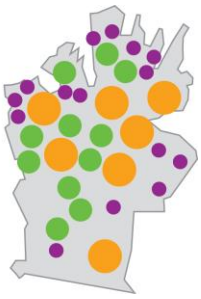
SEPTEMBER 2016

Sydney Matters
INDEPENDENT TEAM



SYDNEY MATTERS RUBBISH AND WASTE MANAGEMENT PLAN FOR THE CITY OF SYDNEY

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GOALS FOR RUBBISH AND WASTE MANAGEMENT IN THE CITY OF SYDNEY

1	Implement the 3R Strategy (Reduce, Reuse and Recycle) and increase resource recovery and recycling rates.
2	Explore the provision of a free recycling service for business.
3	Prioritise waste prevention and reduce the rate of waste produced per person.
4	Enhance the flexibility and mobility of rubbish and waste management services.
5	Utilise innovation and technology solutions to address the rubbish and waste management challenge.

THE CURRENT SITUATION

The issue of rubbish and waste management is a growing concern for the City of Sydney's residents, business owners, community and environment. If actions are not taken today to change how we manage waste by 2030 our LGA will send more than 200,000 tonnes of waste to the landfill every year. Furthermore, landfill sites in close proximity to the city are quickly running out of space and landfill costs have skyrocketed 300% over the last ten years. As a result, long-term solutions are needed to ensure that The City of Sydney can efficiently and effectively manage rubbish and waste as the population and economy grow.

The Sydney Matters Independent Team will take a proactive stance towards waste management and apply innovative technology which enables the automation of the waste management process. We will implement policy and action which addresses the short and long term outcomes with a strong focus on the responsible management of waste in line with environmental best practice and sustainability.

CHALLENGES

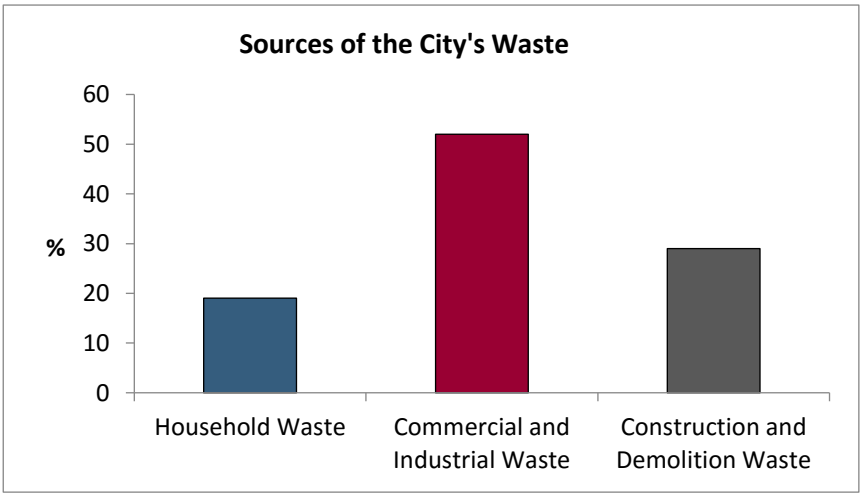
There are numerous challenges which the City of Sydney face in its bid to effectively and efficiently manage rubbish and waste in the LGA, most notably:

- Legislative, technological and behavioural change is pertinent to ensure a zero-waste future is a reality for the City of Sydney.
- Growth in the population, changing patterns of consumption and the expansion of urban living has proportionately increased the amount of rubbish and waste produced by our city.
- Current methods of rubbish and waste management are unsustainable and we are currently producing waste at a rate faster than we can recycle.

- Current landfill in proximity to the City of Sydney running out of space/operating at capacity.

FACTS AND FIGURES

- On average each Australian produces 13.5kg of waste each week.
- The City's residential annual waste will rise to 80,000 tonnes in 2030, an increase of 26,000 up from 54,000 in 2006.
- Waste produced by businesses will rise in the same period to 307,000 tonnes in 2030, an increase of 59,000 from 248,000 tonnes in 2006.
- In the Sydney Metro Region no new landfill has been introduced since 2003.
- By 2021 there will no remaining local landfill capacity.
- Since 2009 there has been no new treatment facilities constructed.
- The City of Sydney is a major business hub and this is reflected in the proportion of waste put out by household's (19%) as opposed to Commercial and Industry (52%) and Construction and Demolition (29%).



OUR INNOVATIVE PLAN FOR INNER-CITY RUBBISH AND WASTE REMOVAL

The Sydney Matters Independent Team has an innovative action plan for Rubbish and Waste Removal. The core focus of our plan is the 3R Strategy (Reduce, Reuse and Recycle) with smart technology playing a central role in achieving our goals.

1. Reduce – Reducing what is consumed and what is produced.
    - Design measures and work with retailers and producers to reduce waste at its source. For example:
        - This includes but is not limited to redesigning packaging to either consume less material or moving to more sustainable alternatives.
        - Landscaping which creates mulched gardens.
    - Change purchase practices within the City of Sydney to:
        - Avoid items that are excessively and needlessly packaged.

- Invest in durable goods when making a major purchase.

2. Reuse – Using a product more than once in its original form.
    - Promoting the development and creation of projects utilising already existing materials and objects.
    - Initiate a 'Can this be reused?' campaign to inform residents and businesses of the ways everyday objects can be re-imagined and re-purposed.
3. Recycle – Transforming waste into raw materials which can be shaped into new items.
    - Work with the state and federal government to develop a more comprehensive policy at all levels which provides a more holistic approach to recycling in the private and public sectors.
    - Develop new innovative recycling solutions for households, businesses and industry which are underpinned by technology.
    - Explore the concept of free recycling services for business owners.
4. Technology and Innovation
    - The Sydney Matters Independent Team could use new methods of waste management that are driven by technology. For example, a combination of Big Belly Solar Compactors and Enevo Waste Collection technology to manage the rubbish and waste management challenge in the short and long term.
    - In the short term we can roll out Big Belly Compactors around high-density housing and other hot spots around the city and move to eventually replace traditional bins completely overtime. We can support this via the installation of technology on traditional dumps and bins.

    - *Big Belly Solar Compactors*
        - Have a high capacity of 600L which at capacity is the equivalent of 5 standard 120L wheelie bins.
        - Reduces collection frequency by 80%.
        - Utilises solar power to charge an internal 12V battery making it self-sufficient and environmentally friendly.
        - Sends email and or texts when the bin is 85% full.
        - Can be customized for specific functions and uses i.e. foot pedal, ash try and side panels, etc.

    - *Waste Collection Technology*

      For example, Enevo technology automates the planning of waste collection and optimises collection routes. This technology also:

        - Uses ultrasonic sensors to remotely measure the fill-level of waste containers and a cloud service to forecast when bins will become full and optimise the collection route and schedules.

- Provides reports and insights regarding recent collections, upcoming collections, alerts (overfull containers, partial collections, unscheduled collections, movement) and sudden changes.
- The planning tool takes into account fleet availability, road restrictions and traffic, calculating millions of different alternatives and selecting the most economically efficient collection plan for the next 30 days.