Waste Management Plan

University of Salford Waste Management Plan 2018-2025

March 2022

Version 1.1

Document Control Information			
Author	Summary of changes	Version	Authorised & Date
R.Bennett	Updated baseline, targets and action plan	V1.1	Jason Challender, Director of Estates 30th March 2022
R. Bennett	Creation of document	V1.0	Environmental Projects Board 20th May 2020

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1. Context

1.1 Background

Waste and recycling is one of the most visible areas in the sustainability agenda and can demonstrate our commitment to staff, students and visitors as well as offering an opportunity for people to easily get involved in environmental improvement.

Waste management and recycling are co-ordinated by the University's Building Management Team based in the Estates and Facilities Division. We spend approximately £250,000 a year on waste management.

We are committed to the development of sustainable waste management practices as highlighted in our Environmental Sustainability Policy. This Plan will contribute to the success of our Environmental and Energy Management System (EEMS) and our Environmental Sustainability Plan. This Plan also aligns with the University Strategic Plan Key Enablers of remaining financially sustainable, providing a sustainable campus and enabling effective targeting of resources.

Implementation of sustainable waste management practices offers the opportunity to cut costs through effective resource management. Our aim is to manage resources more efficiently, prevent and minimise waste, increase recycling and participation giving us the following benefits:

- Legal compliance
- Reduced environmental impact
- Improved reputation (e.g. People and Planet University League)
- Support for carbon reduction targets
- Cost minimisation

The actions identified in this strategy aim to identify and build on existing good practice.

1.2 Our achievements so far

We have been working to improve the sustainability of our waste management since 2008, below is a summary of some of our key achievements.

External contracts - We have used the procurement process to encourage external waste contractors to support us in our aims for sustainable waste management and improve service delivery. A requirement of our general waste management contract is for the contractor to provide waste collection and treatment options for residual/general waste that diverts waste from landfill disposal to more "sustainable" waste management solutions, and that the facilities used are local to the University. The successful contractor was required to have similar sustainability objectives to the University and able to achieve a diversion of residual/general waste from disposal to landfill of a minimum of 70% by weight, and willing to work with the University to try and achieve a 100% diversion of waste from landfill.

Composting – we have had two Rocket composters installed onsite since 2008. These units compost around 57 tonnes of food waste per year – saving all the associated methane emissions, reducing landfill waste, cutting our waste disposal costs and as a bonus, producing nutrient rich compost to be used on our grounds. We have also implemented composting of green waste on our campus which again helps reduce waste sent offsite for disposal.

Reuse – We launched our reuse scheme in late 2011 with the aim of supporting financial savings. Since the launch of the system nearly 2000 items have been reused giving financial savings of £422,000. Through the implementation of the Warp-it platform we have also been able to engage local charitable partners for donations of items that could not be reused internally including chairs for a local community centre, kitchenware for a local homeless shelter and craft items for a kids club.

Multi-Functional Device implementation – in 2013 we rolled out a University-wide programme to move from desktop printers, faxes, scanners and copiers to multi-functional devices. In addition to the significant energy and paper savings, a scheme was established with our supplier to provide funding based on the number of desktop printers provided to them for recycling. The funding was used for environmental projects in the local community. In the first year of the initiative, over 440 printers were recycled and it enabled the planting of 312 trees and 250 wildflowers at local green spaces.

Increase in recycling – in 2015/16 our recycling rate had dropped to just 16%; in response a significant investment in recycling bin infrastructure and negotiation of a new commercial waste contract with requirements for diversion from landfill has enabled us to improve that to 40% in the last academic year.

1.3 Our guiding principles

Although we are proud of our achievements so far we recognise there is much more to do. Here are some of the guiding principles we consider in our sustainable waste management plans.

Waste Hierarchy

The Waste Hierarchy ranks waste management options according to their impact on the environment. As a mandatory requirement of the Waste (England & Wales) Regulations 2011 it should be considered when deciding what the best option is to manage a waste stream.
This places more emphasis on waste prevention, and requires organisations to consider preparing waste for reuse, then seeking opportunities for recycling, before options such as anaerobic digestion, energy recovery, incineration or landfill.
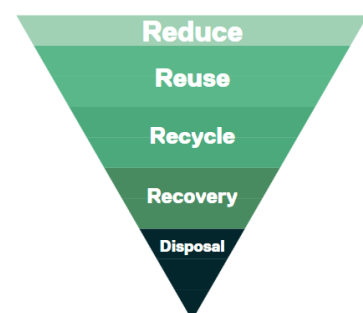
Figure 1 The Waste Hierarchy

Legal and other requirements, e.g. pledges

As with all businesses we have a legal duty to provide appropriate arrangements for the disposal of our waste and ensure it is handled appropriately. The University Environmental and Energy Management System (EEMS) includes operational controls in the form of procedures which details how waste is managed on campus to ensure legal compliance including through our contractors and partners. Through the EEMS, our compliance is monitored on a regular basis. As well as legal requirements we have other requirements such as commitments through pledges such as the Greater Manchester Universities and Hospitals Single Use Plastic Pledge. Compliance with these requirements are also tracked and monitored through our EEMS.

Circular economy and life cycle thinking

A circular economy is an alternative to a traditional linear economy (make, use, dispose) in which we keep resources in use for as long as possible, extract the maximum value from them whilst in use, then recover and regenerate products and materials at the end of each service life. [1] Life cycle thinking means accounting for economic, environmental and social impacts across all stages of a product or process life cycle.[2] We will consider these principles in our waste management choices but also our procurement of goods, through our Sustainable Purchasing Policy and Plan.
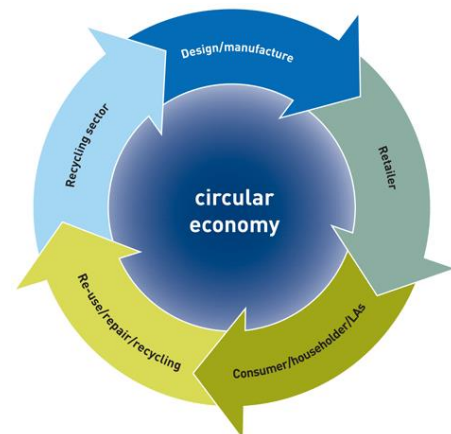

Figure 2 The Circular Economy [1]

Stakeholders

We have a variety of stakeholders for whom our waste management performance is relevant. Internally the cost of waste management and resource use is significant, and students have increasing expectations for our sustainability performance. Regionally we can contribute to initiatives such as Plastic Free GM, the first city-region wide plan to drive down avoidable single-use plastics, for which we have pledged to eliminate avoidable single-use plastics by 2022. We will consider these stakeholders when establishing and reporting on our waste management targets and performance and communicate in line with our Environmental Sustainability Communications and Engagement Strategy.

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[1] Definition from WRAP: http://www.wrap.org.uk/about-us/about/wrap-and-circular-economy
[2] Definition from Circular Economy A Practitioners Guide: https://www.ceguide.org/Strategies-and-examples/Design/Life-cycle-thinking

2. Waste Management Data

2.1 Baseline Year

In the academic year 2018/19 we produced 931 tonnes of waste (excluding construction waste). Of this 0.7% is hazardous waste. We have worked with our waste contractors to divert as much waste as possible from landfill, in 2018/19 the majority was diverted from landfill and our recycling rate was 40% (Figure 3).
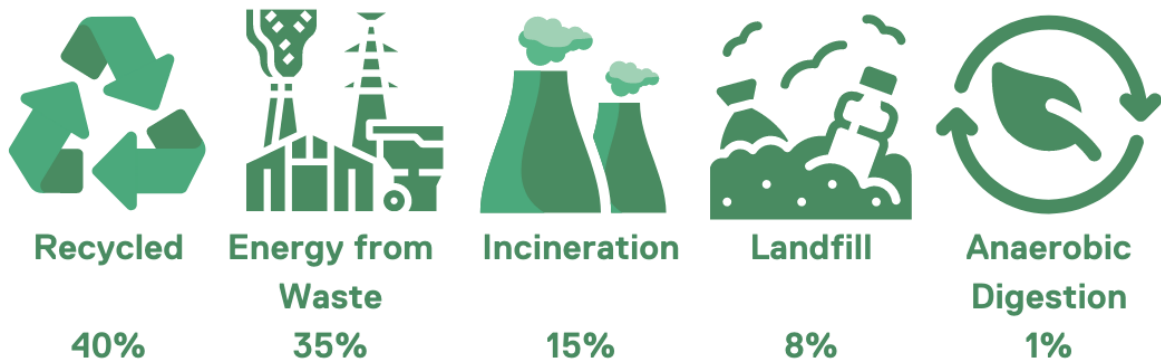

Recycled	Energy from Waste	Incineration	Landfill	Anaerobic Digestion
40%	35%	15%	8%	1%

Figure 3 Waste Management routes for University of Salford operational waste 2018/19

2.2 Progress so far

The chart below details the total operational waste recorded, percentage waste recycled and waste produced per staff and student full-time equivalent (FTE) for each year from 2011/12 to 2020/21.
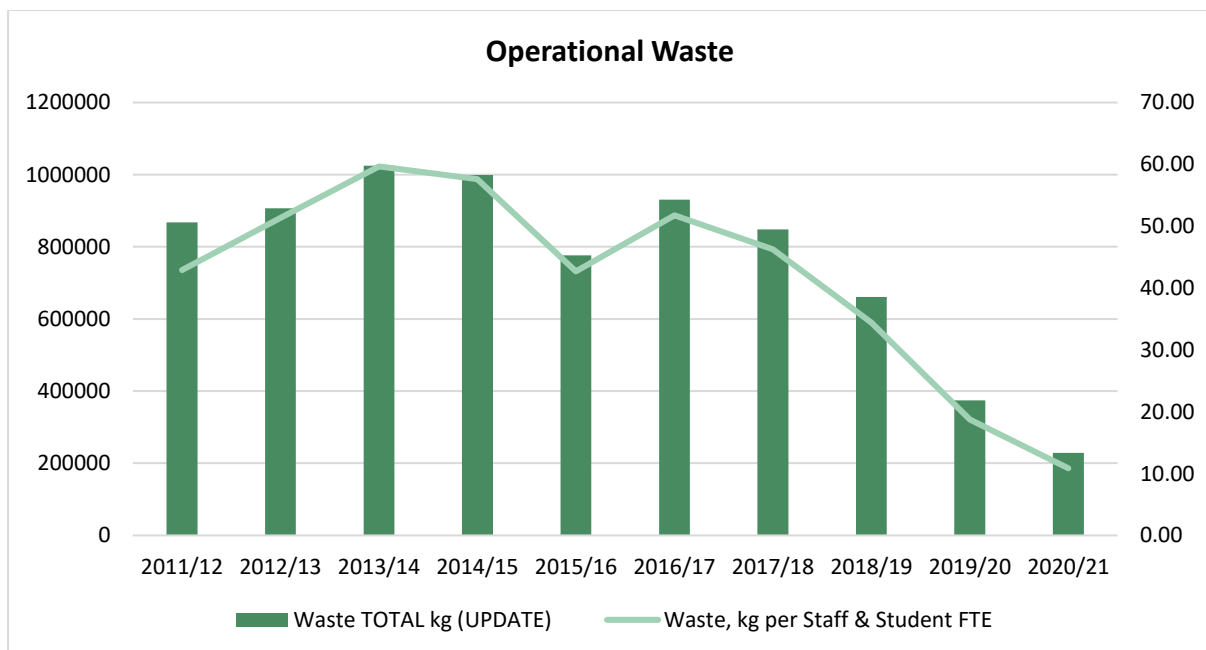

Figure 4 Waste Data at University of Salford 2011/12 to 2018/19

The year 2018/19 has been selected as since January 2019, we have had a pay-by-weight contract in place, increasing further data confidence.

Ad hoc physical audits of the contents of general and recycling waste from University buildings have been conducted over the last five years. We have found that there is significant recyclable content in our general waste disposal. We also found that a major contaminant of recycling waste is from disposable coffee cups.

The chart below shows the change in operational waste recycled between 2015/16 and 2020/21.
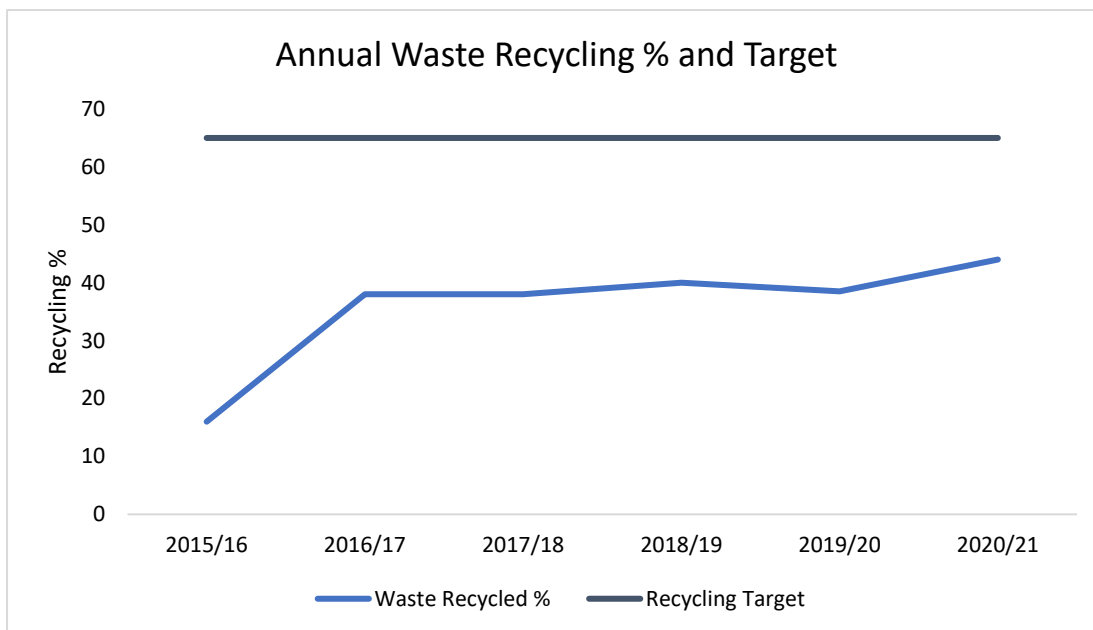
The figure below shows the waste disposal composition in 2020/21. This shows an increase in recycling and further diversion from landfill.
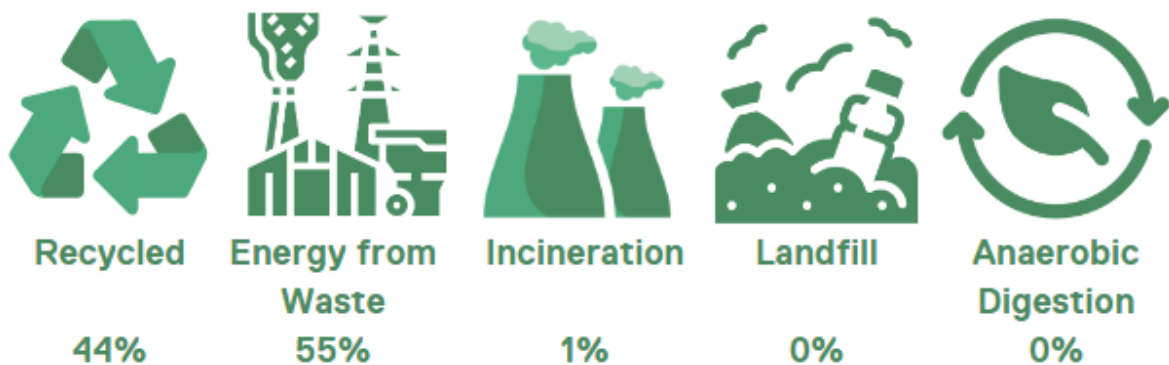

Figure 5 Waste management routes for University of Salford operational waste 2020/21

2.3 Construction waste

As figure 5 below shows the amount of construction waste generated each year varies immensely depending on the construction projects in place at the time. The data has also been difficult to obtain, particularly from smaller projects. Actions have been put in place to improve this is recent years by embedding the requirement for data into our construction policies and procedures, and therefore contract requirements.
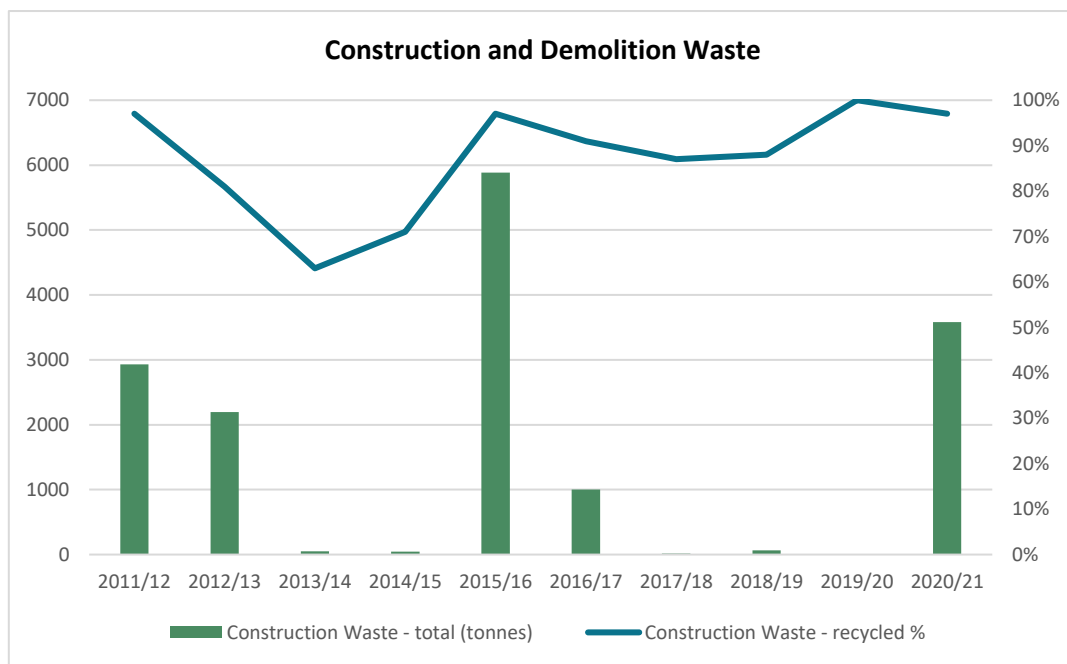

Figure 6 Total Construction waste generated and percentage recycled

3. Objectives and Targets

3.1 Objectives

The following objectives have been established for this strategy:

1. To ensure legal compliance and best practice with waste management, particularly onsite storage;
2. Eliminate waste and improve resource efficiency through circularity, including;
   a. Encouraging the use of the waste hierarchy principles by staff, students and contractors;
   b. To reduce the total amount of waste generated each year;
   c. To divert waste from landfill using both onsite and offsite segregation methods;
3. To reduce the cost of waste disposal;
4. To improve the quality of waste data;

3.2 Targets

Specific targets have been established as part of the Environmental Sustainability Plan and will be managed within the Estates and Facilities, Environmental and Energy Management System.

Target	KPI	Minimum target	Aspirational target	Target date
Reduce operational waste	Tonnes/staff & student FTE	12% reduction from 2018/19		By 2025
Increase operational waste recycled	% operational waste recycled	65%		By 09/2025
Eliminate avoidable single use plastics	N/A			2022
Reduce construction non-hazardous waste	Tonnes/100m2 [GIA]	≤3.2	≤1.9	From 2022
Construction non-hazardous waste to landfill	% construction waste recycled	90%	95%	From 2022

4. Action Plan

Action Ref	Objective Reference	Project Title / Description	Key Actions & Milestones	Responsibilities	Actions Completion date	Monitoring & Evaluation	Progress to date (March 2022)
WM1	OBJ0021	Waste Compliance and Management Supporting waste compliance and performance with development of detailed operating procedures, data collection and monitoring, improving physical storage areas and communication programmes internally and with contractors	Establish Operational Waste Management Group Establish data monitoring and reporting for waste performance Contract management for key contractors Improve waste storage compounds Update Waste SLA and communicate across University Waste A-Z on website Waste requirements for Estates contractors Establish waste audit programme	Head of Environmental Sustainability	End 2021/22	Minimisation of non-conformities related to waste management	Operational Waste Management Group & waste data reporting established. Contract management in place for key waste contractors. Waste compounds security and monitoring improved. Waste SLA & A-Z approved, circulated to SOMs & key contractors & added to waste webpage. Waste requirements included in tender/specification documents and contractor inductions.
WM2	OBJ025	University Reuse Scheme Reinvigorate internal reuse through Warp-it platform	Establish reuse procedures and management system Review storage areas to facilitate reuse Identify and work with external partners to facilitate reuse Promote reuse scheme across University	Head of Environmental Sustainability	End 2021/22	Reduction in waste generated Increase in reuse via Warp-it	Reuse procedure approved & communicated Storage area identified Work initiated on partners Clearance of Technology House
WM3	OBJ0026	Recycling for US Review recycling infrastructure and increase recycling communication across the University	Review recycling infrastructure across campus Establish event recycling scheme Establish food waste recycling Develop a recycling campaign Engage with waste contractors to support recycling	Head of Environmental Sustainability	End 2021/22	Increase in recycling percentage Increase in food waste recycling	Implementation of external food waste collection agreed to be rolled out by end 21/22
WM4	OBJ0015	Single-Use Plastic Commitment Achieve elimination of avoidable single-use plastics on campus	Review and add to NUS led single use plastic audit at US Develop an action plan for elimination for each avoidable single use plastic	Head of Environmental Sustainability	End 2021/22	Reduction in number of avoidable single use plastics on campus	NUS audit of US areas for single use plastics use complete Engagement with Surfers Against Sewage Campaign Ongoing communications

5. Monitoring

5.1 Objectives and Targets

The specific waste management targets as described in Section 4 previously will be monitored in line with the University Sustainability Strategy and Environmental Management System. The Reuse system will be managed and monitored by the University Estates and Facilities Operations team and included in the E&F Performance Indicators.

A periodic audit of legal compliance with regards to waste management will be carried out. This will cover waste storage, handling and controlled documents. The audit will be carried out as a minimum annually and results reported via the Estates and Facilities Operations Senior Management Meeting.

5.2 Compliance and Performance Monitoring

The Head of Environmental Sustainability is responsible for periodic checking of the waste management compliance information and maintaining the Waste Register.

The Head of Environmental Sustainability is also responsible for reporting on waste data in line with the following:

Table 1 Reporting Routes for Waste Data

Report	Responsibility	Freq	Route
General waste, mixed recycling, paper and cardboard-collections/weights/costs	General waste contractor/Head of Environmental Sustainability	Monthly	Estates & Facilities KPIs
Confidential waste paper	Confidential waste contractor/Head of Environmental Sustainability	Monthly	Estates & Facilities KPIs
Site waste quantities and recycling rates	Head of Environmental Sustainability	Monthly	Operational Waste Management Group Building Managers
Target monitoring – waste reduction and recycling	Head of Environmental Sustainability	Monthly Quarterly	Operational Waste Management Group Environmental Projects Board
Hazardous Waste Chemicals	Head of Environmental Sustainability	Annual	Annual HESA Return Environmental Sustainability Report

Hazardous Waste - other	Head of Environmental Sustainability	Annual	Annual HESA Return Environmental Sustainability Report
Construction Waste	Capital Project Managers	As required	Reports to Head of Environmental Sustainability