



## Council - Community Engagement and Research:

The working relationship between the University and Palmerston North has resulted in a growing programme of research initiatives which aim to support development and implementation of the City's 'Waste Minimisation and Management Plan' (WMMP). The concept is that: 1- the City maintains a 'research menu' of issues and opportunities - and 2- the University will seek to align and supervise student projects, which address these. This construct is a win-win for both the City (generating new and tightly focussed R&D that meets their needs) and for staff and students (connecting student learning to 'real world' challenges and professional practice).

Some project examples are:

- 'Enhancing waste and recycling infrastructure at the Massey University-Turitea Campus-Palmerston North' (Masters project).
- Rural and remote area recycling project (INR summer scholarship project completed 2012).
- City 'organic recycling' master planning project (business model / operational analysis, technology appraisal).
- Enabling product stewardship in local communities: Case studies covering nine special waste types.
- Exploring glass contamination issues: Development of recommended collection and processing changes.
- Fergusson St recycling depot 'user survey' (methodology, question design, data analysis / discussion).
- Local second hand / used goods recycling sector survey (information feedstock for the WMMP process).



- Exploring innovations in household curbside recycling contamination / composition survey methods (objective to reduce processing costs and enhanced programme returns).
- Recycling behaviour change / social marketing / recycling communications project design.
- Sustainable City' business survey / commercial sector waste and resource audit ('industrial ecology' methodology, question / survey design and implementation).



Within the role of coordinator of the ZWA, Jonathon is also undertaking research towards a PhD. This project title is:

*'A comparative industrial ecological analysis of zero waste options for New Zealand, utilising case studies of key product classes'.*

Supervisors: Dr Chris Anderson and Associate Professor Sarah McLaren.

## Project description: - Literature review component.

- Develop an overview of international zero waste principles and practices and discuss this in relation to industrial ecological approaches to sustainable development. Develop an international overview of the principles and applications of product stewardship relative to New Zealand's progress in this sphere.

## New research component:

- Undertake a preliminary national 'resource audit' of the commodity estate. Discuss methodology, outcome, the concept of end of life (EoL) resource forecasting and the formation of a resulting recycling industry development proposition.
- Develop a draft product recyclability index (PRI) and discuss the application of this tool in terms of the principles and application of product stewardship, zero waste and industrial ecology. Individual and product class examples will be explored and discussed.
- Undertake a comparative industrial ecological analysis in relation to the costs and benefits of a national zero waste approach (i.e. assertively maximising the recovery and recycling of these resources) vs other options.





The ZWA supports collaboration and has undertaken a range of other research, advisory and recycling industry development projects' have been undertaken in subject areas as diverse as:

- Organic recycling / composting: The ZWA, in association with WasteMINZ / CompostNZ, developed and managed the SMF funded 'NZSOIL3' programme (2006-07). NZSOIL3 consists of a cluster of priority compost industry development projects. [PDF]
- Glass Litter monitoring / management: With the support of the Glass Packaging Forum (see [www.glassforum.org.nz](http://www.glassforum.org.nz)), the ZWA worked with the Green Hub in developing and implementing the (2008-09) 'Glass-Vac' R&D project to address the issue of broken glass litter.
- Waste / Waste electrical and electronic equipment (WEEE): The ZWA has been involved with eDay NZ (see [www.eday.org.nz](http://www.eday.org.nz)) and was a chapter author of the 'eWaste in New Zealand 5 yrs on' report.
- 'Resource Recovery and Solid Waste Industry Training Implementation Plan (2009)': The ZWA facilitated the necessary consultation and worked with Envision NZ (see [www.envision-nz.com](http://www.envision-nz.com)) to develop this key report.
- Product Stewardship: The ZWA worked with Waste Watchers Ltd to develop the 'Enabling product Stewardship in Local Communities: Case studies and recommendations for the Palmerston North City Council (PNCC) covering 9 special waste types'.

**Quote:**

*"If you are looking for a big opportunity find a big problem"*

Source unknown

