



BUILDING A NEW FUTURE

A GUIDE FOR DEVELOPERS, BUILDING CONTRACTORS, ARCHITECTS AND HOME OWNERS



xtreme
ZERO WASTE



1. NAU MAI HAERE MAI KI WHAINGAROA

Welcome to Raglan

Overview of history of zero waste in Raglan.

RAGLAN WAS DECLARED a zero waste town by our Community Board in 1999. The Community formed a Community Enterprise – Xtreme Zero Waste to manage the town’s waste and turn the negatives of waste into multiple benefits for our town.

Over the last 20 years the Raglan Community has progressed towards zero waste. Annually we divert over 76% of its total solid waste, which is one of the highest diversion rates in the country.

What we used to bury in the ground now employs 42 people and injects funding directly into the community through wages, contracts and spending in local shops.

What we divert is either recycled through NZ industries or made available to our community as resources. This further stimulates the local, regional and national circular economy.

By diverting waste from landfill from your construction or demolition project you are supporting the Raglan Community Zero Waste programme and participating in a circular economy model.



2. WHATS ON OFFER AT XTREME

XTREME ZERO WASTE operates a Resource Recovery Centre located at 186 Te Hutewai Road, Raglan (2km past the golf club).

The Centre offers a home for:

- Recyclables
- Reusables
- Compostables
- Landfill
- It also offers reusables, added value items and compost for sale

Xtreme has a variety of services on offer:

- Recycling collections
- Waste collections
- Mini skip hire (2.5, 3.5, 4.5 m3)
- Business collections
- Event waste management design
- Waste audits, product/packaging development, specific waste stream advice
- Composting of food, garden, weeds & packaging
- Research and Development
- Demolition
- Zero waste education & site tours

3. UNDERSTANDING THE WASTE HIERARCHY

WASTE IS COSTLY for business and for the environment. The waste hierarchy sets out priorities for using resources in the most efficient way and reducing the amount of waste that is produced. The upper part of the waste hierarchy focuses on ways to divert waste from landfill. It helps us to think about how we can:

- Avoid creating waste and reduce the amount of waste we generate
- Recover resources by Reusing & Recycling

Avoiding waste is as much about design and planning as it is about systems for diversion.



4. WHY CONSTRUCTION WASTE MATTERS TO THE DEVELOPER/BUILDER

By designing out waste from project start to finish, you can:

Save money:

- On purchase costs of materials wasted
- On cartage to landfill, disposal costs and landfill levy
- By earning revenue from recovered materials
- Avoid non compliance costs

Save time:

- More effective on site waste practices
- Avoid time spent on managing regulatory non-compliance

Save stress:

- Enjoy a hassle-free, waste-free build

Promote:

- Buy only what you need
- Use materials efficiently
- Prevent environmental damage caused by poor materials handling and storage
- Contain waste within your work site
- Separate and divert as much waste as possible

5. PROJECT PLANNING KEY POINTS

- Plan waste minimisation into the project from the time of its inception
- Develop a Site Specific Waste Plan (SSWP) for your project to divert construction and deconstruction waste from landfill
- Build the implementation of your project's SSWP into project contracts. Specify waste minimisation actions, such as:
 - Relocating structures
 - Deconstructing existing structures
 - Diverting materials from landfill through reuse, recycling, and recovery
- Use materials efficiently and manage on-site storage to optimise materials' use and avoid wastage
- Make sure that deconstruction materials and construction waste are managed to divert as much as possible from landfill

6. PROJECT CHECKLIST



Before you begin your project:

1. Set waste minimisation goals and objectives
2. Analyse waste types and quantities
3. Include SSWP in contract documentation

At the start of your project:

1. Make someone responsible for on-site waste management
2. Brief/communicate SSWP to all contractors, managers, staff and subcontractors
3. Set targets for reducing amount of each waste type sent to landfill
4. Direct contractors to REBRI for resources and practical guides
5. Set out resource recovery methods for each material

During your project:

1. Implement materials handling standards
2. Check materials storage
3. Monitor/audit contractors/sub-contractors
4. Track progress

At the end of your project:

1. Collate data from waste and recycling collection contractors
2. Evaluate results
3. Calculate savings

Prepare and submit a SSWP in partnership with the deconstruction contractor (if any), waste collectors/processors and any community resource recovery organisation(s).

The submitted plan should be guided by the REBRI Waste Management Plan template and should include the elements in Section 8.

7. GLOSSARY OF TERMS

REBRI RESOURCE EFFICIENCY in the Building and Related Industries (REBRI). Resource Guides are available at rebri.org.nz.

REBRI	The REBRI programme has been developed by BRANZ to help the building industry to reduce waste.
Clean Fill	Fill material that is predominantly inert materials - concrete, soil, bricks.
Landfill	An appropriately consented waste management facility for the receipt of waste for disposal.
Recovery	The extraction of materials or energy from waste or diverted material for further use or processing.
Recycling	Means the reprocessing of waste or diverted material to produce new materials.
Reuse	The further use of waste in its existing form for their original purpose or a similar purpose.
SSWP	Site Specific Waste Avoidance & Resource Recovery Plan.

8. PARTNER WITH XTREME ZERO WASTE

PREPARE AND SUBMIT A SSWP in partnership with the deconstruction contractor (if any), waste collectors/processors and any community resource recovery organisation(s). The submitted plan should be guided by the REBRI Waste Management Plan template and should include the following elements:

SECTION	DESCRIPTION	IMPLEMENTATION
Scope and Analysis	The scope of the waste plan will include building removals and construction.	Indicate the nature of work and expected waste types and sources. Analysis of the proposed job site waste to be generated, including reusable, recyclable and waste materials (by volume or weight).
Personnel & Responsibility	Person(s) responsible for implementing and reporting on the SSWP.	The contractor shall provide on-site instruction of salvage, deconstruction and material handling techniques to minimise waste. This includes ensuring all site management, staff, subcontractors, product suppliers, and waste disposal companies are made aware of the SSWP and its implementation.
Waste avoidance	Measures to manage waste avoidance or reduction of waste at source to be taken during the project	Methods of deconstruction, reducing construction waste, waste separation and storage. Description of bins/containers that will be used and the signage that will be used on the containers. Identification of measures to be taken to prevent contamination of materials to be reused or recycled and to ensure materials are consistent with requirements for acceptance by designated facilities.
Destination of materials	Proposed alternatives to landfill and cleanfill disposal	A list of each material proposed to be salvaged, reused, or recycled during the course of the project and the destination. Where possible, the contractor shall give consideration to giving community-based organisations access to salvage materials for reuse. Only approved waste collectors can be engaged.
Record keeping	The contractor will maintain a record of all waste material leaving the site, volume weight and its destination.	This will be done in partnership with the deconstruction and salvage contractors (if any), and any community resource recovery organisation engaged in the project. Reporting should be guided by the REBRI C&D Waste Transfer forms or similar. The contractor shall submit to the Contract Administrator the REBRI Waste Management Plan, REBRI C&D Waste Transfer Forms or bills, invoices and other documentation confirming that all materials have been received at the required locations.

Construction/ Demolition Items	Land- fill	Clean- fill	Green waste	Wood yard	Metal yard	Re- use	Recy- cling	Notes
Timber				✓		✓		accepted for reuse subject to condition
Framing over 500mm long				✓		✓		accepted for reuse subject to condition
Framing under 500mm long	✓					✓		accepted for reuse subject to condition
Cedar/native regardless of length				✓		✓	✓	remove native timbers in such a way that maximum value is retained
Tanilised piles under 500mm length				✓		✓		accepted for reuse subject to condition
Tanilised piles over 500mm length				✓		✓		accepted for reuse subject to condition
Doors, windows, sills, beams (in reasonable condition)				✓		✓		care should be taken to remove items and materials in such a way that preserves their value
Architraves/ scotia/ skirting				✓		✓		accepted for reuse subject to condition
Plywood over 500mm square				✓		✓		accepted for reuse subject to condition
Plywood under 500mm square	✓					✓		accepted for reuse subject to condition
Metal - roofing iron/ gutters/ and ridge/ flashings					✓	✓	✓	remove metal fixtures and fittings in such a way that maximum value is retained
Hot water cylinders					✓	✓	✓	accepted for reuse subject to condition
Fridge/ freezers					✓	✓	✓	accepted for reuse subject to condition
Shower trays/ vanities/ toilets/ cisterns/ sinks					✓	✓		accepted for reuse subject to condition
Aluminium windows/ doors					✓	✓	✓	accepted for reuse subject to condition
Bracing/ screws/ nails/ bolts					✓	✓	✓	remove metal fixtures and fittings in such a way that maximum value is retained
Taps/ cast iron baths/ watertanks/ copper pipe/ brass fittings					✓	✓	✓	remove metal fixtures and fittings in such a way that maximum value is retained
Decking/flooring/cladding (exterior/interior)				✓		✓	✓	accepted for reuse subject to condition
Hardware/door knobs/hinges/locks/handles				✓	✓	✓	✓	remove metal fixtures and fittings in such a way that maximum value is retained
Plaster board - (small amounts)		✓						Plaster board sent to cleanfill until an alternative solution can be found
Carpet						✓		accepted for reuse subject to condition
Lino - (non-asbestos)				✓		✓		accepted for reuse subject to condition
Tiles		✓		✓		✓	✓	accepted for reuse subject to condition
Cobble stones/ Bricks/ Slate tiles		✓		✓		✓		accepted for reuse subject to condition
Sand, builders mix		✓				✓		accepted for reuse subject to condition
Insulation	✓			✓		✓		accepted for reuse subject to condition
Electrical - wiring, switches, lights				✓	✓	✓	✓	accepted for reuse subject to condition
Furniture/ kitchen units/ benches				✓	✓	✓	✓	accepted for reuse subject to condition
Pvc pipes/ down pipes/ gutters					✓	✓		accepted for reuse subject to condition
Glass/ mirror - panes or in frames		✓		✓		✓		accepted for reuse subject to condition
Woodburners/ flues /ovens/ hobs					✓	✓	✓	accepted for reuse subject to condition
Paint (in good condition)				✓	✓	✓	✓	accepted for reuse subject to condition
Concrete/asphalt		✓						
Contaminated/degraded/rejected material	✓							Contaminated material (mould/ bora) - ask advice from XZW - asbestos not accepted
Cardboard				✓			✓	to be placed in a separate bin for recycling
Polystyrene	✓			✓				accepted for reuse subject to condition
Clear plastic wrap (#4 LDPE)							✓	
Wooden Pallets				✓		✓		accepted for reuse subject to condition

REFERENCES

www.branz.co.nz/sustainable-building/reducing-building-waste/case-studies/art-deco-home-hamilton-deconstruction/

www.stuff.co.nz/business/106883412/recycling-a-house-is-cheaper-than-sending-it-to-the-dump-study-finds

<https://static1.squarespace.com/static/5bf62473d274cb41328b4129/t/5c5cc5ce9140b77d1c927865/1549583824366/Deconstruction+Trial+Report.pdf>

www.greenway.net.nz/services/deconstruction/

www.xtremezerowaste.org.nz

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