This publication updates the 2009 guide and pulls together the findings from more recent studies and pilots conducted by WRAP and others. Through the various sections, this guide is designed to support local authorities by detailing good practice and evidence which can help inform the design and delivery of high capture, cost-effective food waste collection services to households.

Section 1: Context and background to household food waste recycling in the UK

This section outlines the rationale for recycling food waste and summarises recent trends in the provision of household food waste collections across the UK. It introduces the key piece of legislation governing how food waste is collected, namely the Animal By-Products Regulations.

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1.1 Rationale for recycling food waste

UK households produce around 7 million tonnes of food waste each year, of which 4.2 million tonnes is categorised as avoidable and 2.8 million tonnes as unavoidable. This food waste is either collected by local authorities, home composted, fed to animals or discharged into the sewer. The majority of the waste (4.7 million tonnes in 2012) is collected by local authorities predominantly through refuse collection services, but also through food recycling schemes.

In terms of the waste hierarchy, the prevention of food waste should take priority. WRAP’s successful ‘Love Food Hate Waste’ campaign and other initiatives focusing on the prevention of food waste have helped to contribute to the reduction of overall food waste in the UK by 15% since 2007.

Although the amount of food waste has fallen, households still generate significant quantities of unavoidable food waste each year which needs to be managed. Collecting food waste from households for recycling can offer a wide range of potential benefits. These include:

- contributing to targets for diverting biodegradable waste from landfill;
- increasing recycling rates;
- reducing waste disposal costs (residual waste treatment costs tend to be much higher than those for recycling food waste);
- reducing the environmental impacts associated with landfill (toxicity in leachate, landfill gas emissions, etc.);
- reducing carbon emissions by removing the putrescent content from landfill sites;
- improving the calorific value of residual waste sent to incineration by removing the organic waste fraction with its high water content;
- producing compost for use as a soil improver;
- generating heat and power through anaerobic digestion when linked to a combined heat and power (CHP) plant; and
- improving low frequency residual waste collections for households by collecting the odorous fraction on a regular weekly cycle.

Given these benefits, it is perhaps surprising that only a small amount of food waste is recycled from household sources. In 2013/14, around 11% of local authority collected

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1 Household Food & Drink Waste in the UK 2012, WRAP
2 www.lovefoodhatewaste.com
3 Household Food & Drink Waste in the UK 2012, WRAP
household food waste was recycled either through anaerobic digestion or in-vessel composting. Reducing and recycling food waste is a key objective of both national and European Union (EU) policy and is likely to play an important role in meeting UK and national recycling targets for 2020 and beyond.

There is good capture of many dry recyclables and garden waste for recycling in the UK. But meeting future recycling targets is likely to require an expansion of food waste recycling schemes in England. Action is needed to ensure that each scheme performs optimally to capture as much food waste as possible. Also needed is more emphasis on food waste collections to provide households with a comprehensive recycling service.

1.1.1 Trends in the collection of household food waste

There has been a considerable increase in the local authority provision of food recycling schemes over the past 10 years. In 2015, 13.8 million households in the UK had access to a food waste collection compared with only 3.2 million in 2007. 61% of UK local authorities now collect food waste from households.

It is important to clarify that the proportion of local authorities collecting food waste and the number of households having access to the service are not the same and have expanded at different rates. This primarily is due to councils that have initiated schemes not fully rolling out food waste collections across their authority area. This is typically because they are only small-scale trials or because it has not been possible to include some households such as flats or properties without gardens in the roll-out of combined garden and food waste collection services. However, there are now good examples of food waste collections servicing all types of property and so considerable potential for expansion.

The rate of increase in food waste collections from households across the UK is shown in Figure 1.1, which highlights how the coverage of households varies by nation. In 2014/15, 93% of households in Wales, 75% of households in Northern Ireland, 57% of households in Scotland and 46% of households in England had access to a food waste collection service.
**Figure 1.1** Percentage of households with a food waste collection (separate or mixed with garden), 2007/08 to 2014/15

![Graph showing percentage of households with food waste collection]

Source: WRAP

**Table 1.1** illustrates the breakdown of collection type by nation and shows how this changed between 2007/08 and 2014/15.

Households receive either a separate weekly food waste collection or a mixed food and garden waste collection operated mainly on a fortnightly cycle. Collecting food mixed with garden waste was the most common collection method in 2007/08 but, by 2014/15, the separate collection method was more common across the UK. The increase in separate weekly collections relates to the higher levels of participation and capture of food in separate schemes over mixed garden and food collections, and their adoption by local authorities to achieve higher capture.
Table 1.1 Percentage of households with food waste collections

<table>
<thead>
<tr>
<th></th>
<th>2007/08 Food mixed with garden</th>
<th>Separate food waste</th>
<th>2014/15 Food mixed with garden</th>
<th>Separate food waste</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>9</td>
<td>4</td>
<td>20</td>
<td>26</td>
</tr>
<tr>
<td>Wales</td>
<td>16</td>
<td>3</td>
<td>9</td>
<td>84</td>
</tr>
<tr>
<td>Scotland</td>
<td>3</td>
<td>0</td>
<td>18</td>
<td>39</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>14</td>
<td>0</td>
<td>63</td>
<td>12</td>
</tr>
<tr>
<td><strong>UK</strong></td>
<td><strong>9</strong></td>
<td><strong>3</strong></td>
<td><strong>20</strong></td>
<td><strong>29</strong></td>
</tr>
</tbody>
</table>

Source: WRAP

The increase in the percentage of households receiving a food waste collection between 2007 and 2015 is the result of a number of different drivers including rising landfill tax and disposal costs, higher recycling targets, increases in a reduced frequency refuse collection cycle, and efforts to meet landfill allowance commitments. Specific government policies for each of the home nations include:

- statutory requirement and associated funding for local authorities in Scotland to collect household food waste separately as part of its Zero Waste strategy;
- landfill bans in Scotland and now Northern Ireland;
- statutory municipal waste recycling targets in Wales and encouragement of the Collections Blueprint; and
- support for infrastructure as part of Defra’s anaerobic digestion action plan.

Some local authorities have experienced food waste tonnages tailing off following the initial implementation of collections. The reasons for this are explored further in Section 2, but often relate to changes in some elements of scheme design (or discontinuation of elements from the start), both often due to budgetary pressures on local authorities. To respond to this issue, WRAP has carried out research to explore how food waste capture can be increased within an established scheme.

### 1.1.2 Animal By-Products Regulations (ABPR)

All food waste collections, handling and processing must comply with the Animal By-Products Regulations (ABPR). This guide does not cover ABPR in detail but provides advice on designing a food waste collection scheme that is compliant.

Food waste from households, as well as food waste from restaurants and catering facilities, is termed ‘catering waste’ under the EC Animal By-Products Regulation.
1069/2009. These Regulations aim to prevent animal by-products (ABP) presenting a risk to animal or public health through the transmission of disease. The regulations were introduced across Europe following the foot and mouth disease outbreak in 2001. They were implemented under domestic law in the UK in similar regulations issued by each of the four home nations. The key difference in the implementation of ABPR in the four nations in the context of this guide is the enforcement authority and their requirements. The enforcement authorities are:

- England and Wales – Animal and Plant Health Agency (APHA)
- Scotland – APHA and the Scottish Government
- Northern Ireland – Department of Agriculture and Rural Development (DARD)

Food waste becomes an ABP when it is no longer fit or intended for human consumption, for example, when it is past its ‘sell by’ or ‘use by’ date, or because it is damaged or contaminated. Food waste from households, as well as that from restaurants and catering facilities, is classed as Category 3 material under the ABPR. Catering waste is covered by ABP controls if it is going for composting, anaerobic digestion or processing, or might otherwise enter the animal feed chain.

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