# Annual Waste Management Report 2022 Issue date 13 April 2023

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.



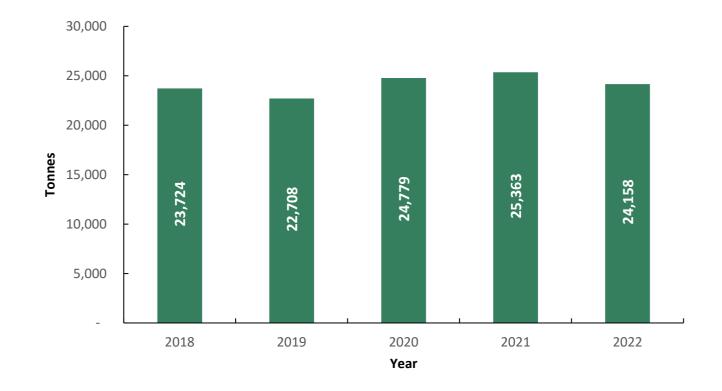
# 1.1 Headlines

- Overall waste (including materials recycled, reused or recovered, but excluding inert waste) increased by 3% compared to 2021. Nearly two thirds was from commercial sources<sup>1</sup>, which saw an 8% annual increase, while household<sup>2</sup> waste (including materials recycled, reused or recovered) was down 5%.
- The respective increase in commercial waste and reduction in household waste reflects a return to a more pre-Covid split, as businesses and hospitality returned to normal and islanders on the whole returned to the workplace. The impact on household waste volumes from the growth in working from home may be longer-term, albeit more marginal.
- 68% of household waste was recycled, reused or composted, compared with 71% in 2021. This is below the 2030 target of 70% for the first time since the current system for managing waste and recycling was fully implemented in 2019.
- The most significant factors affecting the overall 'household recycling rate' were a 14% drop in garden waste and a 23% increase in general waste at the Household Waste & Recycling Centre. These two changes alone contributed a 2.6 percentage point reduction in the headline rate, compared to 2021.
- The amount of general waste disposed of at the Household Waste & Recycling Centre has trebled since the pandemic began, from just over 1,000 tonnes in 2019 to nearly 3,000 tonnes in 2022. The majority is wood, furniture and other bulky items that are unable to be reused or recycled. The upward trend in these materials is likely to reflect an increase in home improvement and/or replacement of large household items. It is believed this is likely to be COVID-related, and it is unclear whether the trend will be maintained in the long term.
- Following the dry spring and summer, household garden waste in 2022 was the lowest recorded for seven years.
- The tonnage of blue and clear bags and glass from household kerbside collections was down 11% compared to 2021, which is also likely to reflect higher volumes being generated at home during COVID restrictions. 2022's total was 11% up on pre-pandemic levels seen in 2019.
- On a per capita basis, total household waste, excluding garden waste, was 320kg per person, a reduction of 3% on 2021. The amount not recycled or reused was up 3%, at 120kg per person.
- Household food waste collected from households was down 6% compared to 2021, but up 8% compared to 2019.
- 54% of commercial waste was recycled, reused or composted, similar to 53% in 2021.
- The tonnage of processed waste exported for energy recovery, either as Refuse Derived Fuel (RDF) or shredded wood (Biomass) was 3% higher than in 2021.
- Total inert waste arisings in 2022 were the highest since 2016, and the quantity used for recovery "land reclamation" was the highest for seven years.

<sup>&</sup>lt;sup>1</sup> Data for commercial waste is supplied by companies known to be active in management of commercial waste. There is no obligation on them to supply such data, and it is provided on a goodwill basis. The accuracy of figures and completeness of information on commercial waste cannot therefore be guaranteed.

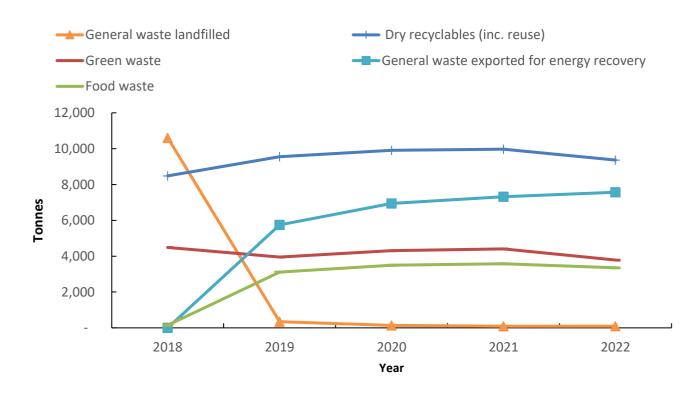
<sup>&</sup>lt;sup>2</sup> Data relating to household waste is from weighbridges at States-owned waste management sites or commercial operators contracted by Guernsey Waste.

# 1.2 Headlines

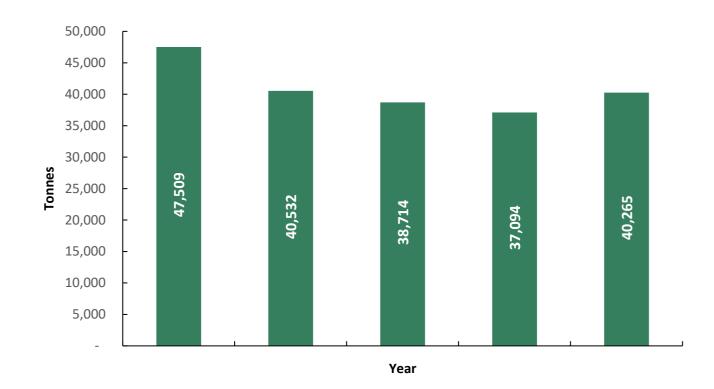




## Figure 1.2.2 Waste and recycling from households by category

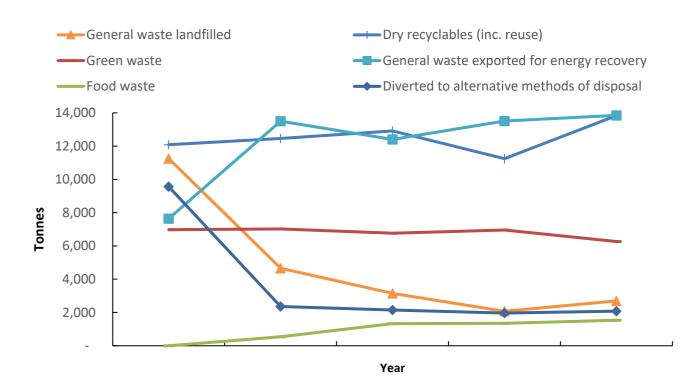


# 1.2 Headlines



#### 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 <sup>3</sup>

Sector	2018	2019	2020	2021	2022
	(tonnes)	(tonnes)	(tonnes)	(tonnes)	(tonnes)
Household (excluding green waste)	19,237	18,757	20,474	20,956	20,374
Commercial (excluding inert and green waste)	40,534	33,512	31,949	30,138	34,000
Inert waste	136,407	135,457	107,638	116,238	138,106
Green waste	11,463	10,971	11,069	11,363	10,049
TOTAL <sup>4</sup>	207,640	198,697	171,131	178,695	202,529

#### Table 2.1.2 Household waste arisings per capita

	<b>2018</b> (kg/person)	<b>2019</b> (kg/person)	<b>2020</b> (kg/person)	<b>2021</b> (kg/person)	<b>2022</b> (kg/person)
TOTAL	378	360	393	400	379
Not recycled	169	96	111	116	120
General waste landfilled	169	5	2	1	2
General waste exported for energy recovery	-	90	109	114	119
Recycled	209	264	281	284	259
Dry recyclables	135	152	158	158	147
Green waste	72	63	68	69	59
Food waste	2	49	55	56	53
Black bag only	134	64	70	70	66
Black bag & food waste	136	113	125	126	119
HWRC general waste	14	16	32	38	47

As shown in **Table 2.1.1**, total household waste (excluding green waste) saw a 3% decrease compared with 2021.

Analysis of the different sources of household waste, adjusted also for variation in population (**Table 2.1.2**), shows that this decrease came from a reduction in the amount of general waste collected from households (black bags), food waste and other recyclables compared with 2021 tonnages. Tonnages of black bag waste were more in line with 2019 levels, after an increase in 2020 and 2021 attributed to the COVID-19 lockdowns, when more time was spent at home and home-working reached a peak. Food waste per capita was also down compared to 2020/21, but up 8% compared to 2019.

The per capita reduction in these waste streams compared to 2021 was offset by another year-on-year increase in general waste materials delivered to the Household Waste & Recycling Centre – between 2019 and 2022, this waste stream has trebled. These items are typically bulkier in nature than the material set out for kerbside collections, and more than half is wood or furniture that cannot be reused or recycled.

<sup>&</sup>lt;sup>3</sup> Due to rounding, total figures may not always equal the sum of the individual waste streams; this applies throughout this report <sup>4</sup> It should be noted that no data was received from commercial companies who operated their own commercial composting facilities, so there is a likely gap in the data for this.

# 2.1 Reduction

Commercial waste arisings (excluding inert and green waste) saw an increase of 3,862 tonnes (13%) compared to 2021.

For a number of metrics, tonnages have reverted to near-2019 levels which would indicate the impact of COVID-19 on the volumes and nature of waste and recycling being produced in 2020 and 2021, and the degree of shift from commercial to household.

Total inputs into the Longue Hougue Land Reclamation site (before recycling or reuse) increased by 23% compared with 2021, reflecting a continued uplift in the construction industry. Tonnages of inert waste recycled and reused at the Longue Hougue Land Reclamation site also continued to rise (a 14% increase compared with 2021).

Green waste tonnages were much lower than in 2021. Fluctuations are not unusual as tonnages are always affected by annual variations in weather conditions, and in 2022 rainfall was lower than average.

## 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. This is promoted directly as well as through a volunteer network, providing support and practical advice to new parents. 34 vouchers were redeemed in 2021, a slight increase against 2021, but still much lower than the previous 3 years and suggests a need for further promotion of the benefits of using reusable nappies.

#### Table 2.1.3 Reusable nappy vouchers redeemed

	2018	2019	2020	2021	2022
Reusable nappy vouchers redeemed	78	75	75	28	34

#### **Home composting**

95 compost bins were distributed to local retailers for sale at a subsidised rate – an increase on the 60 distributed in 2021 – to encourage and facilitate home composting. This has the ability to reduce the amount of food waste needing to be processed at the Waste Transfer Station and exported for anaerobic digestion, by helping to recycle garden material at source. Work continues in promoting the benefits of home composting and encouraging households who have stopped composting to restart.

# 3.1 Reuse – household

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

A significant amount of reuse 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. However, data is recorded for materials diverted for reuse through the Household Waste & Recycling Centre.

In May 2022, the partnership with local charity GO to run the repair and reuse facility at the Household Waste & Recycling Centre came to an end after five years. A trial arrangement took its place, whereby a range of charities and not-for-profit organisations are able to benefit from the items dropped off at the site by members of the public. The same aim remains, that of maximising the number of items that can be reused rather than recycled.

In 2022, 122 tonnes were taken for reuse by charities and not-for-profit organisations. This is lower than in 2020 and 2021, although the tonnages in those years may reflect islanders taking the opportunity to clear out unwanted items during the COVID-19 lockdowns in those years. The payment arrangement also incentivised GO to maximise the amount of materials removed from the site for potential reuse (for which ample storage was available), and some items will subsequently have been returned to the site.

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 the Household Waste & Recycling Centre

	2018	2019	2020	2021	2022
	(tonnes)	(tonnes)	(tonnes)	(tonnes)	(tonnes)
Materials taken from site for reuse	86	109	148	177	122

## **3.2** Reuse – commercial

One local contractor sends vehicles to Africa for reuse, and in 2021 exported just over seven tonnes.

No other reuse data is currently available from the commercial sector. However, as in the household sector, it is highly likely many items such as office furniture, vehicles and computer equipment will be reused through charities, advertisement, 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.

"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.

The Recycling Rate in 2022 was 68%, down from 71% in 2021, and the high of 73% in 2019.

The total of materials collected for reuse, recycling and composting in 2022 was 8% lower than in 2021 (a reduction of 1,463 tonnes), 7% lower than in 2020, and but less than 1% lower than in 2019. The COVID-19 restrictions in 2020 and 2021 impacted on the volumes and nature of waste and recycling being produced, with a shift from commercial to household. Rates for many of the household materials appear to be returning to pre-pandemic levels, as seen in the tables in **Section 4.1**. Materials reused, recycled, or composted were below the levels seen in 2020 and 2021, but more in line with 2019, as shown by **Table 2.1.2**.

The reduction in the Recycling Rate is, in part, due to the low green waste tonnages. When green waste is excluded, as shown in **Table 4.1.3**, the tonnage of material reused or recycled is in line with 2019.

The Recycling Rate was also adversely affected by the increase in general waste dropped off at the Household Waste & Recycling Centre, which is addressed in **section 5.1**. Combined with the lower tonnages of green waste, these two factors alone resulted in a reduction in the Recycling Rate of 2.6 percentage points, compared to 2021.

#### Table 4.1.1 Household Recycling Rate

Stream	2018	2019	2020	2021	2022
	(tonnes/%)	(tonnes/%)	(tonnes/%)	(tonnes/%)	(tonnes/%)
Reused, recycled or composted	13,116	16,615	17,701	17,956	16,493
Not reused, recycled or composted	10,608	6,092	7,078	7,407	7,665
Total household waste	23,724	22,708	24,779	25,363	24,158
Household Recycling Rate	55%	73%	72%	71%	68%

#### Table 4.1.2 Household Recycling Rate breakdown

Recycling Rate components	2018	2019	2020	2021	2022
Dry recyclables	36%	42%	40%	39%	39%
Green waste	19%	17%	17%	17%	16%
Food waste	1%	14%	14%	14%	14%

#### Table 4.1.3 Household Recycling Rate – excluding green waste

Stream	2018	2019	2020	2021	2022
	(tonnes/%)	(tonnes/%)	(tonnes/%)	(tonnes/%)	(tonnes/%)
Reused or recycled	8,629	12,665	13,397	13,548	12,709
Not reused, recycled or composted	10,608	6,092	7,078	7,407	7,665
Total (excluding green waste)	19,237	18,757	20,475	20,956	20,374
Recycling Rate (excluding green waste)	45%	68%	65%	65%	62%

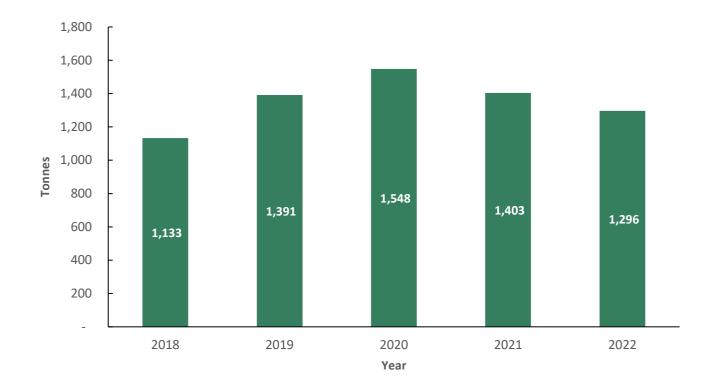
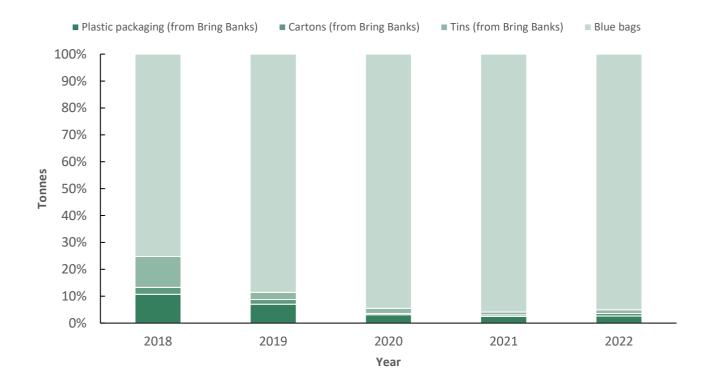


Figure 4.1.1 – Annual tonnages of recycled household plastic packaging, cartons and tins

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



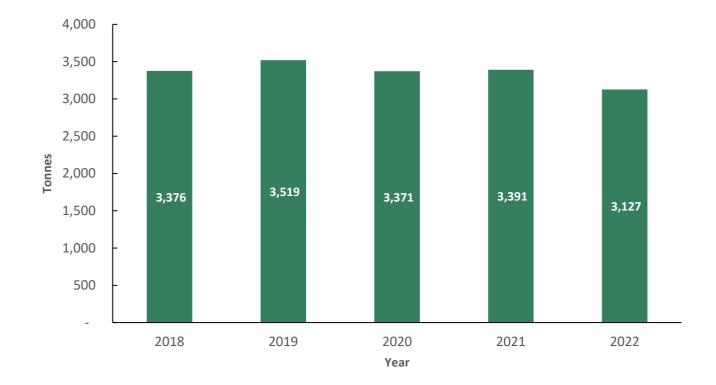
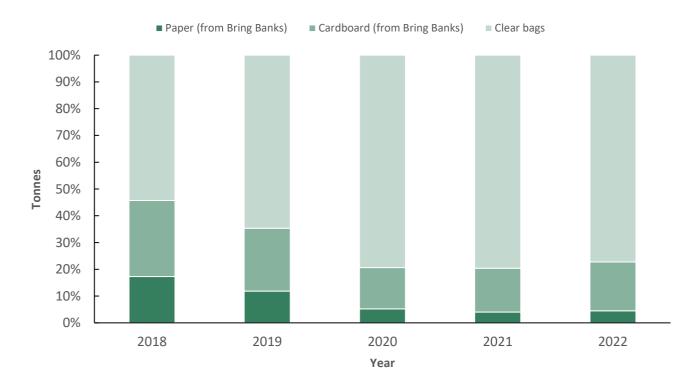
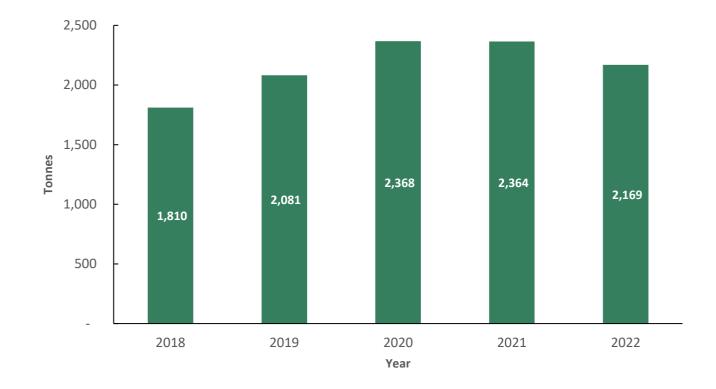


Figure 4.1.3 – Annual tonnages of recycled household paper and cardboard

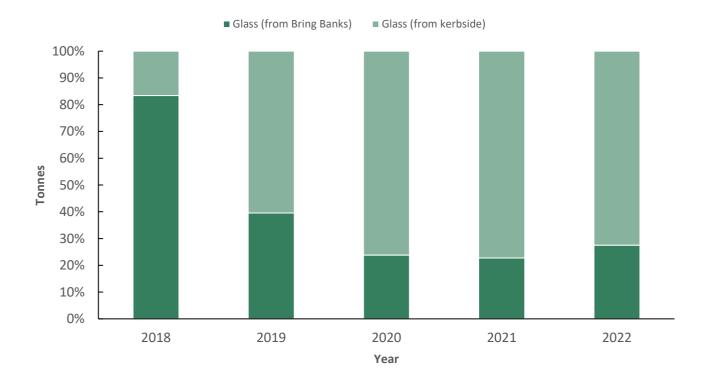
## Figure 4.1.4 – Split of paper and cardboard collected at bring banks and in kerbside bags







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



## Plastic packaging, cartons and tins

As shown in **Table 4.1.5** below, tonnages of blue bags collected from kerbside or deposited at the Household Waste & Recycling Centre decreased by 115 tonnes compared with 2021, to a level almost identical to 2019, prior to the COVID-19 restrictions.

The amount of plastics, tins and cartons collected from bring banks has not, however, recovered to pre-Covid levels, as shown in **Figure 4.1.2**, continuing the shift to kerbside recycling.

## Paper and cardboard

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

Paper and card recycling tonnages decreased by 8% compared to 2021, continuing a downward trend which was only temporarily halted in 2021 (likely due to the peak in online shopping during the COVID-19 restrictions). This decrease reflects the trend in paper consumption. Nevertheless, capture of these materials remains very high (i.e. a high proportion of the overall volume of material is being collected for recycling, instead of disposal or recovery), an observation borne out by the Waste Composition Analysis survey carried out in May 2022 which found that the capture rate for clear bag materials was 93% (on a par with the capture rate observed in the last survey in May 2019).

# Glass

The amount of glass collected for recycling increased significantly after the introduction of kerbside collections in late 2018. The total tonnages collected through kerbside and bring banks in 2022 were 8% lower than in 2021.

However, the amount collected through kerbside was 314 tonnes (25%) higher than in 2019, which reflects that some households who switched from bring banks during COVID-19 no longer use those facilities.

## **Kerbside recycling**

#### **Participation**

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

The most recent data is from the survey carried out in 2020.

#### Table 4.1.4 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%

Observed participation in kerbside glass collection has been lower than for other streams. 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. That is supported by market research carried out in 2021, which found the proportion of households using kerbside glass was much higher than the 69% recorded in the most recent participation survey.

#### Volumes

The amount of household materials collected through kerbside recycling reduced compared with 2020 and 2021, but were higher than 2019's pre-COVID tonnages.

#### Table 4.1.5 Household recycling through kerbside scheme

Stream	2018	2019	2020	2021	2022
	(tonnes)	(tonnes)	(tonnes)	(tonnes)	(tonnes)
Clear bags	1,833	2,275	2,687	2,695	2,412
Blue bags	852	1,232	1,459	1,343	1,228
Food waste	148	3,115	3,492	3,577	3,349
Glass	300	1,258	1,804	1,826	1,572
TOTAL	3,133	7,879	9,428	9,442	8,561

# **Bring bank sites**

Tonnages recycled at bring banks were almost one third down compared to 2019, as shown in **Table 4.1.6**. This indicates many households that switched to kerbside recycling when the sites closed during the COVID-19 lockdowns are continuing to use the collection service by preference.

In market research carried out in 2021, only around 2% of respondents indicated they used bring banks as their sole means of recycling paper, plastics, tins, cans, or cartons.

Textiles and books, which are operated by a private contractor, now account for more than a third of the tonnages collected through bring banks.

Of the other common household recyclables, glass and cardboard accounted for more than eight out of every 10 tonnes collected through bring banks. This is largely due to the bulky nature of some cardboard packaging which does not easily fit in kerbside bags, and some households opting to use bring banks for glass more than they do 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.

Material	2018	2019	2020	2021	2022
	(tonnes)	(tonnes)	(tonnes)	(tonnes)	(tonnes)
Paper	585	418	177	138	141
Cardboard	959	827	521	559	574
Tins & cans	83	34	31	15	19
Plastic packaging	124	98	50	37	36
Beverage cartons	29	24	7	8	13
Reject material	-	-71	-39	-38	-39
Glass	1,510	823	564	538	597
Textiles & books	661	670	527	666	671
TOTAL	3,951	2,823	1,838	1,923	2,012

#### Table 4.1.6 Household recycling deposited at bring bank sites

## Household green waste

The amount of green waste is heavily influenced by weather. As seen in **Table 4.1.7**, 2022 saw a 624-tonne decrease from households to 3,784 tonnes.

#### Table 4.1.7 Household green waste composted

	2018	2019	2020	2021	2022
	(tonnes)	(tonnes)	(tonnes)	(tonnes)	(tonnes)
Green waste	4,487	3,951	4,305	4,408	3,784

## **Bulk Refuse Scheme**

164 tonnes of bulky materials were collected through the Bulk Refuse scheme, of which 74 tonnes were subsequently recycled. This is also included in the household dry recycling total.

# **Household Waste & Recycling Centre**

2,244 tonnes of materials were taken to the Household Waste & Recycling Centre for recycling, including 327 tonnes of kerbside recycling bags. This was an overall increase of 54 tonnes compared to 2021. 2,998 tonnes of general waste were dropped off, which was 552 tonnes higher than in 2021 – an increase of 23%.

Due to a change in international legislation, export of fridges and other 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 2022 are therefore currently excluded from the recycling totals in **Table 4.1.8**.

Material	<b>2018</b> (tonnes)	<b>2019</b> (tonnes)	<b>2020</b> (tonnes)	<b>2021</b> (tonnes)	<b>2022</b> (tonnes)
Kerbside blue bags		42	75	81	103
Kerbside clear bags		68	195	192	224
Cardboard	74	117	193	192	164
Fridges and freezers	59	47	43	48	66
Fluorescent tubes	3	4	3	5	5
Food waste	-	19	43	45	53
Glass	-	17	18	14	14
Household batteries	5	21	15	15	8
Lead acid batteries	25	21	23	26	22
Mattresses	14	54	53	54	60
Other⁵	10	27	29	54	30
Other electrical items	339	485	471	427	422
Polystyrene <sup>6</sup>	25	-	-	-	-
Plasterboard	-	-	45	88	57
Rigid plastic	197	169	221	191	165
Scrap metal	545	668	718	671	728
TVs and monitors	59	59	55	61	69
uPVC	14	17	2	34	54
TOTAL	1,369	1,835	2,131	2,171	2,244

#### Table 4.1.8 Recycling at the Household Waste & Recycling Centre

<sup>&</sup>lt;sup>5</sup> Includes oils (cooking and mineral), polythene, printer cartridges.

<sup>&</sup>lt;sup>6</sup> 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 54%, similar to that recorded for 2021, 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

	2018	2019	2020	2021	2022
	(tonnes)	(tonnes)	(tonnes)	(tonnes)	(tonnes)
Recycled or composted <sup>7</sup>	19,055	20,022	21,009	19,549	21,635
Not recycled, reused or composted	25,948	20,511	17,705	17,545	18,630
Total commercial waste	47,509	40,532	38,714	37,094	40,265
Commercial Recycling Rate	42%	49%	54%	53%	54%

#### Table 4.2.2 Commercial Recycling Rate breakdown

Recycling Rate components	2018	2019	2020	2021	2022
Dry recyclables	27%	31%	33%	30%	34%
Food waste	0%	1%	3%	4%	4%
Green waste	16%	17%	18%	19%	16%

#### Table 4.2.3 Commercial recycling streams

Stream	2018	2019	2020	2021	2022
	(tonnes)	(tonnes)	(tonnes)	(tonnes)	(tonnes)
Food	-	540	1,330	1,349	1,534
Blue & clear bag materials <sup>8</sup>	4,063	3,669	3,036	3,286	2,350
Glass	382	757	618	670	738
Other recycling <sup>9</sup>	7,635	8,036	9,261	7,288	10,648
Green waste	6,975	7,021	6,764	6,955	6,264

Commercial food waste tonnages increased by 185 tonnes compared with 2021, the highest on record.

Glass recycling increased by 68 tonnes compared to 2021, but was marginally lower than 2019. These streams were affected by the COVID-19 restrictions on the hospitality industry in 2020 and 2021, but the increase in tonnages indicates a return to a greater degree of normality.

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.

<sup>&</sup>lt;sup>7</sup> Includes tonnages of materials reused

<sup>&</sup>lt;sup>8</sup> Equivalent to materials collected in blue and clear bags from households via kerbside recycling

<sup>&</sup>lt;sup>9</sup> Includes metal recovered from Waste Transfer Station from processing commercial waste

# 4.3 Recycling – inert

Since the mid-1990s inert waste that arises from construction and demolition projects 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 diversion of recyclable materials away from land reclamation and helping extend the life of the site. 33,290 tonnes of inert waste were recycled in 2022 – a 5% increase against 2021 – which represents a new high. Of this, 5,628 tonnes were recycled by the commercial sector away from States-owned sites.

Total tonnages of inert waste increased by 19% compared with 2021. The amount of material being used for "**Recovery (other**)" continued to be much lower than pre-2020, due to the greatly reduced requirement for engineering materials at Mont Cuet.

The amount of construction and demolition material landfilled more than doubled compared with 2021, largely due to increased deposits of asbestos and contaminated soil from specific projects.

	2018	2019	2020	2021	2022
	(tonnes)	(tonnes)	(tonnes)	(tonnes)	(tonnes)
Reuse	5,680	6,074	3,011	4,302	5,523
Recycling	16,157	28,335	31,719	31,800	33,290
Recovery (land reclamation) <sup>10</sup>	58,621	46,358	63,711	69,396	87,916
Recovery (other) <sup>11</sup>	55,493	54,363	8,760	10,317	10,411
Landfill <sup>12</sup>	456	328	437	423	967
TOTAL	136,407	135,457	107,638	116,238	138,106

#### Table 4.3.1 Inert waste

The amount of inert waste generated varies in line with construction activity. The 2022 total was the highest since 2016, and the quantity used for recovery "land reclamation" the highest for seven years. This was despite a record amount being recycled. This increase in construction activity has not, however, translated into a significant increase in tonnages for disposal. This may reflect the type of construction, with much of the recent uplift in activity related to renovations and development of existing properties rather than new builds, resulting in less excavation waste.

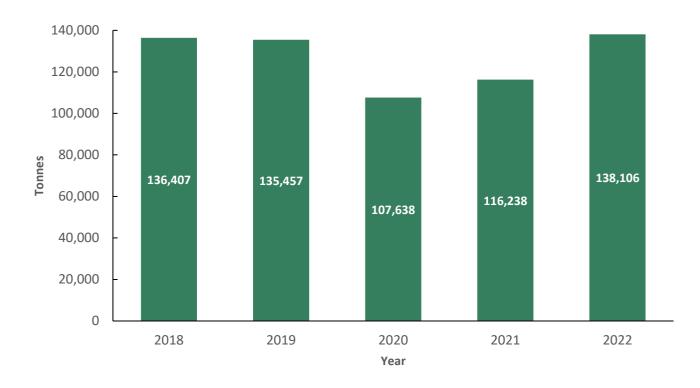
The introduction of Site Waste Management Plans as a requirement for developments of a certain size and type has improved waste management in building projects, with an increase in recycling and reusing materials on-site. Data relating to these plans should be available for future reports. This will provide information on construction and demolition materials reused and recycled within projects, to include alongside data of inert waste deposited at Longue Hougue land reclamation site or processed into recycled aggregates by the commercial sector.

<sup>&</sup>lt;sup>10</sup> Prior to 2019, categorised as disposal; from 2019, amended to recovery in line with change to inert waste hierarchy definitions <sup>11</sup> 'Recovery (other)' includes inert waste recovered through the aggregate recycling process that is used for cover material and landscaping to Mont Cuet landfill site

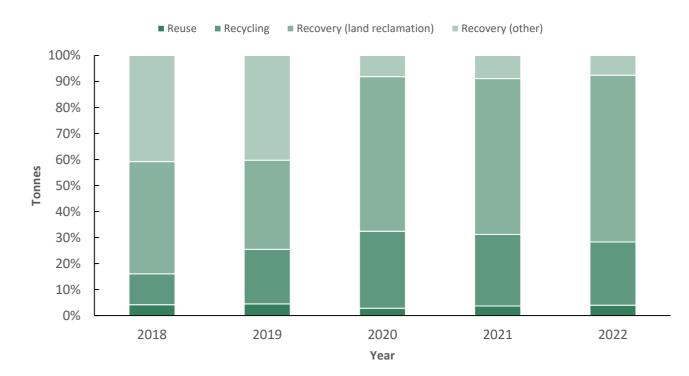
<sup>&</sup>lt;sup>12</sup> Hazardous inert waste, already included in Mont Cuet inputs

# 4.3 Recycling – inert





# Figure 4.3.1 Inert waste – percentage of each stream <sup>13</sup>



<sup>&</sup>lt;sup>13</sup> 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 includes 'black bag' general waste and materials dropped off at the Household Waste & Recycling Centre for disposal. In the past these materials would have been disposed of in landfill, but they are now processed at the island's Waste Transfer Station to produce Refuse-Derived Fuel (RDF). Some commercial waste is also processed at other facilities, to produce products for energy recovery.

In 2022, RDF from the Waste Transfer Station was sent to Sweden, where it was used to generate electricity and district heating.

Food waste, which prior to 2018 was disposed of in landfill, is also now exported for energy recovery. This is sent to a facility in the UK to undergo a process known as anaerobic digestion<sup>14</sup> (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 are considered recovery.

# Tonnages sent for energy recovery

The island exported 22,067 tonnes of waste (excluding food) for energy recovery – an increase of 3% compared to 2021 (21,322 tonnes). 34% was from households and 66% from commercial sources – which is identical to 2021. 51% was processed through the island's Waste Transfer Station (2021: 55%), and 49% at private sector facilities (2021: 45%).

Private contractors reported 10,743 tonnes of commercial waste being exported for energy recovery. This is an increase of 11% compared with 2021.

Household waste sent for energy recovery (excluding food) increased from 7,262 tonnes in 2021 to 7,567 tonnes – a rise of 4%. Commercial waste (excluding food) rose by 3% to 14,449 tonnes (2021: 14,059).

The greatest contribution to the increase in household material sent for recovery came through items delivered to the Household Waste & Recycling Centre that could not be recycled. This was a 23% increase on 2021, continuing the sharp upward trend since the start of COVID-19. This suggests many islanders have taken the opportunity to clear out unwanted items.

It is also known that the Household Waste & Recycling Centre is used by some businesses to dispose of materials, and this is likely to have contributed to the increase in tonnages of general waste deposited at the site although it is difficult to quantify the impact of this accurately. Further work is planned to determine the extent of the issue and address it.

<sup>&</sup>lt;sup>14</sup> 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 tank called an anaerobic digester

# 5.1 Recovery – Household and Commercial

	2018	2019	2020	2021	2022
RDF - Waste Transfer Station (tonnes)	-	9,076	10,942	11,687	11,324
From households (tonnes)	-	5,694	6,888	7,262	7,568
From commercial sources (tonnes)	-	3,382	4,054 <sup>15</sup>	4,424 <sup>16</sup>	3,756 <sup>17</sup>
Energy recovered (GWh)		23.3	27.6	31.8	33.5
RDF – Private sector facilities (tonnes)	5,137	7,394	5,514	4,945	6,461
Biomass – Private sector facilities (tonnes)	-	3,171	3,348	4,690	4,282
Total tonnage sent for recovery (tonnes)	5,137	19,641	19,804	21,322	22,067
Included in Recycling					
Food waste (tonnes)	-	3,655	4,822	4,927	4,882
From households (tonnes)	-	3,115	3,492	3,577	3,349
From commercial sources (tonnes)	-	540	1,330	1,349	1,534
Energy recovered (GWh)		1.1	1.5	1.5	1.5

#### Table 5.1.1 Household and commercial waste sent for energy recovery

## **Energy recovered**

In 2022, 33.5 gigawatt hours (GWh) of energy was recovered from RDF produced at the Waste Transfer Station, as shown in **Table 5.1.1**. Despite the slightly lower tonnage exported – down 3% – this was an increase of 5% (1.67 GWh) compared to 2021 on account of the RDF being sent to a more efficient Energy Recovery Facility.

A further 1.5GWh of energy was recovered from food waste, on a par with 2021, generating just over one million m<sup>3</sup> of biogas (a 5% increase).

The combined recovery total of 35 GWh is sufficient to meet the electricity requirements of almost 4,900 Guernsey households<sup>18</sup>. 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 recovered from commercial waste processed through private waste facilities 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**. As the Waste Transfer Station only processed 49% of the island's exported waste, the energy recovered could be twice that reported.

 $<sup>^{\</sup>rm 15}$  Includes 512 tonnes of household waste received from Alderney

<sup>&</sup>lt;sup>16</sup> Includes 553 tonnes of household waste received from Alderney

<sup>&</sup>lt;sup>17</sup> Includes 565 tonnes of household waste received from Alderney

<sup>&</sup>lt;sup>18</sup> <u>Guernsey Facts and Figures Booklet & Supplementary Information</u>: 2021 domestic electricity consumption in Guernsey was 195.9GWh, by 27,371 domestic property units, giving an average annual household consumption of 7,157Kwh. 35GWh energy recovery is therefore equivalent to 4,890 households

# Household waste not reused, recycled or composted

Of the household waste not reused, recycled, or composted, 99% was exported for energy recovery as RDF – the same as in 2021 – and only 1% sent to landfill.

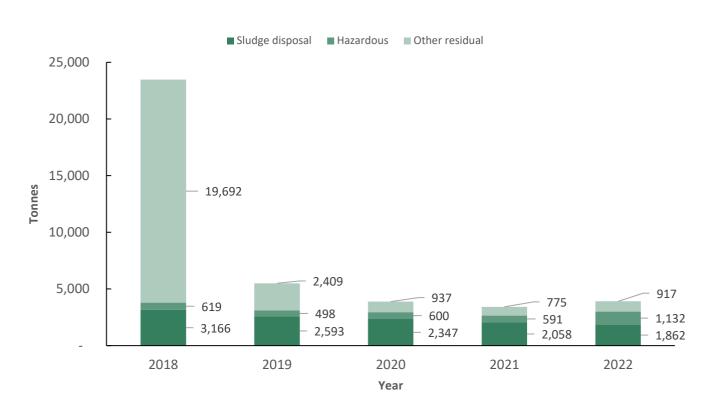
# 5.2 Recovery – Inert Waste

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 2022 was 87,916 tonnes, as shown in **Table 4.3.1** above.

The Longue Hougue Land Reclamation Site has a finite life. The latest survey estimated the site will be completed before the end of 2023.

# 6.1 Disposal

Until the end of 2018, waste that was not reused, recycled or composted was disposed of at Mont Cuet landfill site. 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, 29% in 2020, and 12% in 2021.



#### Figure 6.1.1 Annual disposal tonnages

Of the 3,911 tonnes received at Mont Cuet, the majority was sludge disposal – sewage and gully sludges contributing 683 tonnes, and road sweepings 1,179 tonnes.

Hazardous waste, such as asbestos and chemicals, accounted for 1,132 tonnes. The remaining 917 tonnes was primarily materials unsuitable for energy recovery, largely from the commercial sector. Only 103 tonnes of household waste was sent to Mont Cuet in 2022, which is a 13% increase compared to 2021.

Table 6.1.1	<b>Disposal</b>	tonnages	by sector
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Sector	<b>2018</b> (tonnes)	<b>2019</b> (tonnes)	<b>2020</b> (tonnes)	<b>2021</b> (tonnes)	<b>2022</b> (tonnes)
Household	10,950	345	137	91	103
Commercial (including sludge disposal)	11,927	4,658	3,148	2,742	2,676
Hazardous <sup>19</sup>	619	498	600	590	1,132
TOTAL	23,496	5,500	3,884	3,424	3,911

<sup>&</sup>lt;sup>19</sup> 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**, 2,084 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	<b>2020</b>	<b>2021</b>	<b>2022</b>
		(tonnes)	(tonnes)	(tonnes)
Abattoir and livestock waste	Animal carcass incinerator, Longue Hougue	241	238	229
Healthcare waste	Clinical waste incinerator, PEH	482	486	499
Shredder residue	Exported for further processing	372	343	343
Shredder residue fines	Mont Cuet landfill cover	1,047	892	1,009
Wood	Repurposed as kindling wood	10	6	4
TOTAL		2,152	1,965	2,084

# 7.1 Avoidance of waste charges

#### **Non-compliance**

When a household general waste bag is deemed non-compliant<sup>20</sup> 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 owner 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 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.

In 2022, around 50 tonnes of unstickered bags – 3,260 bags of general waste and some occasions where recycling bags were used for general waste – were collected. This is approximately 1% of the total household general waste set out at the kerbside.

	2020	2021	2022
Polite notices <sup>21</sup>	385	311	154
Warning notices	22	16	18
Civil fixed penalties	4	4	7

#### Table 7.1.1 Non-compliant letters issued

#### **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 determine 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. 18 such reports were recorded in 2022, and 41 letters were issued to those identified through searches, with some including an invoice for the cost of cleaning up.

#### Abuse of litter bins

Abuse of litter bin letters are issued to persons identified as having disposed of household or commercial waste in a public litter bin, in contravention of the law, and accompanied by an invoice for the cost of collecting the waste. Although no letters were issued in 2022, Guernsey Waste continues to monitor this.

<sup>&</sup>lt;sup>20</sup> 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
<sup>21</sup> Including letters sent to properties sharing communal set-out areas

#### **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 UK 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 2022, 27 companies opted in. No allowance is made for this commercial waste in the household waste data, since the contribution 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**