

PEEL RESOURCE RECOVERY PTY LTD



Landfill Levy Proposal

Alternative Method

Prepared for:
Department of Water and
Environmental Regulation

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1 Introduction

Peel Resource Recovery Pty. Ltd. (PRR) is a privately owned and operated company specializing in waste management and resource recovery solutions. Initially formed as J.W. Cross & Sons in 1964 – a specialist in civil contracting services, the company has since diversified into providing efficient waste and materials reclamation services to the wider south-western region of Western Australia. Through the decades PRR has continued to reinvent itself to stay relevant with the current economic climate and meet the demands of customers. As a market leader in providing innovative waste solutions, the company strives for continued excellence.

To cope with the high demand imposed by its valued customers, PRR proposes an alternative method for landfill levy to be put in place to adhere with the guidelines set out by the Department of Water and Environmental Regulation (DWER). This will enable PRR to effectively track origin and volume of waste, thereby enhancing its corporate environmental responsibility. Through preparation and submission of this document, PRR hopes to demonstrate to DWER its commitment to the environment and how imposing this alternate method of Landfill levy will further promote the reduction of wastes in the community.

1.1 Proponent

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1.2 Background

PRR is a leader in waste management in Western Australia, operating various waste transfer stations, quarry operations & materials recycling facility while also having possession of a single class I landfill falling under *Category 63*. Since the introduction of the *Waste Avoidance and Resources Recovery Act (2007)* and corresponding amendments, the business has grown into a respected pioneer in providing innovative, efficient and strong sustainable practices in resource recovery, most especially from the construction & demolition (C&D) industries.



The centre of operations is the Materials Reclamation Facility (MRF) and Class 1 Landfill site (L7060/1997/13) in Australind, which has been running for more than two decades. This facility is the largest of its type in Western Australia and specializes in the recovery of recyclable products. Most of the waste is from C&D, and is separated, sorted and reprocessed to provide quality products.

The company's recycling station in Australind sorts and separates different types of rubbish into their respective streams i.e. plastic, recycled sand, brick chips and metals.



(a)

Figure 1: Recycled Sand Processed from Recycling Station (a) Trommel

1.3 Aims and Objectives

The aim of this document is to showcase PRR's determination in complying with DWER regulatory guidelines - as is the case with the landfill levy - while impacting the environment as minimally as possible. The objective of this document is to formulate a reliable method to calculate landfill levy for metropolitan wastes, while aligning with the *Waste Strategy and Objectives 2030*.

2 Site and Operations

2.3 Site

The MRF is located at Australind Site - Lot 43 (70) Stanley Road in Wellesley, WA 6233; approximately 140 kilometres south of Perth within the Shire of Harvey (refer to Figure 1). The site occupies a total area of 77.2 hectares and is currently zoned as 'rural' under the Greater Bunbury Region Scheme (*Department of Planning, 2014*). The MRF and sand quarry cover approximately one third of the site, with the remainder as bushland.



Figure 2: Aerial Map of the Site at Stanley Road

Note: Abbreviations for Figure 1 are as follows:

- **PS** - picking station
- **GW** – green waste
- **Asb** - asbestos
- **Conc** – concrete pile

2.4 Operations

The operation of the recycling facility can best be illustrated by Figure 2, as shown below.



Figure 3: Recycling Station Process

3 Landfill Levy

As per the *Waste Avoidance and Resource Recovery Levy Act (2007)*, PRR is required to pay a percentage for incoming waste from the metropolitan area(s).

PRR is using an alternative way of calculating waste volume and landfill levy. This is the somewhat similar methodology which Waroona Landfill is using.

The loaders on PRR site are equipped with certified load rite scales which are calibrated via Sitech company every year. The loader loads the dumptruck which makes continuous errands while picking station is running. It carries the recyclable materials like concrete, sand, timber, metals to its respective stockpiles and also carries plastic materials from picking station to the landfill area for burial. Each load is recorded by the loader operator in a book with the weights in tonnes every day while picking station is running.

Here, final volumes of sorted material and landfill materials are recorded, based on where the loads are directed to on site (e.g. recyclables, tyres, or landfill etc.).

The gatehouse attendant records the origin of the incoming waste on a DWER form and PRR documentation which is sent back to the PRR – Pinjarra Office where invoicing is done with all materials itemised with size of the truck. To determine if the waste is metro/non-metro all companies carrying loads for tipping at Stanley Road site are required to complete a form and declaration about the origin/source of the waste.

As described in the paragraph above, volume of both metro/non-metro origin are recorded. Also, due to origin of waste being recorded, the proportion/ratio of metro versus non-metro origin wastes can be calculated. A final percentage will be recorded and this will be applied to calculate landfill levy for metropolitan wastes.

Loads are of two types 1. Clean Recyclables & 2. Mixed Recyclables

Clean Recyclables loads which are just sand, concrete, Timber, Metals, Fibre Cement are directly sent to respective stockpiles area.

Asbestos and Tyres are also sent to respective areas for landfilling. In this case Tyres are fully waste tracked as they come with waste tracking forms. If origin of tyres in Waste tracking forms are Metro then they are charged landfill levy and DWER informed and paid directly. Asbestos is also fully tracked, with every information recorded in asbestos register. No landfill Levy is charged on asbestos (as per approved exemption notice EDSP11-18 issued to PRR dated 7th July 2018)

The Mixed loads are sent to the MRF (Recycling Station) for further processing where it is sorted and recycled. The clean recycled material is again sent to various stockpiles depending on the type of material.



A summary for this calculation is expressed stepwise below:

1. *Metro Waste + Non-Metro waste = Total Waste (Clean Recyclables + Mixed Recyclables) **TW***
2. *All Clean Recyclables of Metro + Non-Metro goes straight to Clean Recyclable stockpiles **CR1***
3. *Asbestos Load goes to asbestos area – Landfill Levy not charged (exemption valid till 30/6/19) **AS***
4. *Tyres also goes to Tyres area. And as per waste tracking forms if source is Metro then landfill Levy charged else no landfill levy. (Check waste tracking forms) **TY***
5. *All Mixed Recyclables of Metro + Non-Metro goes to MRF for further recycling **MR***
6. *Clean recyclables from Mixed recyclables are recorded and sent to the Clean Recyclable stockpiles. **CR2***
7. *Landfill Material sent to landfill is recorded and buried at landfill **LF***

The total landfill material recorded is then proportioned into metro & Non-Metro. This is what was recorded at the time of entry (where we know the percentage)

The metro percentage is then paid to DWER every quarter

Formulas:

1. *Asbestos ----- No landfill levy so no formula*
2. *Tyres ----- landfill Levy applies for Metro Tyres only (calculated as is received)*
3. **$TW - CR1 = MR - CR2 = LF$**

This LF is the total of Metro and Non-Metro MR waste.

The metro percentage which was determined at the very beginning will be paid to DWER

So, for example if Metro waste received was 15% then 15% of the recorded landfill material going to landfill will be paid. This will be in tonnes as our Load rite scales are weighing and recording every time the materials are sent from recycling station.



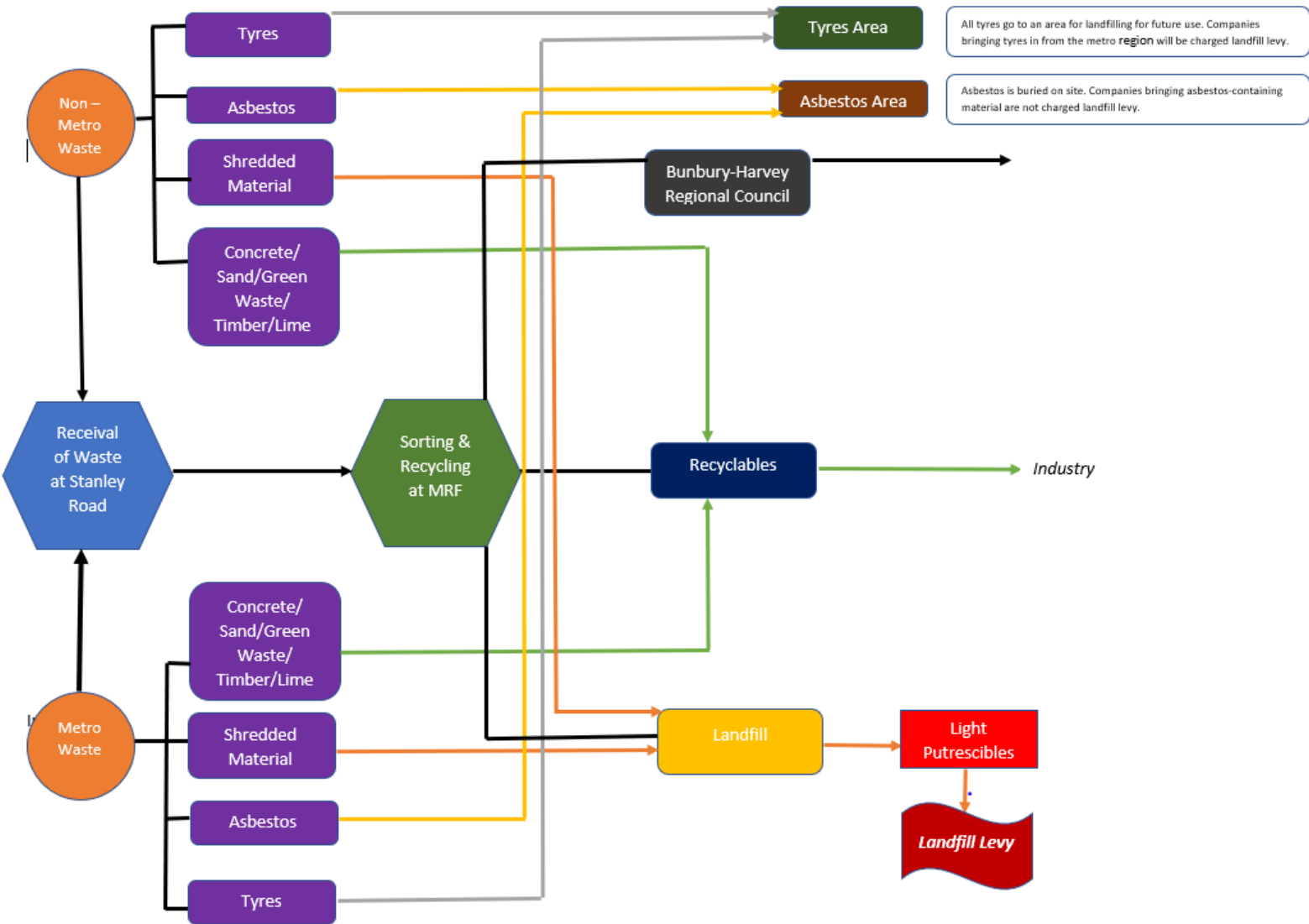


Figure 4: Process Flow Diagram of Product Streams



4 Conclusion

PRR is a long-withstanding, trusted organization in delivering smart solid waste solutions for residents and industries across south-western Western Australia in order to promote environmental awareness and build strong sustainability practices. The company prides itself on innovative processes across widespread operations to produce deliverables from reclaimed materials in a safe and efficient manner.

By employing this alternative method of landfill levy, PRR will meet compliance targets as set forth by DWER and adhere to guidelines as according to the *Waste Avoidance and Resources Recovery Act (2007)*. The recording will be accurate, justified and true to the waste being received at site. By aligning with this levy, not only will PRR be able to separate wastes more efficiently but will promote environmental awareness to all by outlining savings made when landfilled products are reduced. This also aligns with the *Waste Strategy Targets 2030* i.e. less generation of waste. The protection of the environment is paramount to the organization's policies and the implementation of the landfill levy will only ensure corporate responsibility regarding this matter.

PRR greatly hopes to demonstrate that its strategies are sound and justified in proving the Waste Authority's targets practicable.

