

### **3.1. Council's Waste Management Services**

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**ATTACHMENTS:** Nil

**PURPOSE:**

The purpose of this report is to provide an overview of Council's waste management services.

**EXECUTIVE SUMMARY:**

Council provides the residential waste and recycling collection services to 36,000 dwellings under contract with URM. The Waste Collection Contract expires 30 June 2026 with an option to extend the term for a further 3 years. Collection services include weekly garbage and commingled recycling, public place recycling collections, illegally dumped rubbish collections, pre-booked fortnightly garden organics and household clean-up services.

Waste disposal and processing is currently contracted to Cleanaway. The Waste Disposal and Processing Contract expires 30 June 2024 with an option to extend the contract for a further 5-year term. The waste stream is delivered to the Artarmon Transfer Station where it is bulked up and transferred to the Lucas Heights Landfill. The Greenwaste Processing and Bulky Waste Disposal Contract expires 30 June 2026 with an option to extend the term for a further three years. Greenwaste is delivered to the Ryde Transfer Station where it is bulked up and transferred to an Organic Resource Recovery Facility at Eastern Creek. Bulky Waste is delivered to Artarmon Transfer Station where it is bulked up to be landfilled at Lucas Heights.

An adjunct to the waste collection and disposal services is the Community Recycling Centre (CRC) located in Artarmon. It is a drop off facility for problem household waste. North Sydney Council operates the facility on behalf of the City of Ryde and the Councils of Hunter's Hill, Lane Cove, Mosman, and Willoughby. Residents can safely dispose a number of household problem waste including paint, motor oil, gas bottles, fire extinguishers, e-waste, light bulbs, batteries, smoke detectors, x-rays, printer cartridges and mobile phones.

**FINANCIAL IMPLICATIONS:**

There is no financial implications for this report.

**RECOMMENDATION:**

**1. THAT** the Waste Services Report be received

## **LINK TO COMMUNITY STRATEGIC PLAN**

The relationship with the Community Strategic Plan is as follows:

5. Our Civic Leadership

5.4 Council's service delivery is well supported

### **BACKGROUND**

From 2006-2018, under contract with SUEZ, Council sent its waste for processing at an Alternative Waste Treatment (AWT) facility known as the UR3R, located in Eastern Creek. The waste was delivered to the Artarmon Transfer Station where it was bulked up for transportation to Eastern Creek. The UR-3R Process incorporated a range of process steps that resulted in the recovery of dry recyclable materials from incoming mixed waste, the production of Mixed Waste Organics Outputs (MWOO) and the generation of electricity. The UR3R facility extracted the food waste and other organics from the red bin to generate compost. Recyclables such as paper, plastics, glass and metals were also extracted from the red bin. As a result of this system, Council achieved a resource recovery rate of 65% from the red bin. Council's total waste diversion rate was 71% when combined with the kerbside collections from the commingled recycling bin and greenwaste clean up. Council surpassed the State Government's previous waste diversion targets and was consistently placed in the top three performing Councils in NSW.

In 2018 the Environment Protection Authority (EPA) banned the application of the Mixed Waste Organics Outputs (MWOO) to land due to risks associated with chemical and physical contaminants. Given the State Government's ban on the application of MWOO on land Council's waste diversion opportunities are significantly compromised as waste is now landfilled under the current Waste Disposal Contract and the Waste Collection Contract.

### **CONSULTATION REQUIREMENTS**

Community engagement is not required.

### **DETAIL**

There are five waste collection zones servicing 36,000 residential properties in the North Sydney LGA with medium and high-density housing making up 89% of the dwellings. The area is characterised by difficult to access collection points, tight streets due to on-street residential parking and limited on-site waste storage capacity. Rear truck compactors are used for the collection services. URM are Council's waste and recycling collection contractor. Cleanaway are Council's waste disposal contractor.

The summary of waste collection of the various streams are provided in the table below.

Waste Stream	2020/21 Tonnage .	Arrangement for Disposal/Processing
Mixed Solid Waste (MSW) ( red bin, illegally dumped rubbish)	13195	Disposal at Lucas Heights Landfill via Cleanaway's Artarmon Transfer Station.
Recyclables (Contamination level approximately at 9%)	5932	Material is owned by the Collection Contractor and processed by Visy at Smithfield Facility.
Green Waste (Contamination level < 3%)	1918	Processed by Cleanaway at Eastern Creek Organics facility via Ryde Transfer Station.
Household Bulky Clean-up Waste	2332	White goods are recovered for Scrap Metals. The rest is disposed at Lucas Heights Landfill via Artarmon Transfer Station.

## Current Contracts in Place

The current contracts with the respective Collection and Waste Processing Contractors are summarized below.

Contracts	Contractor	Expiry Date/Options
Waste Collection Contract Collection Service includes <ul style="list-style-type: none"> <li>• Waste</li> <li>• Recyclables</li> <li>• Green waste</li> <li>• Household Clean-up</li> <li>• Illegally dumped rubbish</li> </ul>	URM	30 June 2026 Option to extend 3 more years
Waste Disposal and Processing Contract	Cleanaway	30 June 2024 Option to extend 5 more years
Greenwaste and Bulkywaste Disposal Contract <ul style="list-style-type: none"> <li>• Green Waste</li> <li>• Household Clean-up Waste</li> </ul>	Cleanaway	30 June 2026 Option to extend 3 more years

## General Waste Service

Council has a volume-based garbage charge system. Residential mixed solid waste (MSW) is collected weekly with the standard service being an 80 litre capacity per property. An increase in bin size to 120 and 240 litre is permitted subject to an increase in the Domestic Waste Management (DWM) charge. The Local Government Act requires each property to be levied a Domestic Waste Charge irrespective of whether waste services are utilised

Residents in multi occupancy buildings predominantly utilise 240 litre MGBs which are shared on the basis of one (1) bin per every 3 units, service to which is provided on a weekly basis; however, some smaller unit blocks utilise 80 litre MGB bins.

## **Recycling**

Recycling is collected weekly with residents typically presenting a yellow lid mobile bin of 140 litre capacity as is the case with most single dwellings or a mobile bin of varying capacity on a shared basis as is the case with most residents who occupy medium density or high-rise developments.

Recycling material is co-mingled and includes paper/cardboard, glass bottles/jars, plastic bottles/containers, aluminium, and steel cans. Ownership of the recyclable material is vested with the collection contractor, URM. Additionally, the contractor is required to service public place recycling bins. Contamination of the recycling bins is problematic and requires ongoing monitoring and education.

Recycling is sent to a Materials Recovery Facility (MRF) at Visy at Smithfield where the recycling streams are separated and baled for recycling into new products.

The amount of recyclables collected per annum since 2016/17 is steadily decreasing, largely attributed to a decrease in paper usage (replaced with digital communication and internet usage) and bottles, glass, plastics, and cans are increasingly manufactured with lighter weight material.

### **Paper**

Paper is considered a valuable recyclable material because it is able to be converted into recycled cardboard and other paper packaging.

### **Metals**

Steel and aluminium are reprocessed into steel and aluminium to be used in new products such as cans.

### **Glass**

Glass is separated out from other recyclables at the Visy MRF. Bottles and jars are broken into glass cullet and large residual contaminants removed. Glass cullet is sorted by colour and small contaminants removed by optical technology. Recycled cullet is mixed with sand, soda ash and limestone and heated to melting point. The molten glass is formed into a mould and new glass bottles and containers are made.

### **Plastics**

Approximately eight percent of the yellow bin is made up of PET (1) and HDPE (2) containers as well as other mixed plastics (numbers 3 -7). Visy is one of Australia's largest manufacturers of PET containers and PET plastic is generally recycled into new PET containers. HDPE (2) plastic is also largely recycled by Visy. However, mixed plastic is expensive to process, and it is mainly exported. Mixed plastics are turned into recycled resins which are used in construction products, landscaping products and street furniture.

## **Greenwaste and Household Bulky Waste Clean-up Services**

The garden organics and clean-up services are managed via an on-call booking system that has a cut off time of 4.00 pm Sunday evening prior to the scheduled Monday collection. There is a limit of 2m<sup>3</sup> for houses and 0.5m<sup>3</sup> for units. Garden organics and household bulky waste

clean-up services are provided on an alternating fortnightly basis (26 services each per year). A large number of non-booked green waste and bulky household clean-ups are presented for collections. A sticker is left on the non-booked pile reinforcing to the householder the requirement to book for the service. A letter is also sent directly to the property for single unit dwellings and to the Strata/Body Cooperate and Building Manager in multi-unit dwellings to advise that all items are to be pre-booked.

### **Green Waste**

On average 5000 greenwaste bookings are made per month. Residents use several different types of containers to present their greenwaste. Small container types used include 60L carry bins, flexible tubs, old recycling crates and other rigid reusable containers. Residents can also present a tied-up bundle of branches.

However, residents are encouraged to use 240L greenwaste bins with a lime lid in accordance with industry best practice. Greenwaste is processed into a compostable product.

### **Bulky Waste Clean Up**

Council offers a fortnightly collection of bulky waste household clean-up material. On average 4200 householders book are made per month.

Accepted items include clothing, furniture, floor coverings (bundled with string in rolls no greater than 1.2 metres in length) and whitegoods. E-waste is not accepted in the household clean-up and must be taken to the Community Recycling Centre (CRC). Other items not accepted include car parts, building waste and large pieces of glass which can be disposed at licensed waste management facilities and fees may apply.

Bulky household waste is transferred to Cleanaway Artarmon Resource Recovery Centre and is sent on to Cleanaway Lucas Heights Landfill. Whitegoods are delivered to scrap metal dealers for recycling.

### **Community Recycling Centre (CRC)**

The Community Recycling Centre (CRC) is a drop off facility for common household problem waste that cannot be collected via Council's kerbside waste and recycling collection services. Household problem waste items are processed to recover a number of materials and resources which are later recycled and reused in various other products. The North Sydney CRC was established after NSROC (Northern Sydney Regional Organisation of Councils) received a grant from the NSW EPA through the NSW Environmental Trust with funding from the waste levy. The centre is operated by North Sydney Council on behalf of the City of Ryde and the Councils of Hunter's Hill, Lane Cove, Mosman, and Willoughby.

The CRC was opened on 12 April 2017 and is available to receive materials on Monday, Tuesday, and Friday between 8am and 2pm. It also remains open on weekends (Saturday and Sunday) between 8am and 4pm with no bookings or appointments needed. With more residents dropping off problem waste each year, and limited room at the CRC for storage of waste, restrictions apply on the maximum quantity of waste dropped off per visit. A maximum

limit of 20 litres or 20kg per customer per drop off is allowed. The free drop off service allows residents to dispose a number of household problem waste including paint, motor oil, gas bottles, fire extinguishers, e-waste, light bulbs, batteries, smoke detectors, x-rays, printer cartridges and mobile phones.

Household problem waste items dropped off at the CRC are recycled and made into other valuable products.

#### E-waste

The first stage of the e-waste recycling involves dismantling, shredding, and sorting the device into various usable parts and materials including glass, metals, plastics, batteries, and printed circuit boards. Later the items are processed into new products. Given the availability of infrastructure and end market to recycle, almost 90% of the materials recovered from e-waste are reintroduced as raw materials which are used in other new products.

#### Paint

Paint is mixed with other waste solvents and used as an alternative to fuel in cement kilns. The metal containers are recycled.

#### Lead acid batteries

The batteries are sent to recyclers where the lead, acid and plastic are recovered and recycled.

#### Fluorescent tubes and globes containing mercury

Recyclers crush the tubes to separate the phosphor powder from the glass. They feed the powder through receiving containers, where it is filtered to capture fugitive mercury emissions. The mercury is then separated by distillation and sold for a range of industrial uses. The metals are also recycled.

#### Gas bottles

Undamaged bottles are retested, restamped and entered into the hire industry. Damaged bottles are punctured and recycled as scrap metal.

#### Used household and motor oil

Oils are processed to product lubricant to be used in cars/machinery or to be used in waste to energy combustion.

### **Waste and Recycling Education**

Council provides a variety of waste education material to residents. Together with waste avoidance messages on Councils website, social media platforms, workshops at the Coal Loader, Council also provides waste and recycling bin stickers, bin room signage and letterbox flyers are produced and made available to residents, building managers and Strata Managers informing them of acceptable items and household clean up procedures. A waste calendar is distributed annually advertising the greenwaste and general household clean-up dates for the year ahead. This is normally distributed to all residents in December.

Reject stickers are provided to the contractors for use during collection if a bin is to be rejected due to contamination, unauthorised excess waste, if the bins is a hazard and/or if the bin is not a standard regulation bin.

In addition, a CRC sticker is also placed on rejected household problem waste that is presented within the household clean-up. This sticker informs the resident to recycle the items at the CRC.

Illegal dumping flyers are distributed in hotspot areas where residents place green waste and/or bulky household items out on the kerb without any booking. The distribution of these flyer aims to inform and educate the residents that clean-up and green waste collection items must be booked before they are placed out on the kerb. Council Rangers also play an important role by investigating and taping illegally dumped items which is later reported to the collection contractor for removal. Council's website and social media platforms are kept updated with new waste and recycling information.

### **Resource Recovery Targets**

North Sydney Council has a long history of demonstrating leadership in waste management. Landfill diversion rates have consequently been amongst the highest in the state exceeding the State Government's resource recovery and landfill diversion targets.

When Council was processing the kerbside red bin via the previous Alternative Waste Treatment (AWT) Processing Contract, Council achieved a resource recovery rate of 61-65%. The total diversion rate was around 71% when combined with the kerbside collections from commingled recycling bin and greenwaste clean up. Given the State Government's ban on the application of mixed waste organic material on land, Council's waste diversion opportunities are significantly compromised as waste is landfilled. The processing of the materials is no longer an option under the current contracts.

Councils' current diversion rate is approximately 37% of the total waste collected from kerbside recycling and the greenwaste collections. Bulky waste clean up is landfilled.

Food organics make up 35 % of the red bin, unless there is a 100% participation rate of every single household, and 100% correct presentation of materials and 100% recovery of the materials at the composting facilities then Council could achieve a much higher diversion rate. The 6 months Food Scraps Trial involving 410 dwellings across 10 Multi Unit Dwellings (MUDs), commencing in May will inform long term strategic direction in food organics collections.

The EPA supports Food Organics and Garden Organics (FOGO) collection and services to reduce the volume of organic material in mixed waste. However metropolitan Councils with increasing numbers of multi-unit dwellings are rightly concerned that there would be high levels of contamination. The EPA would need to demonstrate a collection and processing mechanism to create a viable product for which there is an identifiable end market. The addition of food waste into a bin requires a more advanced form of processing.

At present, the North Sydney Environmental Sustainability Strategy 2030 aims:

- 10% reduction in tonnes of waste generation per household from 2019/20 levels before 2030
- 80% recycling rates for municipal solid waste before 2030
- 70% waste diversion from landfill before 2030