene

Small yoghurt containers

Coffee cups and lids

Liquid cartons

Plastics that have numbers 3, 4, 6 and 7

Lids less than 10cm in size

If in doubt leave it out!

To keep up to date go to newplymouthnz.com/Recycling or download the NPDC Recycling and Rubbish app from Google Play or Apple App Store

Ph: (09) 759 6060
enquiries@npdc.govt.nz
www.newplymouthnz.com

NPDC Information Flyer



Hangarua Recycling



✓ Yes please

 Paper & cardboard (Flattened and clean)	 Egg cartons	 Aluminium cans	 Tin cans (Labels can stay on)
 Plastic containers with numbers 1, 2 or 5 in a triangle	 Clear soft drink and water bottles (Labels can stay on)	 Milk bottles (Do not squash)	

REMEMBER!

- Empty and rinse out all your containers to remove liquids and food scraps. Dirty containers will go to the landfill.
- Remove lids and place them in the landfill bin. Labels can stay on.
- Make sure you check the bottom of your bottles/containers for the plastic recycling number. Avoid plastics with numbers 3, 4, 6 & 7.

 Ph: (06) 765 6099
stratforddc@stratford.govt.nz
www.stratford.govt.nz









SDC Information Flyer

The councils are also working with EnviroWaste Services Ltd to ensure that any contractual and process changes for council services are implemented prior to the change i.e., how recycling contamination will be dealt with at the kerbside, any changes to the processing plant at the Materials Recovery Facility, and transfer station recycling bin labelling.

Kimberley Hope
MANAGER RESOURCE RECOVERY



Appendix 1 Types of plastic¹

SYMBOL	TYPE OF PLASTIC	PROPERTIES	COMMON USES
 PET	PET Polyethylene Terephthalate	Clear, tough, solvent resistant, barrier to gas and moisture, softens at 70°C	Soft drink and water bottles , salad domes, biscuit trays, salad dressing and peanut butter containers, fleece clothing and geo-textiles
 HDPE	HDPE High Density Polyethylene	Hard to semi-flexible, resistant to chemicals and moisture, waxy surface, opaque, softens at 135°C, easily coloured, processed and formed	Crinkly shopping bags, freezer bags, milk bottles , ice cream containers, juice bottles, shampoo, chemical and detergent bottles, buckets, rigid agricultural pipe, milk crates
 PVC	PVC Unplasticised Polyvinyl Chloride PVC-U Plasticised Polyvinyl Chloride PVC-P	Strong, tough, can be clear, can be solvent welded, softens at 75°C Flexible, clear, elastic, can be solvent welded	Cosmetic containers , electrical conduit, plumbing pipes and fittings, blister packs, wall cladding, roof sheeting, bottles Garden hose, shoe soles, cable sheathing, blood bags and tubing, watch straps, commercial cling wrap
 LDPE	LDPE Low density Polyethylene LLDPE Linear low density Polyethylene	Soft, flexible, waxy surface, translucent, softens at 80°C, scratches easily	Cling wrap , rubbish bags, squeeze bottles, black irrigation tube, black mulch film, rubbish bins, shrink wrap
 PP	PP Polypropylene	Hard but still flexible, waxy surface, softens at 145°C, translucent, withstands solvents, versatile	Dip pottles and ice cream tubs, potato chip bags, straws, microwave dishes, kettles, garden furniture, lunch boxes, blue packing tape, automotive parts
 PS	PS Polystyrene	Clear, glassy, rigid, brittle, opaque, semi-tough, softens at 95°C. Affected by fats and solvents	CD cases, plastic cutlery, imitation 'crystal glassware', low cost brittle toys, video cases, water station cup , safety helmets
 EPS	EPS Expanded Polystyrene	Foamed, light weight, energy absorbing, heat insulating	Foamed polystyrene hot drink cups, hamburger take-away clamshells, foamed meat trays , protective packaging for fragile items, insulation, insulation panels
 OTHER	OTHER Letters below indicate ISO code for plastic type including SAN (styrene, acrylonitrile), ABS (Acrylonitrile butadiene styrene), PC (polycarbonate), Nylon, degradable plastic e.g. PLA	Includes all other resins, multi materials (e.g. laminates) and degradable plastics. Properties dependent on plastic or combination of plastics	Packaging , car parts, appliance parts, computers , electronics, water cooler bottles, medical devices,

¹ Downloaded from <https://www.plastics.org.nz/images/documents/PDFs/pnz-id-code-web-2009-1.pdf>



Date 20 August 2020

Subject: **Regional behaviour change strategy**

Approved by: G K Bedford, Director - Environment Quality
M J Nield, Acting Chief Executive

Document: 2563843

Purpose

1. The purpose of this memorandum is to present the draft Regional Behaviour Change Strategy.

Recommendations

That the Taranaki Solid Waste Management Committee:

- a) receives the memorandum and
- b) notes and ratifies the Regional Behaviour Change Strategy.

Discussion

2. The Regional Behaviour Change Strategy is attached.

Decision-making considerations

3. Part 6 (Planning, decision-making and accountability) of the *Local Government Act 2002* has been considered and documented in the preparation of this agenda item. The recommendations made in this item comply with the decision-making obligations of the *Act*.

Financial considerations—LTP/Annual Plan

4. This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

5. This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks

including, but not restricted to, the *Local Government Act 2002*, the *Resource Management Act 1991* and the *Local Government Official Information and Meetings Act 1987*.

Iwi considerations

6. This memorandum and the associated recommendations are consistent with the Council's policy for the development of Māori capacity to contribute to decision-making processes (schedule 10 of the *Local Government Act 2002*) as outlined in the adopted long-term plan and/or annual plan. Similarly, iwi involvement in adopted work programmes has been recognised in the preparation of this memorandum.

Legal considerations

7. This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

Appendices/Attachments

Document 2563854: RWMO cover memo to the Regional Behaviour Change Strategy

Document 2563863: The Regional Behaviour Change Strategy



When replying please quote: **ECM 8346857**

Date: 11 August 2020

To: **Taranaki Solid Waste Management Committee**

SUBJECT: REGIONAL BEHAVIOUR CHANGE STRATEGY

Purpose

The purpose of this memorandum is to present the draft Regional Behaviour Change Strategy.

Recommendation

That the Taranaki Solid Waste Management Committee:

1. Receives this memorandum
2. Notes and ratifies the Regional Behaviour Change Strategy.

Background

A Regional Education Strategy was ratified by the Taranaki Solid Waste Management Committee in 2013 and an annual education plan based on this strategy has been implemented and reported on annually since.

A key action of the current Waste Management and Minimisation Plans for the three district councils is the provision of targeted education programmes that result in behaviour change, based on best practice behaviour change practices. Given the slight shift in focus to include a wider behaviour change scope, and updated branding, it was considered timely to review and update the strategy to ensure a regionally coordinated, best practice approach to our education programmes is implemented going forward, and monitored for effectiveness and continuous improvement.

Discussion

The three councils (STDC, NPDC and SDC) have drafted a Regional Behaviour Change Strategy (RBCS) to enable future coordination of Zero Waste behaviour change programmes across the region. The draft strategy is provided in Appendix 1.

The aim of the strategy is to outline how the three district councils, alongside the Taranaki Regional Council will facilitate and enable positive and effective behaviour change across our communities, so that collectively our communities can achieve our Zero Waste Taranaki vision.

This strategy is designed to provide a framework for education and community engagement initiatives and projects that support both existing and new waste minimisation services and infrastructure, as well as legislation and policy changes at the local and national level.

This will be a tool to be referred to when promoting and designing behaviour change projects, plans, programmes and events, outlining our goals, regional approach to



Te Kaunihera-ā-Rohe o Ngāmotu

**New Plymouth
District Council**

Taranaki Solid Waste Management Committee - Regional Behaviour Change Strategy



community engagement in Zero waste,
measure the effectiveness of our programmes.

and how we will

The strategy will link to our Regional Education Plan that will be developed and reported on annually. The July 2020 - June 2021 Education Plan is in the process of being finalised and will be reported to the committee at the next meeting.

Prepared by

Miss Jessica Dearden

REGIONAL WASTE MINIMISATION OFFICER

Appendix 1 Draft Regional Behaviour Change Strategy

Just a fill in header page. Note: Kimberley to Discuss WA template with Helen

Regional Behaviour Change Strategy

2020 DRAFT

SOUTH TARANAKI DISTRICT COUNCIL | STRATFORD DISTRICT COUNCIL |
NEW PLYMOUTH DISTRICT COUNCIL

Regional Behaviour Change Strategy (RBCS) 2020 – 2025

Executive Summary

As a region, the Councils' focus is on working towards Zero Waste and developing a Circular Economy¹, in an attempt to address waste both at the product's source and at the end of its lifecycle. This is in line with the New Zealand Ministry for the Environment national approach.

This Regional Behaviour Change Strategy outlines how South Taranaki District Council, Stratford District Council and New Plymouth District Council will facilitate and enable positive behaviour change across our communities, so that collectively our communities can achieve the Zero Waste Taranaki vision.

This RBCS will be operative until 2025, will focus on all sectors, and will align with events, infrastructure and policy changes to maximise effectiveness.

This strategy is designed to provide a framework for education and community engagement initiatives that support both existing and new waste minimisation services and infrastructure, as well as legislation and policy changes at the local and national level.

The RBCS will be a tool to be referred to when promoting and designing behaviour change projects or strategies, outlining our goals, establishing a regional approach to community engagement in Zero Waste, and how we will measure the effectiveness of our programmes.

¹ Circular economy concepts: <https://www.mfe.govt.nz/waste/circular-economy>

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1 Background

New Plymouth District Council (NPDC), South Taranaki District Council (STDC) and Stratford District Council (SDC) have a collaborative approach to waste management and minimisation within the Taranaki region, and work alongside the Taranaki Regional Council (TRC).

As a region, the Councils' focus is on working towards Zero Waste and developing a Circular Economy², in an attempt to address waste both at the product's source (its point of creation/purchase) and at the end of its lifecycle. This is in line with the New Zealand Ministry for the Environment (MfE) national approach.

The concept at the heart of a Circular Economy is ensuring we can unmake everything we make¹. Essentially keeping resources in use for as long as possible thus extracting the maximum value from them whilst in use. Then recover and regenerate products and materials at the end of each service life³. Reaching Zero Waste would mean that no rubbish is disposed to landfill, due to extremely high levels of resource efficiency, re-use, recycling, and re-purposing⁴. The Zero Waste concept is being developed and rolled out in countries around the world⁵, including many districts and regions within New Zealand.

The MfE provides a range of high-level direction, tools and legislation to manage and minimise waste in New Zealand⁶. Local Territorial Authorities (TAs) have a statutory obligation to actively encourage a reduction in the amount of waste generated within their respective territories.

Waste practices and habits within the community are influenced by social, economic and cultural factors, i.e., what decisions are made when buying products, understanding the complex societal dynamics around waste creation, and ensuring our communities understand how and why there is a need to focus on waste minimisation is a key step in enabling behaviour change. Facilitating and measuring the outcomes from behaviour change around waste minimisation is an integral part of achieving the targets from each Councils' Waste Management and Minimisation Plan (WMMP).

As TA's we have clearly identified that there is a need to develop and better measure the outcomes of our current regional education programme, so that we can engage more effectively with businesses, schools, mana whenua and communities. It is important to also note our connections at local, regional and national levels come with a wealth of knowledge and experience that allow for greater collaboration and effective partnerships.

² Circular economy concepts: <https://www.mfe.govt.nz/waste/circular-economy>

³ Circular economy concepts: <https://www.mfe.govt.nz/waste/circular-economy>

⁴ National Geographic; 25 places that have committed to going Zero Waste:

<https://www.nationalgeographic.com/travel/lists/zero-waste-eliminate-sustainable-travel-destination-plastic/>

⁵ National Geographic; 25 places that have committed to going Zero Waste:

<https://www.nationalgeographic.com/travel/lists/zero-waste-eliminate-sustainable-travel-destination-plastic/>

⁶ Waste management in NZ: <https://www.mfe.govt.nz/waste>

Behaviour change is the corner stone of successfully implementing sustainability and/or waste minimisation processes⁷. When people change their behaviours, it affects how they view themselves within their communities and society⁸.

This in turn changes how people act in regard to waste production, and can significantly affect community support for a campaign or a policy change. We now know that simply providing knowledge and education opportunities is not enough in itself to foster behaviour change or effect positive waste minimisation outcomes⁹. For this to occur, encouraging and enabling residents and communities to form and practice new habits around waste management and minimisation is key.

This RBCS identifies how we can improve and measure the outcomes from our behaviour change and education programmes for residents, organisations and businesses, and how we can successfully instil new habits and behaviours that will have a positive impact on waste reduction.

2 Our Vision: Zero Waste Taranaki

The Taranaki region has an aspirational goal to work towards Zero Waste, whereby waste becomes a resource, and all products and processes are redesigned with a circular lifecycle. To achieve this, we need to ensure our communities focus on the whole-of-life sustainability of products they purchase or consume, and endeavour to stop the creation of waste at its source.

We need to go beyond providing basic knowledge about waste, and instead focus on fostering and enabling behaviour change alongside our partner organisations, through a combination of improved waste infrastructure, accessible services and facilities, and the implementation of community programmes and initiatives that are targeted and accessible for everyone in our communities.

Our vision is that Taranaki will be a region where residents, businesses, education facilities and organisations are encouraged and supported to take responsibility for transforming their consumption and production of waste. They will feel empowered to actively participate in a Circular Economy.

⁷ Fostering Sustainable Behaviour, 2011: [Fostering_sustainable_behavior_dmm.pdf](#)

⁸ Author: Doug Mckenzie-Mohr PH. D, 'Fostering Sustainable Behaviour' An introduction to Community-Based Social Marketing, Third Edition,(2011).

⁹ Author: Doug Mckenzie-Mohr PH. D, 'Fostering Sustainable Behaviour' An introduction to Community-Based Social Marketing, Third Edition,(2011).

Specific details on each council’s current waste situation, and waste minimisation targets and goals are outlined in their WMMPs, as follows:

New Plymouth District Council	https://www.newplymouthnz.com/Council/Council-Documents/Plans-and-Strategies/Waste-Management-and-Minimisation-Plan
South Taranaki District Council	https://www.southtaranaki.com/our-services/rubbish-and-recycling/waste-management-and-minimisation-plan
Stratford District Council	https://www.stratford.govt.nz/council/documents-publications/plans-reports-strategies

3 Purpose of the Strategy

This Regional Behaviour Change Strategy (RBCS) outlines how the three district councils (NPDC, SDC and STDC) will facilitate and enable positive behaviour change across our communities, so that collectively our communities can achieve the Zero Waste Taranaki vision.

This document outlines the methods and actions we will take to achieve and measure this behaviour change, through the delivery of targeted education based on research, best practice and the Principles of Effective Behaviour Change (Section 5.1).

This RBCS will be operative until 2025, will focus on all sectors, and will align with events, infrastructure and policy changes to maximise effectiveness.

Creating long term behaviour change relies on a combination of policy, infrastructure and education. This strategy is designed to provide a framework for education and community engagement initiatives that support both existing and new waste minimisation services and infrastructure, as well as legislation and policy changes at the local and national level.

4 Strategy Goals

1. Shift the focus higher up the Waste Hierarchy

The waste hierarchy (Figure 1) directs and guides our goals for Zero Waste initiatives, from the most preferred behaviour (Avoid) to the least preferred behaviour (Dispose).

This Behaviour Change Strategy will focus on promoting the first five levels of the hierarchy, leaving ‘treat’ and ‘dispose’ to be disincentivised and preferably used only as a last resort.

The waste hierarchy (Figure 1) refers to the preferred order of waste minimisation and management methods. Avoiding waste is the preferred method for reducing waste while disposal is the least preferred.

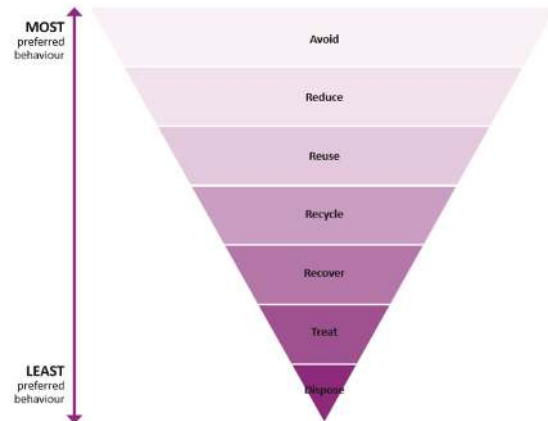


Figure 1 Waste hierarchy

The majority of people generally focus on recycling as being the core focus for reducing waste to landfill. However, the recent downturn in global markets for recycling has created a lack of infrastructure to process many previously recyclable items, and has highlighted that recycling alone is not the answer to becoming Zero Waste.

Communities need to be supported and enabled to move up the waste hierarchy, focusing on avoiding, reducing and reusing resources from the point of creation/purchase onwards. The Behaviour Change Strategy will guide communities on how they can shift up the waste hierarchy, and will ensure our programmes facilitate long-term behaviour change to sustain this shift.

2. Reduce waste to landfill

The disposal of waste to landfill is costly, both from an economic and environmental point of view. While there is a need for safe waste disposal where there is no other alternative, landfilling results in the permanent loss of valuable and often re-usable finite resources. The availability of landfilling at low cost promotes a linear approach to the management of waste.

With the increasing cost of landfilling, and engaging effectively with the community as to the “why”, we can disincentivise the disposal of waste to landfill, and promote increased re-use and re-purposing of waste across our communities. The removal of organic waste from landfill by encouraging communities to participate in composting food and organic wastes because of the benefits to our carbon footprint and the recycling of nutrients back into the soil is a good example of this approach.

3. Promote a Circular Economy and Zero Waste to align with national initiatives.

A key focus of our behaviour change programmes will be helping the community to understand the concepts of Zero Waste and the Circular Economy, and how they play an integral part in making these changes.

This links back to the national priorities for New Zealand and will be particularly important within businesses, through changing supply chain practices and how products and services are designed and distributed.

Currently, our society is built around a “take-make-dispose” mind-set, which has created a linear economy. A Circular Economy is an alternative to the traditional linear economy in which we keep resources in use for as long as possible, extract the maximum value from them whilst in use, then recover and regenerate products and materials at the end of each service life¹⁰ (Figure 2).



Figure 2 Comparison between a linear and Circular Economy¹¹

4. Facilitate effective and measurable behaviour change outcomes

Alongside work to shift our communities thinking and practices to the higher levels of the Waste Hierarchy and towards a Circular Economy, we will need to focus behaviour change efforts on alternatives to particular ‘problem products’ and key waste streams that need to be reduced. For example, single use products, non-recyclable packaging and hard-to-recycle plastics, organic and compostable waste, and mixed construction and demolition waste are key waste streams to focus behaviour change efforts on in order to see a transformational shift in the amounts of waste we send to landfill.

¹⁰ <https://www.mfe.govt.nz/waste/circular-economy>

¹¹ <https://www.mfe.govt.nz/waste/circular-economy>

A more strategic and tailored approach to our behaviour change programmes, based on what specific target communities empathise with or experience, will improve the overall effectiveness of our education programmes and drive greater change.

Developing consistent measuring and monitoring tools will help us assess and measure how effective our programmes are, and will also ensure we continuously improve how we engage and work with our communities.

5. Support the provision or development of effective and accessible services, facilities and infrastructure

To successfully develop and implement new services, facilities and infrastructure over time as outlined in each councils' WMMPs, requires community support. This can be achieved through effectively engaging with and educating people about their availability, access and ease of use.

The promotion of existing and new infrastructure as part of our behaviour change programme will ensure the use of our services is maximised to better align with our Zero Waste goal, and our WMMPs.

6. Recognise, support and showcase the implementation of best practice Zero Waste and Circular Economy solutions to help influence social norms

By recognising those that are leading Zero Waste and Circular Economy practices in our communities, we can help influence social norms around waste.

By leveraging our partner and stakeholder networks, and engaging and collaborating with key stakeholders, we can expand our reach and engage with new communities and also identify new opportunities and innovative solutions within our local communities.

Positive action in our workplaces and homes is also a great way to engage others and demonstrate what is achievable through personal leadership.

5 How will we achieve our goals?

To achieve the goals of this strategy and create pragmatic and measurable solutions for waste minimisation in our communities, we need to ensure alignment with national changes, policies and legislation.

Councils will continue collaborating and forming partnerships with key stakeholders and community groups, actively demonstrate best practice community leadership, and implementing new technologies and innovation to upgrade our current services and facilities to meet the growing demand for better resource recovery.

To facilitate effective behaviour change, careful consideration needs to be given to our programme development. Behaviour change programmes are often based on guesswork, rather than information and facts regarding the barriers to uptake and behaviour change benefits for specific groups or the community more widely.

Behaviour change methods should be based on knowledge of social sciences and information about the make-up of our communities, so that we can effectively facilitate behaviour change, through informed, targeted programme design.

The following sections outline the overall approach to developing a Behaviour Change Programme that will help us achieve the strategy's goals.

5.1 Adopt best practice principles of effective behaviour change¹²

To achieve the strategy goals, and facilitate positive behaviour changes in our communities, we need to:

1. **Identify** a specific focus and the reasons, including barriers and benefits, behind existing waste creation behaviours;
2. **Tailor programmes and seek partnerships** with communities in a way that engenders and empowers positive behaviour changes in relation to reducing waste going to landfill;
3. **Investigate** alternative and varying ways of engaging with specific communities who may not have felt enabled to be engaged in previous programmes;
4. **Rely on data, not just assumptions:** incorrect assumptions alongside unrealistic expectations are among the main reasons why many activities/programmes are ineffective;
5. **Adopt** a theme-based approach to behaviour change and programmes that aligns with the three councils' WMMP priorities.
6. **Align** behaviour change and programmes with upcoming changes in waste management infrastructure and/or council policies;
7. **Monitor and reflect on** how to improve the effectiveness of behaviour change programmes.

¹² Principles of Effective Behaviour Change - Application to Extension Family Educational Programming: <https://www.joe.org/joe/2008october/a2.php>

This strategy will use Fostering Sustainable Behaviour Strategy¹³ and The Ministry for the Environment Zero Waste Strategy for Councils¹⁴.

5.2 Take an Integrated Approach

The three district councils and Taranaki Regional Council will continue to work collaboratively on actions towards Zero Waste within the Taranaki region alongside alignment with operational contracts (i.e. regional kerbside collection contract) and regional facilities (Recycling Material Recovery Facility).

To maximise efficiency and effectiveness, where possible the behaviour change programmes will:

- Use regional branding and key messages;
- Adopt region wide education campaigns and waste minimisation initiatives;
- Be planned in advance where possible to allow for best practice design upfront;
- Maintain a regional website to provide a central reference point for all information that can be referred to in communication;
- Utilise current stakeholder and partner networks and foster new networks within the community.

The councils will work together with key stakeholders and community groups to ensure that we deliver a holistic solution to the Zero Waste vision that sensitively accounts for each demographic within our community. This will enhance our reach and effectiveness by building capability and Zero Waste champions within our community.

An events calendar designed in conjunction with this strategy will outline all planned projects and dates in advance. Councils will promote the events calendar to encourage their residents and communities to take part in waste awareness days (such as Earth Day, Clean-up week, Conservation week etc).

In addition, the three councils collaborate with other territorial authorities from around New Zealand to discuss implementation of Zero Waste projects. The councils are also regularly involved with national WasteMinz projects that promote consistency in waste management practices and campaigns across the country.

5.3 Identify opportunities

The following collaboration opportunities will be used as required:

- **Networking:** Our community is already highly engaged in Zero Waste and sustainability, which provides an opportunity on which further widespread change can be facilitated and catalysed.
- **Collection of Data:** accurate data on key waste streams, and update or response to behaviour change programmes will provide insight into barriers and benefits to behaviour change, and whether our programmes are actually producing the desired outcomes.

¹³ Author: Doug McKenzie-Mohr PH. D, 'Fostering Sustainable Behaviour' An introduction to Community-Based Social Marketing, Third Edition,(2011).

¹⁴ MFE, 2003: [Zero Waste Strategy for Councils](#)

- **Alignment** with the [central government work programmes](#) for waste and resource recovery which will provide opportunities to implement new [waste minimisation initiatives](#) that our strategy can support and leverage off.

5.4 Engage with Zero Waste key stakeholders

Changing behaviours to achieve Zero Waste relies on our ability to reach people and our communities. This involves working with a number of stakeholders that reach the different demographics.

A regional stakeholder contact register will be developed and maintained including (but not limited to) the following key groups:

- Waste levy recipients;
- Charities & not for profit organisations;
- Contractors and waste service providers;
- Iwi & Marae;
- Schools and learning institutes;
- Waste education service providers;
- Business and commercial organisations;
- Rural communities;
- National government and professional bodies;
- Other local authorities.

5.5 Define our target communities

All behaviour change initiatives will identify the target community/s during the planning phase and develop collateral that will effectively engage with these communities. At the high level initiatives will engage with residential, business, education, Iwi, clubs or public sector groups, but further definition of sub communities may be required to ensure effective engagement.

5.6 Provide consistent branding and communication

5.6.1 Branding

To increase recognition of our efforts, and promote our waste minimisation and behaviour change programmes, we have worked with design specialists to develop regional branding to unify our Zero Waste messaging and initiatives.



This should be used for all communications. Councils will use an internal style guide to ensure consistency across campaigns.

A derivative of this brand has also been developed for Zero Waste Events - Toitupu Toiora – Taranaki Green Initiative.

For bins, in our Zero Waste Taranaki Style Guide we have agreed bilingual labels, icons and colours that we use consistently, from the nationally developed WasteMinz guide.



5.6.2 High level communication principles

The following principles will be incorporated into behaviour change initiatives:

- Common Zero Waste messaging for highlighting our “shift up the waste hierarchy” approach;
- Positive approach (not scolding, not punitive), objective statements and call to action;
- Highlighting good news stories, but also, conversely highlighting when things go bad – e.g., showing pictures of contaminated recycling so residents understand what we mean;
- Using recognisable faces and voices that are known and trusted locally to tell our story;
- Providing clear information and telling the story for improved understanding of our waste processes – i.e. where does our recycling go after the bin is emptied?;
- Promoting the “team” approach as a community – i.e. “together we...”;
- Regular and pre-planned circulation of information on best practice (e.g. standardisation of recycling) and national campaigns (e.g. Recycle Week);
- Use of the Zero Waste Taranaki website as a central information hub.

6 Strategy targets

6.1 Waste Management and Minimisation Plan Targets

Each district’s WMMP outlines key targets that will be used to monitor progress, over the six-year term of these plans, and also towards our longer term aspirational goal of Zero Waste. The WMMPs also outline an action plan to achieve these targets.

A selection of targets or actions from each council's WMMP are presented in Table 1.

Table 1 Summary of key targets in council Waste Management and Minimisation Plans

Target/Action	NPDC	SDC	STDC
Reduce the total waste volume per capita that goes to landfill	10% by 2023	0.71t/household/year	5% by 2023 (from district)
Reduce the total waste volume per household going to landfill from the council kerbside collection	25% by 2023	0.46T/household/year	5% by 2023
Increase the volume of household waste diverted to recycling by 1% per year (Council kerbside service only)	Increase by 1% per year	Increase to 29% by 2023	Increase by 1% per year
Volumes to landfill remain below any increase in regional economic performance	< increase in GDP	< increase in GDP	< increase in GDP
Reduce contamination of Council kerbside recycling to 8% or less	≤8%	8%	8%
Waste community engagement survey completed every 2 years	Biennial	Biennial	N/A
Implement a targeted education programme which will result in behaviour change	No target but in action plan	1 per year	1 per year
Employ a Regional Waste Minimisation Officer	RWMO employed	RWMO employed	RWMO employed
Deliver composting workshops and initiatives	6 per year	N/A	No target but in action plan
Undertake, participate and fund regional and national research and programmes based on sustainable behaviour and practices.	No target but in action plan; Contribute to national TA collaborative fund	No target but in action plan	No target but in action plan
Promote organisations and facilities that contribute to the goals of the WMMP through case studies, charity and reuse shops; social media	No target but in action plan	No target but in action plan	No target but in action plan

6.2 Strategy specific targets

The following regional targets have been identified to monitor the success of our strategy goals:

Goal	Targets	Monitoring / measurement
Shift the focus higher up the Waste Hierarchy	<ul style="list-style-type: none"> - Number of campaigns or initiatives promoting the first three levels of the hierarchy (avoiding, reducing and reusing resources) exceed those focussed on recycling, recovery and disposal. 	<ul style="list-style-type: none"> - Education Plan completed annually and reported to TSWMC - Number of campaigns or initiatives in each hierarchy level.
Reduce waste to landfill	<ul style="list-style-type: none"> - Aligned with Targets 1-4 from WMMP section above. 	<ul style="list-style-type: none"> - Landfill waste and recycling data. - Number of people / organisations reached / visits
Promote a Circular Economy and Zero Waste to align with national initiatives	<ul style="list-style-type: none"> - Two regional campaigns promoting Zero Waste or Circular Economy initiatives per year. - Biennial regional behaviour change survey shows increasing awareness of Circular Economy and Zero Waste principles survey to survey. 	<ul style="list-style-type: none"> - Review two campaigns in relation to Zero Waste and / or Circular Economy initiatives - Undertake behaviour change survey every two years
Facilitate effective and measurable behaviour change outcomes	<ul style="list-style-type: none"> - One large scale community campaign / event per year that starts conversations, educates or enables our communities to avoid, reduce, re-use, recycle. - New campaigns identify targets and measures for success during planning and 80% of targets are achieved and reported on following the campaign. - Biennial behaviour change survey shows an increase in behaviour change in the community (measures to be determined in first survey) between each survey. - Of those surveyed 50% make a change as a result of the campaign/initiative. Increase percentage to 75% in second year - Demonstrable statistical correlation between our behaviour change programmes and waste minimisation outcomes (e.g., being able to 	<ul style="list-style-type: none"> - Education Plan identifies specific targets and monitoring tools and programme is evaluated against targets. - Review cost of campaign against target population - Monitoring of cost effectiveness of campaigns - Waste and recycling data by district and region - Social media engagement / posts (where applicable)

Goal	Targets	Monitoring / measurement
	<p>show a decrease in contaminated recycling correlated with active campaigns we are running);</p> <ul style="list-style-type: none"> - An analysis of the cost-effectiveness of dollars spent per annum per event or workshop, against the real-world waste minimisation outcomes from our campaigns and initiatives. 	
<p>Support the provision or development of effective and accessible services, facilities and infrastructure</p>	<ul style="list-style-type: none"> - Council facilities or services are used by an increasing number of people year on year? - Development or upgrading of new or existing services, facilities and infrastructure in line with our WMMPs are accompanied by a community engagement / education plan. 	<ul style="list-style-type: none"> - Number of people / organisations reached / visits - Record upgrades and changes in services.
<p>Recognise, support and showcase the implementation of best practice Zero Waste and Circular Economy solutions to help influence social norms</p>	<ul style="list-style-type: none"> - Number of active collaboration and partnership projects with key stakeholders and community groups increases year on year. - Two case studies promoting local leaders in waste minimisation to be completed per year and promoted on Zero Waste Taranaki website. 	<ul style="list-style-type: none"> - Record in annual education plan - Review case studies

7 Action Plan

7.1 Annual education plan

An annual education plan will outline the key actions that will be implemented during the year. This plan will be reported to the Taranaki Solid Waste Management Committee early in the year (July / August) and implemented throughout the year.

Our previous/current waste minimisation programmes have included (but are not limited to):

- **International trends** - Research on current waste issues - research and news worthy stories that promote a Circular Economy or Zero Waste theme.
- **Community education campaigns** - to promote and incentivise recycling initiatives and educate residents on the methods of proper recycling and awareness around contamination.
- **Campaigns for national initiatives** led by central government and WasteMINZ, i.e. Plastic Free July and Love Food Hate Waste.
- **Regional business initiatives** – for example reusable cups in local cafes.
- **Community workshops** - for the promotion of Zero Waste living and alternatives to single-use disposable products i.e. zero waste parenting and how to reduce food waste in the home.
- **School and educational initiatives** - based on Zero Waste education principles – for pre-school, primary, secondary and tertiary level.
- **Annual events** - Agrecovery one stop shops for farmers to deal with waste disposal.
- **Zero Waste events** – collateral and infrastructure to support organics, recycling and glass separation at events to minimise waste.
- **Development of the Zero Waste Taranaki website** (<https://www.zerowastetaranaki.org.nz/>), mobile apps and printed resources for information and support for the community, schools and businesses of Taranaki.

Behaviour change programmes will be planned using the template in Appendix **Error! Reference source not found.** The following table sets out the approach to ensure best practice design principles are used.

Step 1	Step 2	Step 3	Step 4	Step 5
<i>Behaviour</i>	<i>Audience</i>	<i>Barrier/Motivators</i>	<i>Actions</i>	<i>Activities/programmes</i>
What is the behaviour we want to promote around waste	Who needs to practice the behaviour and who is	What are the main barriers and motivators to adoption of the	What do our behaviour change activities need to achieve to address the	Which activities will your team implement to motivate people and reduce the barriers?

minimisation and management?	influencing the behaviour?	promoted behaviour?	identified barriers?	
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7.2 Our Themes

We will identify themes and prioritise these in education programmes on an annual basis through an education plan. These will be drawn from WMMPs, and include priority waste streams, areas of community concern, key issues impacting on efficiency of services, and changes in the industry.

The following key themes or issues have been identified and where on Waste Hierarchy behaviour change could focus. Further themes to be identified as required.

Waste stream / issues	Waste hierarchy
Reducing recycling contamination	Reuse/reduction/recycle
Commercial and business waste	Avoid/reduce/recycle/recover
Residential Waste	Avoid/reduce/recycle/recover
Organic waste/composting	Reduce/recover
Illegal dumping and littering	Disposal
Avoiding single use packaging and products	Avoid
Public place recycling bins	Recycle

8 How do we measure success?

There are a number of ways to measure the success of our behaviour change programmes. Monitoring can encompass both overall performance of all our programmes i.e. through regular large-scale benchmarking surveys of our communities, repeated on a regular basis with key questions, so that we can compare progress over time, or they can be specific to a particular project or campaign.

This section outlines some of the monitoring tools that can be used for either situation. Specific outcome monitoring and targets should be defined within the action plan for a particular theme or project. This section also outlines what overall measures we will use to monitor our behaviour change programmes.

8.1 Monitoring overall performance

The following list outlines monitoring of waste reduction and minimisation overall, based on the targets outlined in Section 6.1.

- Annual reporting on WMMP targets to the Taranaki Solid Waste Management Committee.
- Undertaking a behaviour change survey every two years, with the baseline survey completed in 20/21.
- Quarterly analysis of correlation between our behaviour change programmes and our desired behaviour change outcomes, such as reduced waste to landfill and/or increased recycling volumes/weights.
- Quarterly analysis of the cost-effectiveness of our behaviour change programmes.
- Annual council satisfaction surveys.

8.2 Monitoring tool kit

The following tools can be utilised for specific programmes as required:

- Pre- and/or post-event/programme and behaviour change outcome surveys (i.e. zero waste event hire; school questionnaire – e.g., has the participant’s behaviour actually changed since the event?);
- Survey Monkey; template of key questions that need to be covered in surveys;
- Quarterly calendar of activities correlated with trends in waste and recycling data by district and region;
- Monitoring of trends in waste related service requests, compliments and complaints;
- Waste audits by district and region; Solid Waste Analysis Protocol composition surveys;
- Number of people reached / visits / participating;
- Data reporting requirements (i.e. internal reports, Waste Levy reporting etc);
- Estimates of waste diversion by district and region;
- Web interactions or website visits or clicks;
- Use of particular services; social media engagement / posts.

9 Appendices

9.1 Action plan template:

Behaviour Change education Opportunity-	Recycling Contamination Campaigns: "Keep it Clean"	Providing public recycling and event bins: Toitupu Toiora	Zero Waste Education
Theme:	Recycling	Avoid/ Reuse/Reduce/Recycle	Avoid/ Reuse/Reduce/Recycle
Aim of the activity/project - what bridges to activity/project is it addressing?			
RBCS Council Target/Goal: Best practice Principles 6.1:			
Time Frame/ frequency:	Annually	Seasonally	Annually
Where will this happen?			
Behaviour Change:			

<p>What is the behaviour we want to promote around Waste Minimisation and Management?</p>			
<p>Target Audience:</p> <p>Who needs to practice the behaviour and who is influencing the behaviour?</p>			
<p>Barriers/Motivators:</p> <p>What are the main barriers and motivators to adoption of the promoted behaviour?</p>			
<p>Action plan based on removal of barriers:</p> <p>What do our behaviour change activities need to achieve to address the identified barriers?</p>			

<p>Activities/programmes:</p> <p>Which activities will your team implement to motivate people and reduce the barriers?</p>			
<p>Tool kit</p>			
<p>Stakeholders/Partnership:</p>			
<p>Resources required</p>			
<p>Budget</p>			
<p>Monitoring:</p> <p>How will we monitor success?</p> <p>Reporting time line</p>			

9.2 Key principles of Community Based Social Marketing (Mackenzie-mohr, 2011) and behaviour change strategies¹⁵

When preparing a project proposal check whether the description of behaviour change activity/programmes includes information about:

The aim of the activity/Programme– what Bridges to Activities is it addressing? (for example, “In order to improve community’ use of food scraps bin, the project will ...”)

- What will be done?
- Who will participate in the activity? (which and how many people)
- By whom will it be done?
- How frequently will it happen?
- Where will it happen?
- Which approach or well-known methodology will be used?
- What materials will be used (for communicating messages, practicing promoted behaviours ...)
- if space allows, start the description of your activity with 2-3 sentences laying out the issue the activity aims to address – it often helps people to understand why you propose the given activity.

Tools to influence behaviour change

There are five keys areas for action in engendering behaviour change, all of which need to be utilised in order to be effective (Table 1: from MFE, 2003¹⁶):

Action area	Explanation	Significance
1. Direction action	Initiatives that deal directly with the waste stream, such as kerbside recycling schemes, the provision of public recycling drop off facilities, or the operation or commissioning of large-scale composting facilities.	Material is physically diverted from the waste stream, providing practical solutions for the community and potentially enabling other businesses and initiatives to be established. This demonstrates that waste reduction is practical, and Council is seen to be leading the way and practising what it preaches.
2. Changing the rules	The types of incentives and disincentives that are in place are the “rules of the game”. These include economic incentives and disincentives such as the container deposit schemes and landfill levy, as well as laws and regulations.	Even with the best of intentions, the best education and communication and a highly motivated population, creating ongoing positive change towards Zero Waste will be extremely difficult if the right incentives and disincentives are not in place.
3. Fostering new ideas	New ideas will need to be developed that introduce technical solutions (such as extracting resources from waste), as well as	We do not yet know all the solutions that will enable us to reach the goal of Zero Waste.

¹⁵ MFE, 2003: [Zero Waste Strategy for Councils](#)

¹⁶ MFE, 2003: [Zero Waste Strategy for Councils](#)

	social, economic, political and organisational solutions. This could include funding, pilots, awards, research and development, and fostering new markets.	Fostering the development of these solutions is therefore critical.
4. Communicating and educating	The community must be informed of the need for Zero Waste to landfill, the reasons for council's decision to commit to Zero Waste, and the implications of this commitment. This can include educational materials, media, events, campaigns and consultation.	The hearts and minds of all sectors of the community must be behind the concept of Zero Waste if it is to be achieved. This alone may be the single most important success factor.
5. Monitoring and feedback	The gathering and dissemination of information about the levels of waste being landfilled, diverted and recovered as well as the success or otherwise of Zero Waste to landfill initiatives.	Monitoring and feedback is what allows us to determine the health of the Zero Waste process and decide what action is necessary to keep it alive and growing.

With all behaviour change programmes, the potential consequences and the resistance to change must be assessed. Table 2 below shows the possible risks of using each of the behaviour change action areas above (from MFE, 2003⁸):

Table 2: Balancing the five key areas for Zero Waste Behaviour Change concept

Balancing the Five Key Areas

The Five Key Areas					Potential Consequences
Direct Action	Rules	Ideas	Communicate & Educate	Monitor	
*	*	*	*	*	Ongoing change towards Zero Waste
	*	*	*	*	Frustration, scepticism
*		*	*	*	Slow progress, little change
*	*		*	*	Large obstacles, reduced commitment
*	*	*		*	Lack of community support, resistance
*	*	*	*		Lack of direction, lack of commitment

In order to overcome these risks, when designing behaviour change programmes, in general it is important to:

- 1. Target and build specific knowledge, skills and behaviours:** New knowledge and specific modelling creates the foundation for new behaviours.

2. **Reduce environmental conditions that support negative behaviours and increase conditions that support positive behaviours.** Managing what precedes behaviour and the consequences can alter how people behave. If you provide a positive environment for someone to act, then incentivise and reward behaviour – this creates positive outcomes.
3. **Facilitate support over time to sustain behaviour change:** Build in social support and give consistent positive messaging over a long period of time.

Barriers and Determinants:

Perceived self-efficacy - A person's belief that they have the confidence, knowledge and ability required for practising the behaviour.

Perceived positive consequences - What positive things will happen if they practice the behaviour? (benefits/advantages).

Perceived social norms - A person perception whether family, neighbours or important other people will approve or disapprove of them practicing the behaviour.

Access - The extent to which they can access the products or services required to practice the behaviour.

Perceived susceptibility - Their perception of how likely it is that they will be affected by the problem the behaviour is addressing.

Perceived severity - The perception of how seriously affected they can be by the problem the behaviour is addressing.

Perceived action efficacy – The belief that by doing the behaviour will address the problem.

Policy - Local laws and regulations that affect behaviours and access to products and service.

Culture - The extent to which local customs, values or lifestyles influence doing the behaviour.

Habits - Since single-use plastics and disposal culture has been around since the 1920's (reference this) we are looking at a century of developed behaviour which is hardwired into society and ingrained in almost every practice across the region including businesses, schools, organisations and community. Sustainability is not the convenient, cost effective or entertaining way and so Council will need to get creative in ways to advertise sustainability as the attractive option (Appendices Table 1).

Infrastructure - There are barriers to effective behaviour change across the region which are due to the lack of programmes and infrastructure for the diversion and minimisation of waste. Behaviour change programmes should support and be supported by relevant infrastructure (i.e. The Junction).

Spatial barriers - There are issues with the accessibility and reach of information for residents. In the southern parts of Taranaki there are issues with internet connectivity which limit councils as a social media presence or online advertising. The districts are widespread so there is difficulty for residents

to attend workshops and reach transfer stations etc. Behaviour change programmes should identify where these spatial barriers occur and factor engagement to better reach isolated communities.

Accessibility - Traditional media like magazines, newspapers and radio are not as widely used as they once were which means in many cases the demographics that we are trying to reach are not hearing or seeing our messages. It is difficult to get the word out. Often ideas, like pamphlet drops, letters and flyers require printing and other unsustainable options that confuse our messaging that invite critique from residents.

Diversification - The types of communities that live in the region of Taranaki are diverse. There is no “one message for all” approach as this doesn’t fit our demographics.

Consistency - The collections, facilities and programmes differ in each district so while the councils hope to provide a consistent message to the region, we often need to tailor our messaging per district, and time and resources have to go into the explanation of our differing services. This sometimes sends out mixed messaging.

Resources - Behaviour change programmes can be resource hungry, a balance between wide reaching but largely in effective behaviour change versus more effective direct contact with individuals needs to be considered. However there are budget and staff limitations for the implementation of big scale changes. By collaborating and identifying the needs / barriers of specific communities, use of existing resources can be maximised.

Monitoring – The success of behaviour change programmes are difficult to quantify or monitor. With landfill waste being the main way of monitoring progress, it is difficult to pull from that information what is due to human attitude, and what is affected by other factors – especially considering Council shares the landfill with other regions. By defining monitoring at the design of a behaviour change programme, more useful data can be obtained and further improvements identified to gradually increase the effectiveness of programmes.





Avoid the temptation to assume that you know what strategy will work, and instead carefully explore barriers and benefits to the behaviour you wish to promote prior to considering what strategies might work¹⁷.

Identify the end state non divisible behaviour, having identified and prioritised its barriers and benefits. Divisible behaviour is those action that can be divided further. I.e. the behaviour: We want residents to compost more at home diverting waste from landfill. The divisible behaviour is that there is a number of different composting options and methods. It is then also important to note the end state behaviour. The end state being the ‘desired environmental outcome’¹⁸. Three questions are then best to ask. How impactful is the behaviour? How probable is it that the target audience

¹⁷ Author: Doug McKenzie-Mohr PH. D, ‘Fostering Sustainable Behaviour’ An introduction to Community-Based Social Marketing, Third Edition,(2011).

¹⁸ Ibid

will engage in the desired behaviour? And finally what level of penetration has the behaviour already obtained with the target audience?

Behaviour	Barrier	Benefit
Encourage		
Discourage		

Four steps for uncovering barriers (stops change) and benefits (prompts change) to behaviour change include: (Table 1: from *Fostering Sustainable Behaviour*, Doug- Mckenzie- Mohr, 2011) are:

1. Literature review: Review relevant articles and reports from multiple sources to cross reference.
2. Following the review, carry out observations of people engaging in the behaviour you wish to promote and make notes.
3. Conduct focus groups and explore in-depth attitudes and observations you have noted and want to dissuade people from participating in.
4. Building on information obtained from the focus groups, conduct surveys that can enhance knowledge of the barriers to the behaviour you want to promote as well as what may precipitate action¹⁹.

¹⁹ Ibid

Table 1. Three main components of habit formation interventions and examples of implementation in practice

Principle	Examples in practice
Frequent repetition	<ul style="list-style-type: none"> • School hand-washing interventions that involve practicing actual washing behavior in the restroom
Recurring contexts and associated context cues	<ul style="list-style-type: none"> • Public health campaigns linking changing smoke detector batteries to the start and end of daylight savings time • Medical compliance communications that piggyback medications onto existing habits such as mealtime
Intermittent rewards	<ul style="list-style-type: none"> • Free public transit days scheduled randomly • Coupons and discounts for fresh fruits and vegetables provided on an intermittent or random basis

9.3 Definitions and Glossary

Circular Economy means keeping resources in use for as long as possible thus extracting the maximum value from them whilst in use. Then recover and regenerate products and materials at the end of each service life. Reaching Zero Waste would mean that no rubbish is disposed to landfill, due to extremely high levels of resource efficiency, re-use, recycling, and re-purposing.

MfE means Ministry for the Environment.

NPDC means New Plymouth District Council.

RBCS means Regional Behaviour Change Strategy.

SDC means Stratford District Council.

STDC means South Taranaki District Council.

TA means Territorial Authority.

TRC mean Taranaki Regional Council.

TSWMC is the Taranaki Solid Waste Management Committee, a regional committee with political representation from TRC, NPDC, STDC and SDC.

WasteMINZ means Waste Management Institute of New Zealand, a national professional body that supports the waste industry and compiles national research around waste management and minimisation.

WMMP means Waste Management and Minimisation Plan as required under the Waste Minimisation Act 2008.

Zero Waste means Zero Waste is disposed to landfill through avoiding, reducing, reusing, recycling and recovery of waste.



Date 20 August 2020

Subject: **Progress on the Government's work programme for waste**

Approved by: G K Bedford, Director - Environment Quality
M J Nield, Acting Chief Executive

Document: 2562081

Purpose

1. The purpose of this memorandum is to inform the Committee members of recent announcements regarding the Government's work programme on waste.

Executive summary

2. Over the last year, two significant proposals were put out for consultation by the Government:
 - Proposed priority products and priority product stewardship scheme guidelines
 - Reducing waste: a more effective landfill levy
3. The Taranaki Solid Waste Management Committee has submitted feedback during the consultation period on both of these proposals. The submissions were generally supportive.
4. The Government has made two announcements on these proposals following consultation. Six priority products have been declared under the Waste Minimisation Act 2008 and the Landfill Levy will be progressively extended to Class 2, 3 and 4 landfills and increased for Class 1 landfills.

Recommendations

That the Taranaki Solid Waste Management Committee:

- a) receives the information contained in this memorandum pertaining to recent Government announcements.

Background

Priority products and product stewardship

5. In 2014, a discussion document was circulated by Ministry for the Environment (MfE), titled: *Priority waste products for product stewardship intervention*. The Ministry was

seeking comment on whether Central Government should intervene to improve the management of four product waste streams - electrical and electronic equipment (e-waste); tyres; agrichemicals and farm plastics; and refrigerants and other synthetic greenhouse gases.

6. This Committee discussed and submitted to MfE on the matter (see agenda item of 28 August 2014). The Committee's submission asked for all four waste groups to be declared priority products, and for this to be done as soon as possible.
7. MfE provided a response to this (see agenda item of 28 May 2015). In short, it identified that further evidence-based research was required and that the Ministry's priority focus was on resource management reforms and other areas at the time. The Ministry identified a number of projects that were underway.
8. On 9 August 2019 the Associate Minister for the Environment, Hon. Eugenie Sage, released a consultation document, *Proposed priority products and priority product stewardship scheme guidelines*. In this document MfE acknowledged the significant work done or underway by industry and local government towards reaching a circular economy, but acknowledged that these efforts had only resulted in a minority of waste being diverted from landfill and that more decisive action is now required including the imposition of product stewardship regulations under the Waste Minimisation Act 2008 (WMA).
9. The document proposed a co-design approach (between MfE and stakeholders) by which regulated product stewardship schemes would be developed and implemented.
10. The consultation document identified six priority products, these being tyres, electrical and electronic products (including all batteries), agrichemicals and their containers, refrigerants and other synthetic greenhouse gases, farm plastics (including silage and baleage wrap), and packaging (beverage and single-use).
11. The Government proposed a two-stage process:
 - Stage one consults on the proposed declaration of six priority products and ministerial guidelines
 - Stage two would be to consult progressively by product group through 2019-21 on proposed WMA regulations.
12. Consultation was open from 9 August 2019 to Friday 4 October 2019.
13. Again this Committee discussed and submitted to MfE on the matter. The Committee's submission was supportive that all six products be declared priority products under the WMA (see agenda item of 22 August 2019).

Landfill waste levy

14. In November 2019, MfE called for submissions between November 2019 and February 2020 on a proposal to increase the landfill waste levy, and expand its application to include a wider range of landfills (it currently applies to Class 1 municipal landfills).
15. Earlier this year, Council officers collaborated to develop a submission on the proposed levy changes on behalf of this Committee. They also provided input into a national submission on behalf of all Territorial Authorities through WasteMINZ and much of the Taranaki submission was consistent with the national WasteMINZ TA submission. The submission was circulated to the Taranaki Solid Waste Management Committee (TSWMC) in late January and was successfully submitted to MfE on 3 February 2020.

The final submission was included with the agenda for the February 2020 TSWMC meeting.

16. Both submissions, while raising a number of important considerations, were largely supportive of the Government's proposals.

Discussion

17. The Government's work programme for waste is aimed at accelerating New Zealand's transition towards a circular economy. Two significant announcements have been made during July 2020:
 - 17.1. The declaration of six priority products for regulated product stewardship under the WMA.
 - 17.2. The increase and expansion of the national waste disposal levy

Priority products and product stewardship

18. The Government has declared six priority products for regulated product stewardship under the WMA:
 - 18.1. plastic packaging
 - 18.2. tyres
 - 18.3. electrical and electronic products (e-waste)
 - 18.4. agrichemicals and their containers
 - 18.5. refrigerants
 - 18.6. farm plastics.
19. The intention of this declaration is to shift the responsibility for a product's life-cycle and waste management to manufacturers, importers, retailers and users, rather than on communities, councils, neighbourhoods and nature.
20. MfE has indicated that it will work with stakeholders to co-design product stewardship schemes for each priority product group and will consult on any regulations under the WMA that may be required to implement those schemes. Co-design of the schemes for tyres and refrigerants is currently underway.
21. A copy of Associate Minister Sage's media release: Government to regulate environmentally harmful plastic packaging, tyres, e-waste is attached to this memorandum.

Landfill waste levy

22. The Government has confirmed its plans to increase and expand the national waste disposal levy to divert more material from landfill. It will use the revenue gathered from the waste disposal levy for resource recovery and waste minimisation.
23. The plan includes the following:
 - Progressively increasing over four years the levy rate for landfills that take household waste from the current \$10 per tonne – set in 2009 – to \$60 per tonne.

- Expanding the waste levy to cover additional landfill types, including construction and demolition fills. At present the waste levy only applies to municipal landfills that take household waste, with no levy on the remaining almost 90 percent of landfills throughout the country.
- Collecting better data about the waste we are creating, and how we are disposing of it, so our waste can be better managed.
- Investing the additional revenue from the waste levy in initiatives that support waste reduction, such as building New Zealand-based recycling infrastructure.

24. The current plan is to phase in the changes over four years as outlined in the table below. The dates are to be confirmed later this year.

LANDFILL CLASS	1 JULY 2021	1 JULY 2022	1 JULY 2023	1 JULY 2024
Municipal landfill (class 1)	\$20	\$30	\$50	\$60
Construction and demolition fill (class 2)		\$20	\$20	\$30
Managed fill (class 3)			\$10	\$10
Controlled fill (class 4)			\$10	\$10

25. The Ministry for the Environment estimates that when fully implemented, the new levy could increase the cost of the weekly council kerbside rubbish bag by about 25c, depending on individual council decisions.
26. More than 80 percent of submitters (through public consultation held in November 2019 to February 2020) agreed the status quo needed to change. Similar to the TSWMC, most were broadly in support of increasing and expanding the levy.

Investment in recycling infrastructure

27. As part of the Covid-19 Response and Recovery Fund infrastructure focus announced on 1 July, the Government is investing \$124 million in a number of recycling infrastructure initiatives across the country. This will include plastic recycling plants and community resource recovery facilities.
28. This upfront funding and investment in waste and recycling infrastructure will speed progress in filling major gaps in New Zealand's waste infrastructure while phasing in an increased and expanded waste levy. It is intended to create hundreds of permanent jobs across New Zealand.

29. A copy of Associate Minister Sage's media release: Government steps up action on waste - funds recycling infrastructure and expands levy scheme is attached to this memorandum.

Decision-making considerations

30. Part 6 (Planning, decision-making and accountability) of the *Local Government Act 2002* has been considered and documented in the preparation of this agenda item. The recommendations made in this item comply with the decision-making obligations of the *Act*.

Financial considerations—LTP/Annual Plan

31. This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

32. This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks including, but not restricted to, the *Local Government Act 2002*, the *Resource Management Act 1991* and the *Local Government Official Information and Meetings Act 1987*.

Iwi considerations

33. This memorandum and the associated recommendations are consistent with the Council's policy for the development of Māori capacity to contribute to decision-making processes (schedule 10 of the *Local Government Act 2002*) as outlined in the adopted long-term plan and/or annual plan. Similarly, iwi involvement in adopted work programmes has been recognised in the preparation of this memorandum.

Legal considerations

34. This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

Appendices/Attachments

Document 2562961: Beehive Announcement: Government to regulate environmentally harmful plastic packaging, tyres, e-waste is attached to this memorandum.

Document 2562969: Beehive Announcement: Government steps up action on waste - funds recycling infrastructure and expands levy scheme

Releases (/releases)

SHARE THIS

29 JULY 2020

Government to regulate environmentally harmful plastic packaging, tyres, e-waste



HON EUGENIE SAGE(/MINISTER/HON-EUGENIE-SAGE)

[Environment \(/portfolio/labour-led-government-2017-2020/environment\)](/portfolio/labour-led-government-2017-2020/environment)

The Government is stepping up action to deal with environmentally harmful products – including plastic packaging, tyres and e-waste – before they become waste.

As part of the wider plan to reduce the amount of rubbish ending up in landfills, Associate Environment Minister, Eugenie Sage, today announced six products to be declared ‘priority products’ for the establishment of regulated product stewardship schemes under the Waste Minimisation Act. The products are:

- Plastic packaging
- Tyres
- Electrical and electronic products (e-waste)
- Agrichemicals and their containers
- Refrigerants
- Farm plastics.

“Regulated product stewardship helps put the responsibility for waste and what happens to products at the end of their useful life on manufacturers, importers, retailers and users, rather than on communities, councils, neighbourhoods and nature,” said Eugenie Sage.

“Old products that have reached the end of their life can be used to make something new, especially if they are designed better for reuse and recycling.

~~Taranaki Solid Waste Management Committee - Progress on the Government's Work Programme for Waste~~
“Currently New Zealand has 15 voluntary accredited product stewardship schemes. These have had limited success in minimising waste for the target products.

“Government’s decision to require the establishment of regulated product stewardship schemes follows a public consultation in 2019 with public support for Government taking stronger action on these products.

“New Zealanders’ expectations about waste have changed. We need new approaches such as regulated product stewardship which will help reduce the environmental impacts of waste by ensuring that products and materials currently lost to landfill or pollution are recovered, reprocessed or re-used. This encourages new businesses and jobs,” said Eugenie Sage.

The next step will be for the Ministry for the Environment to work with the manufacturers and retailers of the priority products and with stakeholders to co-design product stewardship schemes and regulations that will work for them and the environment.

Mandatory schemes for these problem products help level the playing field and ensure everyone involved in their design, production, sale and use contributes to diverting the materials in them from landfill at the end of their useful life. This helps to ensure proper materials recovery, re-use, recycling or disposal. Many countries overseas have product stewardship legislation.

Tyre product stewardship is an aspect of the New Zealand First Coalition Agreement and this announcement helps fulfil that.

Eugenie Sage made the announcement at E-Waste Services’s new e-waste and plastics processing facility in Porirua where she announced a \$70,000 grant from the Ministry for the Environment’s Waste Minimisation Fund for E-Waste Services to do a feasibility study on reducing e-waste plastic going to landfill.

She also announced Auckland-based TechCollect would receive a \$320,000 grant from the Waste Minimisation Fund to allow the company to build on its successful e-waste pilot programme, expand to more collection points and to design options for a regulated e-waste product stewardship scheme.

“TechCollect represents product stewardship in action. TechCollect reduces the amount of waste ending up in landfills and the amount of raw materials needing to be mined by collecting electronic goods, such as computers and TVs at the end of their life and recovering valuable materials” said Eugenie Sage.

“Much of what is currently sent to landfills could be recycled, composted or reused. The Government is taking a leadership role in reducing waste through significant investment in waste minimisation.

“Earlier this month, as part of a wider plan to reduce the ever-increasing amount of rubbish ending up in New Zealand’s landfills, the Government announced it is to invest \$124 million in new materials recovery and recycling infrastructure and expand the national waste disposal levy. The initiatives to be

funded could include plastic recycling plants, weighbridges for improved waste data collection and improved equipment for recycling plants.

“Increased investment in waste reduction and resource recovery infrastructure will ensure New Zealand emerges from Covid-19 with a far better resource recovery and recycling system, creating jobs and incomes across New Zealand” said Eugenie Sage.



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15 JULY 2020

Government steps up action on waste - funds recycling infrastructure and expands levy scheme



HON EUGENIE SAGE(/MINISTER/HON-EUGENIE-SAGE)

Environment (/portfolio/labour-led-government-2017-2020/environment)

- \$124 million Government investment in recycling infrastructure
- Plans confirmed to increase and expand the waste levy to divert material from landfill, and recycle revenue into resource recovery and waste minimisation
- Innovative construction and demolition facility opened in Auckland with \$3.1 million in support from Government's Waste Minimisation Fund (WMF).

As part of a broader plan to reduce the increasing amount of rubbish ending up in New Zealand's landfills, the Government is to fund new recycling infrastructure and expand the national waste levy scheme.

Associate Minister for the Environment, Eugenie Sage, made the announcement today at the Green Gorilla waste service provider in Auckland.

Green Gorilla received \$3.1 million in WMF funding for a new commercial and industrial waste line, which is able to process mixed commercial and industrial waste and divert it from landfill.

"New Zealanders are proud of our country's clean, green reputation. Yet rubbish disposal to New Zealand's municipal landfills increased by a staggering 48 per cent in the last ten years. We can't allow this situation to continue," said Eugenie Sage.

“We need large scale and urgent action because much of what is currently sent to New Zealand landfills could be recycled, composted or reused.

“As part of the Covid-19 Response and Recovery Fund (CRRF) the Government is investing \$124 million in a number of initiatives across the country. This will include plastic recycling and reprocessing plants, weighbridges for improved waste data collection and improved material and community resource recovery plants.

“This \$124 million is a massive investment in reducing waste – about as much as the entire Waste Minimisation Fund allocation in the past decade.

“Increased investment in waste minimisation and resource recovery infrastructure will ensure New Zealand emerges from the Covid-19 pandemic with a far better resource recovery and recycling system, creating hundreds of permanent jobs and incomes across New Zealand.

“This up-front funding and investment in waste and recycling infrastructure will speed progress in filling the major gaps in our waste infrastructure while phasing in an expanded and increased waste levy.

“Expanding and increasing the waste levy is one of the best tools we have to incentivise reduced waste to landfill and prevent valuable resources from being thrown away. We are making it easier for households and businesses to do the right thing,” said Eugenie Sage.

The Government has decided to:

- Level the playing field by expanding the waste levy to cover additional landfill types, including construction and demolition fills (progressively from 1 July 2022). At present the waste levy only applies to municipal landfills that take household waste, with no levy on the remaining almost 90 percent of landfills throughout the country.
- Progressively increase over four years the levy rate for landfills that take household waste from the current \$10 per tonne – set in 2009 – to \$60 per tonne. The current plan is for first changes to the levy to take effect from 1 July 2021. Current economic conditions will be considered before implementation timelines are confirmed later this year.
- Collect better data about the waste we are creating, and how we are disposing of it, so ensuring our waste can be better managed.
- Invest the additional revenue from the waste levy in initiatives that support waste reduction, such as building New Zealand-based recycling infrastructure. This includes helping businesses such as Green Gorilla, which takes construction, commercial and industrial waste materials and re-purposes them so they are not thrown away.

“Incredibly, New Zealand currently has one of the highest rates of waste production per capita in the developed world, punching way above our weight in the wrong direction.

“Expanding the levy will help recognise the real costs of waste, make it fairer for everyone, and incentivise materials reuse and recycling, rather than just ‘taking it to the tip’. The CRRF investment will also provide people with better options for recycling their waste.

“The proposed levy increases are likely to have a minimal impact on a family’s weekly budget. The Ministry for the Environment estimates that when fully implemented, the new levy could increase the cost of the weekly council kerbside rubbish bag by about 25c, depending on individual council decisions.

“After years of advocacy and engagement with councils and the waste sector, I am proud to announce the expansion of the national waste levy, which is key to the Government’s wider plan of reducing the ever-increasing amount of rubbish ending up in landfill. Two previous reviews of the levy have recommended expanding and increasing the levy. This is the first Government which has implemented those recommendations.

Eugenie Sage thanked the almost 500 local councils, iwi, businesses, NGOs and individuals who made submissions during the waste levy public consultation process.

“More than 80 percent of submitters agreed the status quo needs to change, and most were broadly in support of increasing and expanding the levy.”

Expanding and increasing the waste levy will also:

- Help reduce climate pollution (waste currently represents about 5 per cent of all New Zealand’s greenhouse gas emissions)
- Make New Zealand more resilient to volatility global markets post-Covid as there will be more New Zealand-based recycling capacity.



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