

Guernsey Waste Annual Waste Management Report

2020

Issue date September 2021

The Annual Waste Management Report provides statistics for the island's waste management across the household and commercial sectors, and analyses trends across each of the five strands of the waste hierarchy – reduction, reuse, recycling, recovery and disposal.



Guernsey Waste

1.1 Introduction

The Annual Waste Management Report provides an overview of the island's waste management statistics for the household and commercial sectors, and analyses trends across each of the five strands of the island's waste strategy – reduction, reuse, recycling, recovery and disposal.

The data relating to household waste is drawn from weighbridges at States-owned waste management sites or commercial operators contracted by Guernsey Waste.

The data for commercial waste is supplied by companies known to be active in management of commercial waste. Operators are under no obligation to supply such information, and it is provided on a goodwill basis. The completeness of information on commercial waste cannot therefore be guaranteed, nor the accuracy of the figures provided.

1.2 Headlines

- Overall waste (including materials recycled, reused or recovered, but excluding inert waste) was up from 63,240 tonnes in 2019 to 65,261 tonnes in 2020, an increase of 3%. Of this total, 24,779 tonnes was from households, an increase of 9% compared to 2019, and 40,482 was from commercial sources, a decrease of 0.1% compared to 2019
- Total household waste not recycled or reused was 7,024 tonnes – an increase of 15% compared to 2019
- The amount of waste disposed of through landfill at Mont Cuet reduced by 29% from 5,500 tonnes in 2019 to 3,884 tonnes
- 148 tonnes of items/materials for reuse were recovered by Guernsey Waste's reuse partner GO
- 72% of household waste was recycled, reused or composted, compared with 73% in 2019
- 50% of commercial waste was recycled, reused or composted, up from 49% in 2019
- Household 'dry' recycling (i.e. excluding food and green waste) increased from 9,604 tonnes in 2019 to 9,938 tonnes
- 3,492 tonnes of food waste was collected from households, up from 3,115 tonnes in 2019
- A total of 22,465 tonnes of processed residual¹ waste was exported for energy recovery, either as Refuse Derived Fuel (RDF) or shredded wood ("Biomass"), compared with 19,641 tonnes in 2019

For 2020, direct comparisons with previous years are complicated due to the Covid-19 lockdown restrictions during the second quarter of the year. This saw many islanders staying at and working from home, and the temporary shutdown of the hospitality industry. This will have impacted on the volumes and nature of waste and recycling being produced, with a shift from commercial to household. Moreover, the trend for home-working continued for many after the lifting of lockdown.

¹ "Residual waste" is material not reused, recycled, or composted, which is either sent for energy recovery or disposal.

1.1 Introduction

Figure 1.2.1 Total waste arising from households

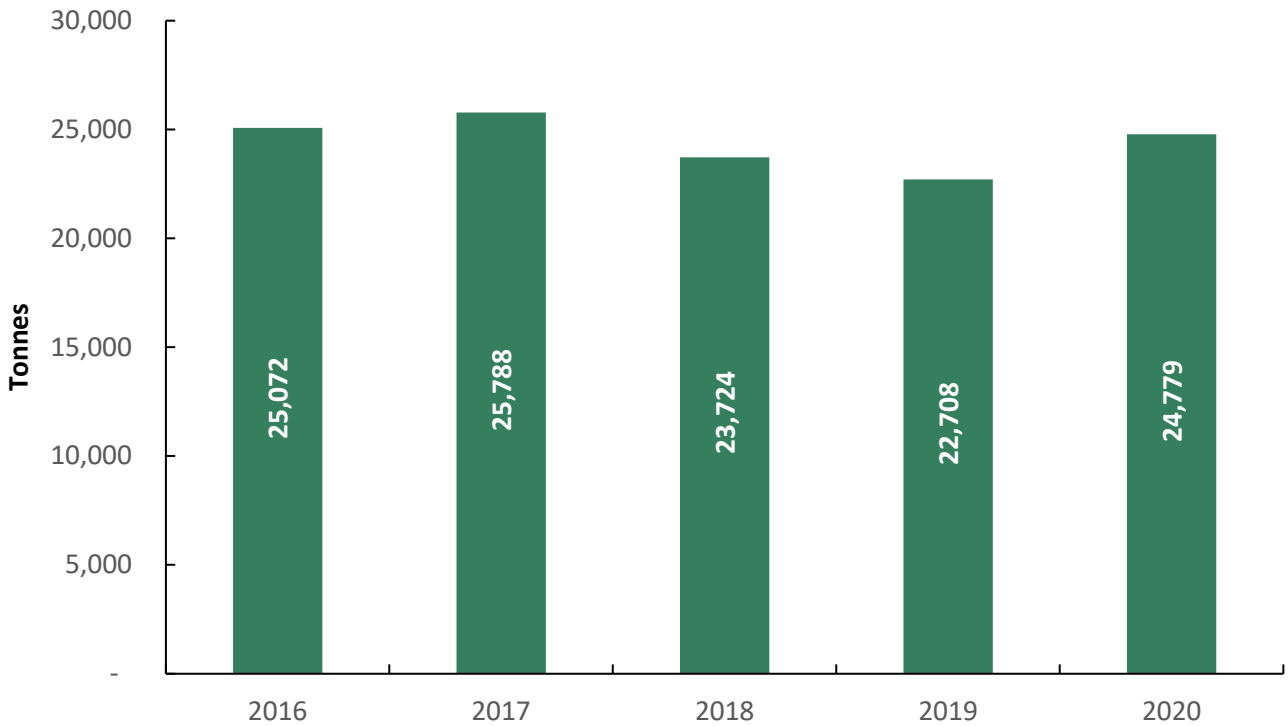
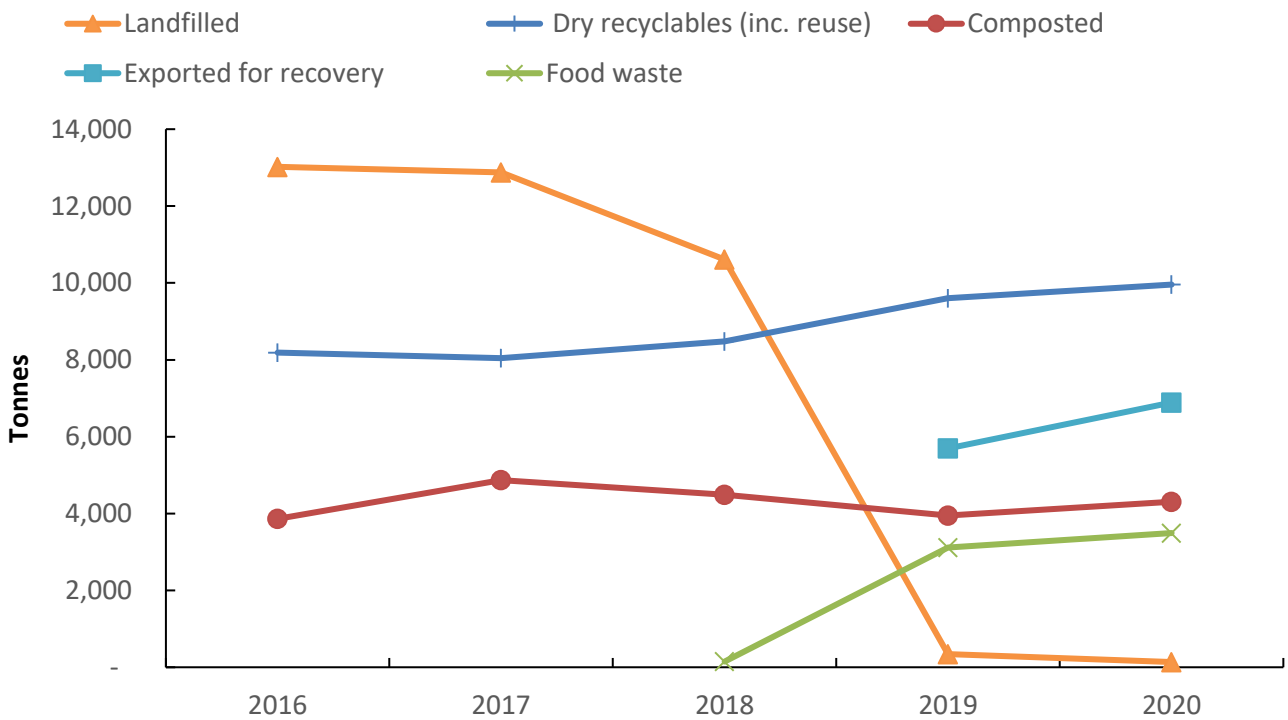


Figure 1.2.2 Waste and recycling from households by category



1.1 Introduction

Figure 1.2.3 Total waste arising from commercial sector

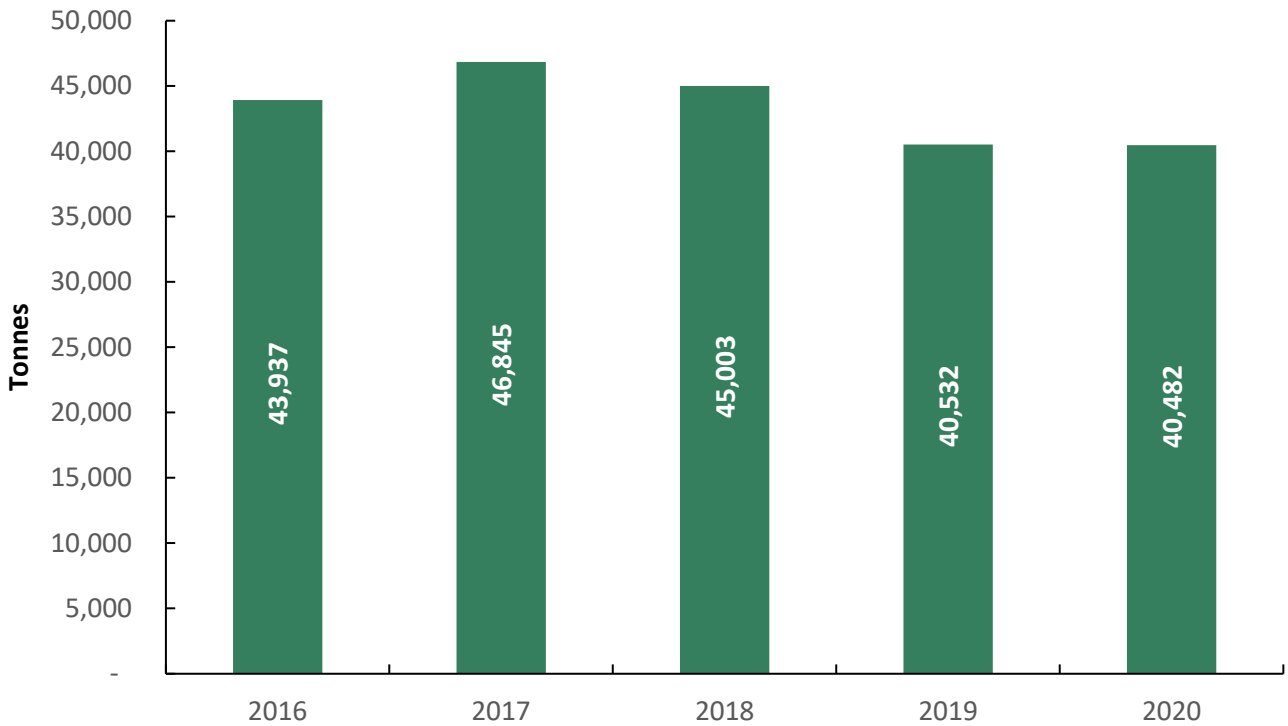
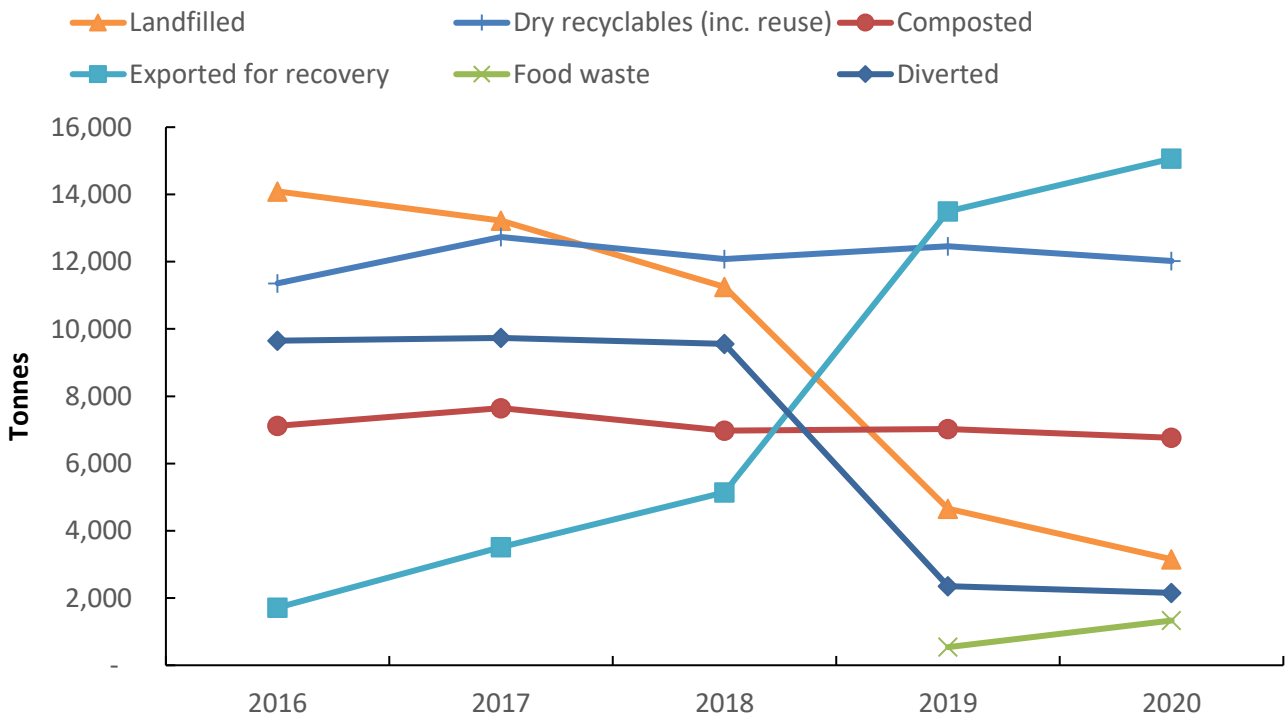


Figure 1.2.4 Waste and recycling from commercial sector by category



2.1 Reduction

Table 2.1.1 Total waste arisings ²

| Sector | 2016 (tonnes) | 2017 (tonnes) | 2018 (tonnes) | 2019 (tonnes) | 2020 (tonnes) |
|--|------------------|------------------|------------------|------------------|------------------|
| Household (excluding green waste) | 21,210 | 20,919 | 19,237 | 18,757 | 20,474 |
| Commercial (excluding inert and green waste) | 36,811 | 39,199 | 38,028 | 33,512 | 33,718 |
| Inert waste | 140,905 | 123,728 | 136,407 | 135,457 | 106,721 |
| Green waste ³ | 10,987 | 12,516 | 11,463 | 10,971 | 11,069 |

Between 2017 and 2019, total household waste (excluding green waste) fell by 10%, following the changes to collection and charging arrangements in 2018/19. 2020 saw a 9% increase, however direct comparisons with previous years are complicated by the impact of the COVID-19 lockdown, and how this may have affected the nature of waste and recycling arising in the home.

Commercial waste also saw an increase of 206 tonnes compared to 2019.

The inert waste tonnages continue to reflect the downturn in the construction industry, as well as a shift towards recycling and reusing more material on-site.

Green waste tonnages were slightly higher than in 2019, but fluctuations are not unusual, as tonnages are always affected by climate variations.

Waste prevention

Real nappies

Guernsey Waste offers a £35 subsidy per child towards the purchase of “real nappies”, as a way of incentivising the use of reusable nappies rather than disposable nappies. 75 vouchers were redeemed in 2020 – the same as for 2019.

Table 2.1.2 Reusable nappy vouchers redeemed

| | 2016 | 2017 | 2018 | 2019 | 2020 |
|----------------------------------|------|------|------|------|------|
| Reusable nappy vouchers redeemed | 19 | 17 | 78 | 75 | 75 |

Home composting

60 compost bins were distributed to local retailers for sale at a subsidised rate, to encourage and facilitate home composting. This reduces the amount of food waste processed at the Waste Transfer Station and exported, and helps to recycle garden material at source. This was down from 115 in 2019. Further work is planned to promote the benefits of home composting.

² Due to rounding, total figures may not always equal the sum of the individual waste streams; this applies throughout this report

³ It should be noted that no data was received from commercial companies who operated their own commercial composting facilities, and so there is a likely gap in the data for this.

3.1 Reuse – household

“Reuse” means any operation by which products or components are used again for the same purpose for which they were conceived. Reuse lies higher up the waste hierarchy than recycling and, as such, work continues to support efforts at this level.

A partnership with local charity GO commenced in May 2017, with the aim of maximising the number of items delivered to the Household Waste & Recycling Facility that are reused rather than recycled.

In 2020, 148 tonnes were taken by GO for reuse, continuing the steady increases since the partnership was formed. In accordance with UK methodology this reuse figure is included in the calculation of the household waste Recycling Rate.

Table 3.1.1 Reuse via HWRC

| | 2016 (tonnes) | 2017 (tonnes) | 2018 (tonnes) | 2019 (tonnes) | 2020 (tonnes) |
|--|------------------|------------------|------------------|------------------|------------------|
| Materials taken from site for reuse | 24 | 76 | 86 | 109 | 148 |

A significant amount of reuse also occurs through third sector organisations such as charity shops and online platforms such as Trade It Guernsey, bisi.gg, Guernsey Ebuy, etc. The extent of this is not currently quantifiable.

3.2 Reuse – commercial

One local contractor sends vehicles to Africa for reuse, and in 2020 exported 5 tonnes.

No other reuse data is currently available from the commercial sector. However, it is highly likely that, as in the household sector, many items will be reused, such as furniture from offices, commercial vehicles and computer equipment, through charities, advertisement for sale, auctions and online trading platforms. This is not currently quantifiable.

3.3 Reuse – inert

The Island Development Plan, adopted in November 2016, introduced a requirement for Site Waste Management Plans (SWMP) to be submitted with planning applications for projects of a certain size or nature. These need to demonstrate how waste is to be minimised through design, during demolition of any existing buildings or structures, and in construction. It will detail how existing materials are to be reused or recycled, either on or off site, and how any remaining material will be dealt with, including details of its immediate destination if it is proposed to be transported off site.

Advice on completing SWMPs was published in June 2018, providing developers with guidance on the information and data they are required to submit. It is hoped that data will be available for future reports to show the extent to which construction and demolition materials are being reused and recycled on site, which might previously have been deposited at Longue Hougue land reclamation site, or processed into recycled aggregates by the commercial sector.

4.1 Recycling – household

“**Recycling**” refers to any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes, and includes reprocessing of organic material – i.e. food and garden waste. The annual “**Recycling Rate**” is a measure of the materials reused, recycled or composted, expressed as a proportion of overall waste.

2020 was a continuation of 2019 – with significantly higher tonnages of materials being collected for reuse, recycling and composting than in previous years, and a corresponding reduced tonnage of residual waste (i.e. material that was not reused, recycled, or composted).

A record 17,755 tonnes of household waste was reused, recycled, or composted, which is an increase of 1,086 tonnes compared to the previous high in 2019. The Recycling Rate of 72% was slightly lower than the high of 73% recorded in 2019, due to the accompanying increase in residual waste. However direct comparisons are complicated by the change in the volume and nature of waste and recycling that was produced in the home, due to the temporary shutdown of the hospitality industry due to Covid-19 and the requirement to stay at home during lockdown.

Table 4.1.1 Household Recycling Rate

| Stream | 2016 (tonnes/%) | 2017 (tonnes/%) | 2018 (tonnes/%) | 2019 (tonnes/%) | 2020 (tonnes/%) |
|-------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Reused, recycled or composted | 12,051 | 12,912 | 13,116 | 16,669 | 17,755 |
| Not recycled or composted | 13,021 | 12,876 | 10,608 | 6,039 | 7,024 |
| Total domestic waste | 25,072 | 25,788 | 23,724 | 22,708 | 24,779 |
| Household Recycling Rate | 48% | 50% | 55% | 73% | 72% |

Table 4.1.2 Household Recycling Rate breakdown

| Recycling Rate components | | | | | |
|---------------------------|-------|-------|-------|-------|-------|
| Dry recyclables | 32.7% | 31.2% | 35.8% | 42.1% | 40.2% |
| Food waste | - | - | 0.6% | 13.7% | 14.1% |
| Green waste | 15.4% | 18.9% | 18.9% | 17.3% | 17.4% |

Dry recycling (i.e. excluding food and green waste), as a proportion of overall household waste, was slightly lower compared to 2019, but still significantly higher than before the changes to household collections and charges in 2018/19.

4.1 Recycling – household

Figure 4.1.1 – Annual tonnages of recycled household plastic packaging, cartons and tins

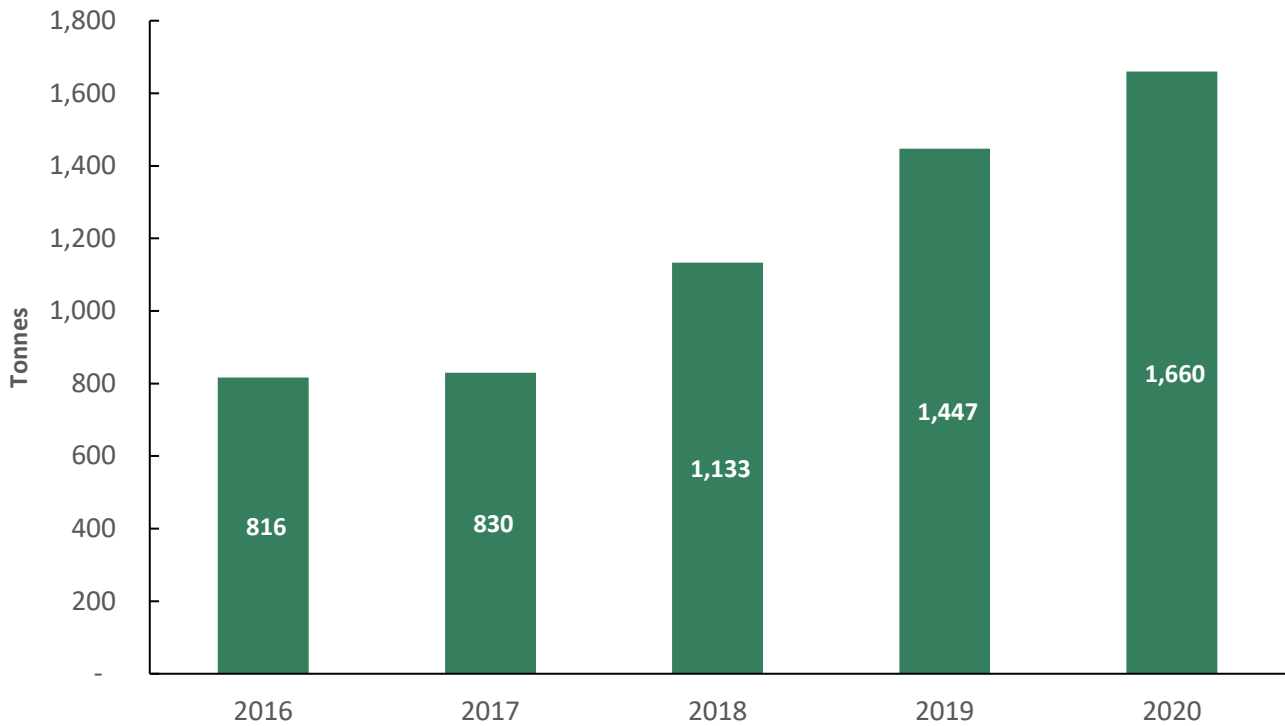
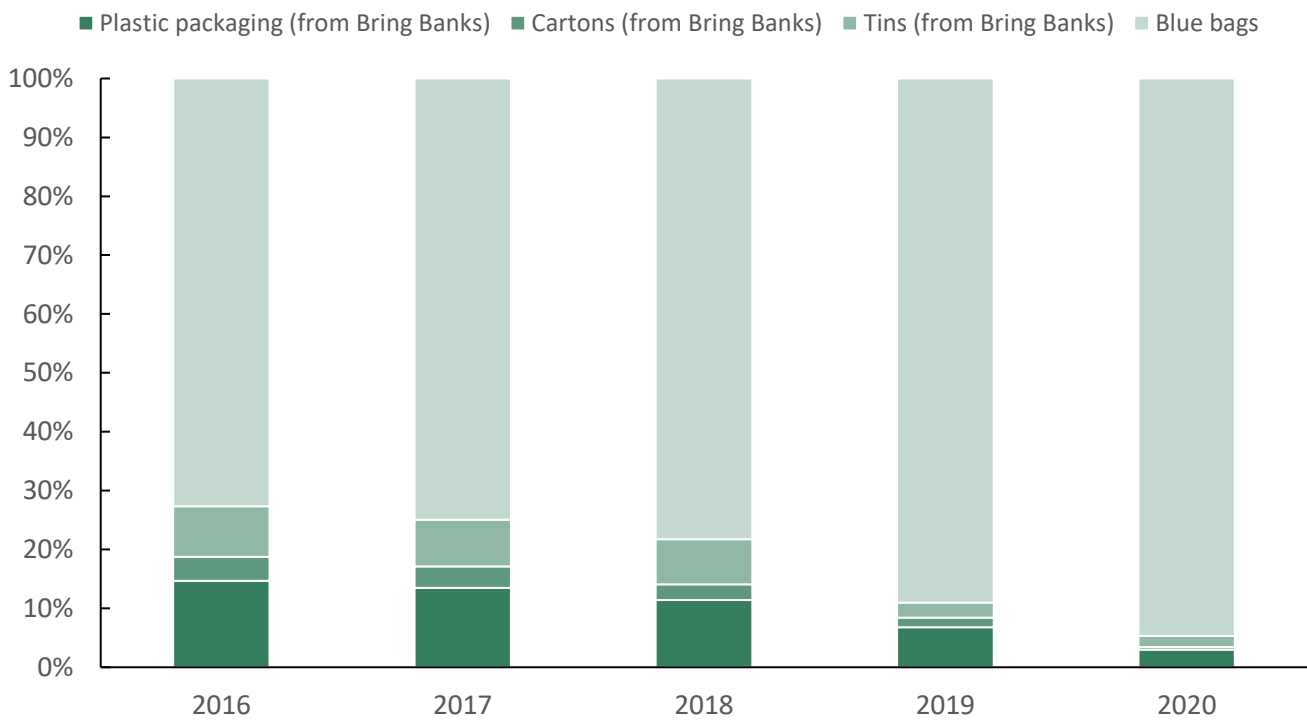


Figure 4.1.2 – Split of plastic, cartons and tins collected at bring banks and in kerbside bags



4.1 Recycling – household

Figure 4.1.3 – Annual tonnages of recycled household paper and cardboard

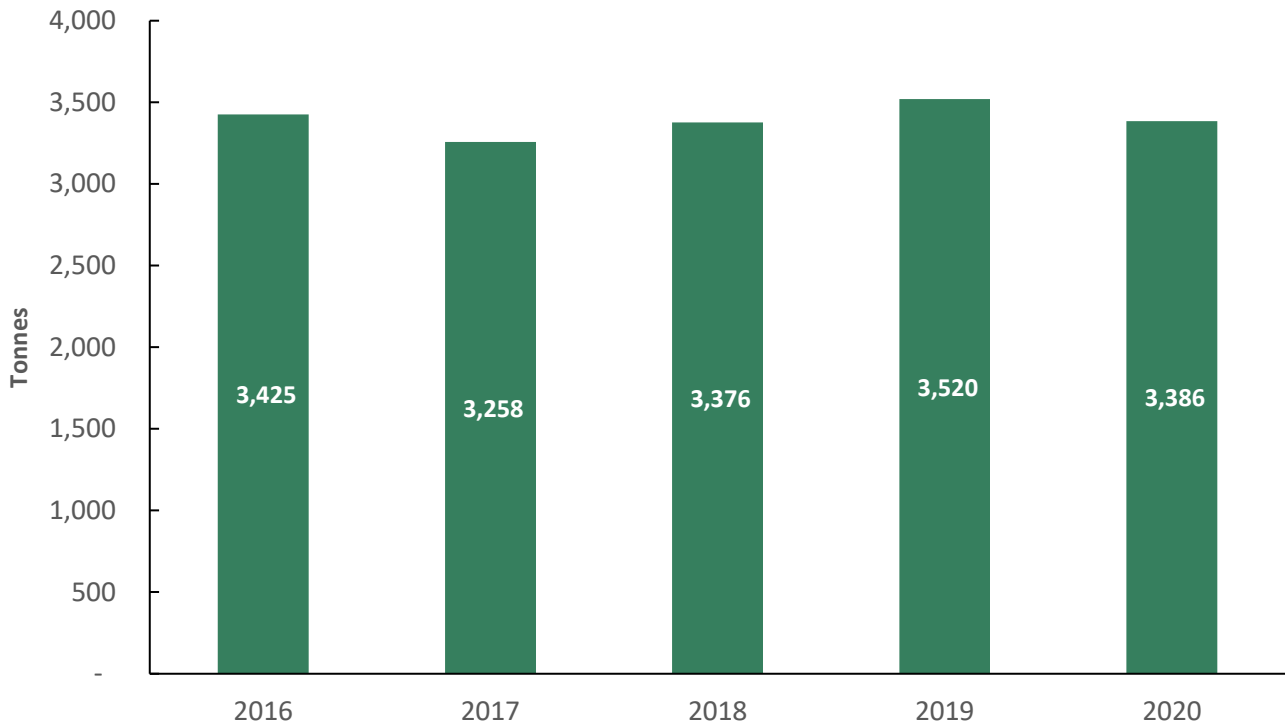
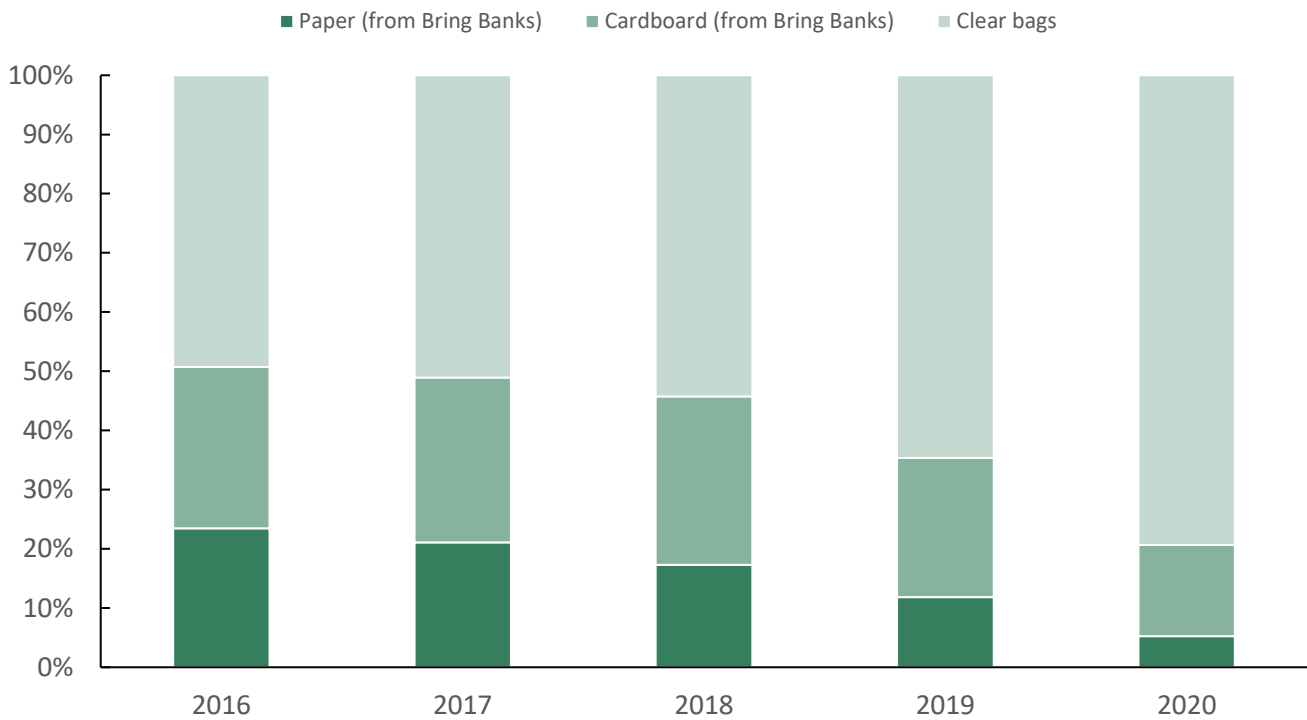


Figure 4.1.4 – Split of paper and cardboard collected at bring banks and in kerbside bags



4.1 Recycling – household

Figure 4.1.5 – Glass collected at bring banks and in kerbside bags

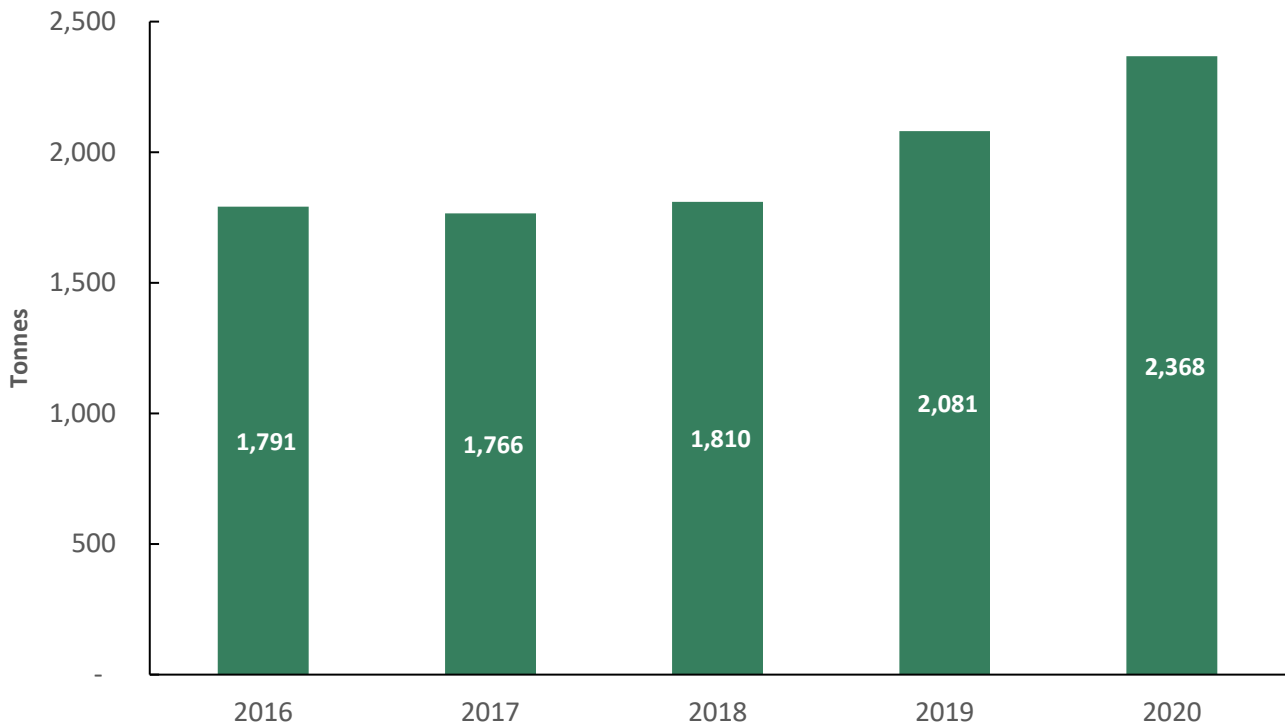
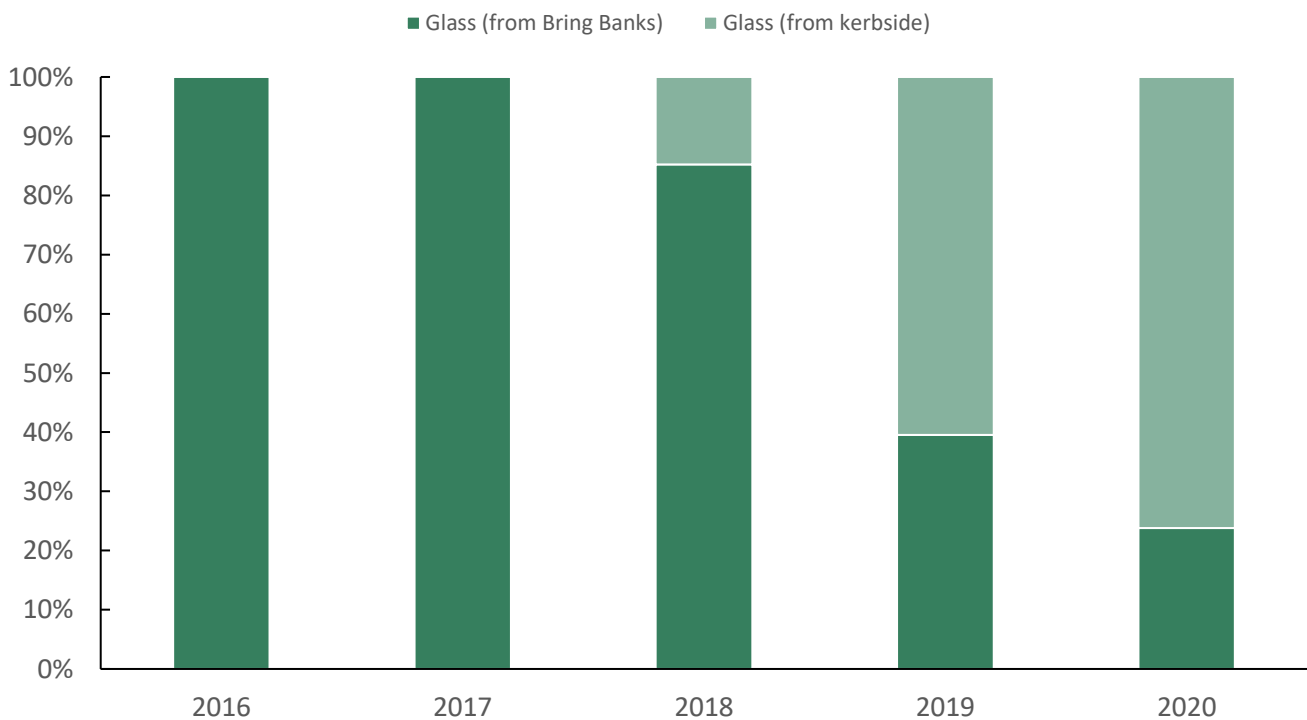


Figure 4.1.6 – Split of glass collected at bring banks and in kerbside bags



4.1 Recycling – household

Plastic packaging, cartons and tins

Tonnages of blue bags collected from kerbside or deposited at the HWRC increased again, by 284 tonnes compared with 2019, as shown in **Table 4.1.4** below. Against that, the amount of plastics, tins and cartons collected from bring banks fell by nearly half as show in **Figure 4.1.2**; this continues the shift to kerbside recycling seen in recent years.

Paper and cardboard

Globally, paper consumption has been on a downward trend for more than a decade. That has been offset, only in part, by increasing volumes of cardboard due to the growth in Internet shopping.

The increase in the overall amount of these materials collected through either kerbside collection or bring banks in 2018 and 2019 reflects a higher ‘capture rate’ since the introduction of the new household collections and charges (i.e. a higher proportion of the overall volume of material is being collected for recycling, instead of disposal or recovery). There is also clearly been a further significant shift away from bring banks towards kerbside, although the reduction seen in 2020 will in part be because these facilities were unavailable for part of the year due to lockdown.

Paper and card recycling tonnages reduced by 4%, compared to 2019, which reflects the long-term downward trend in paper consumption, and indicates capture of these materials remains very high.

Glass

The amount of glass being collected for recycling has increased significantly following the introduction of kerbside collection in late 2018. A further 14% rise was recorded in 2020, which is more likely to reflect greater volumes of glass being purchased by households. During lockdown, when the hospitality industry was closed, the tonnage of glass collected through kerbside was 100% higher compared with preceding months. Part of the increase will be due to the temporary closure of bring bank sites, but tonnages remained around 40% higher during the months that followed. This would also suggest that some households who switched to kerbside have continued to use the service.

Kerbside recycling

Participation

The kerbside recycling participation survey collects data from more than 1,000 homes, and records the materials they set out over four week period. The same collection rounds are surveyed each time, and comprise a mix of social housing and privately-owned or rented properties, including areas in central St Peter Port and coastal Castel. A household is considered to ‘participate’ in a particular stream (blue bags, clear bags, food waste and glass) if it sets out those materials at least once during the survey.

The overall participation rate is the proportion of households who have set out at least one stream.

4.1 Recycling – household

Table 4.1.3 Kerbside recycling participation rate

| Stream | 2016 | Jun 2018 | Nov 2018 | 2019 | 2020 |
|--|------|----------|----------|------|------|
| Overall kerbside participation rate | 71% | 74% | 95% | 99% | 99% |
| Blue and clear bags | 71% | 74% | 88% | 92% | 96% |
| Food waste | - | - | 87% | 93% | 93% |
| Glass | - | - | 55% | 59% | 69% |

Since its introduction in 2018, participation in kerbside glass collection has been lower than for other streams. There was a marked increase in 2020, with more than two thirds of households found to be using the service. This may understate true participation, as some households are known to set out less frequently than once in four weeks, and would therefore not be captured in the survey. Some households are known to prefer using bring banks for glass.

Participation with blue and clear bag remained very high. Lower tonnages recycled through the bring banks, as shown in in [Table 4.1.5](#), indicate many households that switched to kerbside collection while bring banks were closed during lockdown continue to do so.

Volumes

The amount of household materials collected through kerbside recycling reached a new record, with an increase of 1,619 tonnes, or 20%, compared to 2019. As referenced above, the Covid-19 lockdown was a factor. This saw more households using kerbside recycling, and some waste and recycling normally generated in the workplace and by the hospitality sector was generated at home instead. The increase in online shopping and grocery deliveries is also likely have resulted in an increase in cardboard.

Table 4.1.4 Household recycling through kerbside scheme

| Stream | 2016 (tonnes) | 2017 (tonnes) | 2018 (tonnes) | 2019 (tonnes) | 2020 (tonnes) |
|-------------------|------------------|------------------|------------------|------------------|------------------|
| Clear bags | 1,688 | 1,664 | 1,832 | 2,275 | 2,687 |
| Blue bags | 593 | 622 | 848 | 1,288 | 1,572 |
| Food waste | - | - | 148 | 3,115 | 3,492 |
| Glass | - | - | 261 | 1,258 | 1,804 |
| TOTAL | 2,281 | 2,286 | 3,089 | 7,936 | 9,555 |

Bring bank sites

With the exception of textiles, glass and cardboard are the highest tonnages deposited at bring bank sites. This is largely due to the bulky nature of some cardboard packaging which means it does not easily fit in kerbside bags, and some households choosing to use bring banks for glass, despite using kerbside collection for other materials. It is also likely that bring banks provide a free means for some businesses to dispose of materials, although it is difficult to quantify the impact of this accurately.

4.1 Recycling – household

Table 4.1.5 Household recycling deposited at bring bank sites

| Material | 2016 (tonnes) | 2017 (tonnes) | 2018 (tonnes) | 2019 (tonnes) | 2020 (tonnes) |
|------------------------------|------------------|------------------|------------------|------------------|------------------|
| Paper | 804 | 688 | 585 | 418 | 177 |
| Cardboard | 933 | 906 | 959 | 827 | 521 |
| Tins & cans | 70 | 66 | 83 | 34 | 31 |
| Plastic packaging | 120 | 112 | 124 | 98 | 50 |
| Beverage cartons | 33 | 30 | 29 | 24 | 7 |
| Reject material ⁴ | - | - | - | -71 | -113 |
| Glass | 1,791 | 1,766 | 1,510 | 823 | 564 |
| Textiles & books | 731 | 731 | 661 | 670 | 527 |
| TOTAL | 4,482 | 4,299 | 3,951 | 2,823 | 1,764 |

Household green waste

As seen in [Table 4.1.6](#), 2020 saw a 400-tonne increase in green waste from households to 4,305 tonnes. The amount of green waste is highly dependent on the weather.

Table 4.1.6 Green waste composted

| | 2016 (tonnes) | 2017 (tonnes) | 2018 (tonnes) | 2019 (tonnes) | 2020 (tonnes) |
|-------------|------------------|------------------|------------------|------------------|------------------|
| Green waste | 3,862 | 4,869 | 4,487 | 3,951 | 4,305 |

Bulk Refuse Scheme

156 tonnes of bulky materials were collected through the Bulk Refuse scheme, of which 66 tonnes were subsequently recycled. This is also included in the household dry recycling total.

Household Waste & Recycling Centre

The Household Waste & Recycling Centre (HWRC) remains very popular and well-used. 2,131 tonnes of materials were dropped off by islanders for recycling, including 270 tonnes of kerbside recycling bags. This was an overall increase of 296 tonnes compared to 2019.

Due to a change in international legislation, export of cooling units which contain ozone depleting substances was suspended in May 2017. These units have subsequently been stockpiled. Work is ongoing to update Guernsey's legislation to resolve this issue, in consultation with the States' Law Officers and DEFRA in the UK. Any fridges containing ozone depleting substances received in 2020 were added to the stockpile and are currently excluded from the recycling totals in [Table 4.1.7](#).

⁴ Rejected material was previously attributed solely to kerbside materials. From 2019, it was also attributed to bring banks accepting blue and clear bag materials

4.1 Recycling – household

Work is being undertaken to reduce queues that arise at the most popular times of the week.

Table 4.1.7 Recycling deposited at HWRC

| Material | 2016 (tonnes) | 2017 (tonnes) | 2018 (tonnes) | 2019 (tonnes) | 2020 (tonnes) |
|------------------------|------------------|------------------|------------------|------------------|------------------|
| Kerbside blue bags | - | - | - | 42 | 75 |
| Kerbside clear bags | - | - | - | 68 | 195 |
| Cardboard | 72 | 57 | 74 | 117 | 122 |
| Fridges and freezers | 108 | 53 | 59 | 47 | 43 |
| Fluorescent tubes | 3 | 2 | 3 | 4 | 3 |
| Food waste | - | - | - | 19 | 43 |
| Glass | - | - | - | 17 ⁵ | 18 |
| Household batteries | 7 | 10 | 5 | 21 | 15 |
| Lead acid batteries | 26 | 23 | 25 | 21 | 23 |
| Mattresses | 8 | 20 | 14 | 54 | 53 |
| Other ⁶ | 33 | 31 | 10 | 27 | 29 |
| Other electrical items | 382 | 368 | 339 | 485 | 471 |
| Polystyrene | 13 | 19 | 25 | - ⁷ | - |
| Plasterboard | - | - | - | - | 45 |
| Rigid plastic | 96 | 123 | 197 | 169 | 221 |
| Scrap metal | 544 | 560 | 545 | 668 | 718 |
| TVs and monitors | 70 | 58 | 59 | 59 | 55 |
| uPVC | 20 | 18 | 14 | 17 | 2 |
| TOTAL | 1,382 | 1,342 | 1,369 | 1,835 | 2,131 |

⁵ Estimated contribution from the HWRC

⁶ Includes oils (cooking and mineral), polythene, printer cartridges.

⁷ In previous years, polystyrene was accepted for recycling through civic amenity and bring bank sites, but polystyrene recycling ceased in 2019 with the opening of the Waste Transfer Station and is therefore no longer included

4.2 Recycling – commercial

The Recycling Rate for commercial waste was 50% in 2020, the highest on record, up from 49% in 2019, as shown in **Table 4.2.1**. A breakdown of the recycled or composted figures is provided in **Table 4.2.2**.

The methodology used to calculate the commercial Recycling Rate is consistent with that used in earlier years, but is under review. Data is obtained through direct approach to operators known to be active in commercial recycling. Reasoned estimates are used for waste that will have been generated but not reached formal disposal routes (particularly the case with wood).

Table 4.2.1 Commercial waste Recycling Rate

| | 2016 (tonnes) | 2017 (tonnes) | 2018 (tonnes) | 2019 (tonnes) | 2020 (tonnes) |
|------------------------------------|------------------|------------------|------------------|------------------|------------------|
| Recycled or composted ⁸ | 18,484 | 20,382 | 19,055 | 20,022 | 20,113 |
| Not recycled or composted | 25,451 | 26,463 | 25,948 | 20,511 | 20,370 |
| Total commercial waste | 43,936 | 46,846 | 47,509 | 40,532 | 40,482 |
| Commercial Recycling Rate | 42% | 44% | 42% | 49% | 50% |

Table 4.2.2 Commercial Recycling Rate breakdown

| Recycling Rate components | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------------------|-------|-------|-------|-------|-------|
| Dry recyclables | 25.9% | 27.2% | 26.8% | 30.7% | 29.7% |
| Food waste | 0.0% | 0.0% | 0.0% | 1.3% | 3.3% |
| Green waste | 16.2% | 16.3% | 15.5% | 17.3% | 16.7% |

Table 4.2.3 Commercial recycling streams

| Stream | 2016 (tonnes) | 2017 (tonnes) | 2018 (tonnes) | 2019 (tonnes) | 2020 (tonnes) |
|---|------------------|------------------|------------------|---------------------|------------------|
| Food | - | - | - | 540 | 1,330 |
| Blue & clear bag materials ⁹ | 4,547 | 4,180 | 4,063 | 3,669 | 2,586 |
| Glass | 242 | 306 | 382 | 757 | 618 |
| Other recycling | 6,570 | 8,249 | 7,635 | 8,036 ¹⁰ | 8,815 |
| Green waste | 7,125 | 7,647 | 6,975 | 7,021 | 6,764 |

Commercial food waste tonnages increased by almost 150% compared with 2019, demonstrating further improvement in segregation at source. Glass recycling reduced by 139 tonnes compared to 2019, but this is largely attributed to the Covid-19 restrictions on the hospitality industry, which was offset by the increased tonnages of glass from households.

As stated in **Section 2.1**, no data was received from commercial companies who operated commercial composting facilities, and so there is a likely gap in the data for this.

⁸ Includes tonnages of materials reused

⁹ Equivalent to materials collected in blue and clear bags from households via kerbside recycling

¹⁰ Includes metal recovered from Waste Transfer Station from processing residual commercial waste

4.3 Recycling – inert

Since the mid-1990s inert waste has been deposited at the current land reclamation site at Longue Hougue. The quantity of inert waste used for land reclamation at Longue Hougue is detailed under “Recovery (land reclamation)” in **Table 4.3.1**, and further commentary is provided in **Section 5.1** below.

A contract for the recycling of aggregates at Longue Hougue commenced in April 2019, increasing the recovery of recyclable materials. 31,719 tonnes of inert waste were recycled in 2020 (of which 7,884 tonnes were recycled by the commercial sector away from States-owned sites). The biggest shift was in 84% reduction in material being used for “Recovery (other)”, which reflects the greatly reduced requirement for engineering materials at Mont Cuet. There was a corresponding increase in materials recovered via land reclamation, which rose by 17,327 tonnes, or 37%, compared to 2019.

Table 4.3.1 Inert waste

| | 2016 (tonnes) | 2017 (tonnes) | 2018 (tonnes) | 2019 (tonnes) | 2020 (tonnes) |
|--|------------------|------------------|------------------|------------------|------------------|
| Reuse | 3,294 | 4,825 | 5,680 | 6,074 | 2,120 |
| Recycling | 12,936 | 16,424 | 16,157 | 28,335 | 31,719 |
| Recovery (land reclamation) ¹¹ | 81,312 | 53,756 | 58,621 | 46,358 | 63,685 |
| Recovery (other)¹² | 42,956 | 48,367 | 55,493 | 54,363 | 8,760 |
| Landfill ¹³ | 407 | 356 | 456 | 328 | 437 |
| TOTAL | 140,905 | 123,728 | 136,407 | 135,457 | 106,721 |

Annual totals vary in line with construction activity, and the decline in recent years is mostly due to the downturn in that industry. As previously stated, the introduction of Site Waste Management Plans as a requirement for developments of a certain size and type has improved waste management in building projects, and data relating to these plans should be available for future reports. This will provide information on construction and demolition materials that have been reused and recycled on site, to include alongside data of inert waste deposited at Longue Hougue land reclamation site or processed into recycled aggregates by the commercial sector.

¹¹ Prior to 2019, categorised as disposal; from 2019, amended to recovery in line with change to waste hierarchy definitions.

¹² ‘Recovery (other)’ includes inert waste recovered through the aggregate recycling process that is used for cover material and landscaping to Mont Cuet landfill site.

¹³ Hazardous inert waste, already included in Mont Cuet inputs.

4.3 Recycling – inert

Figure 4.3.1 Total inert waste annual tonnages

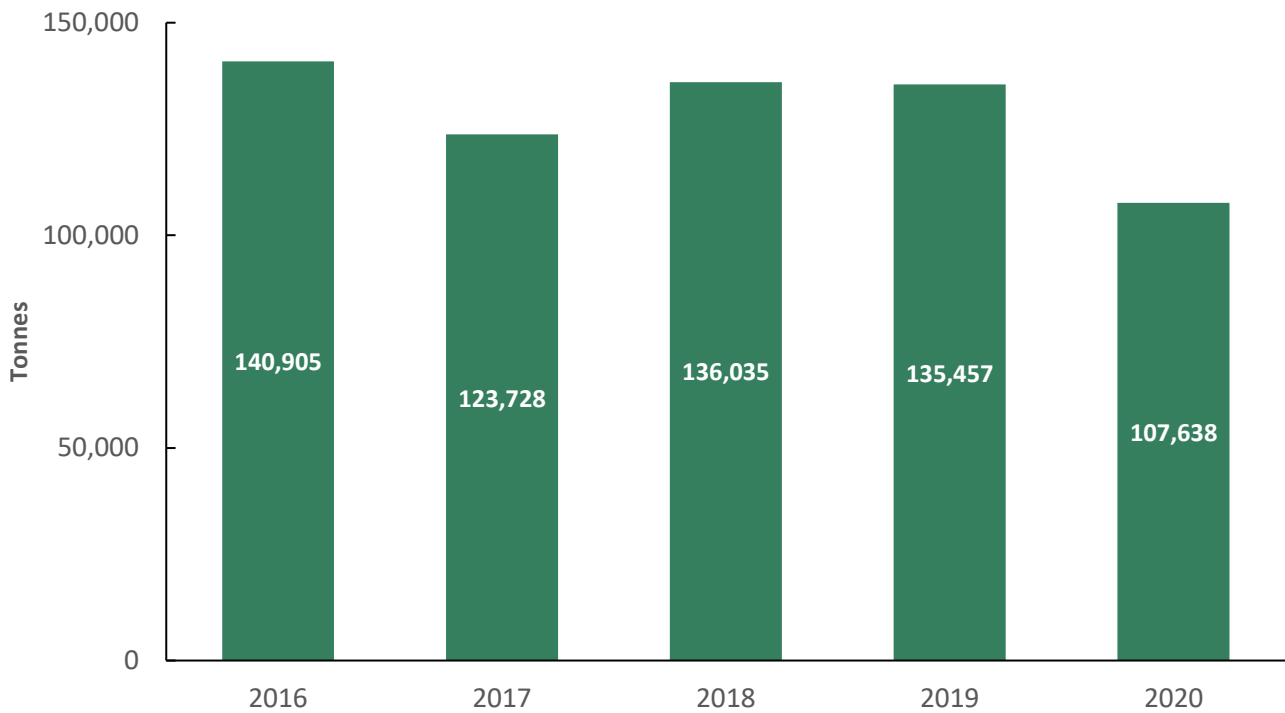
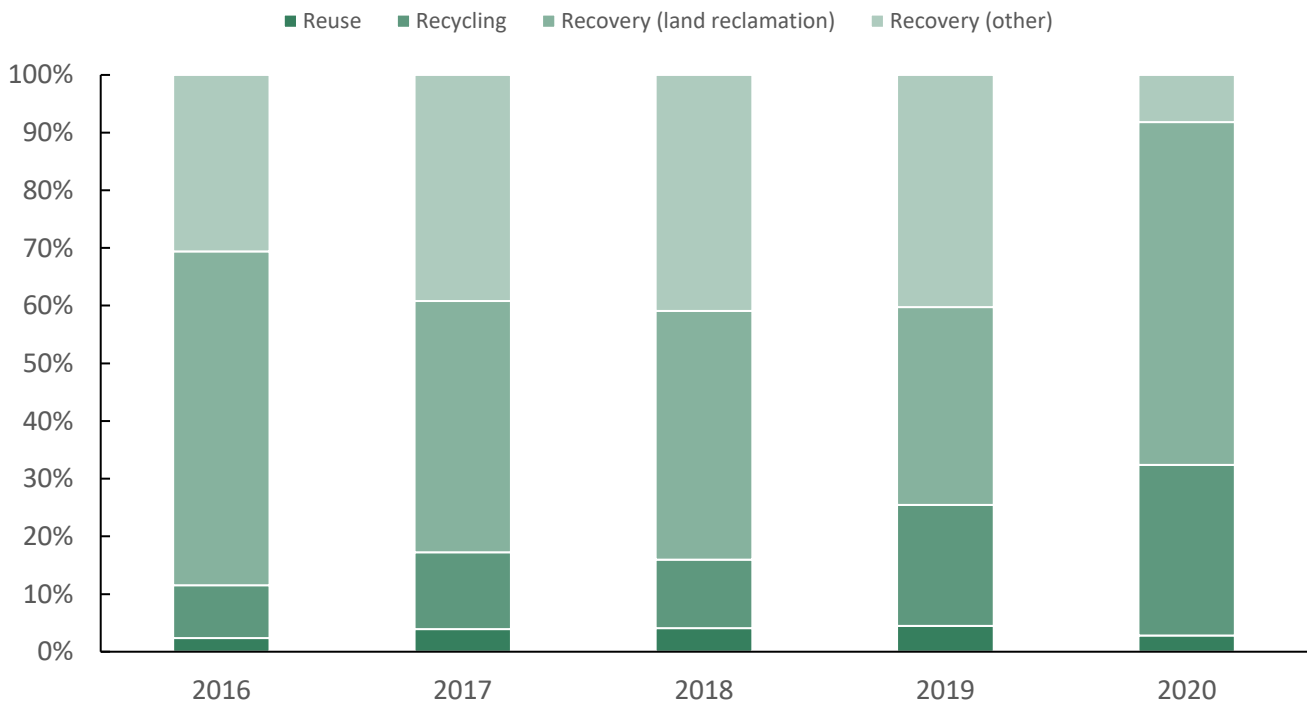


Figure 4.3.1 Inert waste – percentage of each stream¹⁴



¹⁴ Inert waste disposed of in landfill is not shown on chart, as percentage too small.

5.1 Recovery – Household and Commercial

“**Recovery**” refers to using waste for a useful purpose, which conserves resources (e.g. fossil fuels) that would otherwise be consumed.

Since 2019, the majority of waste not reused, recycled or composted has been exported for energy recovery. This material would previously have been disposed of in landfill at Mont Cuet, but is now processed into Refuse-Derived Fuel (RDF) at the island’s Waste Transfer Station or, in the case of some commercial waste, other products for energy recovery.

In 2020, RDF from the island’s Waste Transfer Station was sent to Sweden, where it was used to generate electricity and district heating.

Food waste, which prior to 2018 was also disposed of in landfill, is also now exported. This is sent to a facility in the UK to undergo a process known as anaerobic digestion¹⁵ (or AD), which produces a compost material and gas that is used to generate electricity. In line with standard definitions, food waste tonnages processed through AD are classed as recycling, but the energy outputs can be considered recovery.

Energy recovered

In 2020, 27.6 gigawatt hours (GWh) of energy was recovered from RDF produced at the Waste Transfer Station. This was an increase of 18% (4.3GWh) compared to 2019, reflecting the higher tonnage exported, which was up 21%, from 9,076 tonnes in 2019 to 10,942 tonnes in 2020.

A further 1.5GWh of energy was recovered through anaerobic digestion of food waste, which generated 922,097 m³ of biogas. This is an increase of 0.4GWh compared to 2019.

The combined recovery total of 29.1GWh is sufficient to meet the electricity requirements of more than 4,300 Guernsey households¹⁶. Although this is not consumed locally, there is a direct benefit to the island since the sale of these energy outputs offsets the cost of treating our waste and the subsequent disposal or processing of any residues. Using our waste for energy recovery also replaced other fuels that would otherwise have been required, which provides a wider global benefit. It also reduces local carbon emissions by avoiding landfill of waste, which is a significant source of greenhouse gases.

Energy was also recovered from commercial waste processed through private waste facilities. That is not included in the calculation above, as the recovery information is not available, however the tonnages that have been reported as exported are included in [Table 5.1.1](#).

¹⁵ Anaerobic digestion is the process by which organic matter such as food waste is broken down to produce biogas and biofertiliser. This process happens in the absence of oxygen in a sealed, oxygen-free tank called an anaerobic digester.

¹⁶ [Guernsey Facts and Figures Booklet & Supplementary Information](#): 2019 domestic electricity consumption in Guernsey was 181.7GWh, by 27,139 domestic property units, giving an average annual household consumption of 6,695Kwh. 29.4GWh energy recovery is therefore equivalent to 4,354 households.

5.1 Recovery – Household and Commercial

Tonnages sent for energy recovery

In 2020, 22,465t of waste (excluding food waste) was sent for energy recovery, which was an increase of 14% compared to 2019 (19,641t). 31% was from households and 69% from commercial sources – which is broadly in line with 2019 (29% vs 71%). 49% was processed through the island’s Waste Transfer Station (up from 46% in 2019), and 51% at private sector facilities (down from 54%).

The tonnage of household waste sent for energy recovery (excluding food waste) increased from 5,694t in 2019 to 6,888t - a rise of 21%. Commercial waste tonnages (excluding food waste) rose by 12% to 15,577t (2019: 13,947t).

From information received from private contractors, 11,523 tonnes of residual waste was exported for recovery by the commercial sector as RDF and biomass in 2020. This is an increase of 958 tonnes compared with in 2019, which in turn was an increase on 2018’s figure.

Table 5.1.1 Household and commercial waste sent for energy recovery

| | 2016 | 2017 | 2018 | 2019 | 2020 |
|--|---------------|---------------|---------------|-----------------|----------------------|
| RDF - Waste Transfer Station | - | - | - | 9,076t | 10,942t |
| From households | | | | 5,694t | 6,888t |
| From commercial sources | | | | 3,382t | 4,054t ¹⁷ |
| Energy recovered | | | | 23.3 GWh | 27.6 GWh |
| RDF – Private sector facilities | 1,715t | 3,512t | 5,137t | 7,394t | 8,223t |
| Biomass – Private sector facilities | - | - | - | 3,171t | 3,300t |
| Total tonnage sent for recovery | 1,715t | 3,512t | 5,137t | 19,641t | 22,465t |
| Included in Recycling | | | | | |
| Food waste | - | - | - | 3,655t | 4,822t |
| From households | | | | 3,115t | 3,492t |
| From commercial sources | | | | 540t | 1,330t |
| Energy recovered | | | | 1.1 GWh | 1.5 GWh |

Household waste not reused, recycled or composted

Of the household waste not reused, recycled, or composted, 98% was exported for energy recovery as RDF – 4% higher than in 2019 – and only 2% sent to landfill.

Household waste sent for recovery includes general ‘black bag’ refuse, materials dropped off at the HWRC for disposal, and some bulky wastes (e.g. furniture). Overall tonnages of these materials had been on a slight downward trend prior to the changes to household collections and charges in 2018/19, and have since seen a significant reduction – most notably in the black bag fraction.

¹⁷ Includes 512 tonnes of residual household waste received from Alderney.

5.1 Recovery – Household and Commercial

The overall tonnage of household material sent for recovery in 2020 was 6,888t, which is 21% higher than in 2019 (5,694t) – an increase of 1,194t. This included additional diversion away from landfill, for which inputs were more than 200t less than the previous year.

The greatest contribution to the increase in household material sent for recovery came through items delivered to the HWRC which cannot be recycled. This was 612 tonnes higher in 2020 (2,164t) than in 2019 (1,552t), an increase of 39%. Average monthly inputs post the COVID-19 lockdown were significantly higher than before, suggesting many islanders may have taken the opportunity to clear out unwanted items.

Parish waste collections, which account for the vast majority of ‘black bag waste’, increased by 342t, to more than 4,300t – an increase of nearly 9%. Some of this rise could be attributed to the impact of lockdown, when more people were at home for longer than usual. It is still significantly lower than the annual tonnages of more than 11,000t, prior to 2018.

5.2 Recovery – inert

All inert construction waste used for the creation of land with potential future benefits is now classed as ‘recovery (landfill)’. This applies to material deposited in the Longue Hougue land reclamation site, which in 2020 was 63,685 tonnes, as shown in [Table 4.3.1](#) above.

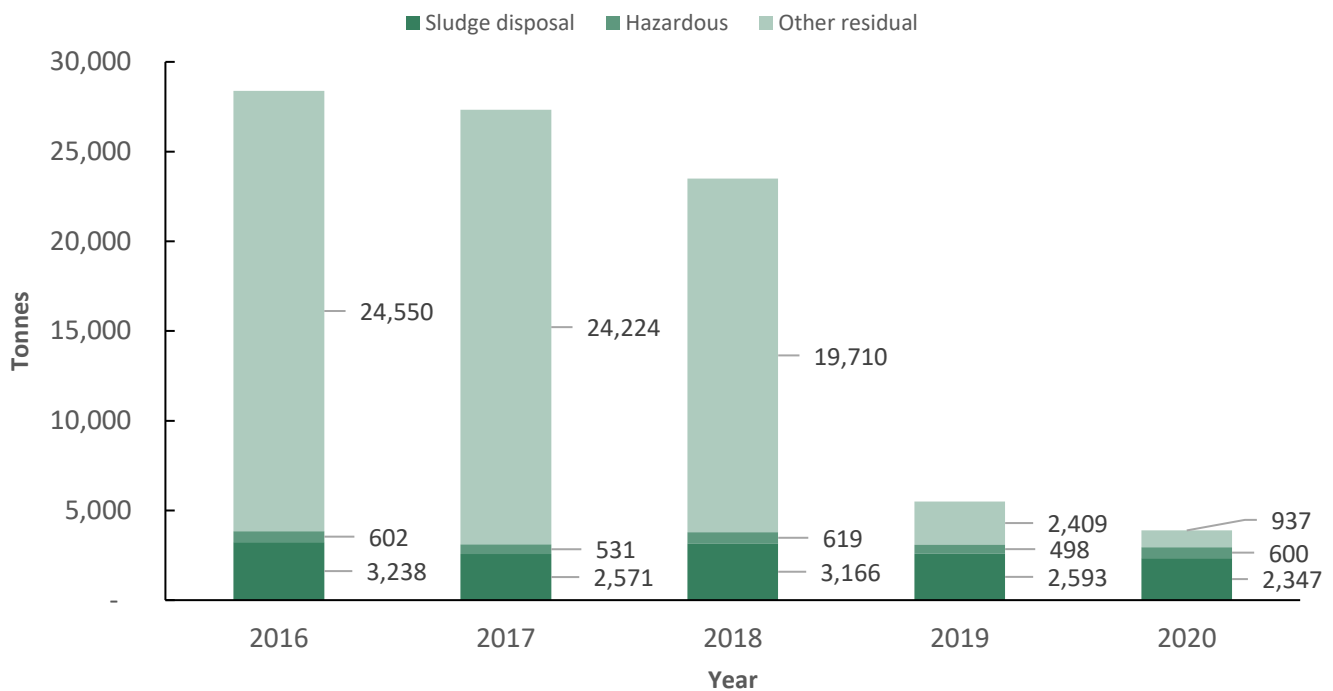
The Longue Hougue Land Reclamation Site has a finite life. The January 2020 survey estimated a remaining life of three years, suggesting the site will be completed around the end of 2022. However, recent years have seen a significant increase in recycling of inert waste and corresponding reduction in the disposal of construction materials, which may extend the life of the existing facility.

6.1 Disposal

Until the end of 2018, waste that was not reused, recycled or composted was disposed of at Mont Cuet landfill site, and tonnages had been on a slight downward before the commencement waste exports. The majority is now sent for energy recovery, and as expected this has seen a marked reduction in landfill, with annual falls of 80% in 2019, and 40% in 2020.

The additional tonnage sent to landfill in 2019, compared to 2020, is attributed to material having to be diverted from RDF during the very initial operating months of the Waste Transfer Station.

Figure 6.1.1 Annual disposal tonnages



Of 3,884 tonnes received at Mont Cuet, the majority (2,347 tonnes) was sludge disposal. Sewage and gully sludges contributed 891 tonnes, and road sweepings made up 1,456 tonnes. Hazardous waste, such as asbestos and chemicals, accounted for 600 tonnes. The remaining 937 tonnes was primarily materials unsuitable for energy recovery, largely from the commercial sector. Only 137 tonnes of household waste was sent to Mont Cuet in 2020, which is a 60% reduction compared to 2019.

Table 6.1.1 Disposal tonnages by sector

| Sector | 2016 (tonnes) | 2017 (tonnes) | 2018 (tonnes) | 2019 (tonnes) | 2020 (tonnes) |
|--|---------------|---------------|---------------|---------------|---------------|
| Household | 13,228 | 12,912 | 10,950 | 345 | 137 |
| Commercial (including sludge disposal) | 14,728 | 13,884 | 11,927 | 4,658 | 3,148 |
| Hazardous ¹⁸ | 602 | 531 | 619 | 498 | 600 |
| TOTAL | 28,558 | 27,327 | 23,496 | 5,500 | 3,884 |

¹⁸ Hazardous waste includes certain Specially Controlled wastes such as asbestos, contaminated soils and chemicals, and other waste which is classed as hazardous waste due to its nature, such as ash from the hospital incinerator and pumping station screenings

6.1 Disposal

Diversion

As detailed in **Table 6.1.2**, 2,152 tonnes of commercial waste were diverted to alternative disposal routes or methods of disposal.

Table 6.1.2 Commercial waste diverted

| Waste type | Disposal route | 2020 (tonnes) |
|------------------------------------|---|------------------|
| Abattoir and other livestock waste | Animal carcass incinerator, Longue Hougue | 241 |
| Healthcare waste | Clinical waste incinerator, PEH | 482 |
| Shredder residue | Exported for further processing | 372 |
| Shredder residue fines | Mont Cuet landfill cover | 1,047 |
| Wood | Repurposed as kindling wood | 10 |
| TOTAL | | 2,152 |

7.1 Avoidance of waste charges

Non-compliance

When a household general waste bag is deemed non-compliant¹⁹ by the waste collection contractors, it is left where it was set out, and logged using an app on a handheld device. If the bag is within the footprint of a private property it is left for the owners to deal with, but if it is in a public location with the potential to cause an obstruction, it is cleared the following day by the enforcement officer.

3,592 incidents were logged on the app during the year. Almost 30 tonnes of unstickered bags were subsequently collected, and delivered to the Waste Transfer Station to be searched for evidence. When a perpetrator is identified, follow-up action is taken in the form of a polite notice, a warning notice, and after a third offence, a civil fixed penalty.

Table 7.1.1 Non-compliant letters issued

| | 2020 |
|------------------------------|------|
| Polite notices ²⁰ | 385 |
| Warning notices | 22 |
| Civil fixed penalties | 4 |

Fly-tipping

Clearance of fly-tipped waste is the responsibility of the owner of the land where the waste has been deposited, so any such instances should be reported to the relevant landowner or authority. This will dictate who removes the waste, and where it is disposed of.

Instances of general waste bags or kerbside recycling bags being fly-tipped on public land can be reported to Guernsey Waste, and are collected by the enforcement officer and searched. 92 such reports were received in 2020, and 47 letters were issued to those identified through searches, with an invoice for the cost of cleaning up.

Abuse of litter bins

10 abuse of litter bin letters were issued to persons identified as having disposed of household or commercial waste in a public litter bin, in contravention of the law. These are accompanied by an invoice for the cost of collecting the waste.

¹⁹ A bag will be deemed non-compliant if it has no payment sticker attached, the wrong payment sticker, is too heavy to be safely lifted into the collection vehicle, if the bag is greater than 90 litres, or if the bag is set out on the wrong day

²⁰ Including letters sent to properties sharing communal set-out areas

8.1 Methodology

Household Recycling Rate

In 2014, the UK changed its methodology for calculating its household (now termed 'waste from households') Recycling Rate. This now excludes materials not considered to have come directly from households, such as the content of litter bins. In April 2015 the current 'Q100' reporting structure for waste treatment was introduced and is now used by all local authorities. A further methodology change was introduced in 2016 to include metal recovered and recycled after incineration in the recycling tonnage.

Guernsey's methodology was amended for 2019 to bring it in line with the UK. The overall impact from these changes has been relatively minor, therefore previous years have not been recalculated using the new definitions.

Small businesses producing waste of a similar quantity and composition as a household can opt-in to the parish collection system, at the discretion of the Parish they are based in. In 2020, 23 companies opted in. No allowance is made for this commercial waste in the household waste data, since the contribution were is minimal compared to more than 27,000 households.

Commercial Recycling Rate

The methodology used to calculate the commercial Recycling Rate is consistent with that used in earlier years, but is under review.

Data is obtained through direct approach to operators known to be active in commercial recycling. Reasoned estimates are used for waste that will have been generated but not reached formal disposal routes (particularly the case with wood).

Commercial operators are under no obligation to provide information. Data has been obtained on a goodwill basis, and the completeness and accuracy cannot be guaranteed.

Inert waste - recovery

Following the States approval of the Inert Waste Strategy in 2019, all inert construction waste used for the creation of land with potential future benefits is now classed as 'recovery (landfill)', which includes material deposited in the Longue Hougue land reclamation site.

8.2 Contact details

You may also be interested in other reports and information relating to Guernsey Waste, all of which are all available online at www.gov.gg/recycling. Please contact us for further information.

By e-mail: recycle@gov.gg

By post: Guernsey Waste
La Hure Mare
Vale
Guernsey
GY3 5UD



For more information
go to gov.gg/recycling