



delivering sustainable solutions



part of the DoloMatrix Group

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- Trevor Thornton – Senior Technical Consultant
- Oliver Batchelour – Consultant
- Catherine Thomas – Consultant

Services

- Waste Review
- Waste Audit
- Reporting
- Education Programs
- Waste Management Plan (inc. Green Star Reports)
- Waste Tender/ Analysis Broker
- Contract Management
- Strategy Development
- On-site facilitation

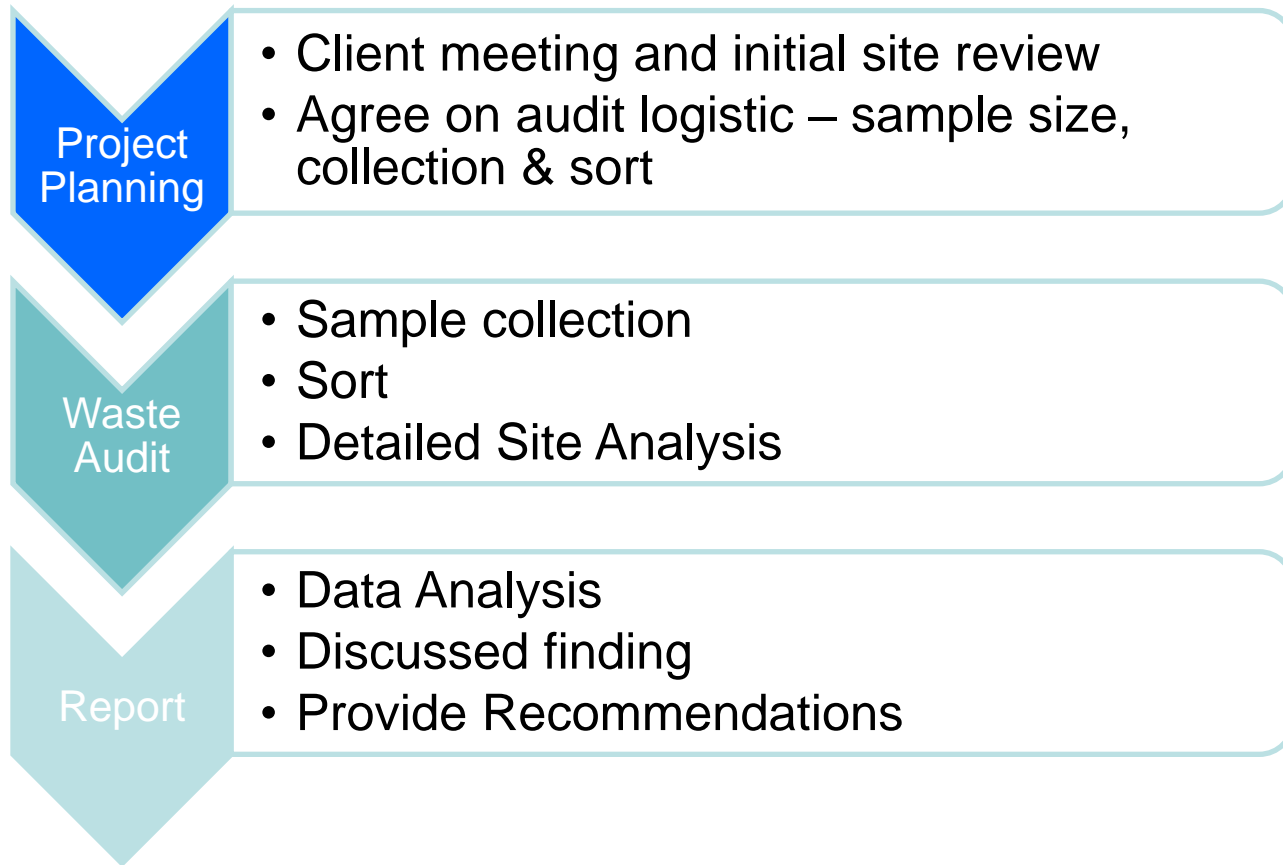
Waste Review

- Review of total waste management costs
- Compliance with license and waste legislation
- Identify opportunities for cost savings, resource recovery and efficiency gains
- Potential areas of exposure
- Environmental awareness
- Performance against best practice benchmark

Waste Audit & Waste Assessment

- Establish baseline or benchmark data
- Analyse composition and quantities of waste disposed
- Verify waste pathways
- Assess effectiveness of current systems
- Identify opportunities to divert waste
- Improve efficiency of waste management systems
- Obtained detailed data on waste arising allowing more accurate product costing

Waste Audit



Waste Audit



Waste Audit

- Example of findings:
 - Holden - savings were estimated to be \$202,246 per annum by reducing the quantity of unused/reusable and launderable items, such as gloves, rags and overalls, currently disposed of via the general waste.

Waste Assessment



Disposal Based Survey



Reporting

- Verify accuracy and completeness of data provided by contractors
- Tailor reporting to enable effective management of waste and contracts and ensure that targets are met.

Reporting

Waste and Recycling Monthly Report

Data Collection for Jones Lang LaSalle – GPT Core

Instructions: Fill in the white boxes and email completed form within five days of end of month to the Transit Services Manager. Boxes to be completed by ESM

Updated Site Waste Reduction Action Plan to be separately submitted by 15th of Month.

Property: Australia Square Total GLA (office) 10110 sq. Despatch 98.3 Population: 1

Month / Year: December Total GLA (total) 30% sq. Despatch 100

Completed By: JAMES

Contact Details: (02) 9439 8177

PART 1 - Monthly Waste & Recycling Activity

Date	Desk No.	Waste / Recycling Details	Bin Size / (Bin size)(m3)	No. of bins on site	Total no. of bins returned to Month	Avg. Tonnes per bin (based on actual weight)	Total volume (m3)	Total Tonnes Collected (only where actuals are available)	Comments - eg contamination, change in frequency, incorrect waste bin weights, incorrect weights collected etc.
		Cardboard	0.80	100	22.00	12.20	12.20		
		Paper	0.24	80.00	397.00	99.25	99.25		
		Paper Towel	0.60	100	20.00	10.20	10.20		
		Paper Towel	0.60	100	0.00	0.00	0.00		
		Commingled	0.24	40.00	170.00	40.00	40.00		
		Organic	0.60	5.00	170.00	82.00	82.00		
		General waste	1.00	12.00	283.00	280.30	280.30		
		General waste	0.24	80.00	6.00	6.00	6.00		
		Oil - Drum	0.20	100	0.00	0.00	0.00		
		Oil - Drum	0.80	100	0.00	0.00	0.00		
		Polystyrene			41 x 248L	10.00	10.00		
Total					997.00	6.88	97.00	6.88	

Jones Lang LaSalle AMS Waste & Recycling Report – GPT Core December 09

Comments

- Decrease in overall recycling performance due to in primary source segregation for most properties.

Key Results

Tables 1 and 2 show the results for the total portfolio for December 09 compared to last month and year to date.

Table 1: Comparative Analysis – Weight%

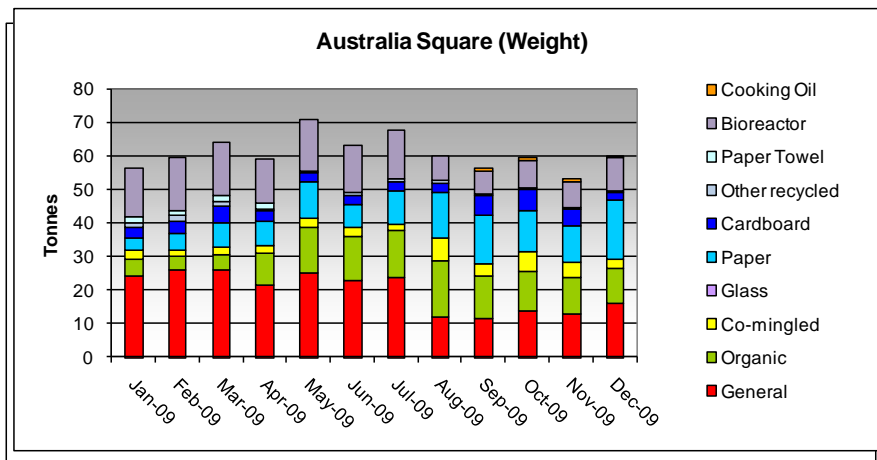
	November 09	December 09	MAT
% diverted from landfill by weight – Source segregation	56.9%	53.7%	56.2%
% diverted from landfill by weight – Secondary recovery ¹	26.9%	28.4%	19.7%
Overall Diversion (weight)	83.8%	82.1%	75.9%
Target – primary source segregation	65%	65%	65%

¹ Material recovered from the general waste stream after processing through a secondary sorting facility. Secondary recovery figures reported are based on the overall recovery achieved.

Table 2: Comparative Analysis – Volume%

	November 09	December 09	MAT
% diverted from landfill by volume – Source segregation	49.5%	46.9%	52.2%
% diverted from landfill by volume – Secondary Recovery ²	29.4%	30.0%	19.0%
Overall Diversion (volume)	78.9%	76.9%	71.2%
Annual Target – primary source segregation (volume)	65%	65%	65%

² Material recovered from the general waste stream after processing through a secondary sorting facility. Secondary recovery figures reported are based on the overall recovery achieved.



Education Program

- Tailored based on clients needs
- This may include:
 - Development of guidelines
 - Toolbox kit
 - Training sessions

Education Program



Guidelines for public recycling in shopping centres

... keeping it simple – making it easy!

December 2008



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Education Program

Waste Management Toolbox for Office Buildings

Draft version 1.0



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Education Program

Cleaners Tool Box Sessions

Topics

1. Health Check

Develop and activity that engages the cleaners understanding of the following:

Awareness of tenant bins in place – do cleaners understand what each of the bins are for and what goes where

Are bins correctly signed?

Reporting of contamination is reported to Building Management by monitoring the systems

Tally sheets are completed at the dock allowing Building Management to validate the detail on the contractors invoice.

2. All about Waste:

Aim is to assist cleaning staff identify the various waste types

Understand the appropriate bins and signage

Support bins and what are they?

Confirm understanding of the Building Management Programs

Confirm Waste Contractors servicing the site and systems

Where does the waste go

Waste hierarchy understanding the benefits of Avoid, reduce, reuse and recycle

Recycling – what is recyclable?

Can the cleaners make a difference?

Importance of contamination and leakage

Waste Management Plan

- Key Element of the Environmental Plan for Re-development and new development.
- Require as part of the Design Application for Councils
- It includes:
 - Estimates of the expected waste profile
 - Estimates of the quantity of waste and recycling generated by area
 - Recommended systems for the management of the estimated waste profile
 - Review of the proposed waste areas to ensure consistency with waste systems, and volumes and provide feedback on adequacy of areas and requirements specific to the streams expected;

Waste Management Plan

- Outline of waste management practices within the development, noting the containment and flow of waste through the building;
- Advise in relation to recycling opportunities;
- Confirmation of access requirements of expected waste and recycling vehicles.

Waste Management Plan

WASTE MANAGEMENT PLAN

LEONGATHA LEARNING CENTRE
CENTRAL GIPPSLAND INSTITUTE OF TAFE



PREPARED BY WASTE AUDIT AND CONSULTANCY SERVICES

FOR

PAUL MORGAN ARCHITECTS

MAY 2009

➤ PO Box 1667 Rozelle NSW 2039 Australia ➤ Tel (02) 9818 8267 Fax (02) 9818 8271
➤ nsw@wasteaudit.com.au

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Waste Tender

- Preparation of Tender Document
- Management of Tender Process
- Analysis of tender submissions
- Review of proposed systems and comment on effectiveness and
- Preparation of short list with recommendations

Contract Management

- Procurement of services
- Implementation
- Reporting
- Contractor management
- Establishment of site waste action programs and
- Review of performance against KPIs

Contract Management

- Eg. Jones Lang LaSalle
 - Monthly reporting – preparation of portfolio reports
 - Site Monthly meetings and Action Plans Reviews
 - Management Monthly Meeting
 - Site review – Tenant Evaluation
 - Cleaners Practices Review and educational toolbox sessions
 - Tender Analysis and Implementation Support

Contract Management – Action Plan



Waste Reduction Action Plan

Building Name: 2 Park St

Date: 15th January 2010

Attendees: Nicola Dilworth (JLL) Manas Risal (Glad), Kerry Thompson (WACS – Phone Hook Up), and Sandy Casaroli (WACS – Phone Hook Up)


Apologies: Richard Adams (WSN) and Lauren Pearce (WSN) – difficulty dialling them in at our end

Objective:	Reduce current contamination levels in current waste and recycling streams Diversion of recyclable material from general waste stream to appropriate recycling stream
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Priority	Material Type	Completion Date	Actions	Responsibility of
A	Collections over the Christmas Period	December 09	- AMCOR did not provide some services over the break – the site has been advised that there was a driver change & a truck breakdown. No additional action required.	Note Only
A	Co-mingled Recycling	December 09	- WSN will provide details of the vehicles' registration when provided by subcontractor – has this been actioned - Collection frequency to be increased to 3 times a week – Mondays, Wednesdays and Fridays. (this will then be reassessed in January) – this has been actioned	WSN
A	Glass Recycling	December 09	- Collection frequency to be increased to twice a week – Tuesdays and Fridays – this has been actioned	WSN

Contract Management

SIGNAGE

Comment:	Whilst the signage on the comingled and paper bins throughout this tenancy was good and supports building management programs, in some cases it was obscured by boxes or other office clutter. There was no signage on the general waste bins nor on any walls above the bins.
Rating	
Actions:	<ol style="list-style-type: none">i. Add consistent signage to all general waste bins.ii. All bin lids should be signed as well as the sides – this would overcome any obstructions around the bins.iii. Where possible add signage to the walls above bins.iv. Ensure signage is unobstructed by clutter.

Strategy Development

- Assist in the development of waste minimisation and corporate environmental strategies. Including implementation plan and resource requirements.

Strategy Development - Example

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On-site facilitation

- Assist in the set-up and training of waste/environmental committees
- Assist in establishing targets and objectives

Current Clients

- Property Management

Clients	Services Provided
Jones Lang LaSalle – GPT & APPF Fund (28 commercial buildings)	Reporting Contract Management Education
Lend Lease (9 shopping centres, recently acquired another 14 centres)	Reporting Strategy Development Contract Management
Colonial First State (34 shopping centres, 23 commercial building)	Waste Tender Strategy Development
AMP Capital (working with 9 centres, current portfolio comprise 40 shopping centres)	Waste Tender Waste Management Plan

Current Clients

- Financial Institution

Clients	Services Provided
Commonwealth Bank – through Energetics	Strategy Development Waste assessment Waste Audit

- Health Care

Clients	Services Provided
Frankston Hospital	Waste Audit
St Vincents Hospital	Waste Assessments
Royal North Shore Private	Waste Management Plan

Current Clients

- Government Departments

Clients	Services Provided
DECC Newcastle	Disposal Based Survey
Wollongong City Council	Disposal Based Survey
TIDC	Waste Audit

- Charity & Community Services

Clients	Services Provided
Anglicare	Waste improvement program
Resthaven	Waste audit Waste tender Education
Baptist Church	Waste Audit

Current Clients

- Retail

Clients	Services Provided
Westfield Shopping Centre	Waste Tender

- Property Developers

Clients	Services Provided
Bovis Lend Lease	Waste Management Plans
Lipman	Waste Management Plan

Current Clients

Clients	Services Provided
Opera House	Waste Management Program Waste audits
Hobsons Bay City Council	Waste audit of public place recycling
TRUenergy	Waste Processes Review

Reports Examples

Clients	Services Provided
Waste Audit Report	HoldenSA_Final Report.pdf
Waste Management Plan	Waste Management Plan.pdf
Tenancy Review	Chifley Tenant Review Report - Tokio Marine.pdf
Site Action Plan	2 Park St WRAP January 10.doc
Tender Recommendations	PREFERRED OPTIONS REVIEW_Workplace 6 20091028.doc
Public Place Recycling Guidelines	p02955aa.pdf
Monthly Waste Report	December 2009 GPT Core_20100127.doc
Disposal Based Survey Report	Report 2007- Final Draft.pdf



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