

Transport and Environment Committee

10.00am, Thursday, 22 April 2021

Communal Bin Review Update

Executive/routine	Executive
Wards	All
Council Commitments	23, 25

1. Recommendations

- 1.1 Transport and Environment Committee is asked to:
 - 1.1.1 Approve the revised phasing and timeline for the delivery of the communal bin hub roll-out (Appendix 1);
 - 1.1.2 Approve the change from gull proof bags and recycling boxes to the Communal Bin Hub service (Appendix 2);
 - 1.1.3 Note the intention to review 'Bring Sites'; and
 - 1.1.4 Note the updated costs associated with delivery of the communal bin project and the application to Zero Waste Scotland to access funding from the Recycling Infrastructure Fund.

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Report

Communal Bin Review Update

2. Executive Summary

- 2.1 This report provides a progress update on the Communal Bin Review project, specifically relating to the timing and the phasing of the implementation stage. The report also contains a monitoring report and recommendation to replace the gull proof bags (GPB) service with bins.
- 2.2 Each of these aspects support improving waste and recycling services for residents in multi-occupancy and flatted properties in the city.

3. Background

- 3.1 On [27 February 2020](#) Transport and Environment Committee approved the following:
 - 3.1.1 **Parameters and criteria to be used to determine the locations of each bin hub including:** walking distance for residents to dispose of their waste and mixed recycling; capacity to be provided for properties serviced by communal bins for non-recyclable waste; recycling, glass and food waste and; road safety requirements.
 - 3.1.2 **The types of bins that would be used for non-recyclable waste, recycling, food waste and glass.** For non-recyclable waste, mixed recycling and glass, wheeled communal bins will be used throughout the City, as far as possible at all locations. For food waste, the 240L bin will be used with a housing for on street locations to make the service more attractive and accessible.
 - 3.1.3 **The phasing and timeline approach,** including the order of the phases, considering various factors such as the need to include the time required to change the road layouts within any Controlled Parking Zones (CPZ) (Traffic Regulation Order (TRO) process) and concentration of on-street locations within specific wards.

- 3.2 In early 2018 the Council commissioned Changeworks to undertake a consultation with householders living in flats in Edinburgh to identify current barriers to recycling and service performance.
- 3.3 The outcome of this was reported to Committee on [9 August 2018](#). Key findings from the survey included “*desire for more recycling bins to be installed in the area as the ratio of landfill bins to recycling bins was felt to be imbalanced. The installation of more bins would encourage positive recycling behaviour (more glass and food waste bins were particularly called for)*”.
- 3.4 The reconfiguration and introduction of “bin hubs” for all the waste and recycling streams including mixed recycling, glass and food waste, will provide a one stop facility to ensure equality of access to comprehensive and fully integrated recycling facilities for all citizens regardless of the property type in which they live.
- 3.5 The number of bin locations will reduce overall; however the number of recycling bins will increase for all three streams (mixed recycling, glass and food waste).
- 3.6 The provision of a fully integrated waste and recycling facility will ensure residents will no longer need to walk further for recycling than they would to dispose of their non-recyclable waste. By making recycling easier, more accessible and at the same location as non-recycable waste facility it is anticipated this will remove barriers preventing residents from recycling, thus supporting the increase of the city’s recycling performance.
- 3.7 An update on the project was provided in the Business Bulletin for this Committee on [12 November 2020](#). This explained that COVID-19 had impacted on the approach for community engagement. Additionally, the pandemic has affected the timescales for delivery as set out in the following paragraphs. This has impacted on the original implementation plan timeline.
- 3.8 COVID-19 and the consequent restrictions has also had an impact on the waste and recycling arising.
- 3.9 The increased prevalence of home working and the increase in home deliveries and associated packaging may result in an ongoing trend towards increased waste tonnages arising from households. This will be kept under review.
- 3.10 It should be noted that the increase in home working is likely to result in the generation of more food waste in the household waste stream which would be displaced from the commercial waste stream of workplaces.
- 3.11 The project implementation includes increased capacity for recyclable materials as mixed recycling, food waste and glass and the co-location of recycling bins with the non-recyclable bins where possible, will support an increase of recycling material collected.

4. Main report

Phasing and Timeline

- 4.1 Although COVID-19 has impacted on the overall project timeline, the roll out will still be carried out in phases. This phasing has been determined to take account of the time required to promote the required Traffic Regulation Orders (TROs) which are required to amend the layout of parking places to accommodate the revised on-street locations.
- 4.2 The roll out is also being co-ordinated with the Strategic Review of Parking (SROP) to deliver one cohesive delivery plan in areas where there are shared interests, to provide a more holistic approach.
- 4.3 The project implementation plan is detailed in Appendix 1.

Gull-Proof Bags (GPBs) and Recycling Box Review

- 4.4 Re-useable GPBs have been used for properties in parts of the City Centre and Inverleith wards since 2011 to dispose of non-recyclable waste at the kerbside. These properties present (red and blue) boxes separately at the kerbside for recycling.
- 4.5 The monitoring report in Appendix 2 shows medium to low presentation rates for both GPBs and recycling boxes. Lower GPBs presentation rates are generally associated with proximity to on-street communal bins which can cause overflowing waste issues at these locations. In some cases, residents appear to be using the communal bins instead of their GPBs and recycling services.
- 4.6 The conclusion of the monitoring review is the recommendation that GPBs and the kerbside recycling box scheme are replaced with on-street communal bins, as part of fully integrated waste and recycling 'hubs', following the previously agreed standardised parameters.
- 4.7 These hubs will significantly improve service performance for residents, while reducing incidences of bins overflowing. Hubs will also improve routing efficiency and will reduce longstanding health and safety risks, as well as new risks associated with the ongoing COVID-19 pandemic, helping to protect residents and essential front-line workers.
- 4.8 Special care will be taken to place the minimum number of on-street communal bin hubs as sensitively as possible, to minimise visual impact across the city's World Heritage Site.
- 4.9 Locations within the World Heritage Site which will see a change in service will need to be assessed under the Environmental Impact Assessment screening process due to their locations in a sensitive area.

Engagement and Communication

- 4.10 A communications plan has been developed to ensure materials and other media are in place and regularly updated.
- 4.11 It is anticipated that affected residents will receive early information to advise of the waste and recycling service changes, followed by a letter and leaflets when the service changes are being implemented with more detailed information on the new service. Other materials including posters, lamp-post wraps, bin stickers and on-line materials will be used during and after the new service implementation to promote it.
- 4.12 The project team is currently considering approaches for future engagement with residents, taking into account any COVID-19 restrictions. It is anticipated that a more online approach (i.e. webpages, social media) is likely to be more suitable for the current circumstances.

Bring sites

- 4.13 During the 1990s bring sites (also called recycling points e.g. as you might see at supermarkets and leisure centres) were deployed to provide recycling opportunities for citizens who did not have the services at their homes. Since then, recycling has been introduced to all kerbside properties and with the completion of the communal bin project all customers will have access to the full suite of recycling services.
- 4.14 Bring sites are often subject to trader abuse, contamination and fly-tipping. It is therefore proposed that a review of these locations is made, in the context of the recycling provided in the surrounding area and removed where no longer required or where there are significant issues of abuse, fly tipping and contamination.

5. Next Steps

- 5.1 The proposed review phasing as per Appendix 1 will see the roll out start in Leith, Leith Walk, Abbeyhill and Craigentiny with the off-street locations in April/May 2021 followed up by the on-street locations during summer 2021.
- 5.2 For the areas which are subject to parking restrictions, within the current CPZ, variations of those parking restrictions need to be amended through the TRO process. TROs for extended areas (N1-N5 and S1-S4) have been advertised in the last few weeks. It is anticipated that for the other parking areas within the current CPZ, zones 1-8, the TROs will be advertised in June/July 2021.
- 5.3 Following the analysis of the GPBs and recycling box monitoring as per Appendix 2, design and further detailed works need to be carried out. Selection of bin locations will be subject to the standardised Communal Bin Review parameters, as previously agreed at the Transport and Environment

Committee, TRO processes and Environment Impact Assessment screening for the World Heritage Site, to minimise visual impact and maximise service efficacy.

- 5.4 The implications of the Scottish Government's commitment to introduce a Deposit Return Scheme for specific drinks containers will be tracked throughout the lifecycle of the project.
- 5.5 It is recognised that each street has unique characteristics so the solution for one location may not be appropriate for another. As each phase is delivered, changes will be monitored to ensure the project objectives are achieved. The service will revisit and revise solutions, where necessary, as part of business as usual activities.
- 5.6 Although there is not yet a date for the regulations coming into effect, the Transport (Scotland) Act 2019 includes a provision to prohibit double parking and provides local authorities with the powers to address parking in such a manner.
- 5.7 The Act does not specify that a vehicle requires to be double parked adjacent to another vehicle for the prohibition to apply. Therefore, it is considered that double parking could be enforced when a vehicle is parked adjacent to another vehicle, a refuse bin or any other street furniture, provided the vehicle is more than 50cm away from the kerbside. The project team will continue to monitor the introduction of these regulations and to assess the impact that this may have on waste collection in the city.

6. Financial impact

- 6.1 On [28 February 2018](#), the Council had originally committed an initial £2.5m of capital investment to upgrade communal bins. £2.1m of the Capital Fund monies remain, ahead of draw down for the 2020/21 financial year.
- 6.2 A comprehensive audit of the existing bin assets and the development of the proposed new assets provision required has been completed. This was necessary to identify the scale of assets required, in particular to fully understand the extent to which existing assets could be refurbished, and where the purchase of new assets would be required.
- 6.3 The existing bin assets assessment identified gaps in the recycling provision across the city and the development of most appropriate approach to housing and corralling the bins through a range of trials has been carried out.
- 6.4 This detailed analytical work has identified:
 - 6.4.1 That there are 3,000 more communal bins than the original records showed; and
 - 6.4.2 Where additional mixed recycling, glass and food recycling bins are required.

- 6.5 Outcomes from the trials have indicated the preferred types and corralling of housing units.
- 6.6 In order to provide best value for the Council and to mitigate these costs, a procurement exercise has been carried out for the refurbishment of current bins and the purchase of new bins. The contract award has been approved by Finance and Resources Committee on [4 March 2021](#).
- 6.7 The project cost is now forecast to be £5.7m.
- 6.8 An application will be submitted to Zero Waste Scotland (ZWS) for up to £8m in May 2021 to access funding from the Recycling Infrastructure Fund. It is anticipated that the outcome of this will be known in July 2021.
- 6.9 It has been previously acknowledged that the additional communal bins and the reprofiling of the collection frequencies will have financial implications for Place revenue budgets. Following the bin audit described above, new routes for the communal bin service are currently being developed.

7. Stakeholder/Community Impact

- 7.1 Engagement with residents for some of the areas has already been carried out through outdoor information events in August/September 2020. It is anticipated that further engagement events will be possible in other areas during late spring/summer 2021 for residents in other areas, although these will be dependent on the relaxation of COVID-19 restrictions.
- 7.2 As part of this engagement, the website has been updated to explain the [communal bin review project](#). This will be updated as the project continues.
- 7.3 A communications plan has been developed to ensure materials, e.g. bin stickers, leaflets, letters and other media, are in place and updated.
- 7.4 The use of the TRO process will also include an element of consultation focused around the traffic management aspect of the project. Feedback from the public on specific locations through the TRO process will be considered where this can be delivered in conjunction with the fulfilment of the parameters and criteria as set in the Committee Report approved on 27 February 2020.
- 7.5 Engagement has been carried out with Elected Members on an ongoing basis. This has included a briefing to relevant local Councillors on the outcome of the GPB review. Further engagement with other stakeholders, including Community Councils, will take place.
- 7.6 Discussions with ZWS relating to the Recycling Charter are ongoing. An application to the Recycling Improvement Fund (RIF) to support the aims of this project will be submitted to ZWS in May 2021 (see paragraph 6.8).

- 7.7 There are no perceived governance, policy or risk implications associated with this report or the project itself. Where policy changes may be required as a result of the actions within the communal bin review project, these will be reported to the relevant committee for approval.
- 7.8 Improvement in the quality of Waste and Cleansing Services will contribute towards reducing the amount of waste disposed of to landfill or energy recovery, increasing the amount of recycling and improving the quality of Edinburgh's local environment. In addition, increasing the amount of waste recycled would be expected to support delivery of the Council's target of net zero carbon by 2030.
- 7.9 Providing an easier and more integrated waste and recycling service in tenemental and flatted areas is anticipated to motivate residents to recycle more. The behavioural change towards recycling can be influenced by the service provided to residents but the magnitude of this behavioural change cannot be fully anticipated. It needs to be noted that the final decision to recycle or to not recycle is owned by residents.

8. Background reading/external references

- 8.1 [Enhancing Communal Bin Collections - Item 7.7](#) Transport and Environment Committee of 7 December 2017
- 8.2 [Enhancing Communal Bin Collections- Update following trial to implement every other day collections - Item 7.11](#) Transport and Environment Committee of 9 August 2018
- 8.3 [Communal Bin Enhancement Update](#) Transport and Environment Committee of 20 June 2019
- 8.4 [Communal Bin Enhancement Update](#) Transport and Environment Committee of 5 December 2019
- 8.5 [Communal Bin Enhancement Update](#) Transport and Environment Committee of 27 February 2020
- 8.6 [Communal Bin Enhancement Update – Business Bulletin](#) Transport and Environment Committee of 20 November 2020
- 8.7 [Contract Award – Purchase and refurbishment of Communal Bins](#) Finance and Resource Committee of 4 March 2021

9. Appendices

- 9.1 Appendix 1 – Phasing and Timeline
- 9.2 Appendix 2 – Gull Proof Bags monitoring report

Appendix 1 - Phasing and Timeline

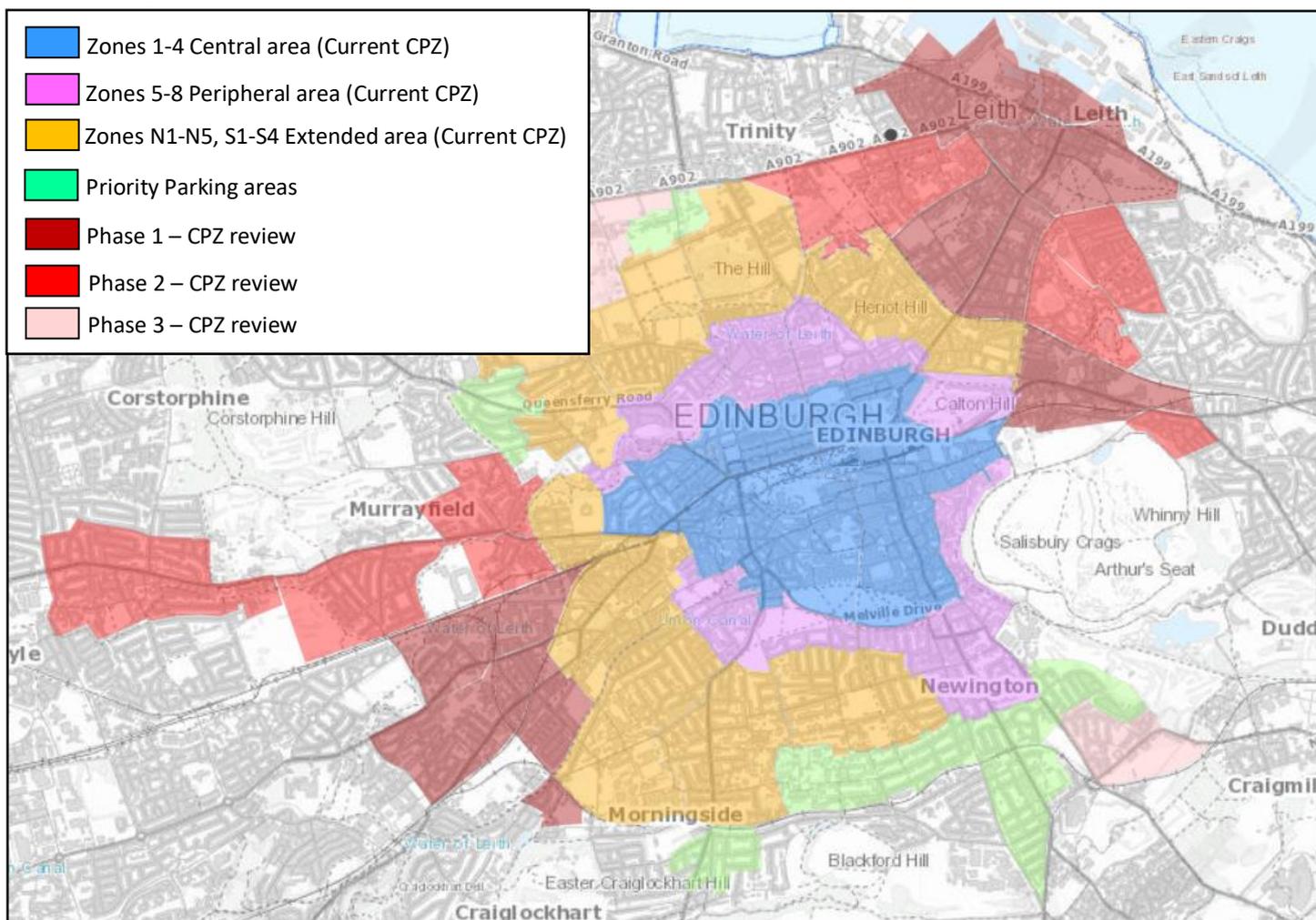
The phasing and the timeline for the project is under continuous assessment to ensure dependencies from other projects (i.e. Strategic Review of Parking) and restrictions are included. The identification of the order for each phase to be rolled out depends on the need to secure Traffic Regulation Orders (TROs) in many of the areas where on-street waste and recycling bins are sited and are prevalent i.e. current Controlled Parking Zones (CPZs).

The Council's standard approach to siting communal bins at on-street locations in controlled parking areas has been to use Traffic Regulation Orders (TRO). This process is used to amend parking places to accommodate and correctly reflect bin locations. This approach ensures that each bin location can be subject to yellow line restrictions, allowing them to be correctly enforced. It also improves transparency, as the legal process for a TRO includes a formal consultation process where the Council is legally required to consider any relevant objections received in relation to traffic management and road safety issues.

The project will change and rationalise bin locations, resulting in fewer bin locations. Following the TRO process will allow any potential loss of parking to be minimised through allowing the return of some existing bin locations to be used as parking places and to make sure that parking places in the new locations are adjusted accordingly. The TRO process also ensures that the allocation of space, or the split in parking, is appropriate and usable.

TROs are a process designed to encourage transparency, accountability and to ensure that affected stakeholders can become actively engaged in a process that legally requires Councils to consider their comments.

TROs are needed in the controlled parking zones (CPZ), 1-8 N1-N5, S1-S4 which include Southside, Marchmont, Bruntsfield, Merchiston, Fountainbridge, Dalry, West End, Comely Bank, Stockbridge, Canonmills, Broughton, Hillside and the City Centre.

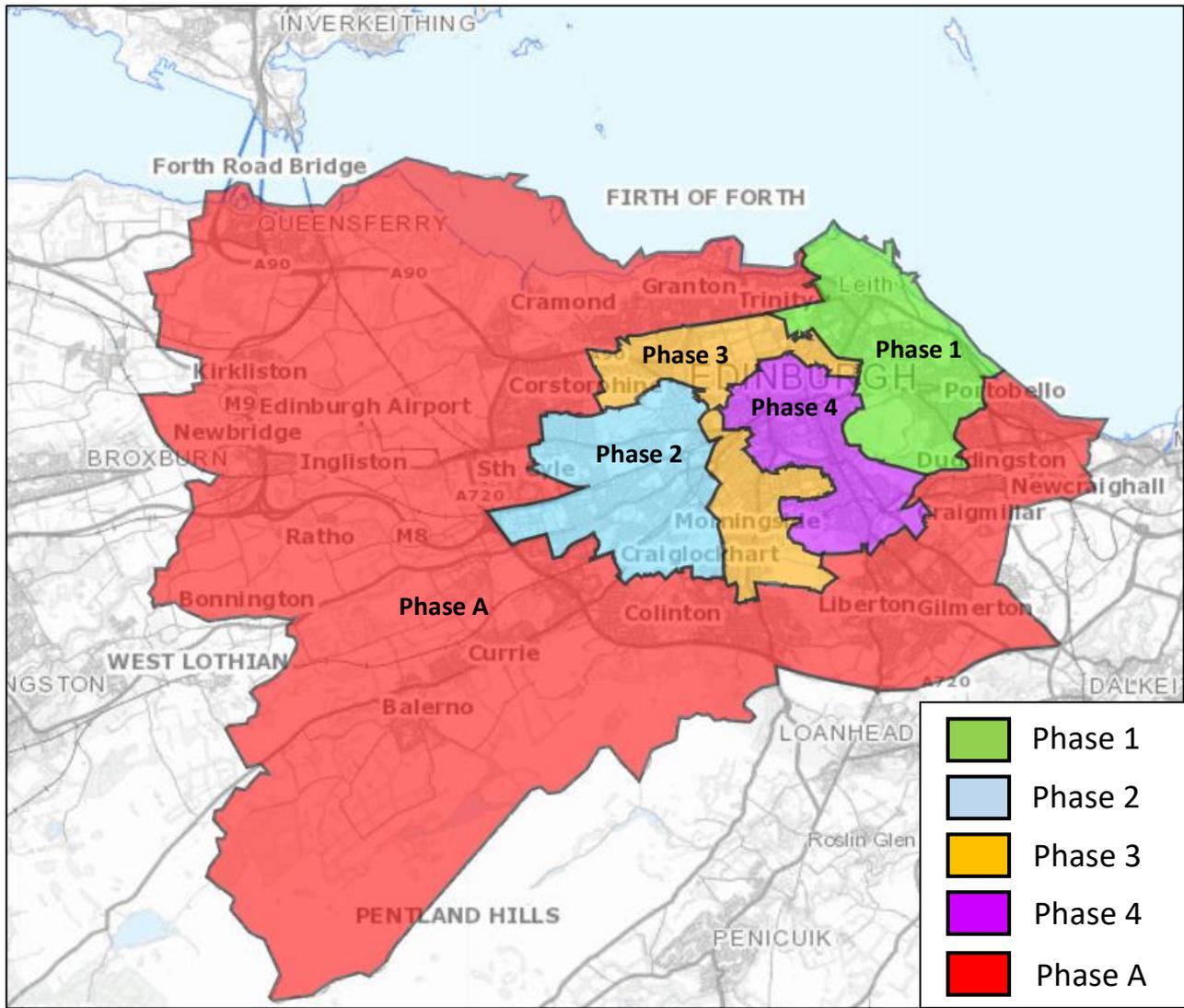


Map 1 – Controlled Parking Zones

The TRO process, which is required to change the road layout within existing controlled parking zones, takes a minimum of 6-12 months and up to 18 months to determine and implement changes. Considering the length of the TRO process, which we anticipate being on average 9 months long, it is anticipated that the implementation stage for communal bin locations within existing CPZ areas could not start before early 2022.

For current controlled parking zones N1-N4 and S1-S4, the TRO process to amend and create bin hubs locations has already been started while for the current CPZ areas 1-4 (in blue) and 5-8 (in pink) it is anticipated TROs will be advertised in June/July 2021.

Considering the above the following maps and tables show the phases, which depend heavily on the TROs process.



Map 2. CBR project phasing.

Phase 1 and 2 - It is proposed to prioritise the on-site delivery of the project in areas which do not fall within the current CPZ areas but which also have a high concentration of on-street communal bins (e.g. Phase 1 - Leith/Leith Walk/Craigieburn and Phase 2 - Gorgie/Dalry/Fountainbridge/Corstorphine). While changes to bins and bin locations will be visible first in these areas, the development of new street layouts in the areas which do fall within the current CPZ will continue to be progressed through the TRO process so that each of these can be delivered as early in the process as possible.

The development of parking proposals for CBR Phase 1 and 2, has included communal bin review design criteria and parameters. However, those areas are not within the current CPZ area and as such do not require a TRO to implement the waste and recycling changes on the ground. Full application of parking restrictions will therefore only apply some time after the bins are sited.

CBR Phase	Timescale	CPZ area (colour coded as per map 1)	Section	No. properties (approx.)	Ward affected
1	Apr-Sep 2021	Phase 1 – CPZ review	Pilrig Leith Walk Leith North Leith Abbeyhill	18,400	12 - Leith Walk 13 - Leith 14 - Craigentinny/Duddingston
		Phase 2 – CPZ review	Bonnington Easter Road West Leith Willowbrae North	6,100	5 - Inverleith 12 - Leith Walk 13 - Leith 14 - Craigentinny/Duddingston
		Outwith Current and future CPZ	Craigentinny Leith	4,500	13 - Leith 14 - Craigentinny/Duddingston
			Total	29,000	

CBR Phase	Timescale	CPZ area (colour coded as per map 1)	Section	No. properties (approx.)	Ward affected
2	Sept/Dec 2021	Phase 1 – CPZ review	Gorgie Gorgie North Shandon	6,600	7- Sighthill/Gorgie 9 – Fountainbridge/Craiglockhart
		Phase 2 – CPZ review	Roseburn Corstorphine B9	1,500	6 – Corstorphine/Fairmilehead 6 – Corstorphine/Fairmilehead 6 – Corstorphine/Fairmilehead
		Outwith Current and future CPZ	Corstorphine Gorgie/Sighthill (except CPZ S4) Fountainbridge (except CPZ S4, 8)	3,300	6 – Corstorphine/Fairmilehead 7- Sighthill/Gorgie
			Total	11,400	

Phase 3 include CPZs S1 – S4 and N1 -N5 TROs for which the TROs have been advertised in the last few weeks. As outlined above the TRO process, which is required to change the road layout within existing controlled parking zones, takes a minimum of 6-12 months and up to 18 months to determine and implement changes. It is anticipated the average length for the TROs to be finalised will be 9 months. Consequently, the implementation stage for communal bin locations within CPZs S1-S4 and N1-N5 cannot start earlier than early 2022.

CBR Phase	Timescale	CPZ area (colour coded as per map 1)	Section	No. properties (approx.)	Ward affected
3	From January 2022	Current CPZ – Extended area	S1 (Marchmont) S2 (Churchill) S3 (Merchiston) S4 (Dalry)	13,300	7- Sighthill/Gorgie 6 – Corstorphine/Fairmilehead 10 – Morningside 11- City Centre 15 – Southside
			N1 (Hillside and Broughton) N2 (Inverleith) N3 (Inverleith)	12,000	5 - Inverleith 11 – City Centre 12 – Leith Walk 14 – Craigentinny/Duddingston
		Outwith Current and future CPZ	Remaining Morningside (except CPZ 8) Inverleith (except CPZ 5-5a)	2,600	5 - Inverleith 10 – Morningside
			Total	27,900	

Phase 4 – include CPZs 1-8 for which the TROs is anticipated will be advertised between May/June 2021. As outlined above the TRO process, which is required to change the road layout within existing controlled parking zones, takes a minimum of 6-12 months and up to 18 months to determine and implement changes. It is anticipated the average length for the TROs to be finalised will be 9 months. Consequently, the implementation stage for communal bin locations within CPZs S1-S4 and N1-N5 cannot start earlier than Spring 2022.

CBR Phase	Timescale	CPZ area (colour coded as per map 1)	Section	No. properties (approx.)	Ward affected
4	From Spring 2022	Current CPZ – Central Area	1 (Westend) 1a (New Town) 2 (New Town) 3 (Old Town and Southside) 4 (Fountainbridge)	15,700	9 – Fountainbridge/Craiglockhart 11- City Centre 15 – Southside
		Current CPZ – Peripheral Area	5 (Dean) 6 (Stockbridge and Canonmills) 7 (Dumbiedykes-Sciennes) 8 (Bruntsfield)	15,600	5- Inverleith 11 – City Centre 15 - Southside
		Outwith Current and future CPZ	Southside	2,000	15 - Southside
			Total	33,300	

Phase A

With the exclusion of Portobello, the majority of the areas included in phase A have a prevalence of off-street locations (i.e. private developments) for which the TRO process is not required. Those locations can be assessed at any time and waste and recycling changes will be implemented on an on-going basis through the project implementation period. The interested wards are shown in the below table for Phase A.

CBR Phase	Timescale	CPZ area (colour coded as per map 1)	Section	No. properties (approx.)	Ward affected
A	On-going during the project	Outwith Current and future CPZ	Forth Portobello/Craigmillar Liberton/Gilmerton Colinton/Fairmilehead Pentland Hills Drumbrae/Gyle Almond	25,500	1 – Almond 2 – Pentland Hills 3 – Drumbrae/Gyle 4 - Forth 8 – Colinton-Fairmilehead 16- Liberton/Gilmerton 17 – Portobello/Craigmillar
			Total	25,500	

Appendix 2 – Gull Proof Bag and Recycling Box Service Review

1. Executive Summary

Reusable gull-proof bags or sacks (GPBs) were introduced in 2011 across parts of New Town (City Centre), Inverleith and World Heritage Site (WHS) to contain disposable plastic bags, for non-recyclable waste. These properties in the City Centre and Inverleith also have individual recycling boxes, for mixed recycling (red) and glass/small electrical items (blue), as do some properties that use on-street bins for non-recyclable waste. Other properties across Edinburgh use black bags for non-recyclable waste and the recycling box service.

The central objective of this report is to better understand how residents in the City Centre and Inverleith wards use the GPB and red-blue recycling box services, in relation to nearby on-street communal bins and other factors. It seeks to find ways to improve the service, for all residents, as part of the city-wide Communal Bin Review (CBR).

1.1 Objectives

- **Objective 1:** Seek ways to improve waste and recycling services for residents, increase recycling rates, while reducing overflowing, fly-tipping and litter incidences and improve cleanliness of streets.
- **Objective 2:** Seek to better incorporate services into a city-wide approach, for routing and more efficient use of resources, as part of the Communal Bin Review project.
- **Objective 3:** Seek improvements to health and safety, including considerations for ongoing COVID-19 crisis.

1.2 Key findings

- Average weekly GPB presentation rate is very low (25%) and a majority of GPB streets (97%) have a presentation rate of 45% or less
- Lower GPB presentation rates are associated with proximity to on-street communal bins (i.e. complaint hotspots)
- Blue box presentation rate is negligible (12%) and capacity is surplus. Red boxes are presented at a very low rate (29%) and have inadequate capacity, resulting in inappropriate presentation
- Properties with a unified service (fully communal or fully individual) tend to recycle at a higher rate than those with a disjointed one (part-communal, part-individual)
- GPB & recycling box service is not fit for purpose from customer service, route efficiency and health and safety perspectives

1.3 Recommendations

- On-street communal bins, as part of fully integrated waste and recycling hubs, to replace gull-proof bags for non-recyclable waste.
- On-street communal bins, as part of fully integrated waste and recycling hubs, to replace recycling boxes for recyclable waste streams.
- Increased collection frequency of on-street communal bin 'hubs' to be placed sensitively, following guidance and EIA procedures, to minimise visual impact in WHS

2. GPB Monitoring

All regularly serviced GPB streets (34), covering 2,359 properties, were surveyed in September and October 2019 on collection days (Tuesday, Wednesday and Thursday).

Monitoring took place on all 4 collection days through this period.

Average weekly presentation rates were calculated on a street-by-street basis for GPB and for extra non-GPB bags were presented (e.g. black plastic bag).

Average weekly presentation is categorised by rate percentage into 5 categories: 'negligible' (0.0 – 15.0%), 'extremely low' (15.1 – 25.0%), 'very low' (25.1 – 35.0%), 'low' (35.1 – 45.0%) and 'medium' (45.1 – 55.0%). (Table 1).

2.1 Presentation Rates

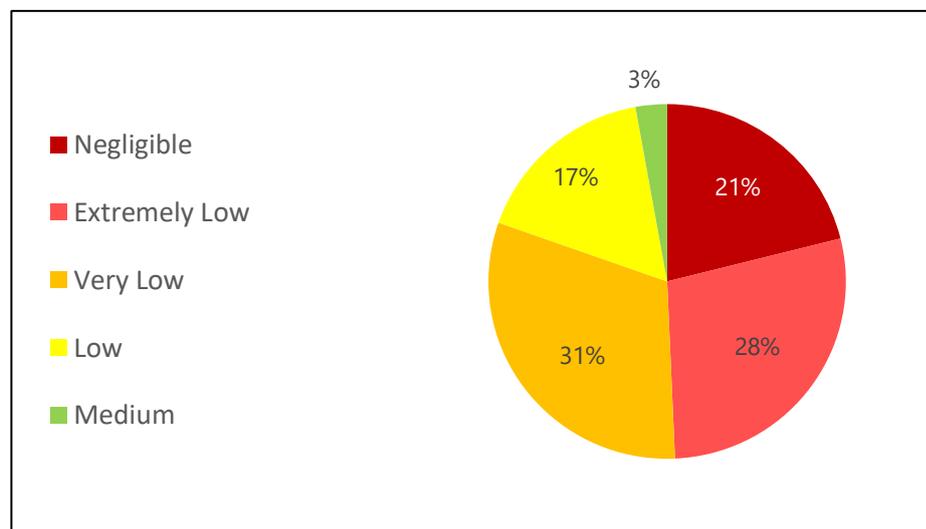
Of the 34 streets surveyed the weekly average presentation rate (aka 'set-out' rate) is 25%, according to number of GPB serviceable properties. Regent Street has the highest average weekly presentation rate at 50% and York Place has the lowest (1%).

On average, 2% of streets present two additional bags per week and 9% present one extra bag per week.

Presentation Category	Presentation Rate (%)	No. properties (%)
Negligible	0 – 15	498 (21)
Extremely Low	15 – 25	665 (28)
Very Low	25 – 35	733 (31)
Low	35 – 45	396 (17)
Medium	45 – 55	67 (3)

Table 1. Presentation category by rate and no. properties

97% of streets (totalling 2,292 properties) have presentation rates that are categorised as 'low', 'very low', 'extremely low' or 'negligible' (Table 1, Figure 1).



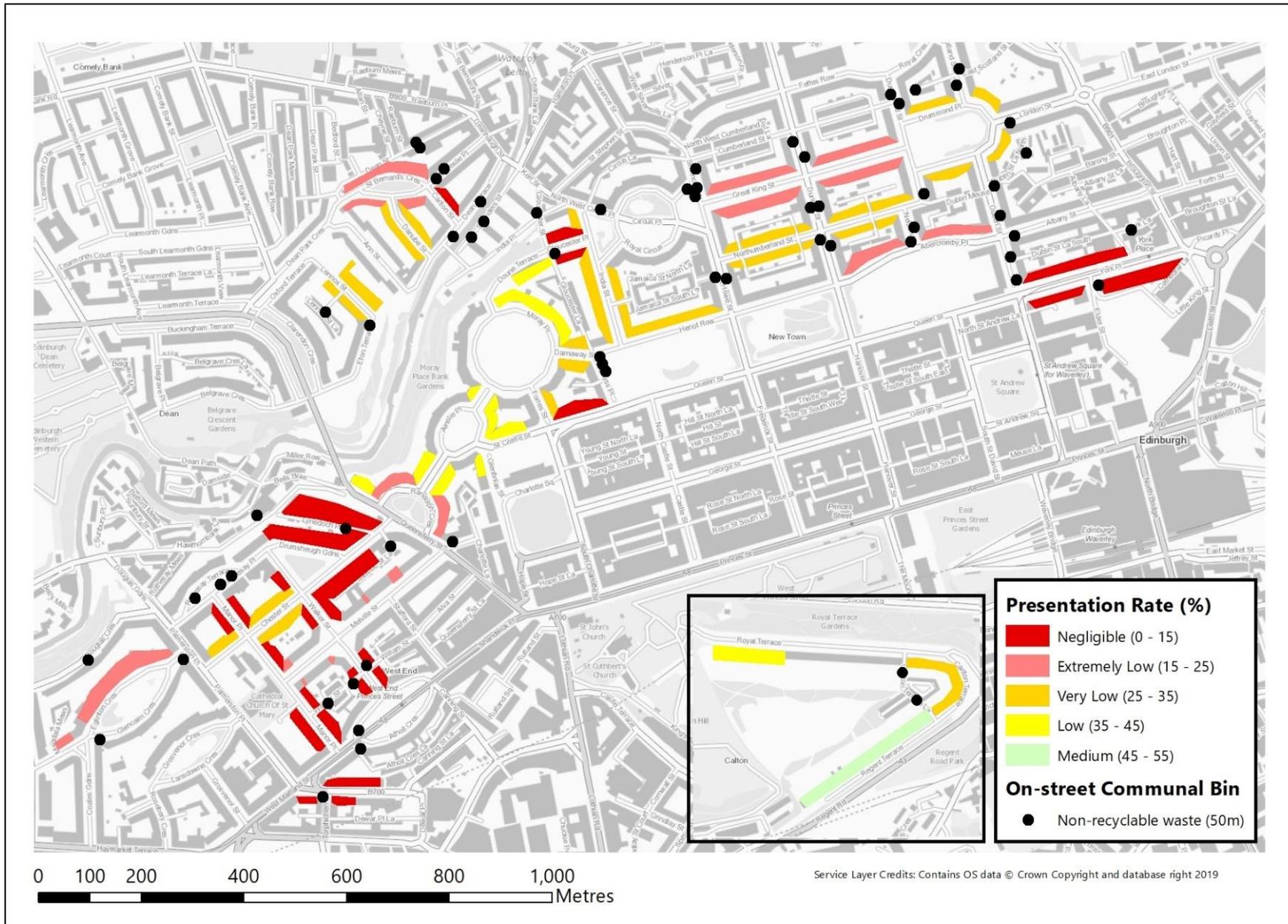


Figure 1. Average GBP presentation rate, by location

3. Complaints Hotspots

Complaints were analysed across 15 streets in the area for the 2018-2019 period, for: 'over-flowing', 'fly-tipping' and 'littering' enquiries. From these complaints, 'hotspots' were identified based on highest volume of 2018-2019 complaint data at nearby communal bins, which were sorting by complaint type.

The following on-street communal bin locations were identified as hotspots for 'overflowing', 'fly-tipping' and 'litter' complaints: Nelson Street, Leslie Place, Glencairn Crescent, William Street & Dundas Street (Figure 1).

Of these complaints, 75% relate to 'overflowing' making it the chief issue raised by residents, followed by 'fly-tipping' (15%) and 'litter' (8%). Nelson Street received the most complaints for 'overflowing' (42) and Dundas Street received the fewest (18). Leslie Place received the most complaints for 'fly-tipping' (9) followed closely by Dundas Street (8) and Nelson Street (7) with the fewest complaints received for William Street (5). Dundas Street received the most complaints for 'litter' (7), followed by Nelson Street (5) and Glencairn Crescent (3). William Street and Leslie Place received no complaints for litter, on average.

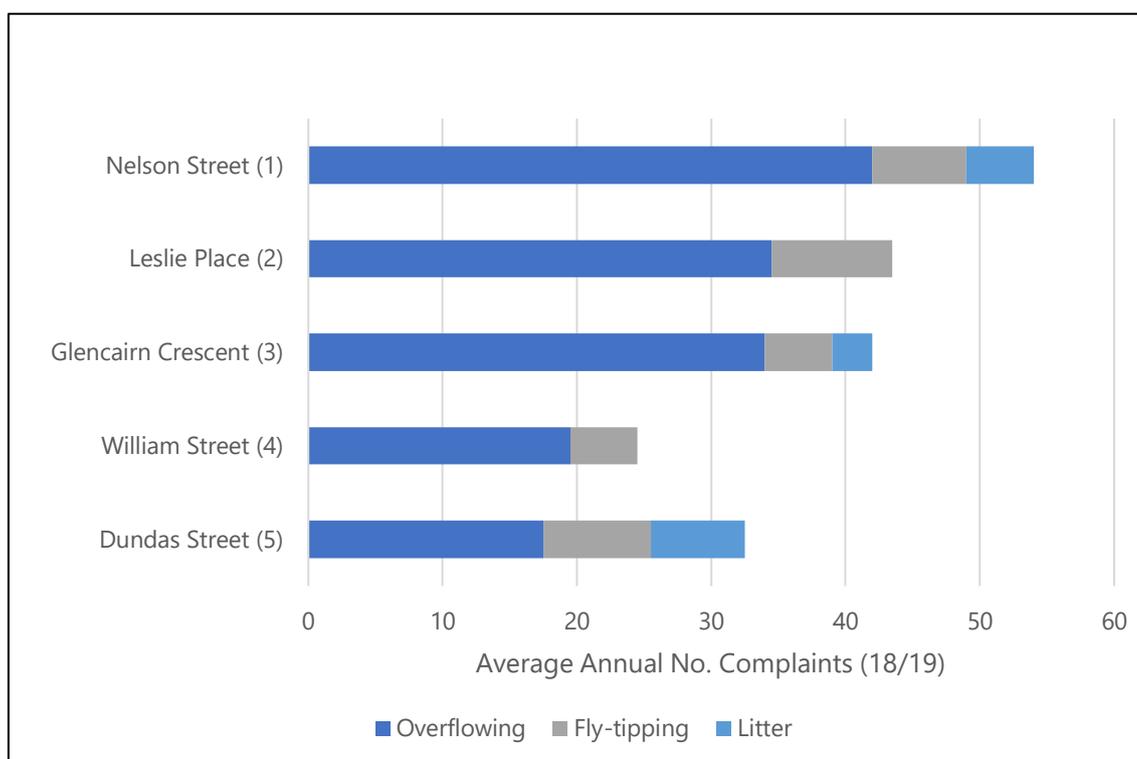


Figure 1. Complaints Hotspots, by type

3.1 Hotspot Analysis

Location 1 – Nelson Street

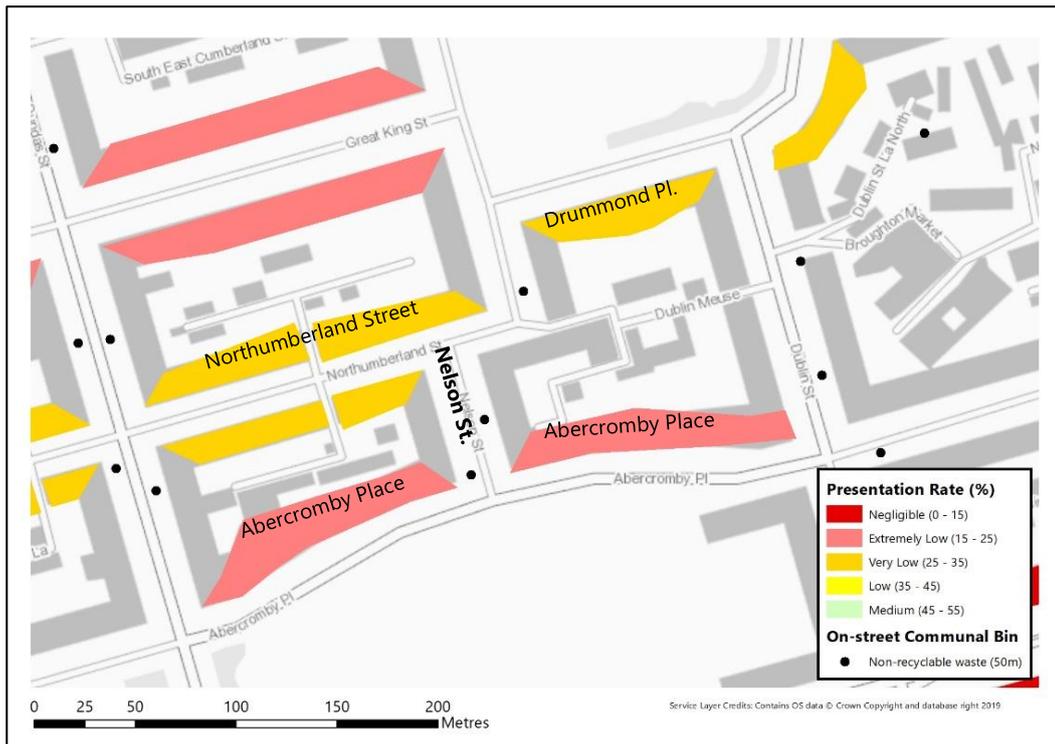


Figure 3. Nelson Street, by average GPB presentation rate

Location 2 – Leslie Place

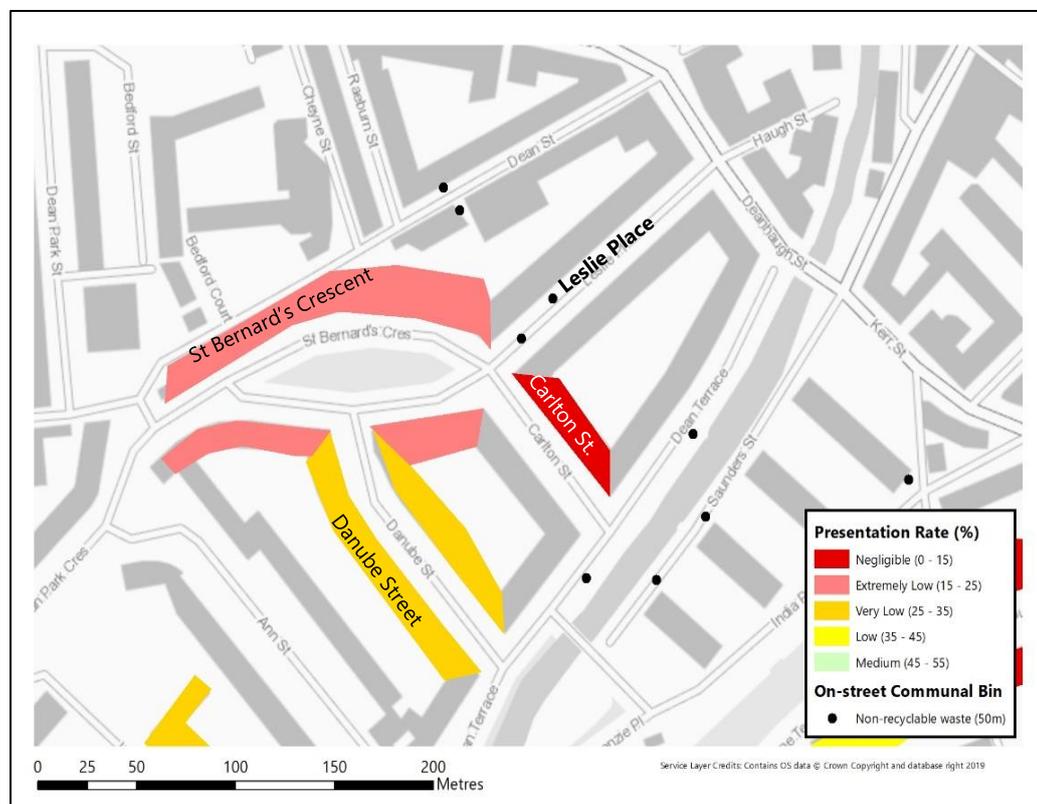


Figure 4. Leslie Place, by average GPB presentation rate

Location 3 – Glencairn Crescent

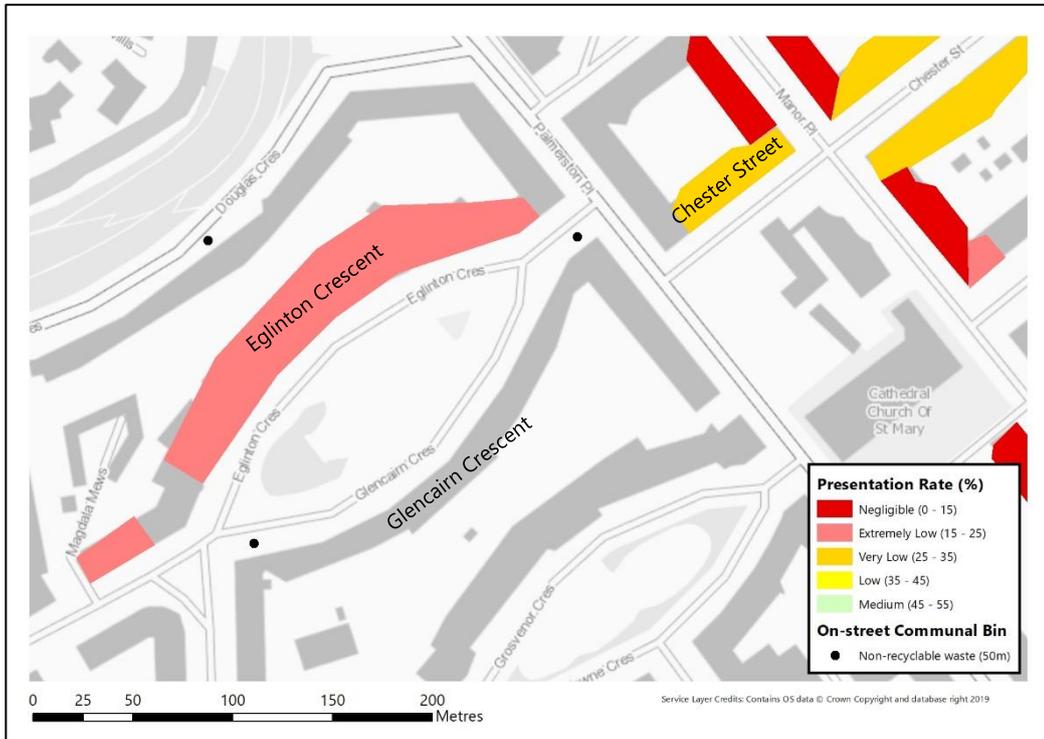


Figure 5. Glencairn Crescent, by average GPB presentation rate

Location 4 – William Street

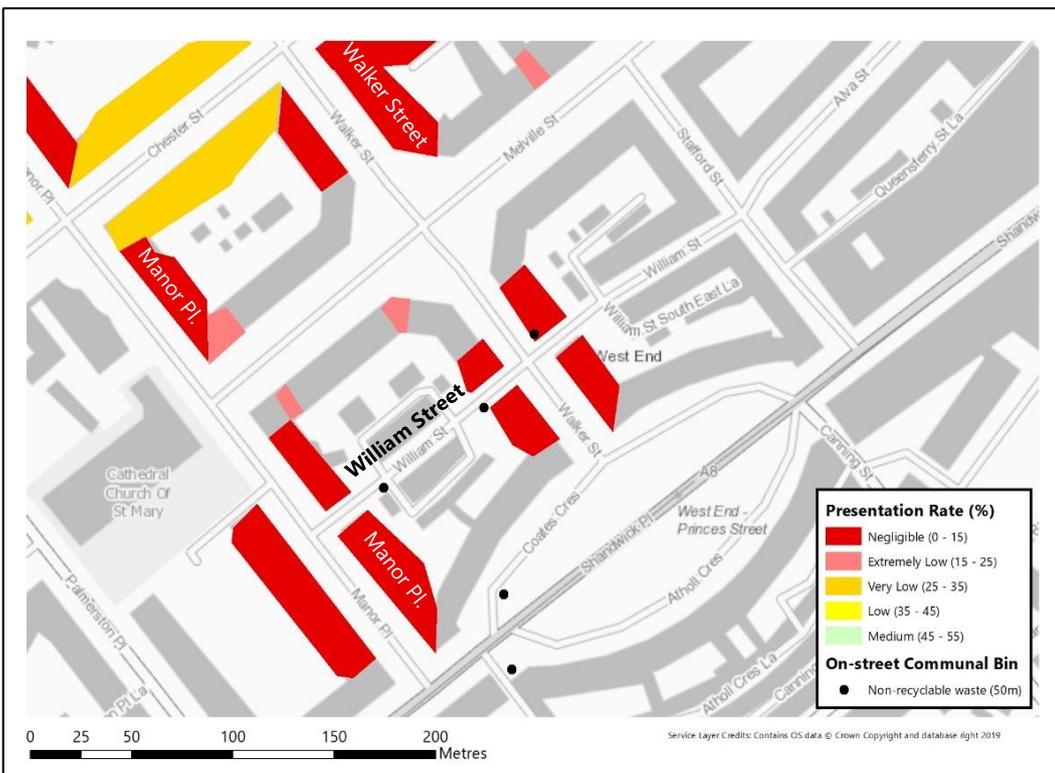


Figure 6. William Street, by average GPB presentation rate

Location 5 - Dundas Street

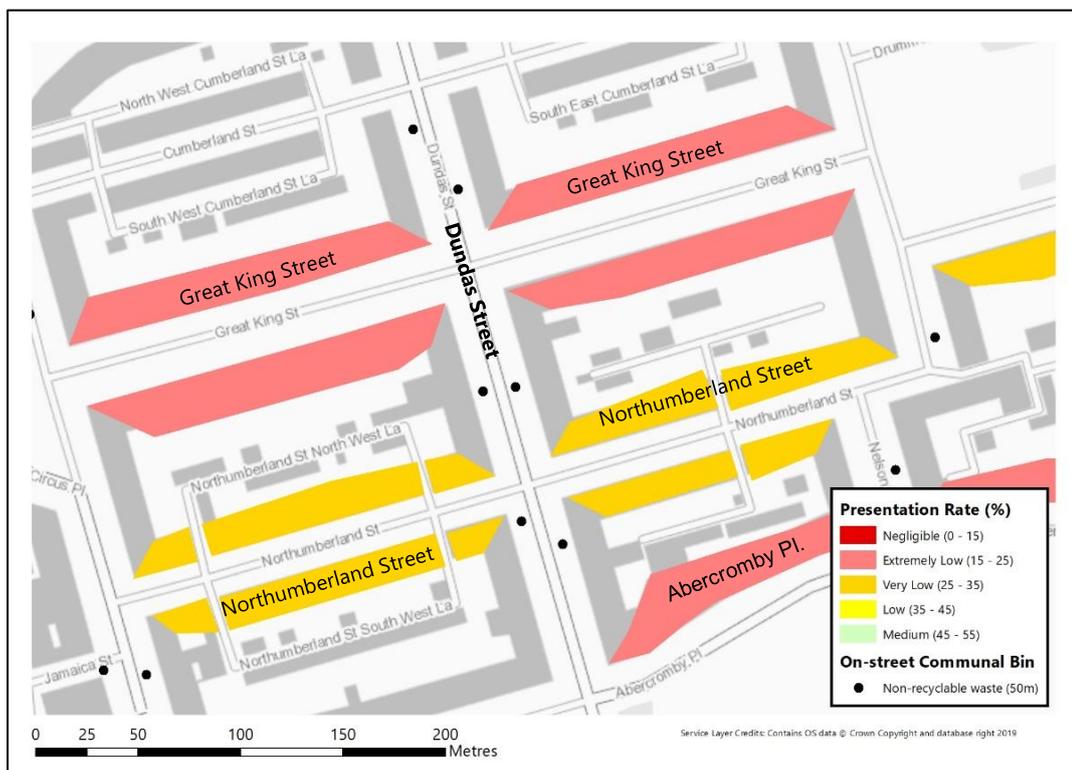


Figure 7. Dundas Street, by average GPB presentation rate

3.2 Complaint Hotspot Summary

GPB streets generally have a very low average weekly presentation rate (25%).

Properties provided with GPB service and near to on-street communal bins tend to present GPBs at a lower rate (i.e. properties closer to communal bins are likely to use them, regardless of service offered).

Majority of residents with GPBs use on-street communal bins instead, resulting in an increase in overflowing incidences at 'complaint hotspots'

4. Red-Blue Recycling Box Monitoring

A selection of red-blue box service streets (103) were surveyed in September and October 2019 on collection days (Monday and Friday). From this total, a sample of 78 streets was taken, where monitoring took place across four collection days over a two-week study period. Average weekly presentation rates were calculated for red and blue box services and extra bags out with boxes were presented (only recorded for red service). 78 streets equate to ~6,200 properties for the recycling box service.

4.1 Red Box Presentation Rates

For all properties analysed (on-street and GPB) average weekly presentation rate for red boxes is 29%. Average weekly presentation rate for red boxes is higher for GPB serviced streets (37%) than on-street communal bin streets (24%) (Figure 8).

4.2 Blue Box Presentation Rates

For all properties analysed (on-street and GPB) average weekly presentation rate for blue boxes is 12%. Average weekly presentation rate for blue boxes is higher for GPB serviced streets (16%) than on-street communal bin streets (11%) (Figure 8).

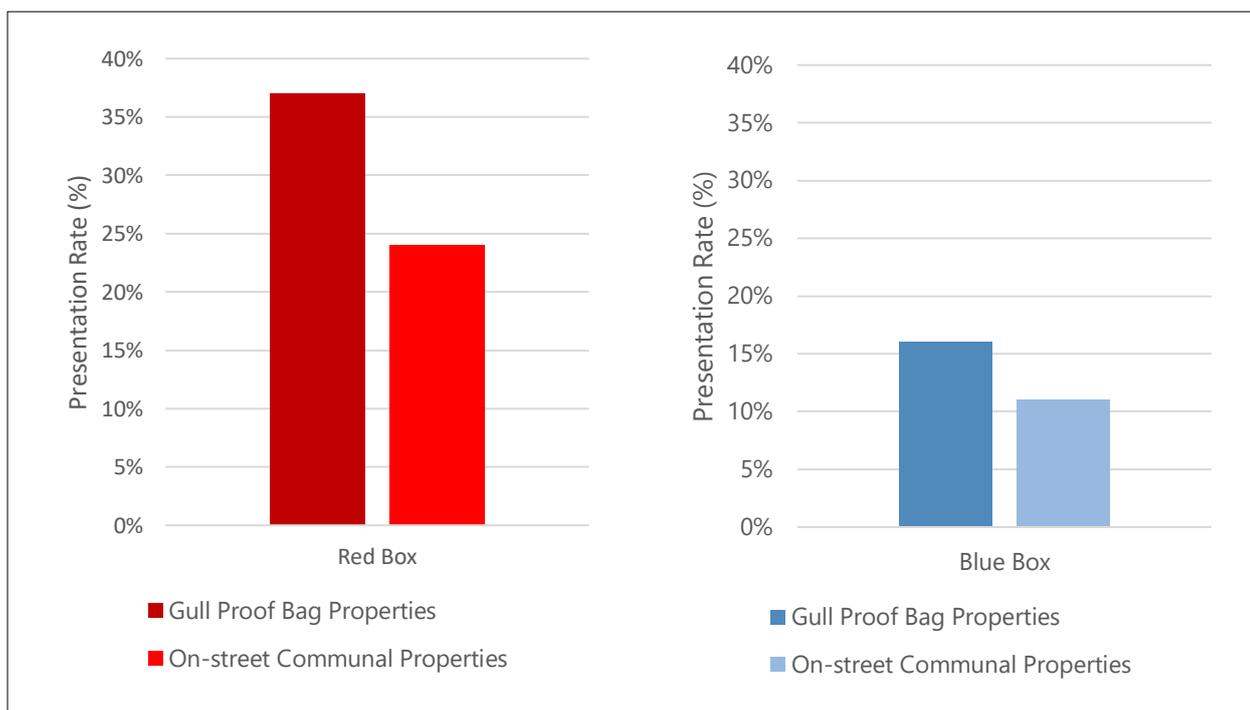


Figure 8. Average presentation rate for red and blue boxes, by property service type

4.3 Extra Waste Presentation (Red Boxes)

The average weekly presentation rate of extra bags out with boxes for all properties is 5% equating to an average of 4 bags extra per street. For on-street properties the presentation is lower (4%) and higher for GPB properties (7%), on a weekly average.

5. Considerations

5.1 Improving Customer Service

Current presentation rates are unacceptably low across all waste streams at GBP properties, whereas individual wheeled-bin kerbside services are typically presented at high rates. A 2015 study of presentation rates in Perth and Kinross found that the average presentation rates across ~800 kerbside properties was over 87% for non-recyclable waste and over 72% for dry mixed recycling.¹ Individual wheeled bins have high participation rates yet are not feasible in the high density tenemental areas of the WHS. Therefore, on-street communal bins, are the most viable option to increase participation in waste and recycling services.

Simplification to the service for residents can be achieved with on-street communal 'hub' locations, which improve likelihood of recycling concurrent to non-recyclable waste disposal, via visible separating. A CBR trial following CEC commissioned consultation with Changeworks, highlights the advantages of well-placed hub locations, where all waste streams are offered and supported by corralling which de-clutters the wider streetscape, supporting rationalisation and formalisation of the service (Figure 9).² Key results from the June 2019 report found that residents using hubs in the trial; recycled more items, had increased accessibility to recycling facilities, reduced incidences of overflowing bins, provided more space for waste streams and streets were perceived to look cleaner.³ Importantly, with hubs residents can dispose of their waste on a daily basis.

Furthermore, the CBR process calculates capacity required per property, by waste stream, helping to mitigate under/over-capacity issues. Placing the fewest possible bins at the most logical locations (e.g. calculating walking distance), following parameters agreed in the last committee report presented and approved at T&E committee on 27 February 2020.

On-street communal bins have a high satisfaction rate among users in the World Heritage Site. Research from concept test (CEC survey, supplemented by the Fettes Row Association) found 91% of surveyed residents with on-street communal bins were satisfied with this collection method. Furthermore, 93% of Fettes Row residents surveyed in 2011 were satisfied with the on-street communal bins and 83% wished to retain on-street recycling provision provided.⁴



Figure 9. Left. Mixed recycling is presented inappropriately in blue boxes and outwith containers, posing health and safety hazards, wind-blown litter and associated negative visual impacts.

Right. An on-street communal 'hub' trialled in Albert Street, Leith Walk. Residents can access all waste streams, streetscape is improved and staff health and safety is better managed

¹ Participation Study Report: Evaluation of the Improved Recycling Trial Service, Perth and Kinross Council. 2015.

² Changeworks Consultation Report: Albert Street. June 2019

³ ibid

⁴ 93% of 42 residents surveyed. Modernising Waste Collection in the World Heritage Area, Transport Environment Committee 29.09.11

5.2 Increasing Recycling Capacity

Residents with a disjointed waste service (i.e. properties using on-street communal bins for non-recyclable waste and individual red-blue boxes for recycling) tend to recycle less than those with a unified service across all waste streams e.g. GPB properties with recycling boxes.

Advantages of a unified service are evidenced, whereby services are fully individual or communal, across all waste streams. Residents using on-street communal bins for non-recyclable waste, yet use recycling boxes at home, cannot recycle with the same time flexibility as they can dispose of non-recyclable waste. They also present red and blue boxes on alternative weeks, which negatively impacts participation in recycling.

Waste stream	Weekly capacity per property (L)	
	Current Service	'Hub' proposal median ⁵
Non-recyclable waste (NRW)	200 (GPB)	155
Dry mixed recycling (DMR)	22 (Red box)	155
Glass	22 (Blue Box)	13
Food waste	23 (caddy)	13
Total	266	336

Table 2. Current and Proposed Capacity by waste stream (% change)

Red boxes are presented at an average weekly rate of 29% and blue boxes at an average weekly rate of 13%. Laudable attempts to recycle cannot be fulfilled by the inadequate capacity provided by red boxes, leading residents to present recycling waste inappropriately (Figure 9, left). Residential recycling waste has increased significantly commensurate with the uptake of online shopping (e.g. Amazon). Such quantities of recyclable materials are adequately serviced with kerbside or communal wheeled bins, which provide a weekly capacity of at least 120L.

Blue boxes are presented at a negligible rate (13%), since plastics are more common than glass among packaging waste. Glass tends to be stored for longer due to surplus box capacity.

'Hub' proposals increase weekly capacity for mixed recycling, while removing surplus capacity for glass and NRW (Table 2). Hubs better reflect resident demand, provide a balanced service (Figure 10) and facilitate positive behaviours.

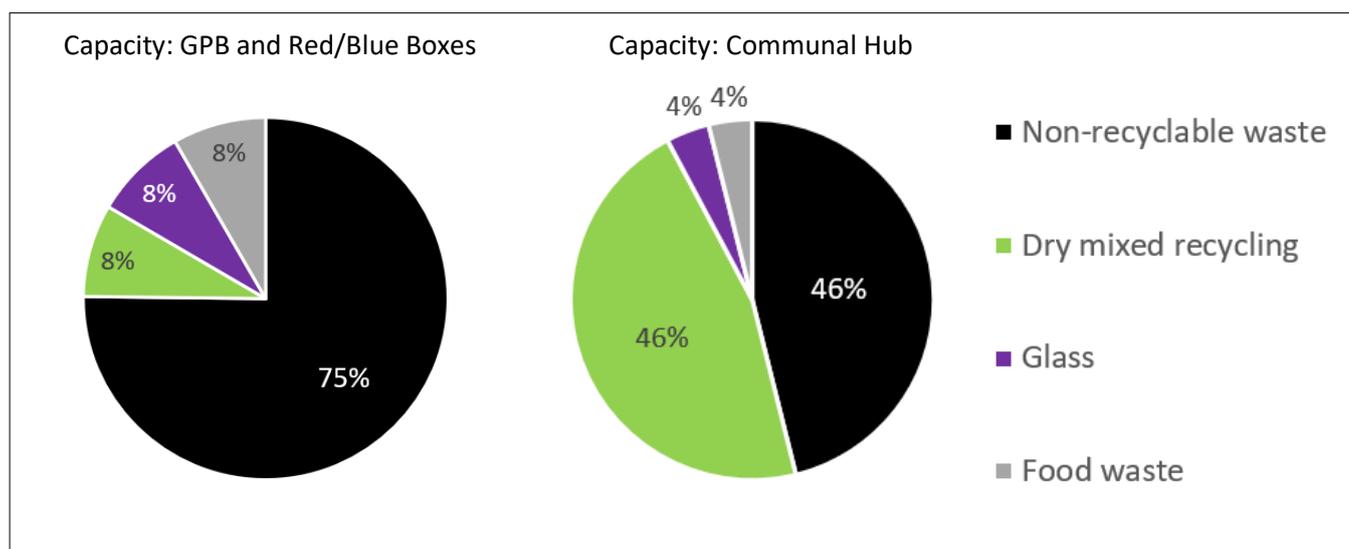


Figure 10. Capacity proportions by service type, per property. Communal hubs provide a better balance between streams and dedicates over half of capacity for recyclable waste

⁵ Proposed figures for NRW and DMR are 140-170L and 5-20L for glass and food. % change is calculated from median values. Transport and Environment Committee 27th February 2020

5.3 Airbnb Priority

All streets with the highest GBP presentation rates (35-55%) are in 'low' Airbnb density areas (Figure 11). Conversely, streets with the lowest presentation rate (0-15%) are mostly located in 'high' and 'very high' Airbnb density area or are immediately adjacent to them (Figure 11).

Transitory populations are unlikely to be aware of GBP procedures and waste generated at Airbnb properties requires servicing between guests, which is often daily. 'Hubs' are simple to use, provide recycling facilities and can be accessed 24/7.

'Hubs' are better placed to adapt to fluctuating demand, typical in areas with a high density of Airbnb properties.

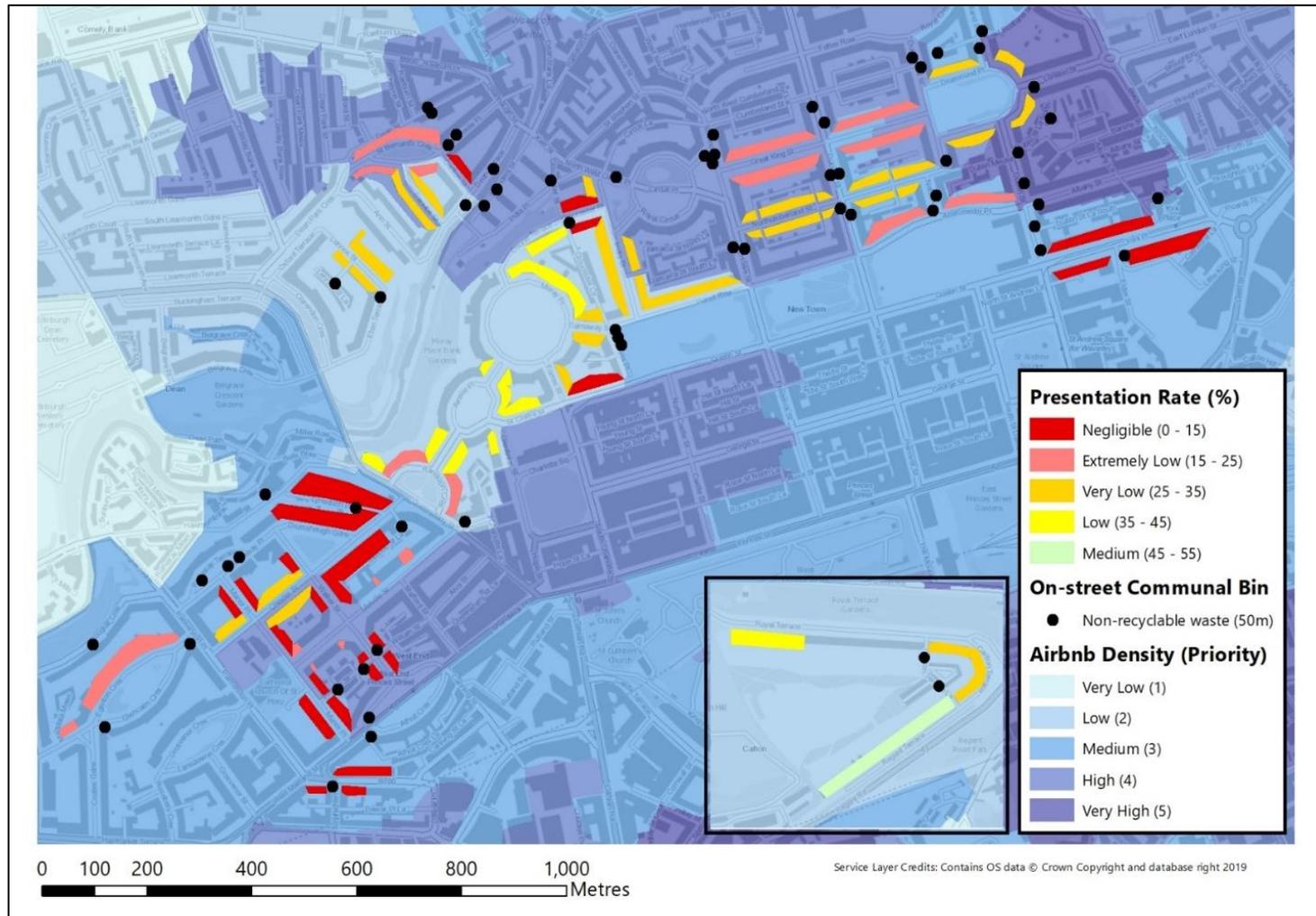


Figure 11. Airbnb Density (Priority) & GBP Presentation Rate

5.4 Visual Impact

A previous assessment by Historic Environment Scotland and Edinburgh World Heritage suggests that communal bins can work well in sensitive areas, such as the World Heritage Site, if certain conditions are met, including 6:

- Preferred bin locations used: within car parking bays, against parks or gardens (straight or concave curves), in front of tenement entrances, side streets/mews/gables
- Rationalised approach: communal hubs serve multiple streets, when appropriate

The containerisation consultation states that bins combined with recycling units are often more visible, however recycling units are required by 'hub' locations for them to provide statutory obligation for recycling provision. In the 2011 trials, larger 3200L side-loading bins were used, but future communal bin 'hubs' will be composed of smaller bins (1280L, 360L and 240L) which will help to mitigate visual impact. Moreover, the increased frequency of collections preferred by the CBR, minimises the number of on street bins required, further reducing visual impact.

Efforts to minimise visual impact of on-street communal hub will be assessed during the development of proposed locations within the World Heritage Sites. EIA screening and applications for Certificate of Lawfulness will be at the centre of planning proposals, including for any required additional infrastructure, such as corraling.



Figure 11. A well-positioned on-street communal bin, but lacking recycling options. As part of the CBR larger side-loading bins (3200L) will be replaced with smaller 1280L communal bins and recycling provision added at each 'hub' location, see figure 10. Visual impact of communal 'hubs' can be minimised, following EIA, WHS and HES bin location guidance.

Photo source: Containerisation Trial Report, Oct 2011

⁶ Containerisation Trials within the Old and New Towns of Edinburgh World Heritage Site – October 2011 (Modernising Waste Collection in the World Heritage Area, Transport Environment Committee 29.09.11)

5.5 Health & Safety

Health, safety and wellbeing of essential front-line workers is paramount, especially in the present context of the ongoing COVID-19 crisis. There is a renewed relevance of health and safety for the current procedure of collecting GPBs which requires workers to reach into bags for collection, without being able to see its contents. This poses a health and safety risk for sharps (broken glass, needles etc.), under normal circumstances and appropriate risk assessments are in place. During the present COVID-19 crisis there is a new threat of inappropriately disposed non-recyclable waste from residents with COVID-19 symptoms. Though a COVID-19 risk assessment is being used, removal of the GPB service will further reduce avoidable hand contact with hazardous waste, via containerisation.

Furthermore, in the case of recycling boxes, size is limited to minimise strain from a manual handling perspective. However, inadequate capacity for recycling is provisioned leading to extra waste being presented inappropriately (black bags, loose material outwith red boxes, see figure 9) at an unacceptable rate. 'Hub' container locations increase recycling capacity and help to reduce such inappropriate presentation at the kerbside, mitigating health and safety risks.

Gull-proof and black bags are the only non-recyclable waste stream across the City of Edinburgh's service which require direct hand contact with disposable plastic bags for collection. Replacing the GPB service with on-street communal 'hubs' will help to mitigate multiple health and safety risks for essential front-line staff, during and beyond the COVID-19 crisis.

6. SWOT Analysis				
Service (Stream)	Strengths	Weaknesses	Opportunities	Threats
On-street Communal hubs (recycling and non-recyclable waste)	<ul style="list-style-type: none"> • Improve recycling rates - all waste streams available at every hub location • Waste and recycling better contained • Consistency of service for all residents in high-density and tenement areas • Complaints can be logged to a specific bin, online by residents. Allows for quicker responses. • Affords itself to more dynamic route planning, at city-wide scale (efficient use of resources) • Waste and recycling can be disposed and sorted at any time • Easier to use for transitory population than other methods 	<ul style="list-style-type: none"> • Further distance for presentation (within acceptable limits) • Loss of car parking (usually kept to a minimum). Opportunity for electric vehicle (EV) and active travel options (see right) • Anyone can use on-street bins including trade waste abuse – dumping of items 	<ul style="list-style-type: none"> • Flexibility & futureproofing: bin no./type/size can be changed in the future if demand changes (e.g. Scottish Government Deposit Return Scheme 2022). • ‘Hubs’ can potentially share street locations with EV and bicycle parking infrastructure • Re-use of GPBs & containers for other applications (or for residents to carry recycling waste to hubs) 	<ul style="list-style-type: none"> • Visual impact from placement, infrastructure and graffiti (can be mitigated)

Service (Stream)	Strengths	Weaknesses	Opportunities	Threats
Gull Proof Bags (Non-Recyclable Waste)	<ul style="list-style-type: none"> • Shortest distance for presentation • If GPBs are not mis-used, reduction of bins on-street • Visual impact mitigation 	<ul style="list-style-type: none"> • Collection crew H&S, manual handling of black bags (sharps & COVID-19). Solid containers preferred - to protect staff and pavement users against waste hazards • Poor presentation rate. Nearby on-street wheeled communal bins are used instead (details in report) • Extra time required to empty sacks (inefficient use of resource) • Residents only able to present bags once per week • Airbnb / transitory population not familiar with GPB presentation procedures 		<ul style="list-style-type: none"> • New H&S consideration for COVID-19 waste management • Potential obstruction to pavement, impacting efforts to increase active travel, accessibility issues (Spaces for People) • Railings are protected features of listed buildings and potential damage implications of long-term hanging waste, especially for heavy waste (not designed fit for purpose). Risk of damage to historically valuable environment • Sacks left out between collections in some places (attract litter and unsightly)

Service (Stream)	Strengths	Weaknesses	Opportunities	Threats
Red-Blue Boxes (Recycling)	<ul style="list-style-type: none"> • Short distance for presentation • Reduction in bins on street (box recycling capacity not fit for purpose) 	<ul style="list-style-type: none"> • Inadequate size. Not large enough to hold average recycling waste capacity (see details in report). • Extra presentation of inappropriate bags, boxes, loose etc.: H&S, littering & visual impact issues • Staff H&S, manual handling, extra bending etc. • Residents can only present once per week 	<ul style="list-style-type: none"> • Containers can be used by residents to carry recycling to communal bins 	<ul style="list-style-type: none"> • Potential obstruction to pavement, impacting efforts to increase active travel, accessibility issues (Spaces for People)