Food surplus and waste reporting template

Company name:	**Greencore**
Name of person completing the report:	**Group Environment Manager**
Date completed:	**29/10/2019**

Summary (required)

Reporting period (start date):	**28/09/2018**
Reporting period (end date):	**27/09/2019**
Overall food waste in tonnes:	**34908.0**
Food waste as a % of the product and ingredient handled by your organisation*:	**9.2%**
(Optional) Percentage of inedible parts included in total food waste tonnage:	0.0%

* this should be tonnes food waste ÷ tonnes (food product produced or sold as intended + food waste + food sent to other destinations).

If food tonnes cannot be measured, provide an alternative metric, such as % by value, and explain the method used.

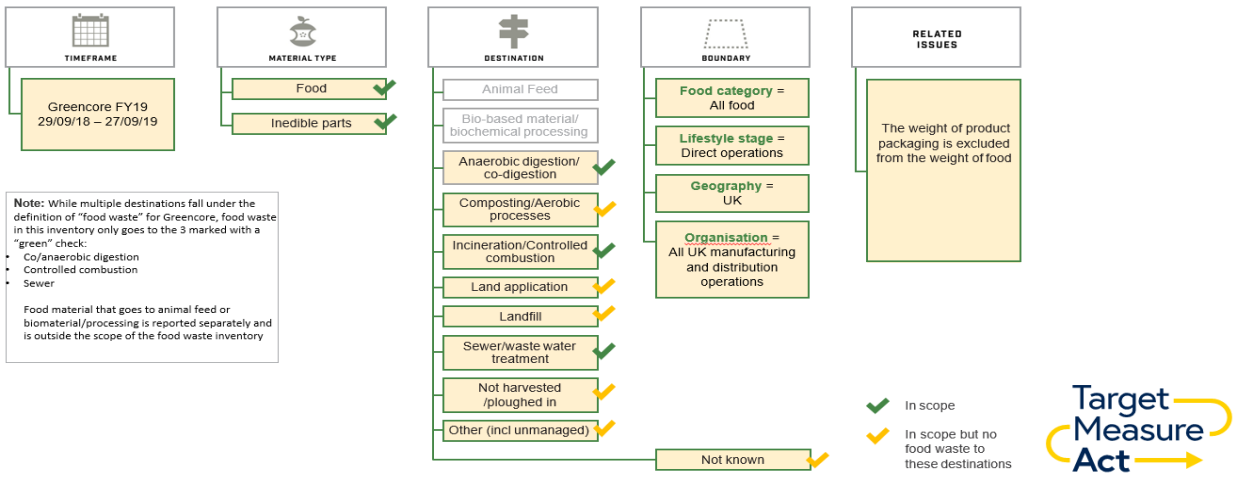
Destinations for food waste (tonnes or %)*: (required)	Quantity	Unit
Anaerobic digestion / co-digestion	24,978.0	TONNES
Composting / aerobic processes	0.0	TONNES
Incineration / controlled combustion	1,650.0	TONNES
Land application	0.0	TONNES
Landfill	0.0	TONNES
Sewer / wastewater treatment	8,280.0	TONNES
Not harvested / ploughed in	0.0	TONNES
Other (including unmanaged disposal)	0.0	TONNES
Not known	0.0	TONNES

* NB – the Dairy Processing Sector Guidance recommends reporting in both tonnes AND milk-equivalent

Other destinations (tonnes): (required)	Quantity	Unit
Redistribution for human consumption*	950.0	TONNES
Animal feed	4,454.0	TONNES
Bio-based materials / biochemical processing	0.0	TONNES
Not known	0.0	TONNES

* It is important only to include here food that would have become waste if it had not been redistributed. Other donations to charities or sale to secondary markets should be excluded

Scope of the food waste inventory



Quantification methods and uncertainty (required)

Guidance documents, or published data sources referred to:
The Food Loss & Waste Accounting and Reporting Standard (http://flwprotocol.org/flw-standard/)

Accounting for water addition / removal:
Where waste streams contain additional water (e.g. effluent sludge), representative samples have been taken and analysed to give a typical

Sampling & scaling of data, or other means of gap filling:
Sampling techniques have been used to estimate the food waste losses to sewer/drain at all sites, and liquid waste streams that are tankered off site to go to Anaerobic digestion processes. A summary of the sampling methodologies used:
o To sewer (various methodologies depending on the nature of the food waste in the effluent and the monitoring data available):
▯ Analysis of regular composite effluent samples combined with effluent volume measurement (flow meters) to determine total effluent loading (KgCOD – Chenical Oxygen Demand) for individual sites. This is converted to a product equivalent estimate, utilising the average Kcal/100g for common products manufactured on that site, and a conversion from COD). This methdology was mainly used in our Prepared Meals division where a larger proportion of liquid products and ingredients are typically used and produced.
▯ Analysis of effluent sludge removed on Disolved Air Flotation (DAF) effluent treatment plants (solids content typicallly 70% from food waste, and 30% from DAF chemicals), combined with sludge total weight from tankers passing over a weighbridge to estimate food waste in the sludge. Regular testing of pre- and post DAF effluent quality enables a good estimate of the proportion of food waste in the sludge, and the remaining food waste to sewer to be estimated. This methodology was mainly used in our Food to Go division, where a significant proportion of the food waste to drain (>80%) is recovered into the DAF sludge.
▯ For some of our smaller sites where there is limited or no effluent sampling and analysis, and factor (Kg food waste per m3 of effluent discharged) based on similar sites where there is detailed monitoring has been applied to the effluent volume to estimate total food waste to sewer. This represents a very small proportion of the total food waste loss to sewer.
o To Anaerobic digestion – some of the food waste streams contain packaging. For each relevant waste stream, our Group waste management team worked with waste service providers to estimate the levels of packaging present through a visual and physical assessment of a number of waste loads. This was used to give an approximate % packaging content that was applied to the total tonnage for that individual waste stream (directly measured over weighbridges) to get an estimate of the total food waste.
o To controlled combustion – some of the general waste streams contain a small proportion of food waste (e.g. residues on ingredient packaging, part processed products or where local segregation has not been totally effective). For each relevant waste stream, our Group waste management team worked with waste service providers to estimate the levels of food waste present through a visual and physical assessment of a number of waste loads. This was used to give an approximate % food waste content that was applied to the total tonnage for that individual waste stream (directly measured over weighbridges) to get an estimate of the total food waste during the year.

Summary of any significant exclusions within this data set:
No exclusions

Summary of data uncertainties

The majoirty of the waste streams (all solid food waste and any effluent sludge or liquid food waste tankered off site) passes over a weighbridge to obtain a total weight, and will be accurate. Uncertainties over the quantification of these waste streams will come from:
o Estimates of the level of packaging in some food waste streams as outlined in section 5 above (although the level of packaging is generally a small percentage of the total weight and not a significant factor). The assessments of packaging content have been made by our waste management team in conjunction with the waste service providers that handle the waste day to day and have a good working knowledge of its typical composition.
o Estimates of the level of food waste in some general waste streams as outlined in section 5 above (although the level of food waste in general waste is generally a small percentage of the total weight and not a significant factor). The assessments of food waste content have been made by our waste management team in conjunction with the waste service providers that handle the waste day to day and have a good working knowledge of its typical composition.
o Losses to sewer/drain – for sites where this is a significant factor there is typically daily analysis of composite effluent samples, and continous monitoring of effluent flow and volume. The level of uncertainty relating to food waste to sewer are much lower at the sites where effluent is a significant proportion of the food waste. For some of the smaller sites there is a greater level of uncertainty where the estimated food loss to drain is based on a smaller number of composite samples being analysed, or a loss factor generated from a similar production site.

Assurance and declaration (required)

Has this inventory been formally audited, 3rd party reviewed or subject to any internal data checking procedures?
Yes

Assurance statement:
Data has been collected and validated internally by the Group Sustainability Team.

Narrative (optional)

Actions to reduce your operational food waste

We continue to invest heavily in our Greencore Manufacturing Excellence (GME) programme, which aims to significantly reduce the amount of waste food created during our operations. We launched Greencore Manufacturing Excellence in summer 2017 across all 15 of our UK sites. The GME programme targets elimination and reduction of waste at source, and is the main mechanism by which we aim to deliver our target to halve food waste by 2030. This is then supported by redistribution and segregation for animal feed as means of further waste prevention.
Two years on our programme has become firmly embedded in the way we do business, both within our company and increasingly with our suppliers and customers. The key principles of the programme include: 1. An absolute focus on ensuring the improvement programme priorities are understood by the leaders of our business to enable the best decisions to be made on how to prioritise people, time and effort to deliver our food waste goals.
2. Ensuring the right Performance conversations happen at the right level of the business with people focusing on the issues that are within their power to fix.
3. A common set of Operational measures to enable our sites to benchmark, and learn from, those achieving the best reductions in food waste.
4. A common set of methods for solving the problems we face.
5. A growing investment in technology to simplify our operational processes and make day to day performance easier to understand and improve. Greencore works with a number of organisations to redistribute as much of its surplus product as possible. These include Fareshare, The Company Shop, its charity, The Community Shop and the Felix project in West London. In our 2019 financial year, we avoided 950 tonnes of waste by redistributing food for human consumption, equivalent to around 2.2 million meals.

Progress to date in reducing food waste and any factors significantly affecting results

Since signing up to the Champions 12.3 target in 2017, to halve food waste by 2030 we have made good progress. Compared to FY17, in FY19 we have reduced food waste by more than 7,000 tonnes (17%) in absolute terms, and reduced our percentage food waste from 10.7% to 9.2% (14% reduction).