

# Waste Management Plan

Prepared by

**Beau Con (Hospitality) Pty Ltd (BC)**

Prepared for

**Campbell's Stores**

**Tallawoladah Pty Ltd**

## **1. Basis of Assessment**

### **1.1 Overview**

Beau Con Pty Ltd was commissioned by Tallawoladah Pty Ltd to prepare a waste and recycling management plan associated with a proposed development of Campbell's Stores from the four current restaurants to a collection of up to 12-14 Restaurants, Bars and Cafes.

Campbell's Stores currently consists of:

<b>Name</b>	<b>Size</b>	<b>Capacity</b>
▪ Waterfront Seafood Restaurant	1,750m <sup>2</sup>	900
▪ Wolfies Grill	1,107m <sup>2</sup>	550
▪ Imperial Peking	1,600m <sup>2</sup>	800
▪ Italian Village	1250m <sup>2</sup>	650
<b>Total</b>	<b>5,707m<sup>2</sup></b>	<b>2,900</b>

The redeveloped Campbell's Stores proposes to consist of:

<b>Name</b>	<b>Size</b>	<b>Capacity</b>
▪ Restaurants	3,866m <sup>2</sup>	1,700
▪ Cafes	466m <sup>2</sup>	300
▪ Bars	824m <sup>2</sup>	400
<b>Total</b>	<b>5,156m<sup>2</sup></b>	<b>2,400</b>

Fundamentally, from a volume perspective the Waste Management will remain similar to the existing process of the individual restaurants delivering their waste and recycling to the central collection point of the Loading Dock located adjacent to Circular Quay West, via the service tunnel that is accessed from all 11 existing bays and the new Bay 12 building.

As Asset Manager, Tallawoladah Pty Ltd deliver a major improvement to the process of Waste Management by offering a centralised, managed outcome delivering a consistent process that will form the basis of the individual tenants Waste Management Plans.

### **1.2 Location and Description**

Campbell's Stores is located at 7-27 Circular Quay West, The Rocks, Sydney NSW 2000, bounded by the Campbell's Cove Promenade to the north, Hickson Road to the South, the Overseas Passenger Terminal to the east, the Park Hyatt Hotel to the west, Campbell's Stores. The ground level Loading Dock for all deliveries and waste collection is situated on Circular Quay West.

The redeveloped Campbell's Stores will consist of 11 heritage listed 3 storey bays and an additional building known as Bay 12 that will share the same access methods and facilities as Bays 1-11.

### **1.3 Purpose**

Tallawoladah Pty Ltd, as Asset Manager assume responsibility for the overall management of waste within the Campbell's Stores Loading Dock. The anticipated 12-14 Restaurants/Cafes/Bars Tenancies are each responsible for the management of waste within each tenancy and the delivery of all waste to the centralised Waste Management Area located within the Loading Dock. Each individual Tenancy will complete their own Waste Management Plan aligned with the principles of this Master Waste Management Plan.

### **1.4 Objective**

The primary objective of the Campbell's Stores Waste Management Plan is to establish processes enabling waste to be collected in a manner that minimises noise, volume of traffic and cross contamination therefore maximising the potential for minimal impact on the neighbourhood and to promote recycling.

This management plan is a fluid document which will be adjusted as required to meet the changing requirements and regulations in the Waste Management Industry including:

Changes in tipping costs	Changes in what is accepted at tips
Changes in recycling methods	Changes in the definition of waste
Usage patterns and behaviour	Environmental, Presentation, Pest control etc

## **2. Waste Management**

### **2.1 Waste Overview**

For the purposes of this plan all waste is split into 4 major waste streams:

**Recyclable** – any item that is recyclable commonly referred to in this document as “**Dry**” waste.

**Non-Recyclable** - cross contaminated or non-recyclable waste streams, commonly referred to in this document as “**General**” waste.

**Organic Waste** – Food waste/organic waste that can be recycled through the organics waste stream via the PulpMaster system commonly referred to “**Organic**” waste in this document.

**Special Waste** – waste that must be handled in a special manner that may result in recyclable waste, items that are partially recyclable, re-usable products or non-recyclables

### **2.2 Waste Handling, Collection, Removal & Disposal**

It is intended that one principal waste management area will be provided within the Loading Dock of Campbell's Stores. All waste from tenancies within Bay 1 through to Bay 12 will be consolidated in this one centralised waste management area. This process achieves greatest noise minimisation, efficient storage and consolidated collection from this one central area for the entire Precinct. **(Refer Appendix a.)**

The general procedures for the collection, handling and movement of waste from the various areas within the Precinct to the centralised waste management area:

### **2.3 Waste Management Area –General Waste**

2 General Waste 660L Bins will be provided at this location for the use of Precinct venues and cleaners. All General Waste will be transported in mobile plastic bins (green 240 litres) to the waste management area. Collection will be arranged on an as needed basis, anticipated to be twice a week in low season April to August and 4 times a week in high season September to March.

### **2.4 Waste Management Area – Organic Waste**

Organic/food waste is to be separated from other waste streams and placed in the Organic waste bins provided (Purple 120 litre mobile bins). Organic Waste will be processed in the PulpMaster system and converted to compost. The resulting compost will be used within the precinct pending approval from National Parks or collected for landfill, if not, albeit in significantly less volume. **(Refer Appendix b.)**

### **2.5 Waste Management Area - Cardboard Recycling**

A cardboard compactor is located in the waste management area. All cardboard will be transported in mobile plastic bins (240 litres) to the waste management area. 1x50Kg bale is anticipated per week. **(Refer Appendix c.)**

### **2.6 Waste Management Area - Glass Recycling – Whole Bottles and Crushed Glass**

Whole Bottle Glass bins (blue 240 litre bins) will be located in the BOH areas of the Officers Mess and The Armoury. All glass waste is to be transported via these bins to the waste management area. A Bottle Crusher will be located at the waste management area to crush and store all crushed glass in blue 75 litre bins. Crushing of glass will be conducted at after 9.00am and before 10.00pm at night. It is estimated that 4x75 litre bins will be sufficient for the anticipated volume of glassware per week, year round. This will ensure a minimum of collections as glass is one of the bulkiest waste requirements. **(Refer Appendix d.)**

### **2.7 Waste Management Area – Cooking Oil Recycling**

A cooking oil recycling system is located within the waste management area. Oil caddies supplied by the service provider will be used to transport cooking oil for storage within the oil recycling system, ready for collection on an as needed basis. An estimated 1,000 litres of cooking oil will be consumed and recycled per year for Officers Mess, The Armoury and Constables Cottage. **(Refer Appendix e.)**

### **3. Defining Waste**

For the purposes of this plan all waste is split into 4 major waste streams:

**Recyclable** – any item that is recyclable (dry waste)

**Non-Recyclable** - cross contaminated or non-recyclable waste streams (general waste)

**Organics** – waste of a food nature that is to be recycled.

**Special Waste** – waste that must be handled in a special manner that may result in recyclable waste, items that are partially recyclable, re-usable products or non-recyclables

#### **3.1 Recyclable Dry Waste**

##### **3.1.1 Sorted Recyclable Waste**

This waste will be collected by an approved **Environmental Services Contractor**

##### **Paper Waste**

Paper Waste is disposed of in the cardboard bins nominated as Cardboard Waste bins and no other non-paper material such as Wet Waste, hazardous and construction materials is to be placed in such bins.

Paper Waste includes the following:

Cardboard	Photocopy paper
Printed or typed reports	Computer printouts
Writing pads	Hand towels
Newspapers	Phonebooks
Magazines	Brochures
Envelopes	Cardboard boxes

All other items containing some sort of paper/ cardboard/ fibre materials.

##### **Glass Waste (Food area)**

Glass includes -all clear, green and amber glass bottles, and jars. This waste will be disposed of in the blue glass recycling bins

##### **Aluminium Cans (Food Area)**

At this time Aluminium waste is disposed as general waste

**Cooking Oil (Food Area)**

Cooking Oil is stored in the onsite cooking oil recycling container for collection. The oil is recycled as bio-diesel by the “Oil recycling contractor”.

**3.1.2 Unsorted Recyclable Waste**

Unsorted waste will be disposed of as General Waste

**Milk and Juice Cartons**

- milk and juice cartons;
- poppers; and
- brick shaped cartons - eg, long life milk/juices.

This waste will added to the general waste bins located in the waste management areas

**Steel Cans**

- Steel cans - eg. food, coffee

**Plastics**

- Plastic Bottles

**3.2 Non – Recyclable Waste**

**3.2.1 Wet Waste**

Wet Waste is disposed of in general Waste bins and the general waste compactor nominated as general Waste and that no other material such as Recyclable Waste is placed in such bins. This waste will be collected by **Watts Waste**

*General Waste is all waste not covered under the other recycling streams*

**3.2.2 Cross Contaminated Waste**

All waste that is not separated and has General waste mixed with recyclables will be disposed of as General waste so as not to contaminate the recycling streams.

**3.3 Special Waste**

**3.3.1 Recyclable & Partially Recyclable Waste**

**Fluorescent Tubes**

Fluorescent Tubes will be disposed of in general waste, or, in bulk removed from site by the contractor replacing them.

### **3.3.2 Non-Recyclable Waste**

#### **Sanitary Waste**

The sewerage system is not designed to dispose of sanitary waste. One sanitary waste bin will be installed in each female toilet cubicle. A specialist contractor will remove these bins from site and replace them with clean empty bins on a frequency to be determined by actual usage patterns.

#### **Sharps**

Sharps and in particular discarded syringes are becoming more common in publicly accessible areas (parks, toilets etc.). The team will be trained in how to deal with sharps they encounter during the performance of their duties however it is more desirable to provide a safe disposal option for sharps users so that there is no risk of contact. Sharps containers are not provided in public spaces. If sharps are discovered then Precinct Management should be notified immediately and the cleaners will remove and dispose of.

#### **Other Hazardous Waste**

Other Hazardous waste will be dealt with on a case by case basis. Management should be contacted if there is any uncertainty about the classification of waste.

### **3.4 Trade Waste**

Trade waste will be mostly managed with Grease Arrestors installed at the Officers Mess, The Armoury and Constables Cottage in compliance with Sydney Water criteria SW255 01/13. Trade Waste will be collected on a quarterly basis or as required at approximately 6.00am, all required access permits approvals will be sought as part of this process. The proposed collection time will ensure there is no disruption to any aspect of the precinct or neighbourhood.

Grease extractor units will be housed on Gap Bluff precinct to ensure all aspects of waste water treatment are completed appropriately, this includes a Sydney Water trade waste permit.

Trade Waste will be collected from the grease traps by a licensed service provider as per the licence agreement with Sydney Water. This will ensure that no fats and oils flow to sewer and that the depth of the solid mass remains able to be broken up for pumping and aligned with the contract with Sydney Water. The pumping at the grease traps will occur at times when the smell from this process has the minimum impact on the occupants and visitors of the site. The service will be performed by a licensed service provider who will use EPA approved liquid waste tankers. Water is removed from the waste and sent to sewer and the grease is sent for recycling.

## 4. Waste Volumes

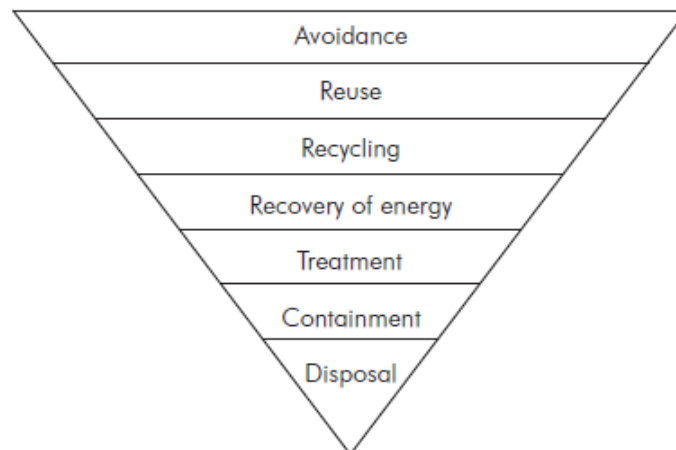
The enclosed waste estimates, expressed in uncompacted cubic metres per week, are summarised as follows;

Refer to the enclosed waste generation calculations for further detail.

	Garbage	Food Waste	Recycling	Cardboard/Paper
Kitchens/Restaurants/ Cafes/Bars	70.35	17.59	70.35	11.73
Total m3/wk uncompacted	78.41	19.36	131.11	13.17
Collection Bins	240 litre	125 litre	240 litre	240litre

## 5. Waste Minimisation Strategies

The operator will be responsible for the education of staff in the practices of waste reduction/minimisation to divert waste from landfill. This will be achieved by the following:



- Document and distribute details of the waste management system that is in place on site to all staff
- Distribution of notices to all staff encouraging waste separation
- All bins to be labelled and colour coded stating types of waste that can be deposited i.e. paper/cardboard bins, container recycling/garbage bins
- Any future change to regulatory requirements or to the developments' waste generation rates will require the operator to conduct a waste audit and revise the waste management system that is in place accordingly

## **6. Waste Minimisation Strategies**

As bins and cleaner's trolley would be "wheeled" throughout the building, any ramps would require a maximum gradient of 1:14 to meet regulatory requirements (steps not permitted).

Items unsuitable for disposal via garbage or recycling bins would need to be disposed with the assistance of the Asset Manager. This would include: large, heavy, and liquid waste items.

To minimise security, vandalism, odour/visual impact, and health/safety issues, the following shall be implemented:

- Transferring waste and shifting bins shall require the minimum possible manual handling. The Asset Manager will assess manual handling risks as per regulatory requirements and provide appropriate documentation to staff;
- Signage and usage labels for the garbage and recycling bins will be provided by the operator;
- Bin stores will be secure and vermin proof and ventilated in accordance with Australian Standard AS 1668.2;
- A bin wash area comprising a tap and floor drain with trap and sewer connection has been provided;
- The Asset Manager shall keep clean the bin stores, keep bin lids closed and wash bins regularly;
- The Asset Manager will ensure prompt return of empty bins once collection has occurred;
- The Asset Manager shall prepare operational instructions and an operational health and safety procedure for site staff; and
- A traffic management plan and collection-vehicle safe operation procedure shall be prepared by the Asset Manager in consultation with Sydney City Council prior to collections being performed on site.

## 7. Waste Management

### 7.1 Waste Handling Equipment

The following waste handling equipment is recommended.

Compactor: 8 cubic meter transportable compactor  
 Compacted calculation = (weekly garbage and recycling volume/3:1 compaction ratio)  
 = (36.19+87.83/3): 41.345m<sup>3</sup> for weekly collection  
 Note: to be operated by Asset Manager and collected by private contractor

Cardboard Compactor: Cardboard compactor with holding cage and compaction ratio of 3:1,  
 Note: to be operated by Asset Manager and collected by private contractor

Bin Lifter: Bin Lifter for lifting 240 litre garbage/recycling bins into compactor.

### 7.2 Waste Calculations

TOTAL			
<b>GARBAGE / COMMINGLED RECYCLED</b>			
<b>Weekly Garbage Volume</b>	<b>160.13</b>		<b>cubic metres</b>
<b>Compacted Volume</b>	<b>53.37</b>		<b>ratio 3:1</b>
<b>8m<sup>3</sup> Compactor</b>	<b>8</b>		<b>cubic metre</b>
<b>Frequency of collection</b>	<b>7</b>		<b>per week</b>
<b>Bins required for transfer</b>	<b>1</b>		<b>240 litre</b>

<b>CARDBOARD</b>			
Weekly Paper/Cardboard Volume	11.73		cubic metres
Compacted Volume	3.91		ratio 3:1
Bale Size (LxW)	1.300x1.300		Square metre
Frequency of collection	2		weekly
Approximate number of bales collected	2		per week

<b>FOOD / ORGANIC WASTE</b>			
Weekly Organic Volume	18.29		cubic metres
Bin Type	125		litre
Frequency of collection	7		per week
Bins required for collection	21		
Organic Total bins required	21		

## 7.4 Bin Summary

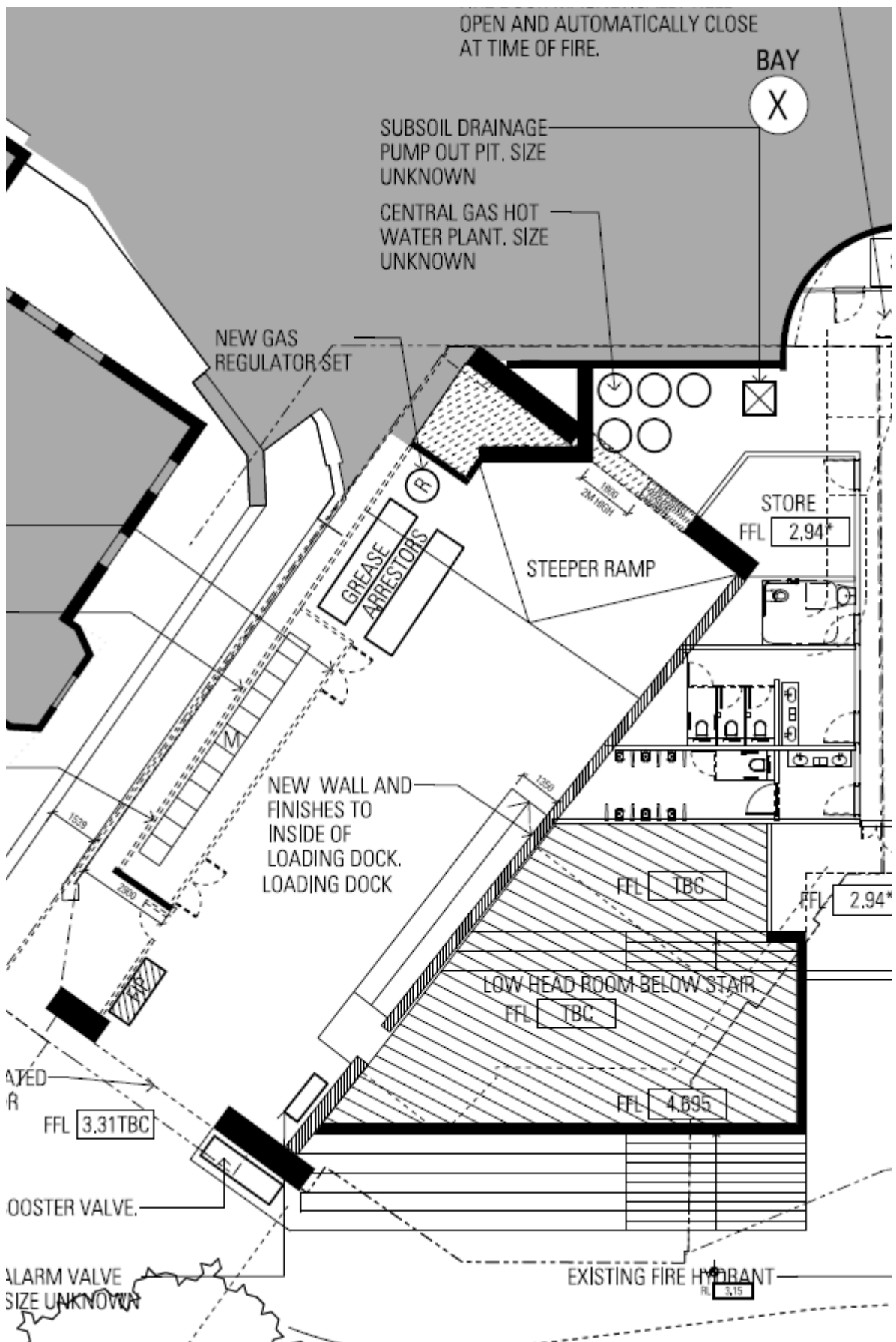
Bins for Storage and Collection

125 litre Food Bins	30
8m <sup>2</sup> Compactor	1
Cardboard Bales	2

**Appendix a.**

**Waste Management Area**

**Campbell's Stores – Waste Management Plan**



Appendix b.

Organic Waste Disposal

Pulpmaster 4000

Pulpmaster is a food waste management system that will solve the food waste challenges of many businesses. The Pulpmaster 4000 food waste recycling system is a cutting edge solution for the recycling of food waste in commercial food business'. The Pulpmaster 4000 is approximately the size of an average washing machine and allows easy separation of food waste for recovery as a clean source for organic compost and/or for electricity generation through anaerobic digestion.



Features

- › Fabricated from stainless steel for durability
- › Organic solid and liquid waste cycles
- › SMS back to base communication
- › Tank level on LCD display
- › Tank level SMS message sent via email
- › All functions continually monitored
- › All mechanical functions in the machine
- › Category 4 safety rating
- › Splash guard
- › Automatic lid
- › Emergency stop button
- › Wash flexi hose

The Purple Bucket System

Pulpmaster has introduced the Purple Bucket System to make it easier for our customers to collect their food waste so they aren't constantly walking to the machine if their prepping bench is not close by.

Our customers love this system because it improves their time efficiency, makes it easier to place the food waste in the machine and helps keep the benches clean and clear as they aren't having to leave off cuts/food waste on the benches until they make a trip to the machine, it just goes straight into the bucket and straight into the machine. The striking purple colour makes it easier for staff to find the buckets in the kitchen and it is also the national standard colour for organics.



Appendix c.

Cardboard Compactor

### Small Single Chamber Balers 50-80Kg Bales

This 1.5kW small footprint baler generates 4 tonnes of pressure and can produce bales weighing between 50-80kg depending on the material. This small baler is ideal for baling of cardboard or polythene as it combines its small size with incredible strength and durability.

It is supplied with a trolley for ease of handling the bales and once tied no heavy lifting is required. This baler features safety interlocks and is fully CE compliant. The baler requires a solid, level base on which to be sited.

**Features/Benefits**

- Volume reductions of up to 90%
- Easy bale handling
- Bale weight up to 80kg
- 25 sec cycle time
- Ergonomic filling height
- Material retainers for prevention of spring back
- Triple encoded safety devices
- Low operating noise, less than 80dB
- Includes bale trolley
- CE compliant



[envirotech.com](http://envirotech.com)

Appendix d.

Glass Waste Disposal



**BOTTLECRUSHER**  
The Leader in Bottle Crushing Technology

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OUR PRODUCTS

FOR YOUR VENUE

TESTIMONIALS

COMPANY

SUSTAINABILITY

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COMPACT BAR

*Reduce the amount of space you need to store empty bottles.  
Reduce the number of waste bins you need - from twenty bins to five.*

The Compact Bar BottleCrusher is able to crush bottles as fast as they can be fed into the machine. It handles all types of glass including beer, wine, champagne and spirit bottles.

The Compact Bar unit comes complete with a sturdy waste trolley and four spare waste trays making trips to the bin more efficient. Each waste tray holds approximately 50 wine bottles or 140 beer bottles and each trolley will safely transport 3 waste trays. The waste tray holds 16kg of crushed glass and complies with accepted occupational health and safety standards.

Eliminate noise complaints from nearby residents

The Compact Bar will remove the need to tip empty glass bottles into bins, eliminating bottle collection noise which can upset nearby residents.

Features

- ▶ Smallest and quietest in the range of BottleCrusher machines
- ▶ Stainless steel finish allows for seamless integration into any setting
- ▶ Quiet enough to be operated during service periods. Noise levels do not exceed that normally generated in a hospitality venue
- ▶ Moved easily between locations due to the lockable wheels. Can be transported simply for functions and special events
- ▶ Ideal for bars, restaurants and cafes



OUR PRODUCTS

- ▶ Compact Bar
- ▶ Space Saver
- ▶ BottleMaster

QUICK LINKS

- ▶ Watch the video
- ▶ Download Brochure
- ▶ Contact Us

TESTIMONIALS

"We purchased several BottleCrushers to help us easily dispose of waste glass, both in our packaging area and hospitality venues. They have helped us substantially reduce the number of glass bins required, saving valuable space." – Alex Troncoso...

Little Creatures Brewery

**Appendix e.**

**Used Cooking Oil Collection**

