Waste Management Statement

for

The University of New South Wales

Mechanical and Manufacturing Engineering Precinct Development

November 2012

Introduction

UNSW is committed to considering and implementing sustainability initiatives throughout its operations. Environmental sustainability is one of ten guiding principles within the University's strategic intent document, *B2B Blueprint to Beyond – UNSW Strategic Intent*, and one of the eight identified ways to improve underlying leadership and operational capabilities.

The University has an Environment Policy which is available at:

http://www.gs.unsw.edu.au/policy/documents/environmentpolicy.pdf

Amongst other things, this policy commits to:

"Developing effective waste management and recycling procedures and practices"

Waste management operations

Management of the majority of waste streams at UNSW is coordinated by Facilities Management. The Sustainability Office also manages some minor waste streams. Details of these waste streams and those responsible for managing them is included in Appendix 1.

One of the key recent achievements to minimise waste to landfill was the appointment of a new general waste contractor in late 2011, Doyle Bros, who use an off-site Materials Recovery Facility to extract a high proportion of recyclables from the general waste stream. UNSW also has dedicated segregated recycling bins for commingled containers in various public places, and has an office paper recycling program which has operated successfully for many years. Other waste minimisation initiatives include the establishment of a furniture reuse program (information at http://www.facilities.unsw.edu.au/staff-contractors/furniture-reuse-program). Green waste is collected and mulched, with as much as possible reused on-site. There are also numerous collection points for toner cartridges, batteries and fluorescent tubes.

Chemical and biological waste is collected separately by appropriately licensed specialist waste removal contractors. The Laboratory Hazardous Waste Disposal Guideline (OHS321) is available at: <u>http://www.ohs.unsw.edu.au/ohs_policies/guidelines/pro_haz_waste.pdf</u>. Additional waste is available at <u>http://www.ohs.unsw.edu.au/ohs_waste/index.html</u>.

Additional detail is included at <u>http://sustainability.unsw.edu.au/campus-sustainability/recycling/</u> and in Appendix 1. Further information may be obtained by contacting the Manager, General Services, on 9385 5111 or by email at <u>fmgeneralservices@unsw.edu.au</u>.

Waste minimisation performance

As a result of the new general waste contract implementation, supported by the in-house paper and cardboard recycling program, UNSW has a high level of waste diversion from landfill. Currently, about three quarters of the general solid waste stream (including paper/cardboard, mixed containers, plastic film food and organics, greenwaste as well as residual general waste) is diverted from landfill, primarily through source separation at the Materials Recovery Facility. The performance for 2012 up to October is illustrated in Figure 1 on the following page.



Figure 1 - average percentage of recovered waste (Jan 2012 - Oct 2012)

Waste Stream	Executive Responsibility	UNSW Management Responsibility	Contractor	Details/Comment	Volume/ Year
Batteries	University Services	UNSW Sustainability	MRI	Multiple collection bins on campus – FM Assist, Arc reception and Contact	273 kg
Beverage containers – Plastic, Aluminium, Glass	University Services	Facilities Management	Doyle Bros		170 tonnes*
Biological Waste (Including Animal Carcasses, and sharps)	Finance & Operations	Facilities Management	Sterihealth	See: <u>UNSW Laboratory Hazardous</u> <u>Waste Disposal Procedure.</u> Infectious, Biological, Clinical, GMO, human blood or body fluids, infectious animal carcases or material	~50 tonnes (varies in accordance with research
Building Waste	Finance & Operations	Facilities Management (Project Manager)	Relevant contractor	Managed through Facilities Management via construction contract.	Varies per project
Chemicals - laboratory waste	Finance & Operations	Facilities Management	Chemsal	UNSW Laboratory Hazardous Waste Disposal Procedure.	>50 tonnes (excludes trade waste). Currently difficult to measure accurate tonnage.
Drugs (Schedule 8 drugs)	University Services	Human Resources - OHS Unit	n/a	Duty Pharmacist from NSW Health Department notified if any Schedule 8 drugs require disposal.	>10 kilos
E-waste	Finance & Operations	Facilities Management	SIMS Metal	E-waste collection arranged via an <u>Request for Works and Services</u> (RWS).	40 tonnes
Fluorescent & other lights	Finance & Operations	Facilities Management -	Chemsal and Spotless	Site for old tubes located adjacent the Spotless Office on Western Campus. Spotless contact the UNSW OHS Co- ordinator via a Chemical Waste Inventory Form OHS014 to pick up and remove any dead tubes etc. Bin is emptied by Chemsal. Removal and disposal various hazardous materials including fluorescent, CFL, incandescent, halogen and discharge light bulbs/lamps and associated ballasts and transformers, High Intensity Discharge lamps (HIDs) and metal halide, through to plant and workshop waste.	Approx 1 tonne (estimate)

Waste Stream	Executive Responsibility	UNSW Management Responsibility	Contractor	Details/Comment	Volume/ Year
Food and organics	Finance & Operations	Facilities Management		Mostly sorted at MRF for low-grade composting. Pilot food waste segregation program with selected food retailers started in August 2012 to produce higher grade compost.	550 tonnes*
Furniture reuse	Finance & Operations	Facilities Management	Crown	Any UNSW staff member needing additional furniture for their workplace, or wanting to responsibly dispose of old workplace furniture can create a user account, and search for furniture via the UNSW <u>Furniture Re-use Centre</u> . To donate furniture to the Furniture Re-use Centre fill out an online Request for Works and Services (RWS). Furniture is stored offsite, with external storage provider	Not measured. Estimated crudely to be 1,000 m3 reused.
Garden Waste	Finance & Operations	Facilities Management	The Green Horticultural Group	All garden organics and tree pruning off cuts are processed on site into mulch and woodchips and used back on the garden beds across the UNSW campus. Lawn clippings and some leaf material picked up while mowing lawns is collected and transported to Veolia waste station at Botany for processing. UNSW uses organic fertilisers for the gardens, lawns and sports fields.	150 tonnes
General Waste	Finance & Operations	Facilities Management	Doyle Bros	Waste to landfill is residual after sorting in Materials Recovery Facility.	450 tonnes*
Human Tissue	Finance & Operations	Facilities Management	Sterihealth	Recognisable Human Tissues or body parts	Sent back to Families
Mobile Phones	University Services	UNSW Sustainability	Australian Recycling Program	UNSW partners with Fauna and Flora international	80kg (estimate)
Paper and Cardboard	Finance & Operations	Facilities Management	Amcor/Visy	In-house recycling program	1,140 tonnes*
Radioactive	University Services	Human Resources - OHS Unit	Chemsal	Radioactive Waste Transfer Request Form	No radiation 'waste' is allowed to leave UNSW.

Waste Stream	Executive	UNSW Management	Contractor	Details/Comment	Volume/
	Responsibility	Responsibility			Year
Ionising radiation emitting materials (<schedule 1,="" radiation<br="">Control Regulations)</schedule>	Finance & Operations	Facilities Management	Chemsal	Integrated into hazardous waste removal: See: <u>UNSW Laboratory</u> <u>Hazardous Waste Disposal Procedure.</u> <schedule 1="" control<br="" radiation="">Regulations statement e.g.<100 Bq/g Radioisotopic declaration form</schedule>	Decayed radioactive isotopes are incorporated into the figures for chemical waste
Stationery – Reuse	University Services	ARC	ARC volunteers	Student volunteer project	Not known
Toner Cartridges	University Services	UNSW Staff Volunteers	Caratoner and Planet Arc		5,788 cartridges

* estimate for 2012 extrapolated from data covering January – October 2012