

**FOOD WASTE COLLECTION PROJECT**  
**BRIEFING PAPER**

Revenue Business Case

**1. EXECUTIVE SUMMARY**

Plymouth City Council is actively preparing to commence the implementation of a brand-new, citywide, weekly food waste collection service in the Spring of 2026. Introducing a separate food waste collection service in Plymouth has the potential to significantly boost the city's household recycling rates.

This document summarises the business case for the next stage of the project, implementation and roll out to all Plymouth households. The food waste collection service is mandatory for all Waste Collection Authorities in England and is legislatively driven by the Environment Act (2021) which is overseen by the Department for Environment, Food & Rural affairs (Defra).

Defra has committed to providing funding in 3 stages. Stage 1 is Capital funding of £1,941,574 for the procurement of vehicles and food waste containers. Stage 2 is transitional revenue funding of £570,159, which has been allocated for the distribution of containers to households £323,014, communications £173,145 project staff £72,000 and procurement £2,000. The Council has now received stages 1 and 2 of the funding which in total is £2,511,733. Stage 3 New Burdens funding is yet to be confirmed. In November 2025 the Capital Officers Programme Group (CPOG) approved the reallocation of the variance of £252,778.01 from the £2,296,779.95 phase 1 Business Case in order to carry out essential works for the Chelson Meadow Transfer site and Prince Rock depot. These works are not only essential but are on the critical path for the project to meet the deadline for the successful implementation of the time sensitive food waste collection service. Additionally, an allocation was made for the provision of an initial supply of caddy liners to help encourage household participation.

The Government has committed to provide New Burdens funding (stage 3) for the ongoing costs of the new Service. The detail of the funding allocation is yet to be confirmed. For the purposes of finalising this Business Case and in order to secure approval to commence the Service, the yet to be agreed funding has been shown as a balancing amount between the forecast cost and existing budget.

The financial model underpinning this business case is based on a series of well-defined assumptions across staffing, vehicle operations, and waste processing. Salary costs have been calculated using PCC pay scales and projected annual uplifts. Vehicle maintenance and fuel costs have been estimated using current market rates and operational data, while haulage and disposal costs reflect estimated tonnage projections and known gate fees.

The Business Case sets out the case to use various funding streams made up of Stages 2 and 3 funding from the Government alongside existing Council budget provisions to roll out a citywide food waste collection service for every household in Plymouth throughout 2026.

**2. BACKGROUND**

In October 2023, the government launched a legislation-led initiative called Simpler Recycling, aimed at making recycling easier and more consistent across the country. This programme is designed to boost recycling rates and has supported the rollout of weekly food waste collection services. Food waste collected separately can be processed at anaerobic digestion facilities, where it is converted into renewable energy used for electricity, heating, or transport fuels. This process also significantly reduces greenhouse gas emissions, particularly methane, which is a major contributor to climate change. Globally, food waste is responsible for around 8 -10% of total greenhouse gas emissions.

Defra has allocated £295 million to support the 50% of Waste Collection Authorities that did not operate a food waste collection service at the time the relevant legislation was introduced. In addition to meeting

legal requirements, it's important to emphasise the environmental benefits of introducing separate food waste collections.

Plymouth's recycling rate is under performing with significant room to improve. The roll out of food waste collections will help improve matters through an expected 5-8% uplift in our overall rate. However, it forms part of a wider plan supported by an approved restructure to reintroduce the Recycling Officer function alongside updated waste strategies and policies, increased public engagement and targeted communications to target low participation and high contamination areas of the city.

The Food Waste collection service will align with government priorities and legislation by supporting Plymouth City Council's Net Zero Action Plan to reduce greenhouse gas emissions. Furthermore, the project support's Plymouth City Council Corporate Plan of "green sustainable city that cares about the environment"

### **3. CURRENT SITUATION**

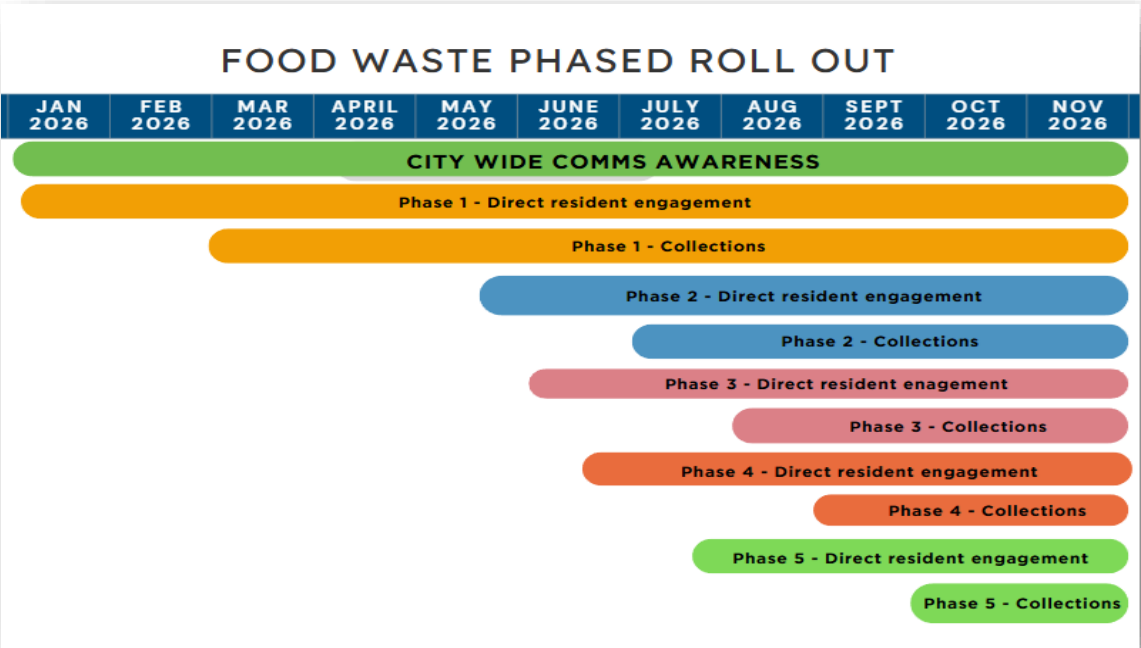
In November 2024, a capital business case of £2,296,779.95 was approved, made up of £1,941,574.00, Defra stage 1 funding and £355,205.95 service borrowing. The DEFRA funding was used to procure internal and external caddies and communal bins.

The Phase 1 Capital Business Case identified financial risks due to long vehicle procurement timelines and market saturation, with many councils purchasing similar assets simultaneously. Plymouth City Council mitigated these risks through early supplier engagement, benchmarking, and market research. This led to cost savings by securing lower prices for vehicles and containers.

Stage 2 DEFRA transitional funding which was received in March 2025, which will be used for Bin distribution £323,013.52, Project Management £72,000.00 Communications £173,145.43 and procurement £2,000.00.

### **4. PROPOSAL**

To ensure a smooth and effective implementation, the food waste collection service will be introduced through a phased rollout. Phase 1 will begin early in 2026 with direct engagement with residents, followed by the distribution of food waste caddies. Collections will commence in early March 2026. This will be followed by a reflective period, allowing the Council to manage operational complexities and refine processes. Phase 2 will launch in mid-June 2026, again starting with resident engagement and caddy distribution, with collections beginning in July 2026. Phases 3 to 5 will follow the same structure as the earlier phases, with a continued focus on infrastructure, staffing, communications, and community engagement. This phased approach will enable the service to scale up in a controlled and responsive manner.



**Fig 1: Food waste phased roll out plan**

Phase 1 of the roll out is a carefully selected cluster of areas which has been chosen to represent a diverse mix of property types, including varying levels of accessibility, socioeconomic conditions, flatted properties, and Houses in Multiple Occupation (HMO). The food waste collection service has been designed to align with existing collection days to avoid disruption to current waste services. In designing the service, it was essential that the introduction of food waste collections did not require changes to established schedules and routes. During phase 1 the project team and collection crew will have a dedicated period to address any collection anomalies, resident feedback, analyse trends and other emerging factors in a controlled environment. This approach will enable the project team to gather valuable insights before progressing to subsequent phases.

During the phased roll out the Operations team will build up the number of drivers and crews focussing on recruiting, onboarding, and training crews and then building up to a full roll-out of the throughout the summer of 2026. The funding of the food waste collection crew will be financed by the New Burdens Funding.

**4.1 PUBLIC ENGAGEMENT**

As part of stage 2 funding Defra has provided £173,145.43 for Communications. The success of the food waste collection service depends not only on operational readiness but also on public understanding, participation, and sustained behavioural change.

The campaign will use multi-channel communication including printed materials, social media, and community events to inform residents about the new service and its environmental benefits. Recycling Officers will play a key role in face-to-face engagement, roadshows, briefings, school talks, attending local events and providing practical guidance.

Behavioural change will be supported through nudges such as bin stickers, reminder cards, and positive reinforcement. Messaging will be tailored to different housing types and communities, with accessibility and inclusion at the forefront.

Early engagement with councils who have been successful in increasing their food waste participation rates has shown that face to face engagement and door knocking were very effective in getting the public to participate in food waste recycling.

## **4.2 RESOURCING**

To support the successful delivery of the project, additional resources have been allocated, and further recruitment is underway to strengthen both operational and engagement efforts.

The Project team, consisting of a Senior Project Manager, Project Manager and 2 Recycling Officers. The Operational team (recruiting to reflect the phased roll out, each phase consisting of 2 Drivers and 4 Collectors) will be 2 Team Leaders, 10 Drivers 20 Collectors and a Business Support Officer in total.

All whilst utilising service leads and experts to support the project and Food Waste collection service.

## **4.3 FOOD WASTE CADDIES/CONTAINERS**

The food waste collection service will enable Plymouth residents to dispose of food waste using 7-litre internal caddies, which are then emptied into 23-litre kerbside caddies for collection. Both recyclable caddies, include secure, lockable lids. Plymouth City Council has procured IPL(UK) Ltd which supplied the same caddies to Cornwall Council, South Ham District Council and West Devon Borough Council.

140 litre food waste bins are being used in communal collection areas. The internal caddy liners will be provided alongside the caddies as a one-off as part of an introduction to the Food Waste collection service.

## **4.4 VEHICLES/SITE MOBILISATION**

Food waste will be collected by 10 bespoke 12-tonne vehicles that meet Waste and Resources Action Programme technical specifications. The fleet will be stored at Prince Depot, which will undergo infrastructure upgrades.

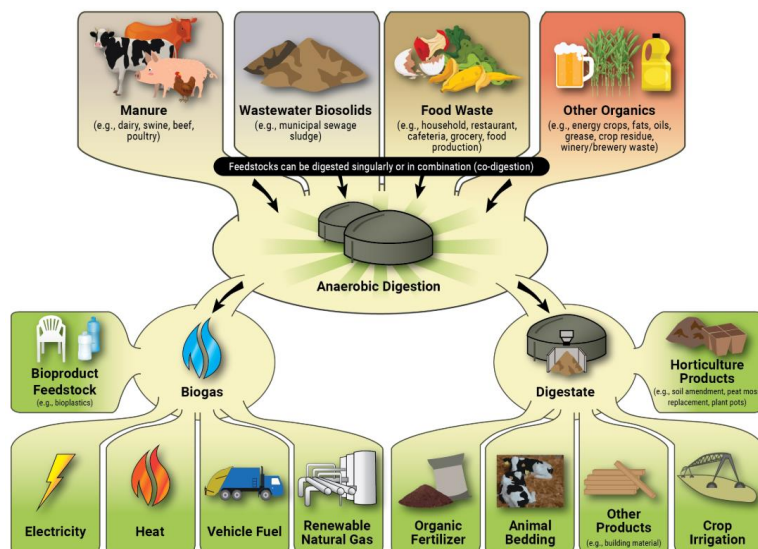
## **4.5 WASTE TRANSFER SITE (CHELSON MEADOW)**

After collection, food waste will need to be transported to a waste transfer site to be kept in a sealed container. Early analysis and comparison of Prince Rock Depot and Chelson Meadow as potential sites favoured the usage of Chelson Meadow. Prince Rock had the disadvantage of not having a working weighbridge, vehicle congestion with current refuse fleet and the relative amount of work required to make the site fit for purpose.

## **4.6 ANAEROBIC DIGESTION SITE**

From the waste transfer site, the food waste will be transported to an anaerobic digestion site where food waste is broken down into renewable energy.

The process releases biogas, (mainly a mixture of around 60% methane and 40% carbon dioxide) which can be used directly to provide heat, power or transport fuel. Biogas can also be purified by removal of the carbon dioxide to produce biomethane, which can be fed directly into the public natural gas grid in the same way as natural gas or used as a vehicle fuel. If not processed at an anaerobic digestion (AD) facility, these gases would otherwise contribute to greenhouse gas emissions and accelerate climate change.



**Fig 2: The Anaerobic Digestion process used to produce nutrient rich slurry (fertilizer for plants), biogas, heat and electricity from food waste.**

## 4.7 FOOD WASTE CONTAINER OPERATIONS

The current rate of missed bins vs scheduled collections is roughly 0.13% across residual, recycling, and optional garden waste collections. This amounts to around 700 missed collections per month across all waste streams.

Given the weekly frequency of food waste collections and the average time taken by residents to report a missed bin, providing this service drastically reduces the benefit to residents that comes from providing a missed bin service. Instead, residents will be encouraged to present their bins on the next scheduled collection day if they believe a collection has been missed and missed bin reports will be used to drive crew behaviour and service improvements.

In addition, the project team is launching Bartech Municipal Technologies' route mapping software, which will use the food waste project as a foundation for route optimisation. The software enables real-time tracking, data-driven scheduling, and efficient resource deployment, helping the council streamline operations and improve service quality across waste collection rounds. Coupled with more robust reporting and better insights into crew performance this will help make reviewing reported service failures easier and more efficient. This new system will give Crews the ability to log more detailed premise-level events regarding non-compliance, giving us detailed insights into resident behaviour. This intelligence will help drive direct, efficient public engagement and communications to inform residents what's gone wrong and how they can rectify this in future, driving behavioural change.

## 5. FINANCE

The Council has received stages 1 and 2 of Defra funding, totalling £2,511,732.95.

Stage 1 is Capital funding of £1,941,574.00 for the procurement of vehicles and food waste containers and Stage 2 transitional revenue funding of £570,158.95 has been allocated for the distribution of containers to households £323,013.52, communications £173,145.43 project staff £72,000.00 and procurement £2,000.00. Stage 3 New Burdens Funding was expected in August 2025 but to date has not been announced or received.

The financial model underpinning this business case is based on a series of well-defined assumptions across staffing, vehicle operations, and waste processing. Salary costs have been calculated using PCC pay scales, inclusive of statutory on-costs and projected annual uplifts. Vehicle maintenance and fuel costs have been

estimated using current market rates and operational data, while haulage and disposal costs reflect realistic tonnage projections and known gate fees.

As part of the 2025/26 budget planning process, through the Medium-Term Financial Plan, a case was made to allow for a forecast that the DEFRA Stage 3 funding would be insufficient and to avoid a situation whereby delivering the statutory service was under funded budget growth has been approved in 2025/26 for £250,000 stepping up to £500,000 on an ongoing basis from 2026/27. At this stage, with no indication as to what the Stage 3 monies will be, it has been assumed that the amount we will receive will match the gap between pre-approved budgets and the forecast cost of operation. Once the actual Government funding is announced the appropriate budgets can be readjusted.

The full Business Case is for net revenue costs of £4,256,333 between 2025 and 2029 and recurring in future years, which is expected to be covered by the Stage 3 New Burdens funding and revenue budget growth allocated to the service area. The Stage 3 New Burdens funding was expected around August 2025, but to date has not been received, therefore funding has been forecasted for the purpose of producing a business case. Once the actual Government funding is announced the appropriate budgets can be readjusted.

Service area revenue cost	2025/26	2026/27	2027/28	2028/29	TOTAL
	£	£	£	£	£
Bin Distribution	64,603	258,411	0	0	323,014
Communications	50,000	123,145	0	0	173,145
Procurement Costs	1,000	1,000	0	0	2,000
Project Management	72,000	98,338	0	0	170,338
Staff Costs	74,102	959,683	1,384,487	1,408,821	3,827,093
Vehicle operational costs	13,092	148,283	185,329	190,870	537,574
Haulage and Disposal costs	1,766	137,755	216,852	227,695	584,068
Service Borrowing repayment	196	85,550	86,006	86,052	257,804
<b>Total Revenue Cost (A)</b>	<b>276,759</b>	<b>1,812,165</b>	<b>1,872,674</b>	<b>1,913,438</b>	<b>5,875,036</b>
Service area revenue benefits/savings	2025/26	2026/27	2027/28	2028/29	TOTAL
	£	£	£	£	£
Waste Disposal (removal of food waste from residual waste)	4,895	381,778	600,990	631,040	1,618,703
<b>Total Revenue Income (B)</b>	<b>4,895</b>	<b>381,778</b>	<b>600,990</b>	<b>631,040</b>	<b>1,618,703</b>
<b>Service area net (benefit) cost (A-B)</b>	<b>271,864</b>	<b>1,430,387</b>	<b>1,271,684</b>	<b>1,282,398</b>	<b>4,256,333</b>
Service area revenue Funding	2025/26	2026/27	2027/28	2028/29	TOTAL
	£	£	£	£	£
Defra Funding - Transitional Grant	187,603	382,556	0	0	570,159
Defra Funding - New Burdens	0	600,000	800,000	800,000	2,200,000
Revenue budget	250,000	500,000	500,000	500,000	1,750,000
<b>Funding Total</b>	<b>437,603</b>	<b>1,482,556</b>	<b>1,300,000</b>	<b>1,300,000</b>	<b>4,520,159</b>
<b>Service area net (benefit) cost</b>	<b>(165,739)</b>	<b>(52,169)</b>	<b>(28,316)</b>	<b>(17,602)</b>	<b>(263,826)</b>

**Table I: Financial breakdown**

## 6. RISK

The identified risks are summarised below

- A negative public reaction to a food waste service which could be deemed as 'waste of money' and or unnecessary. This will be mitigated by a robust public education and engagement programme throughout the project tapping into green communities as critical friends to support the initiative
- There is a risk of low participation rates to mitigate this risk a robust Public Engagement programme has been produced covering social media, schools, community engagement, engagement with third party sector.
- Lack of space to accommodate a waste transfer site and food waste vehicles and containers at Prince Rock Depot. To mitigate this risk, an early site planning to accommodate other projects, departments and assets currently in the Depot or planned.

- There is a risk of issues with Manual handling of the food waste containers, which includes delivery and collections. To mitigate this risk, manual handling risk assessments will be carried out to implement control measures.
- Risk of shortfall of Stage 3 New Burdens funding, to mitigate this risk as part of the 2025/26 budget planning process, through the Medium Term Financial Plan, a case was made to allow for a forecast that the Defra Stage 3 funding would be insufficient and to avoid situation whereby delivering the statutory service was under funded budget growth has been approved in 2025/26 for £250,000 stepping up to £500,000 on an ongoing basis from 2026/27. At this stage, with no indication as to what the Stage 3 monies will be, it has been assumed that the amount we will receive will match the gap between pre-approved budgets and the forecast cost of operation.

## 7. SUMMARY AND RECOMMENDATION

*To approve the Revenue Business Case and associated phased roll out of for Plymouth City Council's Household Food Waste Collection service.*

### Reasons:

- a) Statutory Compliance: The Food Waste Collection Project is a legislatively driven initiative and aligns with national legislation and Defra requirements for separate domestic food waste collections in England by 1<sup>st</sup> of April 2026.*
- b) To commence phase 1 of the food waste collection service in early March 2026.*
- c) To support the Council's Climate Emergency Action Plan and Net Zero targets by introducing a food waste collection service.*
- d) To empower residents to reduce waste and improve recycling habits which will increase Plymouth's recycling rate.*
- e) To divert food waste from residual waste streams, reducing disposal costs over time.*