

PAPURAU ATODOL

Pwyllgor PWYLLGOR CRAFFU AMGYLCHEDDOL

Dyddiad ac amser y cyfarfod

DYDD LLUN, 26 MEDI 2022, 4.00 PM

Lleoliad YB 4, NEUADD Y SIR, CYFARFOD AML-LEOLIAD

Aelodaeth Cynghorydd Owen Jones (Cadeirydd)

YCynghorwyr Derbyshire, Gibson, Green, Lancaster, Lloyd Jones,

Jackie Parry, Proctor a/ac Wood

Y papurau canlynol wedi'i farcio ' i ddilyn' ar yr agenda a ddosbarthwyd yn flaenorol

- **Strategaeth Ailgylchu Caerdydd 2021-2025** (*Tudalennau 3 340*)

 Derbyn cyflwyniad ynghylch Strategaeth Ailgylchu Caerdydd 2021-2025
- 5 Rhaglen Reoli Risg Arfordirol (*Tudalennau 341 442*)
 Derbyn y wybodaeth ddiweddaraf am gynnydd y Rhaglen Rheoli Risgiau
 Arfordirol

Davina Fiore

Cyfarwyddwr Llywodraethu a Gwasanaethau Cyfreithiol

Dyddiadd: Dydd Mawrth, 20 Medi 2022

Cyswllt: Graham Porter, 02920 873401, g.porter@caerdydd.gov.uk



CYNGOR CAERDYDD CARDIFF COUNCIL

ENVIRONMENTAL SCRUTINY COMMITTEE

26 SEPTEMBER 2022

RECYCLING STRATEGY FOR CARDIFF AND THE PROGRAMME FOR CHANGE: PRE-DECISION SCRUTINY

Purpose of the Report

 To provide Members with background information to aid the scrutiny of the Recycling Strategy for Cardiff 2021-25 which is due to be considered by Cabinet at their meeting on 28 September 2022.

Structure of the Papers

- 2. During this scrutiny, Members have the opportunity to explore:
 - Appendix 1 Cabinet Report 'The Recycling Strategy for Cardiff and the Programme for Change'

The following appendices are in turn attached to the Cabinet Report:

- Appendix A The Recycling Strategy for Cardiff 2021-2025
- Appendix B Cardiff's Draft Recycling and Waste Strategy 2021-25.
 Results Report
- Appendix C Separate Recycling Pilot. Survey Results
- Appendix D Equality Impact Assessment

Also attached at **appendix 2** for members consideration is a statement from a member of the public. The Chair has agreed that they can attend the meeting an make the statement in person and to hear the discussion in relation to this item.

Scope of Scrutiny

3. At their meeting on 28 September 2022, the Cabinet will consider a report that provides a briefing on the Recycling Strategy for Cardiff and the Programme for Change and seeks cabinet approval for the strategy and a phased programme of change aimed at improving recycling performance., including:

- Phased roll-out of segregated recycling across all household properties in Cardiff commencing in 2022/23.
- Extend the items that can be collected for recycling at the kerbside; such as, textiles and small electrical items.
- Undertake further pilot work in relation to Houses of Multiple Occupancy (HMO's) and flats in relation to containers for segregation and communal segregated recycling bins.
- Test and implement methods to reduce the amount of residual waste being presented, noting that between 60%-70% of current residual waste could be recycled. This will include trials such as households being limited to presenting two bags per fortnight, as well as trialling moving to three weekly collections in selected areas with wheeled bins.
- Enhance and strengthen the education and enforcement function to support improved compliance.

Background

- 4. Welsh Government is committed to supporting local authorities to improve recycling performance as it committed to becoming a zero-waste nation.
- 5. As a result Cardiff's recycling has improved, however, it still lags behind other Welsh authorities.
- 6. The legislative requirements for recycling performance as set by Welsh Government was for the council to achieve 64% by 2021/22 followed by 70% by 2024/25. Cardiff did not meet this target, however recent performance has suggested that we are moving closer towards this.
- 7. Not meeting Welsh Government targets for recycling poses a financial risk to the Council, resulting in a penalty of £2million, which will continue to increase until recycling targets are met.
- 8. The current service provision for residents is detailed in **point 10**.
- 9. The issues surrounding Houses of Multiple Occupation (HMOs) and the student population are noted in **points 11 and 12**

- 10. Points 13 17 provide details of a compositional analysis exercise undertaken by WRAP of Cardiff's kerbside and communal waste and recycling. The outcome of which suggests Cardiff losses 30% of the material it collected due to items being place in the incorrect bag. This is then used to create energy instead of being recycled. In 2019/20 this would equate to 10,00 tonnes of material.
- 11. The role of education and enforcement (£100 fixed penalty notices) is acknowledged in **point 18.**
- 12. **Point 19** notes the poor recycling performance (34%) of the in-house trade waste service. Trade waste represents about 9% of the total waste collected.
- 13. The report to Cabinet entitled The Recycling Strategy for Cardiff and the Programme for Change is attached at **Appendix 4A** along with the Strategy document itself at **Appendix A**
- 14. Points 20 25 provide an overview of the Strategy and its objectives to:
 - Improve material quality
 - Increase recycling participation and capture of priority materials
 - Increase opportunities for communities and residents to recycle
 - Make use of all available data, to develop targeted actions
 - Reduce single use plastics
 - Encourage and support the prevention, reuse and repair of materials
 - Contribute towards developing a circular economy within Wales
 - Improve the Street Scene across Cardiff
- 15. **Appendix B**, the consultation response to the draft strategy is referenced in **points 26 28** and key responses are highlighted regarding:
 - Recycling Segregation & Quality (85% agree quality of materials collected needs to improve)
 - Recycling Information & Education (58.3% do not feel suitably informed about how to recycle different types of plastic)
 - Recycling and Re-use Centres (76.9% use a Recycling Centre)
 - Single Use Plastics, Re-fill and Electric Vehicles (85% agree the Council should move to electric vehicles), and

- Supporting Citizens to do the right thing (24.9% have volunteered to improve the local environmental quality of their area)
- 16. **Points 29 37** provide information about the segregated recycling pilot and its objectives, which were:
 - Measure material volumes to help determine future vehicle split
 - Monitor materials collected to assess whether contamination reduces and quality increases
 - Measure public satisfaction with reusable sacks
 - Identify any impact on Street Scene cleanliness
 - Identify appropriate round sizes for a 'one pass' three-stream recycling vehicle
 - Identify resources and costs required for change
- 17. A consultation report on the segregated recycling pilot is covered by **points 38 - 41** and key responses in relation to:
 - Recycling Segregation & Quality (40% found the recycling 'too much effort')
 - Residual waste (67.3% stated they filled their residual bin compared to 32.7% who stated they had spare capacity within their residual bin.)
 - Reusable bags (The main concerns about the reusable sacks was around the quality/design and weight of the sacks to stop them blowing around.)
 - Storage of recycling (21.2% stated storage was a challenge for them),
 and
 - Collections (84.8% stated they would need a weekly collection of recycling)
- 18. The proposed programme to deliver the changes needed to meet recycling targets in future years is outlined in **points 42 49**, which also note that business cases will be needed for each change or group of changes.
- 19. **Point 43** advise Cabinet that the main program of changes are the following:

- Expand segregated recycling to households (excluding flats and HMO's) using re-usable sacks and caddies to reduce the need for single use plastic bags.
- Review the expansion of kerbside collection services to cover items currently not collected at the kerbside.
- Prioritise education and enforcement of food recycling to improve participation in the existing service and improve the current 62% capture.
- Review of approaches to reduce residual waste to support improving compliance for recycling.
- Develop the business case to move from a Material Recovery Facility to a Material Handling Facility required to manage segregated recycling.
- Improve recycling in flats and HMO's by the use of pilots to inform the business case and modelling for recycling from these properties.
- Develop the business case for Recycling Centres and Re-Use Centres across Cardiff.
- Deliver improvements to Street Scene Services to support improvements in cleansing and enforcement following collections.
- Improvements to the trade / business waste model to improve recycling and meet new legislative requirements.
- Identification of wider Council / service area change to value resources and minimise the Council's impact on climate change.
- 20. To support residents in this transition **point 44** considers some of the issues to be considered in developing a communication and information campaign.
- 21. **Point 50** notes the need for Supplementary Planning Guidance to be updated to support the proposed changes
- 22. Local Member Consultation is raised in **point 51.** This notes that there was a public consultation from 14th February 2022 for a 6 week period
- 23. Environmental Scrutiny Committee had an informal briefing session with officers in relation to the report (Appendix B) that was written following the cfonsultation.
- 24. The reasons for the report recommendations are noted in **point 53**, i.e.to report the outcome of the survey and ask for permission to implement the proposed Strategy.

- 25. The Cabinet are made aware of the risk of a financial penalty, of £2million, for not meeting Welsh Government recycling targets, and the need for fully costed robust business cases for the programme of change in **points 54 61**.
- 26. These points also highlight financial implications in relation to capital investment (vehicles, equipment, depot infrastructure) and the need for further pilot work corresponding to HMOs.
- 27. **Points 62 64 (Legal Implications)** note the duties of the Authority with regards to waste collection and disposal and the provision of Household Waste Recycling Centres (HWRCs).
- 28. The duties in relation to Equalities is noted in points 65 & 66
- 29. A 'standard' response regarding the Well Being of Future Generations is noted in **points 67 70.**
- 30. 'General' points are noted in **points 71 73** that include:
 - Any procurement undertaken is in accordance with financial and budgetary policies;
 - Consideration of the Welsh Language (Wales) Measure 2011 and the Welsh Language Standards;
 - Any consultation is adequate and fair and that the results of the outcome are considered in the decision making process.
- 31. No direct property implications are noted in **point 74**.
- 32. The HR implications in **points 75 & 76** note that these will be taken into consideration in the business cases developed to support the programme of change going forward.

Proposed Recommendations to Cabinet.

- 30. The report to Cabinet contains the following recommendations:
 - i. Note the results of public consultation on the draft Recycling Strategy 2022-25: 'Greener and Cleaner' attached as Appendix B.
 - ii. Approve the Recycling Strategy 2022-25: 'Greener and Cleaner' attached as Appendix A.

- iii. Note the outcomes of the segregated recycling pilot undertaken by 4,000 properties.
- iv. Agree in principle to the programme of change set out in the Recycling Strategy 2022-25: 'Greener and Cleaner' and this report and delegate authority to the Director of Economic Development in consultation with the Cabinet Member for Climate Change to roll-out the phased implementation of the programme including:
 - The phased roll-out of segregated recycling as set out in this report across household properties in Cardiff.
 - The phased roll-out of reduced residual waste collections as set out in this report to improve the level and quality of recycling across household properties in Cardiff.
 Undertake further pilot work in relation to Houses of Multiple
 Occupancy and Flats to improve recycling performance including the testing of communal segregated recycling bins.
 - Review the expansion of kerbside collection services to cover items currently not collected at the kerbside.
 - Enhance and strengthen education and enforcement to deliver improved recycling compliance across household properties in Cardiff.
 - Develop the business case to move from a Material Recovery Facility to a Material Handling Facility required to manage segregated recycling.
 - Improvements to the trade / business waste model to improve recycling and meet new legislative requirements.
 - Identification of wider Council / service area change to value resources and minimise the Council's impact on climate change.
- v. Note the plans to enhance the cleansing service, including the move balanced resourcing and 'same day cleanse' following collections for inner wards
- vi. Note the development of a business case for a future repair and re-use 'superstore'. A further report will be brought regarding the business case.

Way Forward

31. Cllr Caro Wild, Cabinet Member for Climate Change and Neil Hanratty, Director of Economic Development have been invited to make a statement and answer Member's questions. They will be supported by further representatives from the Economic Development Directorate who have been asked to make a brief presentation followed by Member's questions.

Legal Implications

The Scrutiny Committee is empowered to enquire, consider, review and recommend but not to make policy decisions. As the recommendations in this report are to consider and review matters, there are no direct legal implications. However, legal implications may arise if and when the matters under review are implemented with or without any modifications. Any report with recommendations for decision that goes to Cabinet/Council will set out any legal implications arising from those recommendations. All decisions taken by or on behalf of the Council must (a) be within the legal powers of the Council; (b) comply with any procedural requirement imposed by law; (c) be within the powers of the body or person exercising powers on behalf of the Council; (d) be undertaken in accordance with the procedural requirements imposed by the Council e.g. Scrutiny Procedure Rules; (e) be fully and properly informed; (f) be properly motivated; (g) be taken having regard to the Council's fiduciary duty to its taxpayers; and (h) be reasonable and proper in all the circumstances.

Financial Implications

The Scrutiny Committee is empowered to enquire, consider, review and recommend but not to make policy decisions. As the recommendations in this report are to consider and review matters, there are no direct financial implications at this stage in relation to any of the work programme. However, financial implications may arise if and when the matters under review are implemented with or without any modifications. Any report with recommendations for decision that goes to Cabinet/Council will set out any financial implications arising from those recommendations

RECOMMENDATION

The Committee is recommended to:

- Consider the information in this report, its appendices and the information presented at the meeting;
- ii) Determine whether they would like to make any comments, observations or recommendations to the Cabinet on this matter; and
- iii) Decide the way forward for any future scrutiny of the issues discussed.

DAVINA FIORE

Director of Governance & Legal Services

20 September 2022





CARDIFF COUNCIL CYNGOR CAERDYDD



CABINET MEETING: 28 SEPTEMBER 2022

THE RECYLING STRATEGY FOR CARDIFF AND THE PROGRAMME FOR CHANGE

CLIMATE CHANGE (COUNCILLOR CARO WILD)

AGENDA ITEM: 3

Reasons for this Report

- 1. To report the outcome of the consultation on the draft Recycling Strategy 2022-25: 'Cleaner and Greener'.
- 2. To report the outcome of the segregated recycling pilot undertaken across 4,000 properties in Cardiff and the compositional analysis undertaken by WRAP.
- 3. To seek Cabinet approval for the Recycling Strategy 2022-25: 'Cleaner and Greener'.
- 4. To seek Cabinet approval on the following phased programme of change as part of the Strategy to improve recycling performance and to reduce the impact on climate change:
 - Phased roll-out of segregated recycling across all household properties in Cardiff commencing in 2022/23.
 - Extend the items that can be collected for recycling at the kerbside; such as, textiles and small electrical items.
 - Undertake further pilot work in relation to Houses of Multiple Occupancy (HMO's) and flats in relation to containers for segregation and communal segregated recycling bins.
 - Test and implement methods to reduce the amount of residual waste being presented, noting that between 60%-70% of current residual waste could be recycled. This will include trials such as households being limited to presenting two bags per fortnight, as well as trialling moving to three weekly collections in selected areas with wheeled bins.

- Enhance and strengthen the education and enforcement function to support improved compliance.
- 5. Note the plans to enhance the cleansing service, including the move balanced resourcing and 'same day cleanse' following collections for inner wards.
- 6. Note the work to understand the future service demands for Recycling Centres in the city and the recommendation to develop a business case for a future repair and re-use 'superstore'.

Background

- 7. Welsh Government is committed to Wales becoming a zero-waste nation as part of their Strategy to help save the planet. Significant policy development and investment has been made by Welsh Government to support local authorities across Wales to improve recycling performance and this has led to Wales becoming the third best nation in the world for recycling.
- 8. Cardiff Council, with the help of Welsh Government, has invested in its recycling services and as a result recycling performance has improved substantially over the last decade. Cardiff is now the best performing core city in the UK and one of the best performing cities for recycling across the whole of Europe. However, the city still has some way to go to meet the Welsh Government's statutory target of at least 70% of waste being recycled by each local authority by 2025.
- 9. At present, given the different set of challenges Cardiff faces, recycling performance in the city lags a little behind the other local authorities of Wales. By the end of the 2021/22 financial year the statutory recycling target for Wales was 64%. Cardiff achieved around 60%. In recent months, performance is moving closer to the 64% target, however the city is now required to work towards the 70% target which needs to be met by the end of the 2024/25 financial year. Failure to meet statutory targets can result in fiscal penalties being issued by Welsh Government. Based on the tonnage of waste handled by Cardiff Council each year this could amount to as much as £2million for each year that the target is not met. The Council remains in regular dialogue with the Welsh Government and the Waste and Resources Action Programme (WRAP) to demonstrate its commitment to meeting the statutory targets and to addressing the challenges that it faces. In bringing forward the Recycling Strategy 2022-25; 'Cleaner and Greener' the Council will be taking a significant step towards the Welsh Government blue-print for recycling in Wales.
- 10. The Council has already implemented some major changes to its waste collection services in recent years. The Council recently moved to a 4-day collection model collecting recycling and residual waste between 6:00am and 15:45pm on Tuesday to Friday. This has removed the amount of time recycling and waste is on the streets of Cardiff by 50% from the previous collection model and supports improvements in the proactive engagement and education of residents. The Council currently provides the following recycling and waste services for households across Cardiff:
 - Weekly food waste collections

- Weekly green bag collections for comingled recycling
- Fortnightly garden waste collections in summer
- Fortnightly residual waste collections
- Fortnightly Hygiene collections (on request)
- Bulky Waste collections (on request)
- 11. One of the most significant issues faced by Cardiff compared to the other local authorities of Wales is the high number of people living in flats and Houses of Multiple Occupation (HMOs) at circa 30% of total properties. These types of properties have a disproportionately high level of non-participation in recycling and where recycling does take place, there are high levels of contamination within co-mingled recycling.
- 12. Cardiff also has a high proportion of HMO properties occupied by students. The short-term nature of student occupation also tends to result in low recycling performance outcomes and difficulties in bringing forward enforcement action.
- 13. WRAP benchmarks the performance of Welsh local authorities for Welsh Government across a number of improvement areas. Key performance indicators set out by WRAP for Cardiff are as follows:
 - Kerbside residual waste above average per household: 249kg/hh/yr vs. national average of 227kg/hh/yr, and best performing at 193kg/hh/yr
 - Lowest amounts of dry recycling per household: 134kg/hh/yr compared to national average of 173kg/hh/yr, and best performing 206kg/hh/yr
 - Very high MRF reject 8% of total waste arisings against national average of 2%.
- 14. A recent compositional analysis exercise of household waste in Cardiff has shown significant amounts of recyclable material in both kerbside and communal residual / black bag waste:
 - 51.9% of communal collected residual waste contained target recyclable material (21% dry recycling, 30.7% food/garden waste)
 - 42.5% of kerbside collected residual waste contained target recyclable material (8.7% dry recycling, 33.8% food/garden waste)
 - An additional 21.2% of material from kerbside collected residual could be recycled at a Household Recycling Centre, and 7.6% could be diverted to the absorbent hygiene product (nappies and incontinence pad) collection (nappies and incontinence pad) collection
- 15. The compositional analysis estimates the food collection service captures 62% of all food with high levels of food waste still presented in residual / black bag waste.

- 16. The compositional analysis of the green comingled recycling bags with Cardiff identified that:
 - 23.7% of items placed into green comingled recycling bags, collected from the kerbside were incorrect.
 - 41.4% of items placed into green comingled recycling bags, collected from flats were incorrect.
- 17. For this reason, 30% of material collected is lost for recycling, which is then used to Energy for Waste infrastructure to create energy rather than being used as a resource and made into new products. To put this into scale, this represents 10,000 tonnes of material lost in 2019/20.
- 18. Whilst educating residents and enforcing correct use (by issuing £100 fixed penalty notices) can play a part in changing behaviour, the Council understands that this can only be delivered at a small scale due to the resources required and as such wholesale changes are required to improve recycling performance.
- 19. Cardiff Council also operates an in-house trade waste service. The current level of recycling performance of 34% across the trade sector is significantly lower than the residential recycling performance. Trade waste represents circa 9% of the total of waste collected by Cardiff Council and the poor performance of this sector drags down the Council's overall recycling performance. Nonetheless, the Council remains committed to providing a trade waste service and to working with Welsh Government to improve performance in this area of its recycling work. The imminent introduction of dedicated statutory targets for trade waste by Welsh Government will help to accelerate an improvement in recycling performance. The Council's property estate, including schools, will also need to play an important part in driving improvements in recycling performance through the trade waste service.

Recycling Strategy 2022-25; 'Cleaner and Greener'

- 20. Recycling Strategy 2022-25; 'Cleaner and Greener' is attached at Appendix A. The strategy aligns to the Corporate Plan 2020-2023 objective to make Cardiff a world-leading recycling city, alongside key commitments from the Beyond Recycling national strategy. It will ensure the Council continues to improve recycling services for residents and businesses.
- 21. The main objectives of the strategy are to:
 - Improve material quality
 - Increase recycling participation and capture of priority materials
 - Increase opportunities for communities and residents to recycle
 - Make use of all available data, to develop targeted actions
 - Reduce single use plastics
 - Encourage and support the prevention, reuse and repair of materials
 - Contribute towards developing a circular economy within Wales
 - Improve the Street Scene cleanliness across Cardiff

- 22. Alongside the aims and objectives of the strategy, there are a number of core actions, including expanding recycling services for residents, which will help deliver recycling performance improvements. These are outlined in Table 1 of the draft Recycling Strategy 2022-25 attached at Appendix A.
- 23. The strategy focuses on the future management of recycling and resources in Wales with a move towards a circular economy where materials are recycled within Wales to create economic growth and provide resilience to purchasing and importing resource into Wales.
- 24. The One Planet Cardiff Strategy has set out an objective to reduce single use plastics (SUP's), specifically green recycling bags. The use of reusable bags will address the 24 million single use green bags per annum for dry mixed recycling (DMR).
- 25. The Welsh Government target of zero waste by 2050 will move recycling down the hierarchy with the priority being on minimising the use of resources in the first place Refuse, Reduce, Reuse, Repurpose and Recycle being the drivers to deliver these bold targets.

Consultation response to the draft Recycling Strategy 2022-25: 'Greener and Cleaner'

- 26. The Council undertook a formal public consultation on the Recycling Strategy 2022-25: 'Greener and Cleaner' starting on 14th February 2022 for 6 weeks. The results of the consultation are set out in the report attached at Appendix B.
- 27. There were 3,305 responses to the consultation. To help gain a better understanding of the experiences and views of Cardiff residents an additional level of analysis has been undertaken that considers responses by deprivation quintile.
- 28. The main responses to the consultation are summarised as follows:

Recycling - Segregation and Quality

- 85% of respondents agreed Cardiff needs to improve the quality of material collected.
- 48.8% agreed with comingled recycling being split into three containers, 32% felt there should be different options for different areas of the city and 19.2% wanted full kerbside collection to be considered.
- 30.5% store recycling in an external bin or container, 24.8% keep their recycling inside until collection day, 15.2% store in a garage building and 29% store outside the property.
- 98% recycle every week.
- 91.1% indicated they participate in food waste collections.

 77.7% would like to see additional materials collected from the kerbside for recycling.

Recycling - Information and education

- 35.1% feel the Council does enough to inform residents about how and what
 to recycle. Respondents proposed making better use of social media and
 other digital platforms, delivering more leaflets/letter to households, working
 with children, including schools and youth clubs and working with
 communities and volunteers to help deliver messages.
- 58.3% do not feel suitably informed about how to recycle different types of plastic.

Recycling and Re-use Centres

- 76.9% use a Recycling Centre with 91% stating the allowance of 28 visits per year is sufficient.
- 57.3% want more Recycling Centres in Cardiff with 51.7% wanting increased opportunities to donate items to be re-used.
- 88.8% would be interested in a re-use collection for large household items.

Single Used Plastics, Re-fill and Electric Vehicles

- 83.9% agree that the Council should be reducing its single use plastic impact, by moving to re-useable recycling containers.
- 72.1% would like to see increased re-fill zones throughout Cardiff.
- 85% agree the Council should look to move to electric vehicles. Supporting citizens to do the right thing
- 84.3% think the Council should develop a Zero waste map, identifying recycling, re-use and re-fill locations across the city.
- 24.9% have volunteered to improve the local environmental quality of their area.

A pilot of 3 stream segregated collection for glass, mixed containers (plastic and metal) and paper / cardboard; alongside the use of reusable bags

- 29. A pilot of segregated collection for glass bottles and jars, mixed containers (plastic and metal) and paper / cardboard; alongside the use of reusable bags was undertaken by 4,000 properties in Llandaff, Radyr, Pentwyn and Trowbridge.
- 30. The pilot was for 4,000 properties (households with frontages only) and utilised the following:

- 1 x 90L red reusable sack for containers (plastic bottles, tubs, cans, tins and aerosols)
- 1 x 90L blue reusable sack for paper and card (fibres)
- 1 x blue caddy for glass bottle and jars
- 31. The objectives of the pilot were to:
 - Measure material volumes to help determine future vehicle split
 - Monitor materials collected to assess whether contamination reduces and quality increases
 - Measure public satisfaction with reusable sacks
 - Identify any impact on Street Scene cleanliness
 - Identify appropriate round sizes for a 'one pass' three-stream recycling vehicle
 - Identify resources and costs required for change
- 32. The high-volume materials collected which influence vehicle design relate to paper and card (fibres) and containers (plastic bottles, tubs, cans, tins and aerosols). In the pilot the material split was approximately 65% paper and card and 35% containers.
- 33. The pilot demonstrated an uplift in the quality of materials received, reducing contamination to 6% compared to 30% for co-mingled recycling.
- 34. High level analysis from 2019/20 identified 10,000 tonnes of material lost to reject from comingled recycling. A reduction from 30% to 6% contamination would translate to a reduction in materials lost to reject of circa 2000 tonnes as well as delivering improvements to the city's carbon footprint by keeping resources in use.
- 35. The limited contamination within the segregated recycling generally related to a lack of understanding of what can be recycled, such as plastic bags compared to comingled recycling contamination which consisted of food, tissues, nappies etc.
- 36. As part of the pilot, the street scene was also monitored by cleansing services supervisors. Limited concerns were raised relating to litter from the re-usable bags. The improvement in relation to food contamination, alongside animal/bird-proof reusable bags meant there were no bags being ripped open.
- 37. The preferred vehicle, identified as the most successful for collecting segregated recycling, was a kerbside collection vehicle which could also support collection of other materials such as plastic bags, textiles, small electrical items.

Consultation response to the pilot of 3 stream segregated collection for glass, mixed containers (plastic and metal) and paper / cardboard; alongside the use of reusable bags

- 38. The consultation response report for the pilot of 3 stream segregated collection for glass, mixed containers (plastic and metal) and paper / cardboard; alongside the use of reusable bags is Appendix C.
- 39. There were 332 responses to the consultation.
- 40. The consultation survey was undertaken relatively early to the pilot being implemented and therefore consideration of the early acceptance of change by residents needs to be recognised in relation to longer term acceptance.
- 41. The key responses to the consultation were as follows:

Recycling - Segregation and Quality

- 37.2% stated they were satisfied with the segregation of recycling compared with 54.8% who felt dissatisfied. However, despite dissatisfaction which naturally comes with change, 90% of properties participated.
- Storage was the biggest concern with 74.3% of respondents reporting they had nowhere to store the sacks or caddy provided.
- 40% stated they found it difficult to use the sack or caddy due to a protected characteristic.
- 40% found the recycling 'too much effort'.

Residual waste

 67.3% stated they filled their residual bin compared to 32.7% who stated they had spare capacity within their residual bins,

Reusable bags

- 67.8% stated the size of the blue sacks (paper and card) were about right with 10.9% stating they were too large and 21.3% stating they were too small.
- 65.4% stated the size of the red sacks (containers) were about right with 13.2% stating they were too large and 21.4% stating they were too small.
- The main concerns about the reusable sacks was around the quality/design and weight of the sacks to stop them blowing around.

Storage of recycling

Most respondents stored their recycling in their back garden at 35.5%

21.2% stated storage was a challenge for them.

Collections

- 84.8% stated they would need a weekly collection of recycling.
- Only 39.9% put their glass bottles and jar caddy out every week.

The change programme to deliver improvements

- 42. Delivery of the Recycling Strategy will require significant change to the Recycling and Neighbourhood Service. The programme for change will support the followings aims:
 - To reduce the Council's and residents' impact on climate change.
 - To improve recycling performance and to value resources by keeping them in use as long as possible and avoid waste.
 - To provide sustainable improvements to services for the residents of Cardiff by delivering effective and efficient services within the set budgetary framework.
- 43. The main programme of change is as follows:
 - Expand segregated recycling to households (excluding flats and HMO's)
 using re-usable sacks and caddies to reduce the need for single use plastic
 bags.
 - ii. Review the expansion of kerbside collection services to cover items currently not collected at the kerbside.
 - iii. Prioritise education and enforcement of food recycling to improve participation in the existing service and improve the current 62% capture.
 - Review of approaches to reduce residual waste to support improving compliance for recycling.
 - v. Develop the business case to move from a Material Recovery Facility to a Material Handling Facility required to manage segregated recycling.
 - vi. Improve recycling in flats and HMO's by the use of pilots to inform the business case and modelling for recycling from these properties.
 - vii. Develop the business case for Recycling Centres and Re-Use Centres across Cardiff.
 - viii. Deliver improvements to Street Scene Services to support improvements in cleansing and enforcement following collections.
 - ix. Improvements to the trade / business waste model to improve recycling and meet new legislative requirements.

- x. Identification of wider Council / service area change to value resources and minimise the Council's impact on climate change.
- 44. A communication and information campaign will be designed to support residents to understand the changes they will need to make, and the reasons for them. The campaign will consider:
 - Local communication and support to the specific area that is moving to a new system.
 - Working with community groups on aspects such and cultural and language barriers.
 - Face to face and street-level explanations and not just relying on printed information.
 - Utilising local members and community partners to support the changes
 - Having simple visual information sheets that can also be used via social media.
 - Being clear that the changes are linked to climate change and street cleanliness.
- 45. The business case and associated finance to deliver the change will be considered for each change or group of changes. The service is striving to deliver sustainable improvements with no or limited impact to the Medium-Term Financial Plan. However, the service recognises there will be a requisite for one-off funding to support the change programme, such as communication with residents and dedicated programme/project management.
- 46. There will be a need to have more vehicles and officers to deliver the service compared to comingled recycling. However, this will be offset by future reductions in the need to sort the comingled recycling at a material recovery facility and improvements in the income received for recycling collected.
- 47. As part of the delivery of improvements, the Service will utilise appropriate grant opportunities from Welsh Government to support the delivery of change and associated costs of the improvement where appropriate.
- 48. The above programme will mean significant change to residents, as well as services. Therefore, Recycling and Neighbourhood Services will need to continue to engage closely with residents and community groups. A waste and litter advisory group has recently been established to provide advice to the council from voluntary groups and partners.
- 49. The Council will also further develop its proactive programme of engagement with the local universities through the City University Strategic Partnership Board to work with students to improve recycling compliance.
- 50. The Supplementary Policy Guidance for the storage of recycling and waste will require to be updated in relation to the changes to inform new developments and modification of existing properties, such as houses of multiple occupancy.

Local Member Consultation

51. The draft Recycling Strategy 2022-25 was published for public consultation through a resident survey on 14th February 2022 for 6 weeks. The feedback from the consultation supported the development of the final Recycling Strategy 2022-25 and the development of actions to deliver improvements.

Scrutiny Consideration

52. Environmental Scrutiny Committee reviewed the consultation response report to the Recycling Strategy 2022-25 on 22nd July 2022. They will consider this report on 26 September 2022. Any comments received will be reported to the Cabinet meeting.

Reasons for Recommendation

53. To report the results of the public consultation on the Recycling Strategy 2022-25; 'Cleaner and Greener' and to seek authority to implement the Strategy.

Financial Implications

- 54. The report updates Cabinet as to the outcomes of the public consultation exercise on the draft Recycling Strategy 2022-25 and seeks approval for a phased programme of change to improve future recycling performance.
- 55. The statutory target is to achieve a recycling performance of 64% between 2019/20 and 2023/24. This increases to a target of 70% from 2024/25 onwards. The failure to meet the 64% target could result in a fiscal penalty of £2 million and this penalty will continue to be in place until recycling performance meets the statutory target level.
- 56. It is anticipated that the proposed service changes and the action plan as set out in the strategy will support an improvement in performance and reduce the risk of a future fiscal penalty. This position will need to be closely monitored and updated following any outcome of the ministerial review planned for later in the financial year.
- 57. The report does not set out the estimated costs of proposed service improvements and changes and does not identify any related additional funding demands. In approving this strategy, members should note it is proposed that business cases to deliver related change will be presented for consideration. This should be on a case-by-case basis, apply to all changes and improvements proposed as a result of service reviews, any future partnerships and modelling. Business cases must be robust, fully costed and affordable as part of the Council's overall budget framework and medium-term financial plan. Updates will be brought back as future papers to Cabinet.
- 58. Changes in strategy will result in a need for additional capital investment in vehicles, equipment and depot infrastructure. Any such investment must be considered in line with the Corporate fleet strategy currently under development and align with other corporate priorities including the One Planet Cardiff strategy.

- 59. This will include any proposals relating to vehicles which must be considered in line with the Corporate fleet strategy currently under development and align with other corporate priorities including the One Planet Cardiff strategy.
- 60. The report seeks approval for the proposed expansion of segregated recycling alongside the use of reusable bags and indicates that this proposal will require additional revenue funding for operatives and vehicle costs. These costs are not identified and it is proposed that increased costs of the expanded service will be offset by future savings from a reduced need for costs associated with the sorting of comingled recycling and increased income from the sale of higher quality recyclables. Further pilot work is additionally proposed in relation to Houses in Multiple Occupation and flats.
- 61. The report identifies that a further £800,000 is currently spent annually on purchasing and distribution of green recycling bags and proposes that this budget is repurposed to fund these service changes.

Legal Implications

- 62. The Council, as a waste collection and waste disposal authority, has various duties under waste legislation with regards collection and disposal of waste. Generally, the Council has a duty to collect household waste and, if requested, commercial waste and industrial waste. The Council also has a duty have a duty to arrange for the disposal of controlled waste collected in its area by it, and for places to be provided at which persons resident in its area may deposit their household waste and for the disposal of waste so deposited.
- 63. The Council is also required to provide HWRC sites and is required to make arrangements including the area it is situated in, availability of such sites to deposit waste and free of charge to residents. Amongst other things, the arrangements (with regards HWRC sites) may restrict the availability of specified places to specified descriptions of waste.
- 64. Generally, the Council cannot charge for collection of household waste. However, one exception is the collection of bulky waste (as defined by controlled waste legislation). The Council can also charge for garden waste. Any charge should be reasonable.

Equality Duty

65. In considering this matter, the Council must have regard to its public sector equality duties under the Equality Act 2010 (including specific Welsh public sector duties). This means the Council must give due regard to the need to (1) eliminate unlawful discrimination, (2) advance equality of opportunity and (3) foster good relations on the basis of protected characteristics. The protected characteristics are: age, gender reassignment, sex, race – including ethnic or national origin, colour or nationality, disability, pregnancy and maternity, marriage and civil partnership, sexual orientation, religion or belief – including lack of belief.

66. When taking strategic decisions, the Council also has a statutory duty to have due regard to the need to reduce inequalities of outcome resulting from socio-economic disadvantage ('the Socio-Economic Duty' imposed under section 1 of the Equality Act 2010). In considering this, the Council must take into account the statutory guidance issued by the Welsh Ministers (WG42004 A More Equal Wales The Socio-economic Duty Equality Act 2010 (gov.wales) and must be able to demonstrate how it has discharged its duty.

Wellbeing of Future Generations (Wales) Act 2015 - Standard legal imps

- 67. The Well-Being of Future Generations (Wales) Act 2015 ('the Act') places a 'well-being duty' on public bodies aimed at achieving 7 national well-being goals for Wales a Wales that is prosperous, resilient, healthier, more equal, has cohesive communities, a vibrant culture and thriving Welsh language, and is globally responsible.
- 68. In discharging its duties under the Act, the Council has set and published well being objectives designed to maximise its contribution to achieving the national well being goals. The well being objectives are set out in Cardiff's Corporate Plan 2021-24. When exercising its functions, the Council is required to take all reasonable steps to meet its well being objectives. This means that the decision makers should consider how the proposed decision will contribute towards meeting the well being objectives and must be satisfied that all reasonable steps have been taken to meet those objectives.
- 69. The well being duty also requires the Council to act in accordance with a 'sustainable development principle'. This principle requires the Council to act in a way which seeks to ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs. Put simply, this means that Council decision makers must take account of the impact of their decisions on people living their lives in Wales in the future. In doing so, the Council must:
 - Look to the long term
 - Focus on prevention by understanding the root causes of problems
 - Deliver an integrated approach to achieving the 7 national well-being goals
 - Work in collaboration with others to find shared sustainable solutions
 - Involve people from all sections of the community in the decisions which affect them
- 70. The decision maker must be satisfied that the proposed decision accords with the principles above; and due regard must be given to the Statutory Guidance issued by the Welsh Ministers, which is accessible using the link below: http://gov.wales/topics/people-and-communities/people/future-generations-act/statutory-guidance/?lang=en

General

- 71. The decision maker should be satisfied that the procurement is in accordance within the financial and budgetary policy.
- 72. The decision maker should also have regard to, when making its decision, to the Council's wider obligations under the Welsh Language (Wales) Measure 2011 and the Welsh Language Standards.
- 73. The report also sets out that consultation is going to be undertaken with the public. Any consultation must be adequate and fair. The carrying out of consultation gives rise to a legitimate expectation that the outcome of the consultation will be considered as part of the decision making process.

Property Implications

74. The report does not include any direct property implications. Where there are any property transactions or valuations required to deliver any proposals in the future, they should be done so in accordance with the Council's Asset Management process and in consultation with Strategic Estates and relevant service areas.

HR Implications

- 75. The information held within this report has been previously consulted on with the Trade Unions and employees within the service are aware of the proposed plans. This consultation will continue as the strategy is implemented with both trade unions and employees being kept fully up to date.
- 76. Any employee implications that arise from the strategy will be assessed as part of the full business cases for any changes. However, any changes for employees or additional resources required will be fully consulted on as part of the business cases and will be carried out in compliance with corporately agreed processes.

RECOMMENDATIONS

Cabinet is recommended to:

- i) Note the results of public consultation on the draft Recycling Strategy 2022-25: 'Greener and Cleaner' attached as Appendix B.
- ii) Approve the Recycling Strategy 2022-25: 'Greener and Cleaner' attached as Appendix A.
- iii) Note the outcomes of the segregated recycling pilot undertaken by 4,000 properties.
- iv) Agree in principle to the programme of change set out in the Recycling Strategy 2022-25: 'Greener and Cleaner' and this report and delegate authority to the Director of Economic Development in consultation with the Cabinet Member for

Climate Change to roll-out the phased implementation of the programme including:

- The phased roll-out of segregated recycling as set out in this report across household properties in Cardiff.
- The phased roll-out of reduced residual waste collections as set out in this report to improve the level and quality of recycling across household properties in Cardiff.
- Undertake further pilot work in relation to Houses of Multiple Occupancy and Flats to improve recycling performance including the testing of communal segregated recycling bins.
- Review the expansion of kerbside collection services to cover items currently not collected at the kerbside.
- Enhance and strengthen education and enforcement to deliver improved recycling compliance across household properties in Cardiff.
- Develop the business case to move from a Material Recovery Facility to a Material Handling Facility required to manage segregated recycling.
- Improvements to the trade / business waste model to improve recycling and meet new legislative requirements.
- Identification of wider Council / service area change to value resources and minimise the Council's impact on climate change.
- v) Note the plans to enhance the cleansing service, including the move balanced resourcing and 'same day cleanse' following collections for inner wards.
- vi) Note the development of a business case for a future repair and re-use 'superstore'. A further report will be brought regarding the business case.

SENIOR RESPONSIBLE OFFICER	NEIL HANRATTY
	Director Economic Development
	22 September 2022

Appendix A - Recycling Strategy 2022-25; 'Cleaner and Greener'

Appendix B - Consultation response report for draft Recycling Strategy 2022-25; 'Greener and Cleaner'

Appendix C - Consultation response report for the pilot of 3 stream segregated collection for glass, mixed containers (plastic and metal) and paper / cardboard; alongside the use of reusable bags

Appendix D – Equality Impact Assessment

The following background papers have been taken into account:

The Recycling, Preparation for Re-use and Composting Targets (Monitoring and Penalties) (Wales) Regulations 2011 https://www.legislation.gov.uk/wsi/2011/1014/contents/made

Cardiff Council Waste Compositional Analysis. Waste composition analysis of kerbside collected and communally collected household waste in Cardiff. WRAP/resourcefutures. September 2021.





The Recycling Strategy for Cardiff

2022-2025: Cleaner and Greener

FINAL VERSION



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Foreword



Councillor Caro Wild Climate Change

The science is clear that we will soon be facing a point of irreversible and catastrophic climate change, unless we take drastic action now. Clearly, in an emergency, a business-as-usual approach is no longer sufficient and we cannot escape the fact that, as a city, Cardiff is emitting more than its fair share of carbon.

Nowhere is this more apparent than in the amount of waste we produce. It is, perhaps, the most visual example of our climate footprint and driving up recycling will make a major contribution to the planet as it conserves natural resources, reduces demand for raw material, saves energy and cuts emissions.

Tackling climate change will require bold leadership from Government at all levels, innovation and a step change in behaviour across the private sector and, crucially, small but important changes in how we live our lives.

We can be proud that Wales is playing a leadership role in designing and implementing some of the most sustainable recycling and waste strategies in the World. We are currently the third best nation for recycling worldwide with Cardiff performing well in relation to other core cities in the UK. We recognise, however, that we lag behind other authorities in Wales in terms of our recycling performance.

There are some major challenges we must recognise and address if we are to improve Cardiff's recycling performance.

- The amount of waste we are producing is increasing.
- We are not recycling as much as we can. A massive 70% of items inside our general
 waste could be recycled, either through kerbside collections or at the household
 recycling centres. Instead, this is sent to the incinerator.
- We are not recycling correctly. Including items which can't be recycled, such as food and nappies, in our green bags means that 30% of our recycling has to be sent to the incinerator.

This approach is fundamentally unsustainable. It's bad for the environment and it is bad for the public purse. We simply cannot continue to collect incorrectly presented waste at everyone's doorstep, have it sorted out or burnt.

There is a much more sustainable way of managing our waste, that vastly reduces our carbon footprint and respects the earth's valuable resources. This strategy sets out that approach.

We must reduce the amount we use and re-use wherever we can. This means segregating our recycling so it can be re-purposed and developing a circular economy where we properly manage waste as a valuable resource.

We have undertaken extensive consultation and engagement with residents on what a new approach might look like, and conducted pilots in different parts of the city. We know that there is support to making these changes, but we appreciate that these changes will not always be easy. Doing the right thing rarely is.

This strategy sets out what we can do, together, to:

- 1. Reduce our carbon footprint and help tackle climate change;
- 2. Make better use of materials and create a circular economy that will provide more jobs and a more sustainable economy;
- 3. Help make our streets cleaner by presenting waste properly so that it can collected quickly and effectively.

At the heart of these changes will be our brilliant workforce who work tirelessly every day, in freezing winters and scorching summers, to clean up our city. As part of this strategy we will ensure that we continue to support staff and create the right working environment.

This strategy sets out the positive changes needed to make Cardiff a Stronger, Fairer and Greener City.

We need everyone to get behind it.

Executive Summary

Cardiff is already one of the best cities for recycling in the UK and Europe. The purpose of The Recycling Strategy for Cardiff (2021-25) is to drive up our recycling performance even further.

This Strategy reaffirms our commitment to achieving the Welsh Government's statutory recycling targets and sets our intention to move 'Beyond Recycling' by keeping resources in use and avoiding waste. It also sets out how we will more effectively manage the city's waste to help meet the aims of our 'One Planet' strategy and support the transition to net zero Carbon by 2030.

The strategy focuses on three key areas of intervention:

- 1. Improving the recycling performance of the Council's Trade waste service.
- 2. Expanding the residential recycling service to include new segregation streams.
- 3. Diverting recyclable materials from the residual (non-recyclable) waste stream.

We know that there are a number of challenges facing us. Many of the challenges facing Cardiff, as a large urban area, are unique in a Welsh context. Issues such as a diverse housing stock, transient populations, a high proportion of businesses and a regular programme of major events present Cardiff with a range of challenges.

Alongside this, we know that the quality of our recycling is currently poor. Around 30% of the material within our green bags should not be there, meaning that materials that could be recycled have been contaminated and must therefore be burnt. That's almost 10,000 tonnes of valuable recycling material lost in 2021.

Worse still, if recycling bags contain material that shouldn't be there, such as food, it can be attacked by seagulls and other animals, creating an unsightly mess. Our dedicated team of waste collectors and committed network of volunteers work hard to clear Cardiff streets, but their job is made so much harder if we do not recycle properly.

Currently, we also provide over 27 million single use plastic bags a year for recycling. This simply needs to stop. Moving forward, the Council will need to provide re-useable containers which will be suitable for use across our diverse housing stock, in addition to encouraging the correct presentation of waste.

Finally, we know that 70% of the material within the general waste collected from the pavements could be recycled. We need to work with residents, alongside reviewing our collection methodology, to ensure that all of this material is recycled in the correct way.

Taken together, failing to recycle properly is bad for the environment, bad for the public purse and is bad for our local neighbourhoods. All these issues can be addressed by improving the quality of material by taking the actions set out in this strategy.

1. Aims, Objectives & Actions

The Aims of the Recycling Strategy are to:

- 1. Improve material quality
- 2. Increase recycling participation and capture priority materials
- 3. Increase opportunities for communities and residents to recycle
- 4. Make use of all available data, to develop targeted actions
- 5. Reduce single use plastics
- 6. Encourage and support the prevention, reuse and repair of materials
- 7. Contribute towards developing a circular economy within Wales

Alongside the aims and objectives of the Strategy, there are a number of core actions, which will help deliver Cardiff's vision. These are set out in Table 1 below.

Table 1: Final Strategy Objectives and Actions

Aims	Objectives
Improve Material Quality	Expand the recycling service to offer separate collection of glass ** (bottles and jars), fibres (paper and card) and containers (cans and plastics)
	Reduce compostable garden waste contamination, through education and enforcement strategies, and a full service methodology review
Increasing Recycling participation and capture of priority	Review Trade practices to improve performance and comply with non-domestic waste regulations. This will include changing collection methodology and targeting recycling contracts
materials	Relaunch an enhanced 'Really Rubbish' Campaign with schools and commercial trade to promote recycling services (and composting in Schools).
	Review recycling in flats and rented accommodation to increase performance, working with relevant partners such as Rentsmart Wales and WRAP Cymru
	Permanently adopt and enforce a no mixed bag/ bag sorting policy at Household Waste Recycling Centres.
	Review site layout and signage, booking in system and effective customer engagement at Household Waste Recycling Centres.
	Increase cleansing recycling performance through segregation of litter-picked waste and recycling litterbins
	Review residual waste provision and introduce measures to increase participation in food waste service
Increase	Implement static and mobile recycling facilities within local communities
opportunities for communities and residents to recycle	Expand Markets & collection opportunities for additional materials – Absorbent Hygiene Products (nappy and incontinence waste)/coffee pods/tetrapak/plastic film
Make use of all	Undertake a Composition Analysis to determine the materials to target
available data, to develop targeted	Monitor Participation to inform targeted activity
actions	Progress the Pink Sticker Campaign based on the principal of educate first, with removal of bins where there is repeat contamination Be Mighty Recycle Campaign/Keeping up with the Jones'
	Review all recycling contracts, to ensure minimum recovery rates are being met (where specified) and identify improved recovery
Reduce single use plastics	Implement re-usable containers for recycling
	Single use plastics strategy

	Expand water re-fill across the City, promoting re-usable bottles
Encourage and	Wastesavers Reuse Centre at Lamby Way
support the	Collaborate on community activities such as Benthyg/Repair Café Wales
prevention, reuse and repair of materials	CLARE Wales Repair Directory
•	Develop a Zero Waste Map
	Develop a business case for a re-use/repair/education hub within the City
Contribute towards developing a circular	Work with partners- such as CLARE Wales- to develop regional solutions
economy within	Continue existing processing partnerships, such as Prosiect Gwyrdd
Wales	Take an active role in supporting the 'Dyfodol Gwyrdd Glân', / 'Clean Green Future' collaborative partnership for Welsh Local Authorities and the Welsh Government – seeking regional processing solutions for materials such as Absorbent Hygiene Products

2. National Context

The Recycling Strategy for Cardiff is framed by a range of legislative influences and national events (e.g. the COVID-19 pandemic) which shape and determine the waste produced and how it is processed.

This section of the strategy sets out the national context, recognising the contextual changes which can impact waste production, collection and end markets.

2.1 Legislative Drivers

The importance of the environment and the conservation of natural resources is increasingly recognised and supported by national and international policy and regulation, which aims to reduce the environmental impact of consumption and the production of materials.

In Wales, at the national level, there are two key policy documents to consider: Towards Zero Waste - The Waste Strategy for Wales (2010); and Beyond Recycling - A Strategy to make the Circular Economy in Wales a Reality (2021). These documents establish the key statutory performance requirements for local authorities in Wales, in support of the Welsh Government's long-term ambition for a sustainable and waste free Wales. Other relevant Welsh Government and Central Government policies and legislative acts relating to sustainable development, improved environmental outcomes and addressing climate change include:

- The Waste (England and Wales) Regulations 2011
- Towards Zero Waste The Waste Strategy for Wales (2010)
- Waste (Wales) Measure 2010
- Well-being of Future Generations (Wales) Act 2015
- Environment (Wales) Act 2016
- Climate Change Strategy for Wales

The Wellbeing of Future Generations Act is of particular importance in Wales with the sustainable development principles- as expressed through the Five Ways of Working-considered as part of the development of this strategy. The strategy also includes actions that are designed to improve economic, social and environmental outcomes.

2.2 Towards Zero Waste, a Circular Economy and Beyond Recycling

The Welsh National Waste Strategy, "Towards Zero Waste" was launched on 21 June 2010. The strategy set out a series of challenging statutory recycling targets, as outlined in Table 2 below.

Table 2: Statutory Recycling Targets

Target for LA Collected Waste	2019/20	2024/25
Minimum overall recycling	64%	70%
Maximum level of landfill	10%	5%
Maximum level of energy from waste	36%	30%
Biodegradable Landfill Allowance	33557t	-

Nationally, impressive progress has been made towards the targets, and Wales ranks as number 1 recycling nation in the UK, 2nd in Europe and 3rd in the World. Significant progress has also been made with regards to reducing reliance on landfill.

Although Cardiff has made substantial strides forward, in 2021/22 the city fell short of the 64% recycling target. As a result, the Council is now working closely with the Welsh Government to review a series of options to help improve recycling performance.

Looking to build upon the success of the previous strategy, the Welsh Government published their Circular Economy Strategy for Wales – Beyond Recycling, on 2 March 2021.

The national aim is to move to a circular economy in Wales, where waste is avoided and the things we use are kept in use as long as possible. This is an important part of the action needed on climate change. Welsh Government, and by extension Cardiff Council, is seeking to make the process of managing waste 'Cleaner, Greener, Fairer', through 6 core themes and 8 headline actions. The 8 headline actions are as follows:

- 1. Support businesses in Wales to reduce their carbon footprint and become more resource efficient
- 2. Provide the tools to enable community action
- 3. Phase out unnecessary, single use items especially plastic
- 4. Eradicate avoidable food waste
- 5. Procure on a basis which prioritises goods and products which are made from remanufactured, refurbished and recycled materials or come from low carbon and sustainable materials like wood
- 6. Strive to achieve the highest rates of recycling in the world
- 7. Reduce the environmental impact of the waste collection from our homes and businesses
- 8. Take full responsibility for the full lifecycle our waste

In addition to the themes and headline actions, the strategy sets a number of significant targets for Welsh Local Authorities:

 Table 3: Beyond Recycling Targets

By 2025	26% reduction in waste
	Zero waste to landfill
	50% reduction in avoidable food waste
	70% recycling
By 2030	33% reduction in waste

	60% reduction in avoidable food waste
By 2050	One planet resource use
	62% reduction in the waste
	Zero waste
	Net zero carbon

Note: All waste reduction targets are set against a 2006-07 baseline

As the Welsh Government looks 'Beyond Recycling' to waste reduction and the circular economy, it is imperative that this strategy sets out not only how to achieve the current recycling targets, but also how the city will adapt to these new requirements in the future. Consideration must therefore be given to improving the quality of materials collected, waste minimisation through behavioural change and supporting community re-use and repair, the greener collection of materials and how we will work together with residents, partners and neighbours to meet wider goals and agendas.

2.3 Climate Change

Beyond Recycling, the Welsh Government strategy to make the circular economy a reality makes clear that:

'We are still in the midst of a climate emergency: globally, we are experiencing unprecedented climate events; we are on track for temperature rises above 2°C; one million species are threatened with extinction due to climate change and the overexploitation of natural resources; and there is increasing evidence of the adverse impacts that plastic is having on the environment and living organisms. Here in Wales, we are already feeling the effects with flooding and other extremes of weather becoming more commonplace. These challenges bring important opportunities to positively shape our future.'

Climate change is significantly impacted by unsustainable consumption and disposal practices. The circular economy approach is key to tackling over-consumption, whilst also instigating social and economic improvements for Wales. Small changes made across a city can have a big impact when it comes to slowing the negative impact of climate change.

By recycling material in 2020/21, Cardiff's residents avoided 36,000 tonnes of CO2 emissions being released into the atmosphere (www.myrecyclingwales.org.uk). Increasing the city's recycling rate, and reducing waste sent to energy recovery facilities throughout the life span of this strategy will continue to further reduce CO2 emissions and help make Cardiff a net zero city by 2030.

3. Local Context

3.1 Current Service Provision

Cardiff provides the following services as part of its household waste and recycling collection scheme:

- Weekly collection of mixed, dry recyclables in green, single use bags. There is no limit to the amount of bags that are collected per property.
- Weekly collection of food waste using a brown 25 litre kerbside caddy. Kitchen caddies, and biodegradable kitchen caddy liners are provided free of charge.
- Compostable garden waste is collected within a 240L green bin, or 90L white re-useable sack (in areas where wheeled bins are not suitable). Up to 2 green bins, or 5 re-useable sacks will be collected per property. Garden Waste is collected fortnightly in the spring/summer, and less often in the winter. There is no annual charge for the collection of garden waste, though additional or replacement containers are chargeable.
- Non-recyclable waste is collected in a 140L wheeled bin, or up to 3 black bags for properties that cannot have a wheeled bin. Residual waste is collected fortnightly. Additional capacity is provided, via a recycling officer assessment. No additional bags next to bins are collected, and bin lids must be fully closed.
- Hygiene waste (child nappies, incontinence pads and associated changing waste) is collected fortnightly, on the opposite week to non-recyclable waste. Residents need to sign up to this service.
- Bulky waste collections can be booked in advance via the contact centre, mobile app or website. Items that can be fully recycled, with high recovery rates and limited disposal fees, are collected free of charge. Non-recycled items are collected at a pricing structure of up to 2 items for £12.50, increasing to a maximum of 6 items.

In addition to the above, Cardiff Council provides two Household Recycling Centres, one at Lamby Way and one at Bessemer Close. The Recycling Centres have recycling facilities for over 20 items. Residents must book to visit, and are limited to 26 visits per year as standard (by car). Van bookings are further restricted to 12 visits per year, and 1 per month. Mixed bags of waste are not accepted. Residents must sort waste before arrival, and we will explore the opportunity to provide facilities to allow them to sort waste on site.

A trade weighbridge service is also provided at Bessemer Close, which is a chargeable outlet for businesses to recycle and dispose of a variety of materials.

What happens to the material collected?

Cardiff works in partnership with neighbouring local authorities, to process and sort material within our own boundaries.

Food waste is taken to an Anaerobic Digestion plant, run by Welsh Water. Here, food waste breaks down without oxygen aided by heat. Through the anaerobic digestor, gases produced are harnessed to make heat and electricity whilst creating a fertiliser from any remaining product to be used in agriculture.

Mixed dry recyclables are taken to the Council's Materials Reclamation Facility (MRF) at Lamby Way, Rumney. Through a mixture of machine and hand sorting, materials are

separated and baled to move onwards to processors to be recycled into new products. You can find out where your recycling goes at www.myrecyclingwales.org.uk

The MRF is run effectively by a dedicated team of staff, working in a challenging environment. This challenge is further exacerbated by the level of incorrect items that are placed into green recycling bags. While the equipment and staff are able to deal with commonly misplaced items such as flexible plastic, they are not able to deal with dirty contamination such as food waste and nappies. Not only do these reduce the quality of material, and impact the machinery, they also have a negative impact on the environment our staff work in.

In addition, as the City has grown and amounts of recycling collected increased, space and ability to process all recyclable material has become a challenge. Infrastructure change is needed, and the Council is working with WRAP Cymru and Eunomia to complete a review to ensure our recycling facilities are fit for the future.

Garden waste is taken to a composting site at Lamby Way, where it is turned into soil improver through an open windrow process. The material is delivered to site, where it is then shredded, piled into windrows and regularly turned. The whole process is natural, with natural heat generated and breaking down the material. At the end of the process, the material is separated into different size fractions via a trommel screen, and moved on to the product market. The compost is also provided to a number of community facilities and schools on request, such as the new Railway Gardens site and to fill Love where you Live community planters.

Non-recyclable waste is taken to an Energy Recovery Facility - run by Viridor - where it is used as fuel for energy recovery. The facility generates 250GWH of electricity for the national grid, which is enough to fuel 68,000 homes. Energy recovery works by burning waste at high temperatures, under carefully controlled conditions. The electricity produced is fed into the national grid. The process also produces 'bottom ash' which can be recycled as aggregate material as well as transporting remaining metal on to metal processors.

You can see a short video of the journey of Cardiff's waste here:

<u>Cardiff's Waste Journey / Siwrnai Gwastraff Caerdydd (English) - YouTube</u>
or visit <u>www.youtube.co.uk</u> and search 'Cardiff's waste journey'

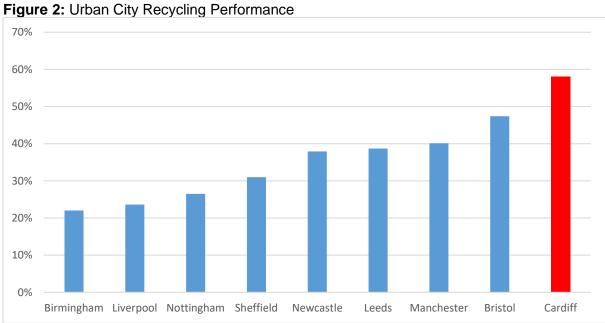
3.2 Current Performance and Comparisons

On 26 November 2021, the final validated 2019-20 Local Authority Recovery Target (LART) figures from Natural Resources Wales (NRW) were published. The figures are produced under NRW's duties as the Monitoring Authority as specified in the Recycling, Preparation for Reuse and Composting Targets (Monitoring and Penalties) (Wales) Regulations 2011. As Figure 1 shows, Cardiff did not meet the 2019-20 statutory minimum target for the percentage of municipal waste which must be recycled, Measure 2010. Cardiff's recycling performance in 2019-20 was validated at 58.14%, nearly 6% below the statutory target of 64%.

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Figure 1: Wales Recycling Performance 2019-20

The Council understands the need to deliver another step change in performance. However, as the largest authority in Wales, with the biggest urban mass and highest density of businesses, there are very specific characteristics that make meeting the statutory recycling targets challenging. Larger, more urban cities, will naturally face greater challenges when it comes to increasing recycling performance. When compared to core cities across the UK, Cardiff's kerbside recycling performance compares very well (see Figure 2).



Note: The data for English authorities only includes household waste, whereas Welsh data incorporates all municipal waste (i.e. cleansing and Trade waste).

Despite falling short of the Welsh Government's target, Cardiff has areas of strength. In 2021/22, Cardiff saw a 9% increase in food waste collected from the kerbside and a 4% reduction overall in the amount of waste collected from the kerbside. Improvements to the operating of the Household Recycling Centres now sees recycling performance at over 87% with a 74% reduction in non-recyclable waste since the implementation of new controls.

A recent compositional analysis of green bags across the City found that there was 41.4% contamination in dry recycling bags collected from flats compared with 23.7% contamination in green bags collected from households.

The compositional analysis (Appendix 6) also indicates that there are still large volumes of food waste and recycling entering the residual waste stream. Waste collected from flats had the highest proportion of recyclable materials with 51.9% of the residual waste stream containing target recyclable material. Residual waste collected from households contained 42.5% target recyclable material (a large proportion of which was food waste). Whilst there is less recyclable material in household collected waste than there is in the flats collected waste, it is evident that there is still a significant amount of target material going to waste.

It is therefore essential that as well as improving material quality, we increase the amount of material segregated for recycling at the kerbside.

3.3 Achievements to Date

Whilst Cardiff has not yet met the 64% target, Cardiff Council remains fully committed to working collaboratively to improve recycling performance and to meeting both the 64% and 70% statutory performance target by 2024/25. Improvements to waste management and recycling performance are a fundamental part of the city's strategy.

The approach being taken is to look at the whole life of recycling materials; from supporting resident participation and behaviours, implementing efficient and effective collections to supporting ongoing participation, and managing how and where materials are recycled to deliver a circular economy and to reduce the associated carbon impacts.

A number of improvements have been introduced since the last strategy enabling the majority of aims set out in the Waste Strategy for Cardiff 2018-21 to be achieved. A full gap analysis has been undertaken, comparing performance against the objectives set out in the last strategy, attached at Appendix 1. The most significant achievements include:

- Introducing a segregated recycling trial at 4000 properties, consisting of separate containers, fibres and glass collections (following on from a separate glass collection pilot)
- Expanding the wheeled bin service where possible, reducing the number of single use bags provided for residual waste.
- Introducing a 4 day collection week, involving:
 - Rezoning the city and increasing round efficiency
 - Removing double shifting of vehicles and staff, meaning better opportunity for vehicle maintenance.
 - Removing the confusion around Bank Holiday Monday collections
 - Improving Value for Money
- Establishing a Reuse Facility at Lamby Way Recycling Centre in Partnership with Wastesavers (September 2021). Since opening, this facility has diverted 67t from the household recycling centres for re-use
- Introducing new controls at the Recycling Centres to facilitate an increase in recycling performance from 73% to 87%, including a no mixed bag policy, improved signage and recycling availability and booking system. This means that Cardiff is now has one of the best recycling performance for a Recycling Centre across Wales.

- Expanded Trade skip service to facilitate recycling skips.
- Developed new recycling infrastructure at hubs to facilitate small electrical items, printer cartridges, batteries and CDs/DVDs/Books recycling (collecting over 500KG so far).
- Continued to work with WRAP Cymru to undertake a review of potential waste collection systems, comparative costs and benefits.
- Commenced a full trade waste, and material processing review with WRAP Cymru.
- Introduced 12 electric vehicles to the service fleet, with 5 more eRCVs on order.
- Introduced a system to facilitate the recycling of materials collected during community litter picks.
- Implemented the 'Pink Sticker' campaign to highlight recycling containing non-recyclable materials. This supports the engage, educate, empower and enforce model for behaviour change, to improve behaviours towards recycling and reduce recycling contamination.
- Allowed asbestos to be accepted at Recycling Centres to tackle the negative impact of asbestos contamination on garden waste recycling. In 2019/20, 30 tonnes of garden waste was contaminated by asbestos with the requirement to dispose at specialist landfill sites.
- Implemented trials to improve recycling participation and quality in blocks of flats, while building relationships with Bristol Council, Swansea Council and WRAP Cymru to collaboratively develop further improvements.
- Engaged with 3326 residents through community engagement activity- including 845 school children- through the Really Rubbish Campaign between June 2021 and June 2022,.
- Ran mobile recycling facilities throughout the City,

3.4 Challenges

Whilst the above measures have been introduced, there has not been a significant improvement in Cardiff's recycling performance since 2016/17. This is partly due to Covid delaying the progress and visibility of some of these changes, and partly due to the fact that increasing performance is inhibited by a number of challenges.

In section 5, the strategy outlines how we will improve performance through a myriad of actions, but first it is important to contextualise the plan of action by outlining the challenges faced by an urban authority. These can be categorised into 4 key areas:

- Flats and Houses of Multiple Occupancy (HMO's)
- Socio-demographic variables
- Trade and events
- Housing and population growth

Flats and HMOs

Approximately 30% of the total number of properties in Cardiff are flats, normally serviced by communal bin arrangements. Improving the quality and quantity of recycling from flats is recognised nationally as a challenge with no identified blueprint to resolve this issue.

In addition, Cardiff also has a high volume of registered Houses of Multiple Occupancy (HMOs) serviced by the kerbside collection scheme. HMOs present a unique set of challenges for local communities and the Local Authorities. In areas with a greater number of HMOs such as those areas near University campuses, the density of the local population is higher, and, therefore, the demand for services like waste and recycling is greater. HMO households are also frequently associated with lower recycling levels and excess waste and present specific challenges in engaging with residents

The scale of the challenge is underscored by fact that there are 50,000 flats in Cardiff. This is higher than the entire housing stock of authorities such as Anglesey, Denbighshire, Ceredigion, Merthyr, Blaenau Gwent, Torfaen and Monmouth (StatsWales 2019 data).

Off these flats, 42,000 are in blocks of 4 or more, with communal collection arrangements. The high proportion of flats and HMOs creates very specific issues. People who live in flats recycle much less than those who live in houses, though there is a lack of substantive evidence about exactly why this is, or how it might be improved¹.

The fact that 30% of the housing stock is comprised of flats may contribute towards Cardiff's disproportionately high recycling reject rate. At present, 8% of dried mixed recycling (DMR) is rejected in Cardiff, compared with a Wales average of 2%. The Council is committed to working with WRAP Cymru to undertake further analysis of the composition of recyclables collected from flats, to scrutinise this assumption. It is acknowledged that although 30% of Cardiff's housing stock is flats, the waste collected from flats does not contribute 30% of total arisings, due to the reduced occupancy level per dwelling. Nevertheless, this is a key area of challenge.

Socio-Demographic Variables

The levels of poverty in parts of Cardiff are high in comparison to other authorities in Wales. If the Southern Arc of Cardiff (comprised of the electoral divisions of Adamsdown, Butetown, Caerau, Canton, Ely, Grangetown, Llanrumney, Riverside, Rumney, Splott, Trowbridge) was considered a single local authority, with a population of 170,000, it would be by far and away the most deprived local authority in Wales. Many of these wards are also multi-cultural with high levels of transient population. As noted in the recent House of Commons Briefing Paper - Household Waste Recycling², housing mix and multi-occupation are an identified barrier to recycling rates across Britain. As the report notes "Recycling rates are falling in areas where there is an increase in multi-occupancy dwellings. Rates also tend to be lower where there are challenges with social deprivation, urban classifications, education, language and residential stability." All of these factors are prevalent in the Southern Arc of Cardiff and affect levels of participation in recycling.

There are also approximately 70,000 students registered to study at Cardiff Universities, resulting in a large student population within the city. The high academic calibre of the region's Universities combined with Cardiff's many amenities, affordability and friendliness makes the city an attractive place for students to live. As a result, the student population is projected to grow significantly over the next five years, and investment in education and engagement will need to grow to meet the increased demand.

For many students, this will be the first time they have lived away from their family home and are navigating the new responsibilities that come with independence. Second and third year students and post-graduates often choose to reside in private housing within the community

¹ Making Recycling work in Flats - Resource London.

² Household recycling in the UK - House of Commons Library (parliament.uk)

The Council, the Universities, the Student Unions and the third sector work in partnership to provide education and engagements programmes and targeted interventions to address these issues on an annual basis as new students move into the community.

Trade Waste

Cardiff Council offers a trade waste collection service, which has been built on providing a reliable and responsible service to Cardiff's businesses. It has a loyal customer base, with a consistent number of around 3,000 customers, representing around 30% of businesses within the city.

The provision of trade waste collections is not a statutory requirement, and it is therefore a variable factor in achieving recycling targets across local authorities. Trade waste makes up over 9% of Cardiff's total waste collected, in comparison to the Wales average of just under 4%.

A high level analysis suggests the entire removal of this service would see an immediate improvement in Cardiff's recycling rate of 3.7% (WRAP High Level Analysis of WasteDataFlow). However, Cardiff Council does not consider eliminating trade waste to help achieve the statutory recycling target as an appropriate or sustainable intervention. On the contrary, Cardiff recognises the high potential recycling gain available within the city's trade waste stream, and has identified a list of short and long term actions to grow this potential. The Council also recognises the need for the Council to lead by example, to engender a significant improvement in recycling right across the private trade waste collection sector in the city.

The Council is working with partners to complete a full trade review to understand the opportunities to improve recycling in this area. At present trade is recycling around 42% of waste collected, thus impacting upon the city's overall recycling performance. However, it is clear, there is scope to significantly improve this figure in line with the emerging Non-Domestic Waste Regulations, and in doing so increase the overall recycling performance of the city by at least 3%.

Housing and Population Growth

Cardiff's population has increased steadily over the past 30 years (by about 2,400 people per year) but much more rapidly since 2001 (by about 3,500 per year). The 2021 census recorded a population of 362,400.

Welsh Government projections indicate that the number of households in Cardiff will increase by 37% between 2008 and 2026 from 136,741 to 187,302 households. According to the Welsh Government projections, this is driven partly by in-migration (particularly net international migration), partly by natural population increase (more births and fewer deaths), and partly by a decline in average household size with over three quarters of the growth being for 1 and 2 person households. (Cardiff's Local Development Plan 2006-2026).

It is important to note that Cardiff's Local Development Plan (LDP) is currently being reviewed, with a view to preparing a replacement LDP to cover the period 2021-26. Various elements of the original evidence base will need to be updated, to take account of issues such as land availability and policy and contextual changes since the adoption of the former plan. For the time being, the projections available in the current adopted LDP have been used to provide some context to the challenge.

Table 4: Population growth projected over the course of this strategy

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Year	LDP	%	LDP	%
	Population	increase	Households	increase
2020	381023		164126	
2021	384679	0.9%	166413	1.3%
2022	388329	0.9%	168700	1.3%
2023	392024	0.9%	170987	1.3%
2024	395795	0.9%	173274	1.3%
2025	399666	0.9%	175561	1.3%
2026	403684	1%	177845	1.3%

Source: LDP Edge Scenario C

This growth will inevitably lead to increases in the levels of waste required to be collected. The Council will need to ensure, through the relevant planning processes, that adequate external storage is provided for the separation of waste materials, with additional consideration for future proofing should collection services change. In addition, the impacts on collection round sizes, additional vehicles and staffing will need to be considered.

4. Delivering the Aims & Objectives of the Strategy

4.1 Improve Material Quality

Action Plan for Dry Recycling

Cardiff Council has been supported through the Welsh Government Collaborative Change Programme (CCP) to investigate the impact of various recycling and waste collection options, in terms of both cost and performance. We will expand this work further to review the carbon impacts of each option. In addition, the CCP has provided ongoing support in relation to high-level analysis of the data reported within waste data flow, alongside a full trade waste and material processing review. These pieces of work have provided the Council with long-term service change options and also identified areas of improvement that can be made in the short to mid-term.

As illustrated by Table 5, the outcome from the approach to kerbside modelling showed a limited uplift to recycling and recovery rates and the need for a range of further interventions if Cardiff is to meet statutory recycling targets. The Council is clear, however, that the current recycling collection service cannot remain as is, as material quality needs to be significantly improved.

Table 5: Summary of Modelling Results

Options	Option Details	Performance change compared to Baseline* – (% MSW Recovered)	Option cost – Compared to Baseline cost (£000)
Option 1	Kerbside sort with food on same vehicle	1.60%	-£1,373
Option 2	Kerbside sort (paper/card mixed) with food separate	1.60%	-£666
Option 3	Separate glass (caddy), separate fibres and containers in reusable sacks on a One Pass vehicle	1.40%	-£113

Notes relating to Table 5:

- 'Baseline cost' is what the service cost at the time of the modelling i.e. the 'business as usual cost'.
- Option cost' refers to the difference between the baseline or business as usual cost and the proposed option cost.
- 'As is'- material from kerbside collected as identified in section 2.1, collected via our standard Refuse Collection Vehicles
- 'Kerbside sort'- separate containers for glass, paper, cardboard, plastic bottles, tubs, trays and tins/cans. Collected on a kerbside sort vehicle with multiple stillages.ls. Material is bulked and reprocessed with limited need for sorting of material
- 'Fibres'- paper and cardboard
- 'Packaging'- metal tins/cans, plastic tubs, bottles and trays
- One pass- a refuse collection vehicle, with a 70%/30% split at the rear to keep 2 materials separate, and a pod for glass at the front

WRAPs High Level Analysis of the *Waste DataFlow* document indicates that, currently, just over 30% of MRF inputs are rejected, with 18% being non-target material, and 12% lost as part of the processing.

Co-mingled (mixed) reject makes up 8% of the total non-recyclable (residual) waste arisings, which is 6% higher than the Welsh average. To put this into context, based on 2019/20, approximately10,000 tonnes of material were lost to reject. Assuming that 60% of this material could have been recycled, if it had been segregated correctly, an additional 6,000 tonnes of material would have been gained. Given that an additional c2000t of recycling equates to approximately 1% increase in performance, without contamination an additional 3% could potentially be achieved towards the overall recycling performance.

Whilst the above is a crude calculation, it is still clear that there is much to be gained by changing the way in which recycling is currently collected and processed. There is therefore a need to move towards segregation of materials collected in order to improve material quality and secure end market destinations for the recyclables collected. Further to this, Beyond Recycling highlights the need for high quality material to feed reprocessing and remanufacture within Wales.

The CCP modelling further suggests that by introducing reusable containers - as well as separate material streams - contamination significantly reduces. There are a number of assumptions as to why this would be. Providing a container that needs to be returned to a property is likely to reduce the temptation of placing 'unclean' material into the container, such as nappies and food waste. The Council's current recycling collection allows an 'out of sight, out of mind' culture, where bags are removed from the kerbside.

Furthermore, segregating materials and providing open containers will make it easier for collection crews to identify and reject any incorrect materials. The current single stream services - food waste and glass bottles and jars - report extremely low contamination rates, demonstrating the benefits of reusable containers and segregated material collections.

There is, currently, a separate recycling collection pilot running, within 4 areas of the City. Residents in these areas are using a reusable sack for containers, a reusable sack for packaging and a caddy for glass. Initial results have been extremely promising, with contamination levels in the region of just 5% and material quality significantly improved.

A range of vehicles have been trialled in these pilot areas, which has provided key data on a range of improvements that need to be made. During the Autumn 2022, we will have a multi stream collection vehicle in these areas, which will be capable of collecting 4/5 recycling materials at a time. At this stage, we will be able to expand the pilot further into the City, building on lessons learnt from the first phase of the pilot.

Based on the results of this trial - and further modelling in partnership with WRAP and the WLGA - Cardiff will produce a business case for a new improved recycling collection to be delivered across the City over the coming years.

Whilst the model is not yet finalised, it will meet the aims of the strategy to improve material quality, increase participation and reduce single use plastic sacks, which are not a sustainable option. It will also take into account public consultation and the growing appetite for more sustainable services. Public consultation was undertaken in Spring 2022 and received 3,305 responses. 85% of respondents agreed that there is a need to improve material quality. The majority were in favour of either a 3 stream or kerbside sort model (48.8% and 19.2% respectively), but 32% said that different options should be considered for different parts of the City. Full results can be found in Appendix 7.

Whatever the agreed future design model, it will need to provide sufficient material feedstock to develop a circular economy within Wales. Improved material quality is essential to achieving

this objective, and it is evidenced that optimum material quality is achieved through increased segregation of waste. In addition, the service will need to be sufficiently future proofed, to allow for the collection of additional materials in the future, as packaging changes and recycling markets update.

We acknowledge that change will result in uncertainty for a period of time. By recruiting extra front-line staff, we will be able to strengthen education and enforcement activity, which will be key to delivering these strategic changes and supporting communities through them.

Action Plan for Compostable Garden Waste

Between 2017/18 and 2019/20, an average of 700 tonnes of garden waste was rejected each year. Where loads are rejected, it has a negative impact on recycling performance, and also on costs of service. In 2019/20, contaminated garden waste cost the authority an estimated £140,165.

Furthermore, whilst 90% of the materials rejected could have been good quality garden waste, where just a few residents contaminate their bin with non-recyclable items, ultimately they jeopardise all the materials collected by that vehicle on that day.

As garden waste collections became more regular following the Covid 19 pandemic, an extensive education programme took place to advise residents what can and cannot go into the green wheeled bin (or garden waste sack in bag areas). The programme was successful, with loads that have been historically rejected from certain areas accepted. The programme was successful in part due to the constant presence of the team in target areas, alongside the delivery of a letter to each property reminding them of the correct items to place into the bin. However, it is resource and cost intensive and is unlikely to be sustained for the long term.

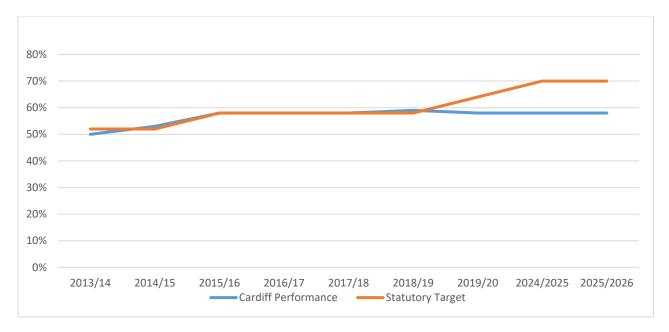
Contamination remains a problem, particularly where residents hide non-target materials underneath garden waste, as the crews are then unable to identify the contamination. Often, crews do not see the contamination until the bin is tipped into the back of the vehicle, by which time it is too late.

The current collection methodology allows 'hidden' contamination to take place. As such, the Council intends to undertake a full service review of compostable garden waste collections. This will include benchmarking with other Local Authorities, analysing contamination rates associated with alternative collection methods to identify whether infrastructural changes would help to reduce contamination.

4.2 Increase Recycling Participation and Capture

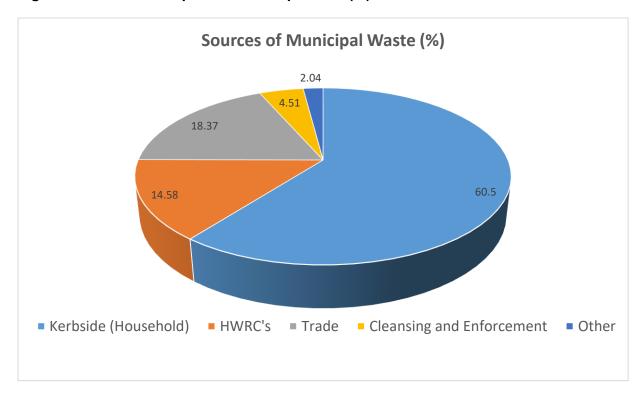
Cardiff's Local Authority Recycling Target (LART) performance for 2020/21 was circa 58%. Although unverified, performance remained at 58% for 2021/22. The graph below illustrates that performance has remained relatively stable since 2016/17, with the stepped performance increase up to 64% not having been achieved.

Figure 3: Cardiff Recycling Performance 2016/17 – 2020/21



In order to build on the current recycling performance, it is important to identify the sources of waste collected throughout the city. This enables focus to be placed on key areas of opportunity.

Figure 4: Cardiff Municipal Waste Composition (%)



Household Waste

As Figure 4 above illustrates, kerbside household collections represents the highest proportion of waste collected. Opportunities to improve in this area include:

- improving the quality of the material collected.
- encouraging regular public participation in all available kerbside recycling schemes, and with food waste in particular).
- targeting and capturing, key priority materials for collection.

After reject, Cardiff collects 100kg/hh/yr of food waste, ranking 11th in Wales. The Wales total is 97kg/hh/yr. There is potential for improvement, with the highest performing Welsh authority collecting 129kg/hh/yr. If Cardiff were able to achieve 129kg/hh/yr it would add another 2.1 percentage points to the municipal recycling rate.

As well as improving the performance of recycling collections, a review of Cardiff's residual waste collections will also be undertaken. This will consider whether the provision of a fortnightly service, of 140L per household capacity, is appropriate in terms of balancing the specific urban challenges faced by a capital city with the need to achieve improved recycling performance. In particular the Council needs to encourage more food waste to be removed from the residual waste and put into the food recycling caddy.

Modelling has been undertaken on all of the options outlined in Table 5. Less frequent residual waste collections result in a significant increase in the recycling rate uplift ranging from 3.5-3.7%. The Council will now carry out further analysis to consider what capacity is needed and which waste streams and areas to target.

The number of flats throughout the city is a real challenge in terms of recycling performance. Flats have not been included within the modelling outlined, however, it is clearly an area of potential to be explored, yet one where little data and guidance exists. A composition analysis of waste from flats has been started, and this will be used to help inform a number of trials in flats. The trials will explore how different collection methods and educational initiatives can increase the quality (and quantity) of materials collected for recycling. In addition, a toolkit for property management companies will be developed, to work in partnership to improve recycling facilities at targeted blocks of flats. This toolkit will include a review of current bin provision, bin store design and layout, and signage and communication tools.

Trade Waste

Trade waste collections offer a significant opportunity to improve current recycling performance. At present, it is estimated that 40% of material collected is recycled. If the Council's trade waste service was to simply reduce its residual arisings by 50%, it would deliver a 1.8% increase in overall recycling performance. However, if the Council is able to divert priority recyclable material (estimated at 60%) from the residual waste, and into the recycling streams, it could lead to a potential performance increase of 4.2%.³

Working with partners, a full trade review will be undertaken to identify potential improvements and to ensure compliance with the Non-Domestic Waste Regulations which are due to be implemented by the Welsh Government over the coming years. The Business Waste Regulations require waste producers, and collectors of waste to separate key priority materials for recycling.

As a contracted trade collector for over 3000 businesses throughout the city, the Council will support the implementation of the Non Domestic Waste Regulations. In the interim, and in lieu of the regulations being in place, a trial of separate collection of 3 waste streams from

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³ High level analysis of WasteDataFlow Returns- WRAP Cymru

businesses will be undertaken, in readiness for a change across the whole city. In addition, all customers who are currently contracted for a residual waste collection only will be contacted to encourage recycling and where these discussions aren't successful, consideration will be given to suspension of the contract. As part of this, work will be undertaken to address incorrect presentation of material, through increased targeted intervention with customers. This will include a review of processing methods currently used, to ensure as much recycling as possible is being captured. For example, the thorough post sort of material collected from within contracted, mixed skips alongside the removal of mixed skips on 'ad hoc' occasions. Instead customers will be offered the option of providing a skip for a single material stream.

Some work has already begun to progress these actions. Following the return of customers after lockdown, contracts were renewed for customers who were encouraged to implement source separation for recycling. Customers have also been offered separate services for food waste, glass, paper, card, metal and plastic. For customers with residual only contracts, this was a mandatory requirement in order for collections to restart.

Between April and Dec 2021, the number of customers with glass collections has increased by 245%, food by 25% and recycling collections by 10%.

Since July 2021, Trade Waste have ceased to provide mixed waste skips to any one-off customers. The team are now requesting customers to organise separate skips for different waste streams (such as rubble, soil, garden waste etc) which can be diverted to a recycling facility. Since this change the Trade Waste skip service has provided 150 single waste stream skips to one-off customers (from July 2021 to Jan 2022), all of which have been diverted to be recycled.

Schools

91% of respondents to the recycling waste strategy consultation, believed that it was important tap into the enthusiasm of young people, to make long term changes.

The Really Rubbish Campaign will be relaunched to encourage recycling and composting in schools. Linking with the Love Where You Live Campaign and Trade Services, the Waste Strategy Team will offer comprehensive support to Schools. This will include school talks, online resources and provision of support for community growing schemes. The campaign has engaged with 845 children since being invited to return to schools, following the Covid 19 pandemic.

Alongside school workshops, the campaign will also link with partnership projects via Child Friendly Cities.

Household Waste Recycling Centres (HWRC's)

The city's Household Waste Recycling Centres are already performing at levels in excess of 80%. To maintain this high level of performance, the current booking system will be retained.

The Council has completed a full signage, and appearance review, based on recommendations from the WRAP Cymru Assessment Report of 2021 which identified that 'signage which is easily readable and readily understood encourages site users to recycle with confidence'. To further extend this, digital signage has also been introduced at HWRCs, which are being used to feedback on recycling performance, and can be used dynamically to respond to any issues on site, resident's feedback etc.

Whilst work to identify and appropriate HWRC site in the North of Cardiff is ongoing, no suitable locations have yet to be identified, and the provision at existing sites in Cardiff currently exceeds demand.

The Council continues to run mobile recycling centres accross local communities. The site at Ty Glas, whilst not a permanent solution, initially proved popular with over 500 visitors. This demand, however, reduced over time to just 184 visits per event. Whilst the site has generated 135t of recycling, analysis identifies that this is material diverted from the existing sites rather than additional material. Nevertheless, the initial demand for this service suggests that there are benefits to running pop up sites within the Community and opportunities for future events and locations are being explored. In particular, opportunities are being explored for sites that allow safe pedestrian access.

The recycling and waste strategy consultation also identified that 77% of respondents use a Household Recycling Centre. 91% felt that the number of slots available per year was sufficient for their needs and 52% would like to see increased opportunities to donate items rather than recycle.

Other Waste

As 2025 approaches, all contributions to the city's overall waste arisings will need to be interrogated, no matter how small. To support this, further recycling segregation will be introduced, through the Council's cleansing and enforcement teams, including provision of single stream recycling litter bins, exploring the potential of increased split caged vehicles and ensuring fly-tipped waste is segregated wherever possible.

4.3 Increase Opportunities for Communities & Residents to Recycle

In order to increase recycling performance, recycling needs to be as easy and accessible as possible. WRAP's National Recycling Tracker survey 2020 identified that 15% of respondents believed that local council's do not collect enough things for recycling. This was mirrored in the results of the recycling and waste strategy consultation, which identified that 77% of respondents would like to see additional materials collected from the kerbside, whilst 82% would like to be able to recycle items in their local community.

In response the Council will seek to expand the range of, and opportunities to, recycle additional material. Current examples include work with Podback to explore the viability of kerbside coffee pod collections; and the recent diversion of Absorbent Hygiene Product (AHP) waste for recycling at a specialist plant. New facilities have also been introduced to make it easier 'to do the right thing' in relation to the recycling of items such as small electrical items, textiles, batteries, and tetra paks.

At present there are a number of barriers to recycling such items. Firstly, during 2020/21 there has been a significant increase in demand for bulky waste collections. This has resulted in long lead times for collections and necessitated a review of the items collected. A policy decision was made to remove the collection of smaller items from the bulky waste collection service to reduce demand on the service and reduce lead times for the collection of larger bulky items that present storage issues at home. Secondly, control measures, such as the booking system introduced at HWRC's as a result of COVID-19 will be reviewed. Whilst there are ample slots available, the booking system may deter use of the site, as there is an annual visit limit of 26 visits per year. Thirdly, bicycles are not currently allowed to access the recycling centres. This is standard practice across the industry, however, there is appetite to enable sustainable travel while recycling.

As a first step towards addressing the above, the Council has implemented a pilot of 4 community recycling zones, with over ½ tonne of material collected over a period of only a few months. Following the success of this pilot, we are looking to expand these recycling zones across the City Hubs. These locations will be on accessible public transport and cycling routes where possible, and integrated within communities so that walking to recycle may even be possible.

The city's two Household Waste Recycling Centres currently have sufficient capacity to meet the current need. However, given the predicted levels of growth in population in the city in Cardiff's Local Development Plan, the Council will continue to review the need for an additional Household Recycling Centre.

The Council will also explore the possibility of pop-up recycling/repair centres, to facilitate the reuse, repair and recycling of items such as small domestic appliances, which can be hard to dispose of, and are very damaging to the environment.

4.4 Make Use of all Available Data to Develop Targeted Actions

Cardiff has set out its vision to be a 'Smart City'. This involves using data to improve decision making, provide better services and promote innovation. This approach will also be adopted across the Council waste and recycling services.

Work will be undertaken to identify new sources of data, within the recycling services operation, that can be utilised in line with the open data strategy. This includes areas such as education and enforcement action statistics, as well as promoting the open data available in relation to recycling and material destinations, including *Stats Wales* and information published from waste data flow at www.myrecyclingwales.org.uk. This will provide confidence in the transparency of the recycling process, which is identified as an action within the 'Building on our recycling record' core theme within the Beyond Recycling Welsh Government strategy.

In order to increase participation and capture, it is important to understand what is currently being collected. For this reason, the Council has worked with WRAP Cymru to undertake a programme of compositional analysis of kerbside collected, and flats collected, residual and recycling waste. The results show current capture rates of priority materials, and provide clear evidence for areas of focus. For example, despite providing free weekly collections of food waste, there remains a surprisingly high volume of food waste in the residual waste stream for both flats and households (see Section 4.3 and Appendix 6).

In addition, dashboard data from tools such as Power BI will be utilised to clearly map out further areas of focus. The data dashboard will be linked to the integrated collections software, to drill down into issues such as contamination.

Regular participation monitoring will also be undertaken throughout the city, in line with WLGAs Capturing Recycling- A guide to behavioural change strategy. The participation monitoring exercises will identify residents not taking part in recycling services, with appropriate interventions taking place with an education focus, moving into enforcement for continued non-participation without reasonable explanation.

The Council will continue to work closely with WRAP to support and promote the national 'Be Mighty Recycle' Campaign. In addition to the promotional materials, the campaign offers the opportunity to share data and identify best practice methodologies, as well as helping to identify target demographics.

Existing technologies will also be utilised to help the Council work smarter. In-cab devices are already utilised to log contaminated bins and bags. This data in turn is used to help target residents with letters advising them of which items need to go into which container. Where residents continue to present incorrect items, there is follow up with further education and ultimately enforcement (see Appendix 2 - The Pink Sticker Campaign).

The Council will continue to collaborate with other local authorities for recycling contracts of materials such as WEEE and textiles, whilst ensuring what is collected 'works harder' and provides the maximum recovery rates. Disposal/recycling contracts will be regularly reviewed

to ensure minimum recovery rates are being met (where stipulated) and benchmarking of neighbouring local authorities to identify if improved opportunities are available.

4.5 Reduce Single Use Plastics (SUPs)

The removal of single use plastics is a topical issue. In March 2019, the EU Parliament approved a new law banning single-use plastic items such as plates, cutlery, straws and cotton bud sticks. A ban on supplying plastic straws, stirrers and plastic-stemmed cotton buds came into force in England on Thursday 1 October 2020.

Welsh Government undertook a consultation on the ban of single use plastics between July and October 2020. If the proposals are implemented in Wales, a range of single use, hard to recycle and commonly littered plastic items, such as straws, cotton buds, polystyrene food and drinks containers would be banned, subject to any exemptions.

The One Planet Cardiff Strategy proposes a wide range of ambitious actions that will begin to form the basis of a delivery plan to achieve Carbon Neutrality. Within this, there is a commitment to reduce the Council's use of Single Use Plastics, and the Council is committed to developing and implementing an action plan for Single Use Plastics. The action plan for Cardiff will focus on the following:

- Identifying all Single Use Plastics Purchased: This will involve a review of procurement processes with a view to avoid SUP's (unless there is a clear medical or other legitimate requirement) and understand the carbon impacts on the procurement process. This will include reviewing the provision of plastic sacks for Dried Mixed Recycling (DMR) and non recyclable waste. In 2021/22, 27 million single use plastic sacks were provided.
- 2. Promoting Reuse, Recycling of Plastics: Through both internal and external communications, the Council will encourage the recycling of plastic bottles as well as the reuse and prevention of single use plastics by promoting sustainable alternatives. This could include reusable coffee cups and water bottles, as well as other reusable item (carrier bags, straws etc). The national deposit return scheme agenda will be supported by responding in favour to consultations, as well as reviewing the opportunity for 'reverse vending' within our communities.
- 3. Promoting Refill: Cardiff is already working with Refill to support the concept of refill stations. Participating businesses display 'refill' stickers in their windows to let people know they offer free tap water and that there is no need to feel uncomfortable or embarrassed asking for it. Participating organisations also appear on the Refill app, making the nearest Refill point easy to locate. Those who sign up to the app can refill their water bottles for free, and also earn points each time they refill to get a free gift to help towards a more 'refillable life'. There are currently over 10,000 Refill Stations across the UK. All of the Council's libraries/hubs have now registered with Refill and several of the high-street coffee shop chains are also registered with them. Where the water utility infrastructure is compatible the Council will seek funding with a view to installing refill stations in the city's hubs. We will also look to expand re-fill into the public realm, for example in parks, the City Centre and district shopping hubs.
- 4. Working with Partners: The Council has already undertaken a partnership arrangement with Keep Wales Tidy and Terracycle to remove, collect and recycle plastics from our waterways and bay area. The Council will commit to support, work with and promote likeminded campaigns to reduce the negative impacts of single use plastics. The Government's initiative to ban single use disposable cups from stadiums will be supported, and the idea of a re-useable 'Cardiff' cup in Cardiff's stadia will also be taken forward. Work will also take place with partners to identify regional solutions and to help support a circular economy in Wales.

5. <u>Difficult Materials:</u> The opportunity to recycle difficult materials such as car tyres, single use coffee cups; polystyrene mattresses etc will continue to be explored. The recycling of car tyres, carpets, UPVC window frames, hard plastics and mattresses is already in place at the Household Waste Recycling Centres. A polystyrene recycling trial has been undertaken, but due to the volume to weight ratio of the material, a viable recycling collection method is currently not available in the market place. Nonetheless, this opportunity will be kept under review. Options for coffee-pod recycling in partnership with Podback are currently being explored, as well as working with partners to recycle AHP (Absorbent Hygiene Products such as nappies).

4.6 Encourage the Prevention, Reuse and Repair of Materials

We will develop digital and smart solutions to improve resource efficiency by investigating the possibility of a 're-use' network within our buildings. The intention will be to encourage the re-use of office furniture and equipment. In addition, the Council is partners of Resource Efficiency Wales' repair network, to signpost residents to repair options.

The Beyond Recycling strategy states 'In order to move to a circular, low carbon economy we will need to reduce the amount of waste produced by households, businesses and the public sector so that unnecessary waste is prevented, products are re-used and repair and remanufacturing are a core part of our society'

Through blanket communication campaigns and targeted outreach events the Council will provide advice to residents on what they can do to reduce waste in their homes. For example, utilising national campaign materials such as Love Food Hate Waste to promote the reduction of food waste. The re-use shop at Lamby Way Household Recycling Centre has also recently been launched to encourage residents to pass on items that still have life in them.

In addition to promoting waste reduction, reuse will be supported. The benefits of providing a real nappy incentive to residents will be investigated, utilising knowledge from other local authorities to develop a Cardiff real nappy scheme.

The partnership with Benthyg Cymru & Repair Café Wales will be continued to deliver mobile events across the city and remove any barriers to borrowing by providing home deliveries. In addition, opportunities to include new repair/re-use facilities within community regeneration schemes will be explored. Initiatives such as community fridges, food redistribution and community composting delivered through partnership with Llanrumney Hall and Green Squirrel will continue to be supported. Re-fill Cardiff will also be supported to expand their scheme across Cardiff, and to develop a digital 'zero waste' map to identify areas where residents can access re-fill, community borrowing, repair café and food redistribution opportunities across the city.

The Council also awaits the introduction of emerging legislation, such as Extended Producer Responsibility and Deposit Return Scheme. Whilst deposit return scheme will aid in encouraging users to recycle an item, it may bring about circular change in terms of encouraging re-use & refill of containers, for those who may not wish to pay a deposit on packaging material.

Extended producer responsibility will incentivise the design of packaging to making it easier to recycle. This is anticipated to further reduce the amount of 'hard to recycle' material currently within our waste streams.

4.7 Contribute Towards Developing a Circular Economy within Wales

Although Cardiff recognises the importance of increasing its recycling rates to meet statutory targets, it is important not lose sight of the wider national objective of One Planet, Zero Waste Wales by 2050.

Increasing participation and capturing priority material supports this objective. However, Cardiff will work to support the wider vision by actively prioritising messaging and actions around waste minimisation, re-use and repair, through businesses, residents and corporately through the Council own internal operations.

Much of the Council's corporate vision in this regard is outlined in the One Planet Cardiff Strategy. The actions outlined within section 5 are intrinsically linked to the majority of the 6 core themes set out in the Beyond Recycling strategy. There are a number of further actions the Council will take, such as continuing the partnership with other local authorities in the Anaerobic Digestion and Energy Recovery facilities, as well as the development of a solar panel farm at Lamby Way.

As stated in Beyond Recycling 'The Government cannot bring about the transition to a circular economy alone.' It is understood that individual actions play a big part in this transition and the Council will work to empower everyone to make changes that suits them, appreciating the benefit that small changes can make.

The role of our community development co-ordinator will be expanded in line with the Caru Cymru initiative, to become involved with waste reduction, re-use and repair. This will enable the prevention of issues associated with poor Local Environmental Quality, including littering and fly-tipping.

The Council will work with young people to develop the waste strategy and tap into their enthusiasm. The existing 'Really Rubbish' campaign will be re-invigorated, and re-branded, to promote circular economy within schools. Work will continue with the Council's child friendly city teams in making young person's ideas a reality, through initiatives such as the expansion of Terracycle points throughout the city and the community mural at the Recycling Centre designed by children.

The Council will prioritise re-used materials in public sector purchases, by investigating the ability of setting up a re-use network within our buildings. The Council will also support all elements in the delivery of the litter prevention, and fly-tipping strategies, being a key partner of Caru Cymru and driving through community cohesion and behavioural change.

4.8 Action Plan and Key Dates

The three main actions anticipated to deliver the maximum increase in recycling performance are:

- 1. Improving the recycling performance of the Council's Trade waste service.
- 2. Expanding the residential recycling service to include new segregation streams.
- 3. Diverting recyclable materials from the residual waste stream.

As the above will involve significant changes, they are unlikely to be fully implemented until 2024-25. However, several steps will be taken before this date to incrementally increase Cardiff's recycling performance, and to lay the foundations for the planned changes. The changes will be made on a phased approach, based on local knowledge and data.

For example, in Quarter 3 2022, we will expand the separated recycling collection scheme into further areas. The expansion will involve the provision reusable sacks for the collection

of segregated recyclables, as well as a bespoke multi stream collection vehicle, where all material can be collected on the same collection vehicle. The detail from the expanded collection will help to inform the business case for city wide roll out of segregated recycling collections in 2024-25. Alongside the trial, we will continue to expand recycling services through the promotion of our AHP service, introduction of coffee pod, battery and small electrical item recycling and through the expansion of community based recycling facilities.

In relation to Trade Waste, we have already commenced the trial of segregated collections using a one-pass vehicle. Furthermore, the Trade Waste Team is working with both existing and new customers to encourage recycling over residual waste. As such, we hope to see some immediate improvements in trade waste recycling performance.

In addition to the above, several improvements have been implemented in 2021, which will help to immediately improve Cardiff's recycling performance. These include:

- Recycling of AHP waste
- Opening of a Reuse Shop at Lamby Way
- Working with Corporate Partners to ensure reuse and recycling of office furniture
- Segregation of cleansing waste to increase recycling

A summary of the main actions for implementation can be found in Appendix 5.

5. Working with Stakeholders to Deliver the Strategy

5.1 Working Together

Managing waste is not limited to the Local Authority, it is something that all residents and businesses in Cardiff contribute to, and therefore we all have a role to play in ensuring the city's waste is managed in a responsible way, for our own benefit and for that of generations to come. The city is at its best when we work together. Communication and consultation with relevant stakeholders is key, as is working with neighbouring authorities to identify best practice and regional solutions.

The recently opened Re-Use Shop at Lamby Way HWRC is a prime example of what can be achieved by working together. The shop has been introduced through working in partnership with Wastesavers to establish a convenient and environmentally friendly way to give items a new home, instead of disposal. The re-use shop will enable the resale of household items which in turn will benefit the city's recycling rate through waste minimisation. It will provide access to furniture and items for the community at low cost (with associated social benefit), and although likely modest in value, will generate income for re-investing into the service and into the community.

The Re-Use Shop at Lamby Way also provides a clear example of fulfilling the 5 ways of working, as set out in the Future Wellbeing of Generations Act, by thinking of long term prevention in terms of allowing accessibility to affordable goods, collaboration with other local authorities for benchmarking and Waste Savers for delivery.

The Council is also committed to the 'involvement' of local communities and key stakeholders when making decisions. Opportunities for feedback will be available to all throughout the duration of this strategy. The Council will continue to involve residents in the key decisions that need to be made on the journey towards 70% and a circular economy. Following on from the public consultation survey results (Appendix 7), focus groups will be held with key representatives from the community to consider how services can meet the needs of the 32% who felt that different options need to be considered for different areas.

5.2 Community Engagement

Working with residents and understanding the city's communities is integral to influencing better decisions, when seeking to continuously improve Council services.

The Council's Waste Management services work with a comprehensive network of passionate volunteers through the Love Where You Live Campaign. The volunteers and community groups understand the specific needs of their local community and make a considerable impact by offering advice and advocating appropriate Council services to their neighbours. The relationship with members of the community opens a dialogue with the Council, and provides an opportunity to identify need, map resource and plan future improvements.

Cardiff Council will continue to work together with community groups and volunteers to encourage residents to feel part of their community, engage with community activity and to feel empowered to help each other. In particular, the Council will seek to engage the local community in the Waste Strategy for Cardiff by:

- Working with partners and the community to facilitate the reuse and repair of items
- Providing recycling facilities at easier to reach locations for harder to recycle materials (e.g. facilities for recycling small domestic appliances at local hubs)
- Providing opportunities for community litter pickers to segregate materials for recycling

- Offering Schools a comprehensive recycling led service to further maximise recycling and to encourage recycling behaviours.
- Responding to qualitative feedback, for example through the implementation of focus groups, tracking comments on social media/neighbourhood conversations
- Working with schools and local businesses to empower them to:
 - promote behaviours that align with the waste hierarchy,
 - encourage the transfer of pro-environmental behaviours from home into the school or workplace environment

In addition, and in recognition of Cardiff citizens improving the city's recycling performance and reducing their carbon footprint, the Council will look to fund 'Love Where You Live' initiatives to improve the environment where people live; be it through community supported planters, child friendly play lanes, improvements to parks or maintaining unloved spaces. The aim is to have a City and planet loved by everyone.

5.3 Behavioural Change Strategies

There is an emerging shift in consumer culture and growing environmental awareness (*A Litter and Fly-Tipping Free Wales, Consultation Document WG41821*). Cardiff will need to harness this awareness, utilising the good will that is prevalent within some communities.

The Council will therefore develop communication, educational and behavioural change programmes that further enhance the measures already in place. Whilst blanket approaches have a place within the city, the Council will make use of all available data to undertake targeted campaigns, based on segmentation data identifying the most effective approach for the area.

As mentioned previously, we will link into toolkits and campaigns such as:

- WLGA's Capturing Recycling
- The Pink Sticker Campaign
- Love Food Hate Waste
- Be Mighty Recycle

The council will also make further use of hyper-localism through communications, for example 'Roath Recycles' to enhance community and locality-based benefits when it comes to sustainable waste management.

With regards to recycling, the focus will continue to be on education and behavioural change, with enforcement as a last resort. When all communication and engagement routes have been exhausted the Council will use the powers under S46 of the Environmental Protection Act 1990 to take enforcement action against residents who are not following policies for recycling. The Council will retain a zero-tolerance approach to other waste and littering offences such as fly-tipping (See Appendix 3: The Waste Education and Enforcement Strategy for further details).

To help address the challenges of changing behaviour in flats and rented accommodation, the Council will work closely with relevant partners, such as Rentsmart Wales to try to strengthen licensing conditions. In addition, the Council will work with landlord associations and letting agents to help distribute recycling messages and infrastructure to hard to reach groups.

Cardiff Council has committed to running a climate crisis behaviour change campaign and recycling will play a key part in this, due to the fact it is a meaningful area where everyone can contribute.

Each communications initiative and service change will be based on delivering value for money, and will seek to collaborate with surrounding authorities, and partners, to adopt best practice, as it exists.

6. Monitor, Measure and Review

6.1 Measure and Review

The Waste Strategy for Cardiff will be reviewed on an annual basis, to monitor progress against the action plan. Costs and progress towards waste and recycling targets will be monitored by Cabinet and the Environment Scrutiny Committee. As this is a multi-year strategy, with changes anticipated in the material markets, developments in technology and the ongoing development of Cardiff itself, the Waste Strategy will be reviewed every three years.

6.2 Post Service Change Review and Monitoring and Measurement

To understand the impact of any change of service, key metrics will be developed to monitor progress. This information will be captured and analysed by the waste and recycling team and reported to the relevant Cabinet Member, Cabinet and Scrutiny Committee. For each major service change, there will also be a review of service standards (see Appendix 4) to ensure the needs of customers are still being met whilst improving recycling performance.

6.3 Key Performance Indicators

The service has a number of Key Performance Indicators which underpin the work undertaken. These will continue to be used to monitor performance on a quarterly and annual basis. The Key Performance Indicators include:

- The percentage of municipal waste collected and prepared for re-use and/or recycled.
- The percentage of waste collected at recycling centres that has been prepared for re-use or recycled.
- The number of education and enforcement actions per month relating to improving recycling behaviour by citizens.

Appendices

Appendix 1: Waste Strategy Gap Analysis Appendix 2: The Pink Sticker Campaign

Appendix 3: The Waste Education and Enforcement Strategy 2021

Appendix 4: Service Standards 2021 Appendix 5: Action Plan Summary

Appendix 6: WRAP Compositional Analysis Report 2021

Appendix 1 – Gap Analysis

Waste Management Strategy 2018-21, Gap analysis

Action	Delivered	Narrative	Outstanding actions to be brought forward
Piloting a separate glass waste collection service	Yes	Pilot a fortnightly collection of glass in a separate container.	Pilot completed for 15,000 properties and business case for further roll out to be developed during 2021-25 strategy.
Expand the Provision of the Wheeled Bin Service	Yes	Expand the wheeled bin service to a further 3,000 households	Completed.
Develop new recycling infrastructure and changes to HWRCs	Yes	Develop education stations at HWRC to exceed 80% recycling. Deliver business case to support new HWRC in the North East of the City.	Education stations delivered. No unsorted black bag policy now in place. Introduced a reuse facility at Lamby Way HWRC in Partnership with Waste Savers. New booking system in place to better manage customer access and demand, and provide baseline statistics for business case.

Explore Options to Improve Efficiency and Customer Experience	Yes	Considering the collection of recycling and waste on Bank Holidays.	Completed during Q4 2021- no longer collections on a Monday.
		Delivering a demand led compost collection service during the winter months.	Monthly service remains in place, demand based service to be explored during the 2021-25 Strategy.
			New services developed on digital channels Ordering recycling equipment Recycling A-Z Bulky waste collections HWRC bookings Missed collections
Education	Yes - ongoing	Provide targeted educational messages specific to areas. Work with partner organisations and support national campaigns. Use best practise research to deliver behaviour change campaigns. Continue with the 'Love Where You Live' and 'Really Rubbish' campaign.	Ongoing work to continue awareness raising amongst the community. Continue to fund the 'Love Where You Live', secure funding for additional support to broaden the remit of 'Love Where You Live' to include waste minimisation and reuse initiatives in the community. Welsh Water and Viridor providing education to community groups for their target waste streams. 'Really Rubbish' to be re-branded and target green bag materials, and future changes to kerbside materials.

Targeted Stakeholder Engagement & Communication	Yes - ongoing	Continue to work in partnership with local universities and the third sector to deliver street scene and recycling improvements. Work with community leaders from Ethnic Communities to increase reuse and recycling.	Ongoing support to the Student Liaison Officer role and support to the community through local groups, such as Environmental Champions.
Partnership working	Yes - ongoing	Explore community and charity partnerships to deliver longer term recycling and support the Welsh Circular Economy in Wales.	Developed new recycling infrastructure for textiles at Hubs to facilitate community recycling. To be expanded further within the next strategy.
New Markets for Recycled Waste	No	Explore new markets for recycling as they become viable.	Absorbent Hygiene Products collected via the Hygiene service are now being recycled. We will continue to explore markets through the next strategy with organisations such as CLARE Wales.
Single Use Plastics		Reduce single use plastics by the Council and in supply chains. Work with partners to promote awareness of environmental damage caused by single use plastics.	Water Refill Stations supported through the 'Love Where You Live' campaign. Trial of reuse sacks to replace single use plastic sacks.

		Continue to work with Welsh Water to deliver water refill stations. Continue to promote the environmental benefits of plastics recycling.	Ceased provision of red and white striped bags.
Alternative fuel mediums	Yes - ongoing	Explore alternative fuel mediums – such as electric vehicles for the HGV fleet.	A number of electric vehicles are now within the Council's fleet of vehicles, including RCV's and cleansing vehicles.
Enforcement	Yes - ongoing	Adopt 'zero tolerance' approach to environmental crime.	A zero tolerance approach is in place for Enforcement.
		Update and revise environmental crime policies around fly tipping, public protection and littering.	Fixed Penalty Notices (FPNs) now in place for fly tipping (£400) and householder Duty of Care (£300).
Kerbside collection policy	Ongoing	Ensure the Council's Technically, Environmentally and Economically Practicable (TEEP) position is re-tested against the Recycling and Environment Regulations to ensure maximum cost effective recycling.	Work is ongoing with WRAP and WG to deliver the most sustainable kerbside collection for Cardiff. Since the last strategy, separate glass collections have been trailed and will be expanded.
			Reducing contamination has been a priority since the last strategy with a view to increase the quality of materials collected at the kerbside. This has been developed through the 'Pink Sticker' campaign.
Domestic collections, including bulky and hygiene collections	Yes	Explore the need for re-zoning collection days.	Collection days were re-zoned during Q4 of 2021 and included: - Increased round efficiency

			Removal of double shift resulting in better opportunities for vehicle maintenance Bulky waste collections can now be booked in via the Cardiff.gov app.
Bring Sites	Yes	Explore the benefits of new bring sites where demand has been identified.	The need for bring sites is continually reviewed, no new sites delivered during the period. Facilities are being trailed at community hubs e.g textiles, look to expand further during next strategy. A mobile pop-up recycling centre has been trialled and has proven popular.
Deposit Return Schemes	No	We will work with industry and Welsh Government to contribute to the development of schemes.	No new schemes have been developed through the period of the strategy, although Cardiff has responded in favour to the recently published consultation.
'On the move' recycling and fly-tipping	Yes	Work with WG on their national behaviour change campaigns to deliver new recycling litter bins in high footfall areas. Explore the use of 'nudge' theory to influence people's habits.	Community Development Officer post created to drive the initiative. Funding secured for split transit vehicles to segregate recycled waste collected during litter picking.

Street Sweepings	Yes- ongoing	Facilitate recycling from community litter picks. Increase support for 'Love Where You Live'. Remove litter from collected sweepings to ensure non-target material is removed from the recycling	Aperture recycling litter bins procured in areas of high footfall and being used in areas such as parks during spring/summer. Mechanical sweepings are sent to dewatering facilities where non-target
		process.	materials are removed, resulting in an end product that is recycled.
Commercial services	Ongoing	Undertake targets recycling campaigns for SMEs, and evaluate their effectiveness to encourage other businesses to reuse and recycle as much as possible.	Mixed skips were post-sorted with 60% recovery rate. Single stream recycling skips now provided.
		Expand the skip service to provide targeted material options.	Created new stand alone website with new branding to raise profile of the service.
			Collections model will need to be reviewed in line with the Business Waste Regs. Trials took place in 2021, with a view to expand the service in 2022.
Waste Transfer and Secondary Sorting	No	Use secondary sorting to extract recyclables that have been disposed of incorrectly to achieve higher recycling rates.	Tender being prepared for limited amount of secondary sorting. Preferred option is separation at source in line with Circular Economy approach.
Disposal & Landfill Aftercare	Yes	Observe statutory requirements to protect and care for the Landfill site at Lamby Way and explore end of use options for the site.	Management of the closed landfill is ongoing. 42 acres of the closed landfill is now in use as a solar farm generating 8.99 MW/year.

Appendix 2: The Pink Sticker Campaign

The Pink Sticker Campaign aims to improve the quality of recycling and composting collected from the kerbside by Cardiff Council – helping the city become one of the best recycling cities in the world. It is an education focused campaign, to let residents know they've done something wrong and to improve the quality of material. There is support available from recycling officers, to help residents understand, as well as a series of education letters being provided. Enforcement is a last step, for persistent incorrect usage despite support being provided.

Figures released by the council show that 18% of the materials presented in green bags are not actually suitable for recycling and hamper the recycling process. An additional 12% of material is lost or ruined within the process, meaning that 30% of the material presented in green bags is contaminated. The main offenders are dirty nappies, clothes, packaging and food waste.

There are kerbside collection services available for nappies and food waste, with alternative provisions available locally and at the Household Recycling Centres to recycle textiles.

Green recycling bags are for the recycling of dry, clean household packaging such as glass bottles and jars, plastic bottles/tubs/trays, tin cans and aerosols, paper such as magazines/letter paper and flat packed, small amounts of cardboard. We also need residents to rinse out their cans, tins and glass before they recycle them. It will all help to make Cardiff one of the world's best cities for recycling and that's something we can all be proud of.

Green garden waste is also being presented with incorrect materials such as watering cans, cardboard, and garden furniture. Processing contamination from green waste cost over £95,000 in 2020/21. For the garden waste, we only want grass, tree or shrub cuttings. These are the only items that should be put in the green-wheelie bins/reusable sacks.

Processing contamination from both green recycling bags, and garden waste, is costly but also negatively impacts the City's recycling performance.

The scheme involves bright pink stickers being placed on recycling bags, food caddies and garden waste bins (or sacks in bag areas) alerting residents that they contain incorrect items. If a pink sticker is put onto a container, residents will have to take their waste back into their property to remove the incorrect items before they put their recycling out again on the next collection date.

If people see pink, we want them to stop and think. We are also encouraging the message that if in doubt, leave it out. We know that residents want to recycle as much as possible, as people become more eco-conscious. This can result in residents putting items in the hope that they will be recycled. However, this desire, known as aspirational recycling or 'wish cycling' can cause problems in the recycling process, and ruin the quality of the material.

The pink stickers will point residents to a website, which gives an 'A-Z of recyclables' so they can familiarise themselves with what items should be put in the containers provided. In addition, there is also a new contact us form where residents can request advice on any additional materials they are unsure of.

The 'See Pink, Stop and think' campaign briefly consists of the following stages:

- Pink sticker applied, to let residents know they've done something wrong. A
 record is also made within the collection team's in-cab device
- A series of education letters sent to properties, each time contamination is identified, providing information and signposting to support available.
- When education has been provided on a number of occasions or as part of an area/street wide campaign, a Section 46 Notice may be issued. This is a legal letter to notify how residents should present their recycling and waste for collection.
- Where a property is under a Section 46 Notice, and recycling and waste is presented incorrectly, a £100 Fixed Penalty Notice will be issued.

In addition to the above processes, further education may be provided including full street letters, outreach, face to face engagement with residents through door knocking, or attendance at community events. Recycling officers are also on hand to provide advice via any means possible.

It is important to emphasise that this campaign and the stages outlined only apply to residents putting the wrong materials in their recycling and composting. For all other environmental offences, such as littering, fly tipping, flyposting, as well as others, waste enforcement will operate as usual on a zero tolerance approach.

If a resident ignores the pink sticker and leaves their waste out on the street, they could face an immediate £100 fixed penalty notice for littering.



Street Scene Education and Enforcement Policy



September 2022

Version 1.0

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1 Policy, Aims and Objectives

1.1 Purpose of the Policy

The Neighbourhood Services team is part of the Waste Management Service, reporting to the Assistant Director for Street Scene. Within the Neighbourhood Services team, there are a range of officers trained to search and remove waste, as well as a team of officers with powers to take enforcement action for a wide range of environmental offences. This policy sets out the role of the Neighbourhood Services team within the Directorate, along with the powers adopted in order to tackle environmental crime.

The specific aims and objectives of this policy are to:

- Provide a clear overview of Neighbourhood Services Education and Enforcement.
- Outline the various offences that Neighbourhood Services Officers tackle.
- Outline the relevant legislation, policies and procedures under which the team operate.

The policy also incorporates the Regulator's Compliance Code issued by the Department of Business Enterprise and Regulatory Reform, which became effective on 6th April 2008. This Code requires local authorities to have regard to it when they take enforcement action in certain areas.¹

Specific details of the relevant legislation applying to each offence can be found in Appendix 1.

1.2 Organisational Approach

Cardiff Council is committed to the principles laid out in the Government's Enforcement Concordat (see Appendix 2). This means the Council will support and persuade people to change their behaviour through information, education and advice, but will not hesitate to take enforcement action such as issuing Fixed Penalty Notices or prosecuting when appropriate. This will send a clear message to those individuals or businesses who continue to spoil the environment.

Most enforcement activity takes place on the public highway, but it can be undertaken anywhere where there is evidence of an offence.

The Education Enforcement Team work in accordance with the Council's standards of customer care and equality.

This means that the officers will:

• Provide information regarding the service delivered when asked;

¹ This includes action under the Control of Pollution (Amendment) Act 1989, Environmental Protection Act 1990 and Clean Neighbourhoods and Environment Act 2005.

- Treat all people fairly and offer equal opportunity for service delivery regardless
 of their ethnic background, religion, sex, sexual orientation, age or physical ability;
- Treat people in a courteous and respectful manner and
- Promptly respond to reports of incidents and requests for service and enquiries.

In the course of undertaking enforcement activities, officers may sometimes encounter vulnerable people who have committed an offence. For example, someone who is homeless or has a mental health condition. In such circumstances a standard enforcement approach might not be appropriate or in the public interest. Therefore, each case involving a vulnerable person will be carefully assessed, in conjunction with the relevant Council service area, to establish the best course of action.

1.3 Associated Polices, Plans and Strategies

The following polices guide the day-to-day management of the Street Scene Education and Enforcement Team:

- Capital Ambition
- Corporate Plan
- Recycling Waste Strategy

The Street Scene Education and Enforcement Team play an important role in the delivering some of the priorities set out in each document. These priorities include:

- Creating a cleaner city.
- Supporting residents to take greater responsibility for the cleanliness of their local communities.
- Tackling environmental crime that detrimentally affects the local environmental quality of our communities.
- Applying a zero-tolerance approach to fly-tipping and littering offences.

In order to carry out these functions, the team must use relevant legislation, whilst also adhering to good practice.

2 Delivering Education and Enforcement

2.1 Good Practice Education and Enforcement

The primary objective of this policy is to achieve a consistent and effective environmental quality through targeted education and enforcement action where required within Cardiff. This ensures the protection and safety of the public is maintained.

The aim is to secure efficient compliance with legislation whilst minimising the burden to the Council, individuals, organisations and businesses. It will be applied, as far as reasonably practicable and applicable to all enforcement situations, and it explains in general terms the approach adopted by the Council when carrying out the Council's education and enforcement duties.

In seeking to achieve these aims and objectives, Cardiff Council will ensure all education and enforcement activities are:

- undertaken in accordance with the principles of 'good enforcement' specified by the Enforcement Concordat;
- compatible with the convention rights specified by the human Rights Act 1998 to protect the rights of the individual;
- managed in an efficient manner;
- taken promptly and without unnecessary delay;
- undertaken in a fair independent and transparent manner with each case being considered on its own merits;
- not influenced by colour, ethnic origin, race, gender, disability, sexual orientation, gender re-assignment, religion, marital status, gender, age or political beliefs or by improper or undue pressure from any source;
- aligned to the Business Plan and Corporate Plan and capital ambition;
- appropriate and proportional to the problem;
- evidential and in the public interest in the Code for Crown Prosecutors
- helpful to both householders and businesses meet their obligations by providing advice and information;
- in place to take firm action against those who disregard the law; and
- complaint with the principles in the Regulations Compliance Code (for certain functions identified by the legislative and Regulatory Functions Act).

3 The Neighbourhood Services Education and Enforcement Team

This section sets out the current range of activities undertaken by the Enforcement Team. Primary activities include:

- Incorrect Waste Presentation
- Recycling Education
- Waste In Frontages
- Commercial Waste
- Fly-tipping and Local Environmental Quality
- High Hedges

3.1 Incorrect Waste Presentation

The Council has a statutory duty to keep the streets of Cardiff at an acceptable level of cleanliness. Each year, all local authorities in Wales - along with Keep Wales Tidy - need to carry out street cleanliness surveys. All surveys follow the same method (LEAMS Surveys), and the data is used to calculate Wales' Performance Indicator for

Streetscene, which is used to measure how local authorities are doing in fulfilling their legal duties to keep the streets clean.

Whilst prompt removal of incorrectly presented waste is important to prevent littering, it is also paramount that the incorrect behaviour is addressed, to prevent recurring issues.

3.2 Recycling Education

Each Local Authority in Wales must achieve the Welsh Government recycling performance target of 70% by 2024/25. In order to achieve this there is a focus to increase recycling in a sustainable manner. If a Local Authority does not meet recycling performance targets, it may result in the levying of a substantial financial penalty by Welsh Government.

The Education and Enforcement team are essential to helping the Council achieve statutory recycling targets. The Education and Enforcement team provide advice and information to residents on how to present their household recycling and waste in order to change behaviour. If households continue to store or present their waste and recycling incorrectly – despite having received advice and information - enforcement action will take place. To instil long-term behavioural change the education enforcement team work towards a three-tiered approach.

- 1. Education, Engagement and Monitoring
- 2. Investigation / Enquiries
- 3. Formal Enforcement
 - a. Warning Notice (under s.46 of the Environmental Protection Act)
 - b. Prosecution or Fixed Penalty Notice (FPN), where applicable

Offences tackled using this approach include:

- Waste presented in the wrong container
- Waste presented on the wrong day/week
- Bins left on the highway

Note: This three-tiered approach does not apply to zero tolerance offences such as:

- Commercial waste duty of care (see below)
- LEQ Offences and Fly-tipping (see below)

3.3 Waste accumulations in frontages

Waste accumulations can occur in both frontages and gardens. Most commonly, they arise in linked properties with small frontages. The process for tackling waste accumulations can take several weeks to complete.

Firstly, officers must issue an intention to serve notice, under S.16 of the Local Government (Miscellaneous Provisions) Act 1976. The Notice requires the landowner to remove waste accumulation that is deemed to be detrimental to the Local Environmental Quality within 7 days. Failure to comply with the requirements of the Notice, without reasonable excuse, will result in FORMAL notice to execute works. This can be done under either S.215 of the Town and Country Planning Act 1990 or S.4 of the Prevention of Damage by Pests Act 1949.

In the case of a s.215 notice, the landowner must remove waste accumulation that is deemed to be detrimental to the Local Environmental Quality within 28 days. Failure to comply with the requirements of the Notice, without reasonable excuse, will result in prosecution. A Works in Default will be applied to the land (whereby officers remove the waste) and subsequent charges will be added as part of the prosecution.

A S.4 Notice can be used as an alternative to the s.215 pests are found to be present on land. In the case of a s.4, a "reasonable period" must be specified in the notice allowing time to comply with the necessary works following inspection. Failure to comply with the requirements of the Notice, without reasonable excuse, will result in prosecution. A Works in Default will be applied to the land and subsequent charges will be added as disclosure as part of the prosecution.

In addition to the above, officers have the authority to issue a Statutory Nuisance notice under S80 of the Environmental Protection Act 1990. The abatement notice is issued when an authorised officer is satisfied that a statutory nuisance exists; the accumulations are persistent and becoming a nuisance. The abatement notice instructs the landowner to execute works and take necessary steps to stop the problem re-occurring in the future.

The adoption of Community Protection Notices (see Appendix 3) will help to strengthen the teams enforcement powers in this area.

3.4 Trade Waste Enforcement

The Education and Enforcement team are responsible for ensuring the correct management of waste by both domestic and commercial properties. Action can be taken in relation to commercial waste where:

- a) businesses fail their waste 'duty of care' by avoiding payment of commercial waste collection and disposal charges (s.34(5) of the Environmental Protection Act). Where businesses are unable to produce a Waste Transfer Note to prove that they have appropriate waste disposal arrangements in place, officers can issue a Fixed Penalty of £300.
- b) where waste is presented incorrectly (s.47 of the Environmental Protection Act). Officers are able to issue section 47 notices to businesses at any time to set out the requirements of the service. Under the provisions of the Environmental Protection Act 1990, following receipt of this Notice the businesses will be required by law to comply with the arrangements for placing their waste out for collection. A Notice has no true end date, as long as the business rate payer / LTD company remains the same.

A person/business who fails, without reasonable excuse, to comply with the requirements of this Notice shall be liable on summary conviction to a fine not exceeding £1,000 and a criminal record. Cardiff Council may alternatively offer the opportunity of discharging any liability to conviction for an offence by payment of a Fixed Penalty of £100.

3.5 Fly-tipping and Local Environmental Quality (LEQ) Enforcement Tackling fly-tipping is a corporate priority in Capital Ambition. Local Authorities and

Natural Resources Wales have powers under the environmental Protection Act 1990 to

investigate fly-tipping incidents and to prosecute those who are found to have broken the law. In 2018, we adopted the powers under the Unauthorised Deposit of Waste (Fixed Penalties) (Wales) Regulations 2017, enabling us to issue £400 FPN's for small scale fly-tipping. Large-scale fly-tipping must still be dealt with via prosecution. However, the Single Justice Procedure is now in place and seeks to expedite the legal process around certain offences (see Section 5).

The team continue to implement a zero tolerance approach to all Local Environmental Quality offences, such as litter, dog fouling, fly posting and fly tipping. These environmental issues can seriously blight a neighbourhood, increasing people's fear of crime and lowering their quality of life. The team ensure compliance with regulations in order to keep the streets clean and safe to achieve a more attractive city. The adoption of PSPO's (see Appendix 4) will further strengthen the teams abilities to tackle issues such as dog fouling.

3.6 High Hedges

Part 8 of the Anti-social Behaviour Act 2003 allows local councils to deal with complaints about high hedges. When councils are determining a complaint, they must first decide whether the height of the high hedge is having an adverse effect on a neighbors' enjoyment of their home and/or its garden or yard. If it is, then councils can order the owner of a high hedge to take action to put right the problem and stop it from happening again.

The legislation also allows councils to set and charge fees for handling these complaints. Historically, the power to take action in relation to high hedges rested with shared regulatory services, but it has now been adopted by the Street Scene department.

4 Education and Enforcement Actions

4.1 Promotion and Education

It is important to raise awareness about legal standards and promote good practice. Education is paramount and is key to changing the behaviour of residents and visitors to Cardiff about how to manage their waste correctly. Promotion is through press releases, briefings, website, outreach, advertisements, forums, leaflets and other forms of written guidance available to the public and businesses, and by face-to-face contact.

4.2 No Action (No evidence found)

This is when an investigation reveals at the time of the visit an offence has occurred but the identification of the offender cannot be determined. Contemporaneous notes and photographs will be input to the case for record purposes and monitoring will be undertaken.

4.3 Informal Action

Informal Action will be used to reinforce promotional activities and instances where, although the law may have been broken, there are mitigating circumstances and it would not be in the public interest to formalise proceedings or, it was not thought appropriate to take any further action. Confirmation of the informal action is made in writing.

When an informal approach is used, officers will ensure written documentation provided must:

- Contain all information necessary to identify the breach of legislation
- Indicate specific legislation contravened
- Clearly indicate any recommendations of good practice and to explain that they are not legal requirements

Informal action will take place where:

- The act or omission is not serious enough to warrant formal action;
- Past history indicates that it can reasonably be expected that informal action will achieve compliance;
- Confidence in the individual or company's management is high;
- The consequences of non-compliance will not pose a risk to public health or present unacceptable advantage to business operations or cause the public to lose confidence in the Council.

Informal action will **NOT** be considered when:

- Residents are already under a S46 Notice EPA 1990,
- Residents / visitors are contributing to littering under S87 of the EPA 1990 for;
 - o heavily contaminating the recycling bag
 - using the recycling bag to contain general waste (domestic)
 - Failing to return the bag to the property after non-collection to take necessary action to dispose of waste in accordance with recycling scheme.

• Businesses are using the recycling bag for commercial waste service.

Where education or promotion is widely available (website / signage), offenders claiming ignorance of the law should not expect to be given a second chance before enforcement action is taken.

4.4 Simple Caution

A simple caution is a formal notice. A simple caution may only be considered where a prosecution could properly be brought; i.e. the case meets the standard required by the evidential stage. As a result, the existing procedures for considering a prosecution should be followed. A clear and reliable admission of the offence must be obtained before a simple caution can be considered. The mitigation provided meets the standard required at determination stage.

4.5 Formal Caution

A person should only receive one formal caution; and this caution lasts for 5 years. If the person subsequently commits a similar offence within 5 years, the case should proceed straight to prosecution and the original caution will be cited at Court.

- The purposes of formal cautions are:
 - To deal quickly and simply with less serious offenders.
 - To avoid unnecessary appearance in criminal courts.
 - To reduce the chance of offenders re-offending.

Before issuing a formal caution, which will usually be administered by letter, the following conditions must be satisfied:

- There must be evidence of guilt sufficient to give a realistic prospect of conviction.
- All issuing of all formal cautions will be in accordance with Council procedures.
- The suspected offender must have already admitted the offence during the investigation
- The suspected offender must understand the significance of a formal caution and give an informal consent to the caution.
- Should an offender not accept the offer of a formal caution, the team will recommend to the Authority's Legal Department to prosecute.

The Education Enforcement Team will only consider Simple Cautions or Formal Cautions / Warnings in the below circumstances:

- S34 of Environmental Protection Act 1980 Duty of care (admission of guilt with mitigation)
 - Providing advice to trade waste producers about how to comply with their "Duty of Care" to manage their waste responsibly where there has been an admission of guilt and mitigation provided meets the standard required at determination stage.

- Providing advice to residents about how to make thorough checks when disposing of waste to a third party; Waste Carrier licence checks, receipts in form of waste transfer notes for the safe transfer of waste, where there has been an admission of guilt and mitigation provided meets the standard required at determination stage.
- S43 of the Anti Social Behaviour, Crime and Policing Act 2014 Community Protection Notice
 - A formal written warning will be issued if the officer considers that they are responsible for the unreasonable behaviour which is persistent and/or continuing in nature and is having a detrimental impact on the quality of life of others.

4.6 Formal Action

If appropriate, the authorised Officers will consider the application of formal enforcement action that can comprise one of the following alternatives.

- Formal warning
- Requests for information under caution
- Formal Notice Statutory Notices or other relevant enforcement action
- Prosecution

4.6.1 Formal warning

To reiterate education Is not required to secure a successful prosecution and where education has been provided, offenders claiming ignorance of the law should not expect to be given a second chance before enforcement action is taken. Formal warnings only applies in the below circumstances:

- Community Protection Notice A formal written warning will be issued *Pursuant* to S43 of the Anti Social Behaviour, Crime and Policing Act 2014
 - o If the officer considers that they are responsible for the unreasonable behaviour which is persistent and/or continuing in nature and is having a detrimental impact on the quality of life of others. The letter should be considered as formal notification for them to stop behaving in this manner and to put these problems right to avoid further consequence. Actions to take and timescales will be set.
- Repeatedly presenting incorrect recyclable waste in green bags as part of the behavioural change campaign.
 - A FORMAL WARNING Letter with formal instructions on how to present recycling waste.
 - Failure to adhere to this warning will result in a formal S46 Notice EPA 1990

As per Informal Action a warning or caution will **NOT** be considered when:

- Residents are already under a S46 Notice EPA 1990,
- Residents / visitors are contributing to littering under S87 of the EPA 1990 for;
 - o heavily contaminating the recycling bag
 - o using the recycling bag to contain general waste (domestic)

- Failing to return the bag to the property after non-collection to take necessary action to dispose of waste in accordance with recycling scheme.
- Businesses are using the recycling bag for commercial waste service.

4.6.2 Requests for information under caution

Where evidence is obtained and further investigations are to be conducted the authorised officer will request for further information using relevant legislation to the offence committed and/ or S16 The Local Government (Miscellaneous Provisions) Act 1976 and Data Protection Act 1998. This request will be made in writing in the following ways:

- enquiry form,
- request for information notice
- formal invite to interview under caution (PACE).

This applies predominantly in the below circumstances:

- S87 EPA 1990:
 - Standard Domestic Waste Enquiry bagged waste deposited contributing to littering
 - Littering standard enquiry to registered keeper for litter thrown from a vehicle
- S34 EPA 1990:
 - Standard Commercial request for Waste Transfer Note date specific (up to 2 years)
 - Standard Commercial request for Waste Transfer Note bagged waste deposited.
 - House hold waste duty of care contributing to Fly tipping Interview under caution (PACE)
- S33 EPA 1990
 - Fly tipping Interview under caution (PACE)

4.6.3 Formal Notices, Statutory Notices or other relevant enforcement action

Although it is intended to prosecute, effective action needs to be taken to remedy conditions as quickly as possible. In general, failure to comply with a written and served statutory notice makes the recipient liable to prosecution.

In some cases the Council is able to carry out works to comply with the notice and recover the costs of doing so from the recipient of the notice. Such case will be considered on an individual basis and works in default may be carried out. In certain circumstances it is possible to prosecute as well as serve a notice: failure to comply with the notice would be an additional offence.

Will be considered where:

• There are significant contraventions of legislation;

- There is a lack of confidence that the individual or company will respond to an 'informal' approach;
- There is a history of 'non-compliance';
- The consequences of 'non compliance' posing a serious risk to public health, or creates a significant advantage to a business operator;

4.6.4 Prosecution

Prosecution will be progressed where there has been blatant disregard of the law, or a refusal to achieve even the basic legal minimum requirements. The relevant Officer will consider referring a case for prosecution when:

- It is appropriate in the circumstances, as a way to draw attention to the need for compliance with the law and the maintenance of standards required by law, especially where there would be a normal expectation that a prosecution would be taken, or where, through the conviction of offenders, others may be deterred from similar failures to comply with the law;
- Where there is the potential for considerable harm arising from the breach;
- The gravity of the offence, taken together with the general record and approach
 of the offender warrants it.

The decision to prosecute will always take account of the criteria set down in the Code for Crown Prosecutors. Before deciding to prosecute, there must be sufficient evidence for a realistic prospect of conviction, taking account of any defence that may be available, and it must be in the public interest.

The following public interest criteria will normally be taken into account when deciding on the relevance of legal proceedings, although this list is not exhaustive:

- The prevalence of the type of offence; and whether the offence involves a
 fragrant breach of the law such that public health and safety or well being is or
 has been put at risk, or where unacceptable business advantage is gained;
- The need for a suitable deterrent;
- The risk of danger or injury to the public;
- The failure to comply with a statutory notice or respond to advice about legal requirements;
- The disregard of legal requirements for financial reward;
- Significant financial loss, potential or actual, to a third party;
- Whether the investigation was the result of a complaint by a third party;
- A history of similar offences;
- Persistent breaches of legislation;
- Where fraud, gross negligence or guilty knowledge is a factor, and
- Minor breaches of a number of statutes.
- The alleged offender has failed to correctly identify the potential risk after being given ample opportunity to comply with legal requirements of an authorised officer;
- The evidence has been evaluated in accordance with the Code for Crown Prosecutors and there is a realistic prospect of conviction

- Relevant, admissible, substantial and reliable prospect evidence is available that an offence has been committed;
- It is in the public interest to prosecute.

Where possible, an offender will be told as soon as sufficient evidence is obtained that a prosecution may follow and a written Summons will be sent to the defendant. Where appropriate a prosecution will be commenced without prior warning and will be brought without unnecessary delay.

Once the decision to refer a case for Prosecution has been made by the relevant Officer, a case file will submitted either via Single Justice Procedure or via Legal Services.

4.7 Fixed Penalty Notices (FPN's)

A fixed penalty notice offers the ability to discharge any liability to prosecution for the criminal offence; in respect of specified offences, with payment of the fixed penalty. This should be paid no later than 14 days of the date on the penalty letter. FPN's may only be served by authorised Officers. Officers will not issue a fixed penalty notice unless:

- The offence justifies prosecution;
- There is believed to be sufficient evidence to enable follow up proceedings should the offender not pay the charge within the stator payment period; and
- It will act as a sufficient deterrent against re-offending.

In all fixed penalty cases Cardiff Council can prove beyond reasonable doubt that an offence has been committed and intend to prosecute. All FPNS will be issued in accordance with the guidance issued by the Welsh Government. The following circumstances are likely to warrant the use of an FPN:

- 1) The offence of failing to comply with the requirements of a Notice.
- 2) Where an Officer believes there are "reasonable grounds" to consider an offence has been committed, and
- 3) Where there is a suitable witness or witnesses to the offence and the offender can be clearly identified.
- 4) The evidence gathered by an authorised officer proves beyond reasonable doubt that the offence has been committed.

If the penalty is paid within this time frame no further enforcement action will be taken. If a fixed penalty is not paid within the prescribed period, legal proceedings will be considered and the offender will be prosecuted. At this stage, and only at this stage, the defendant can provide mitigation to the offence.

5 Single Justice Procedure (SJP) and the Magistrates Court

The Single Justice Procedure (SJP) is part of the government strategy to transform summary justice to:

- Make it simpler, faster and more proportionate and
- Ensure that the best use of magistrate court time is made so that they can focus on cases which have the biggest impact on their communities

The SJP requires:

- A procedural Notice to be served on the Defendant, with the Supporting documents:
 - 1) Statement of offence referring to exhibits
 - 2) Certificate of service
 - 3) Single justice procedure means form
- The notice will tell you who has brought the case against you (Cardiff Council), the offence, how to make a plea, and if you can make a plea online.
- The defendant has 21 day to respond to the notice.
 - Alternatively the defendant has 21 days to pay the original FPN and case costs (Administration Payment Fee) to discharge liability for prosecution.
- The response would need to plead either guilty or not guilty.
 - Plead guilty the magistrate will make a decision based on the information they have. The defendant will get a letter with the magistrate's decision.
 - Plead not guilty the defendant will have to go to court and give information to the magistrates in person. The defendant will get a letter telling them when to go to court.
 - o If you do not respond to the single justice procedure notice within 21 days, the magistrate will make a decision about your case without your say. This could mean that if you are found guilty and sentenced, there will be no reduced sentence for a guilty plea. Your fine or penalty points may also be higher. Money may be taken from your pay or benefits.
- Should help be required with the defendants notice they can get legal advice or free advice from Citizens Advice.

If a guilty plea is received, or a conviction is made by a single justice procedure following no response from the Defendant, the single justice procedure is able to impose a financial penalty or impose an order of absolute or conditional discharge.

5.1 Magistrates Court

If no guilty plea is received the case file will be submitted to Legal Services. Legal Services will consider the entire case and if they agree that the case is suitable for Prosecution, they will then exercise the delegated power of the City and County Solicitor to lay any information at Cardiff Magistrates Court.

6. Complaints and Disputes

6.1 Appeals

There is no right of appeal to the Council for Fixed Penalty Notices issued under Environmental or Highway legislation.

There is no appeals process as it is a criminal offence with a penalty notice. It is not a civil offence, such as parking, which imposes a fine and provides an appeals process. The opportunity to disagree would be through the Magistrates Court. The matter will be referred to the Magistrates' Court should the fixed penalty remain unpaid, or should instructions be made by the offender to Cardiff Council to do so.

Any enquiries or disputes regarding fixed penalties will not be progressed as part of Cardiff Council's Corporate Complaint Procedure or The Public Services Ombudsman for Wales.

6.2 Complaints

The service accepts complaints relating aspects outside of the issuing of a Fixed Penalty Notice, such as the behaviour of Officers. These complaints will follow the Complaints Policy but will not have any influence on the Fixed Penalty Notice.

6.3 Formal Review

An Elected Member may make a request for a formal review of a concern to the Corporate Director, Director or Assistant Director managing the service. The request can only be made in the below circumstances:

- Requests made on behalf of a person who is a vulnerable adult
- Documentation is provided in relation to condition which directly affects capacity to progress the case; such as metal health condition or the capacity of the individual to understand.

The outcome of the formal review will be a decision as to whether to proceed with the case or take reasonable measures to provide additional support.

Examples of support services are:

- Additional waste capacity assessments: this allows an increased level of general, non-recyclable waste to be presented for collection on the understanding residents are unable to separate their waste for recycling
- Home educational visits: information for residents in a preferable, easy to understand format. For example, audio recordings or easy read documents for residents.
- Registered collection service: our collection crews will enter the front boundary of a property to collect recycling and waste. This alleviates residents' concerns that they are going to put recycling or waste out on the incorrect day
- A visit by the independent support living team: the team visit vulnerable residents at their properties to provide varying levels of support. This team have direct contact with waste management and are able to request support on their client's

behalf. If any of these services are not appropriate, we will make every attempt to offer some form of reasonable adjustment to the scheme.

Appendices

Appendix 1 – Enforceable Offences

This appendix is a list of the main enforceable offences utilised by Cardiff Council. The list is not a defined list and enforcement of further offences may be take place depending on circumstances and delegated authority.

Enforcement type	Legislation / ACT	Section	What this enforces	Failure to comply with notice may lead to prosecution / works in default / FPN / Charge.
Waste Presentation Domestic	Environmental Protection Act 1990	S46 Notice	The section 46 notice allows the council to serve a notice on an occupier requiring them amongst other things, to separate their waste for recycling and/or to put out their refuse at specific times and/or in containers we supply sets out the requirements of the service. On receipt of this Notice the residents will be required by law to comply with the arrangements for placing their waste out for collection. If this notice is not complied with, then the Council can prosecute or issue a Fixed Penalty Notice (FPN) which if unpaid may result in prosecution for the original offence. A Notice has no true end date, as long as the occupants remain.	Prosecution / FPN £100 *S47za (2)
Waste Presentation Commercial	Environmental Protection Act 1990	S47 Notice	The section 47 notice sets out the requirements of the service. Under the provisions of the Environmental Protection Act 1990 following receipt of this Notice the businesses will be required by law to comply with the arrangements for placing their waste out for collection. A Notice has no true end date, as long as the business rate payer / LTD company remains the same.	Prosecution / FPN £100 (S47za)
Waste Presentation Duty of Care Commercial	Environmental Protection Act 1990	S 34(5)	Regulation 4 the Environmental Protection (Duty of Care) Regulations 1991, Requiring Production of Written Documentation Regarding the Transfer of Commercial (Controlled) Waste	Prosecution / FPN £300 S34 A(2)
Waste Presentation Duty of Care Domestic	Environmental Protection Act 1990	S34 (2A)	it shall be the duty of the occupier of any domestic property to take all such measures available to him as are reasonable in the circumstances to secure that any transfer by him of house hold waste produced on the property is only to an authorised person.	the amendment to act under section 34(2A) which allows Welsh waste collection authority to issue a fixed penalty of £300.
Litter	Environmental Protection Act 1990	S87	to throw down or deposit litter open to the highway.	Prosecution / FPN £100 (S88(1)
Abandoned Shopping Trolley	Environmental Protection Act 1990	S99	Schedule 4 applies where any shopping or luggage trolley is found by an authorised officer of the local authority on any land in the open air and appears to him to be abandoned.	The charge of £75 is payable to the authority on demand.

fly tipping	Environmental Protection Act 1990	S33	Fly-tipping is the term used to describe waste illegally deposited on land. The offence of fly-tipping and the additional offences of 'knowingly causing' or 'knowingly permitting' fly-tipping are set out in Section 33(1)(a) of the Environmental Protection Act 1990. Including amendment to act under Section 33ZB which allows a Welsh waste collection authority to issue a fixed penalty of £400 for small scale fly tipping	On 25th October 2017 an amendment of the Environmental Protection Act 1990 was introduced enabling an authorised officer of a Welsh waste collection authority to issue a Fixed Penalty for flytipping in contravention with The Unauthorised Deposit of Waste (Fixed Penalties) (Wales) Regulations 2017 Prosecution / FPN £400
waste Carrier licence	Control of Pollution (Amendment) Act 1989	Section 5	Requiring Production of Written Documentation Regarding the Proof of Authority to Transport Controlled Waste	Prosecution / FPN £300 S5B(2)
Waste storage / accumulation on private land (frontage / rear / private property	The Local Government (Miscellaneous Provisions) Act 1976	Intention to serve notice S16	The Notice to landowner to remove waste accumulation that is deemed to be detrimental to the Local Environmental Quality must be removed 7 as per notice	Failure to comply with the requirements of the Notice, without reasonable excuse, will result in FORMAL notice to execute works: S215 Notice - Town and County Planning Act 1990 or S4 Notice - Prevention of Damage by Pests Act 1949
Waste storage / accumulation on private land (frontage / rear / private property	Town and County Planning Act 1990	S215	The Notice to landowner to remove waste accumulation that is deemed to be detrimental to the Local Environmental Quality must be removed within 28 days as per notice.	Failure to comply with the requirements of the Notice, without reasonable excuse, will result in prosecution. A Works in Default will be applied to the land and subsequent charges will be added as disclosure as part
Waste storage / accumulation on private land (frontage / rear / private property	Prevention of Damage by Pests Act 1949	S4 Notice	The Notice to landowner to remove waste accumulation where pests are found to be present on land a "reasonable period" must be specified in the notice allowing time to comply with the necessary works following inspection.	
Statutory Nuisance	Environmental Protection Act 1990	S80 Notice	The abatement notice to the landowner is issued when an authorised officer is satisfied that a statutory nuisance exists; the accumulations are consistent and becoming a nuisance. The abatement notice instructs the landowner to execute the works and make necessary steps to stop the problem in the future.	of the prosecution.
Abandoned Vehicles on the highway.	Refuse Disposal (Amenity) Act 1978	S.2	Notice to owner to remove vehicle	S.10 of The Clean Neighbourhood and Environment Act 2005 FPN for breach of notice

	The Clean Neighbourhood and Environment Act 200	S.10	Breach of notice	A person/business who fails, without reasonable excuse, to comply with these requirements of this Notice shall be liable on summary conviction to a fine not exceeding £1,000 and a criminal record. Cardiff Council may alternatively offer you the opportunity of discharging any liability to conviction for an offence by payment of a Fixed Penalty of £200
	Road Traffic Regulation Act 1984	S.99	Order Offender to remove abandoned Vehicle	Failure to comply with the requirements of the Notice, without reasonable excuse, will result in FORMAL notice to execute works
	Refuse Disposal (Amenity Act) 1978 Power	S.3	Veriliale	S2A(1) FPN £200
	Anti-social Behaviour Act 2003	s43	Displaying advertisement in contravention contrary to section 224(3) of the Town and Country Planning Act 1990.	FPN for failing to comply with Section 132 of Highways Act 1980 (as inserted by s43 Anti-Social
fly posting	Town and Country Planning Act 1990.	224(3)		Behaviour Act 2003) – placing an unauthorised mark on highway without lawful authority or causing or producing graffiti or flyposting.
interview under caution	Police and criminal evidence Act 1984	codes of practice	PACE - interview under caution	leads to evidence - Prosecution / FPN decision
community protection notices	Anti-social Behaviour, Crime and Policing Act 2014	S43	The community protection notice (CPN) will tackle the conduct of individuals / businesses, which is/are persistent and/or continuing in nature and is having a detrimental impact on the quality of life of others.	Prosecution / FPN
public space protection notices	Anti-social Behaviour, Crime and Policing Act 2014	s59	The PSPOs would be considered for Dog Control Orders: FAILURE TO REMOVE DOG FOULING FAILURE TO DEMONSTRATE MENAS TO REMOVE DOG FOULING DOGS ON LEADS BY DIRECTION DOG EXCLUSION	Prosecution / FPN
dog fouling	Dogs (Fouling of Land) Act 1996		FAILURE TO REMOVE DOG FOULING	Prosecution / FPN
high hedges	Anti-social behaviour Act	S69	Remedial notice will be issued under Section 69 of the Anti-social behaviour Act, The notice will be sent to the owner of the property and they will be given a specified time to carry out the works instructed by us.	If the owners fail to do so they will be prosecuted for the offence under S.75 of the Anti-social behaviour act. The courts will usually demand that they carry out the works or face further prosecution by means of a fine.

unauthorised distribution of literature on designated land	Environmental Protection Act 1990	Schedule 3A para. 7(2)	Breach of notice	Prosecution / FPN
Request for Info	Environment Act 1995	S108	request information to assist with fly tipping investigations.	Prosecution
Request for Info	Data Protection Act	S29	request information to assist with investigations	Prosecution

Appendix 2 - Enforcement Concordat

The Council has adopted the public sector 'Enforcement Concordat', which offers best practice guidance and promotes good standards of enforcement. This means the Council will try and persuade people to change their behaviour through information, education and advice, but will not hesitate to take enforcement action; such as issuing Fixed Penalty Notices or prosecuting when appropriate. This approach sends a clear message of 'zero tolerance' to those individuals or businesses who continue to spoil the environment. The Street Scene Education and Enforcement Team aim to conform to the principles outlined in the Concordat and apply them in the following ways:

Openness and Helpfulness

The Council will publicise this enforcement policy so people know what standards are expected. The Street Scene Education and Enforcement team will help residents and visitors to comply with the law and will explain what they are doing and why. They will inform people about their rights of appeal, where applicable and make sure people know how to make a complaint. They will try to help people who cannot read or speak English by providing literature in their language and educate them with the same message.

Proportionality, consistency and priorities

The Education and Enforcement team will carry out their duties in a fair, reasonable and consistent manner. They will take appropriate enforcement action when required to do so. Any action taken will fit the seriousness and prevalence of the crime. Each case is unique with certain offences being worse than others and therefore the enforcement action applied will potentially differ. The Education and Enforcement team will have sufficient training to apply law and work to this policy in a fair and consistent way. To ensure consistency Senior Officers will regularly audit the work of enforcement officers for accuracy and consistency.

In making a decision regarding which enforcement option is appropriate in a particular case, Street Scene Education and Enforcement Officers will consider and take into account the following:

- The nature of the offence
- Whether it is in the public interest
- Any explanation offered by the defendant
- The age of the defendant
- The previous relevant history, if any
- The ability of any important witnesses and their willingness to co-operate
- Whether other action such as the issue of a fixed penalty notice would be more appropriate or effective
- The advice contained in the Code for Crown Prosecutors

Having considered all the relevant information and evidence, the Street Scene Education Enforcement Officer must decide what type of action to take:

- Promotion and Education
- No Action (No evidence found)
- Informal Action

- Simple Caution
- Formal Caution
- Formal Action

Appendix 3 - Community Protection Notices

The community protection notice (CPN) will tackle the conduct of individuals / businesses, which is/are persistent and/or continuing in nature and is having a detrimental impact on the quality of life of others. These are designed to stop a person aged 16 or over, a business, or an organisation committing anti-social behaviour which spoils the community's quality of life.

Definitions of Anti-social behaviour

- 1) Conduct of individuals/ businesses which is persistent and/or continuing in nature and is having a detrimental impact on the quality of life of others
- 2) Conduct capable of causing a nuisance or annoyance to a person in relation to that persons occupation of residential premises
- 3) Conduct which is capable of causing housing related nuisance or annoyance to any person
- 4) Conduct that has caused or is likely to cause harassment alarm or distress to any person.

The CPN can only be issued if:

- Firstly a complaint is received on how it is affecting their quality of life.
- Secondly the inspection verifies the unreasonable behaviour.
- Thirdly the individual or business has been given a written warning telling them to cease their conduct and given "enough time" to deal with the matter.
- Fourthly the behaviour continues to be unreasonable and a formal CPN is issued.

Failure to comply with this notice will result in either prosecution, or the option of a Fixed Penalty Notice that cannot exceed £100. Alternatively, the Council also has the option of carrying out remedial work where the requirements of a CPN are not carried out provided that the land is open to the air. The local authority can then reclaim the costs from the "defaulter".

Formal Stages:

- Complaint is received regarding conduct / behaviour of others that is persistent and/or continuing in nature and is having a detrimental impact on the quality of life of others.
- 2) Inspection / Assessment of the behaviour by authorised officer. Officers will consider the behaviour and will take action as necessary.
- 3) A formal written warning (appendix 1) will be issued *Pursuant to S43 of the Anti Social Behaviour, Crime and Policing Act 2014* if the officer considers that they are responsible for the unreasonable behaviour which is persistent and/or continuing in nature and is having a detrimental impact on the quality of life of others. The letter should be considered as formal notification for them to stop behaving in this manner and to put these problems right to avoid further consequence. Actions to take and timescales will be set.

- 4) A Community Protection Notice (CPN) is issued if they fail to comply with the actions / requirements within the timescales given and their behaviour continues to have a detrimental effect on the quality of life of others. The CPN requires that they must comply with the following prohibitions/positive requirements/specified actions that are believed necessary to:
 - Prevent the detrimental effect your conduct is having on the quality of life of those in the locality from continuing or recurring; and/or
 - (ii) Reduce the detrimental effect your conduct is having on the quality of life of those in the locality; and/or
 - (iii) Reduce the risk of continuance or recurrence of your conduct that is having a detrimental effect on the quality of life of those in the locality The notice is a formal notification that they MUST take the detailed actions within the timescales.
- 5) Their Right to appeal against the notice to the magistrates' court, within 21 days beginning with the date of service of the notice on them. Whilst an Appeal is "in progress", any requirement imposed by this notice to stop doing something remain in effect unless the court orders otherwise and any other requirements imposed by the notice is of no effect. For this purpose, an appeal is "in progress" until it is finally determined or is withdrawn.
- 6) BREACH OF CPN is a criminal offence. If they fail without reasonable excuse to comply with the requirement(s)
 - (i) They may be issued with a fixed penalty notice of £100
 - (ii) They may be prosecuted and convicted.

Appendix 4 - Public Space Protection Orders (PSPO)

The Public Spaces Protection Order would prohibit certain activities from taking place in a specified area or specify that certain things must be done to allow an activity to continue. Under these circumstances it might be that the area is not to be used for the exercising of dogs or that all fouling must be removed by the dog owner.

The Council does not currently have any dog controls in place across the city to control where dogs can go, whether they need to be on a lead or how many dogs a person can control at any one time.

These types of orders are designed to stop individuals or groups committing anti-social behaviour in a public space. The PSPO replaces dog control orders and allows the authority to designate public places for restrictions. Prohibition notices can be used for specific areas and/ or times, for example stopping dogs from entering playgrounds, schools grounds or restricting how many dogs could be taken through a public area by one person.

By adopting the PSPO the fine for any breach, including dog fouling would be £100. The PSPOs would be considered for Dog Control Orders:

- FAILURE TO REMOVE DOG FOULING
- FAILURE TO DEMONSTRATE MENAS TO REMOVE DOG FOULING
- DOGS ON LEADS BY DIRECTION
- DOG EXCLUSION

If the person in charge of a dog fails to comply with the requirements of the order, they will be committing a criminal offence unless:-

- 1. they have the consent from the owner, occupier or person in charge of the land, not to comply with the order;
- 2. they have a reasonable excuse for failing to comply; or
- 3. they fall within one of the other exemptions within the order, such as the exemptions in the order for disabled people, assistance dogs and working dogs.

The aim is to encourage responsible dog ownership and reduce other incidents involving dogs such as straying; dog bites; fouling on sports pitches and the dog fouling on our streets and green spaces. Such controls in play areas could also prevent problems becoming more serious and thus reduce the number of dog bites. Warnings can also be given to individuals who allow their dogs to roam freely without control causing nuisance in our communities. The Council will also should look to provide suitable dog walking areas in the locality, where other restrictions are in place.

Our joint commitments and service standards

Area	What we will do:	What we expect from our customer	Service Standards
Recycling and Waste Collections- traditional households	Collect your household rubbish on your scheduled day, between 6am-4pm in the specific container provided. Reserve the right to refuse the	To present your bins, bags and caddies by 6am on your scheduled day of collection and no earlier than 4.30pm the day before. Bring all containers back onto the property by 9am the following day.	We will aim to return within 48 if you report that we have not collected your general waste/garden waste/hygiene waste on the scheduled collection day.
	collection of any waste items that may cause harm or may have an affect on the health and safety of waste collection staff.	Report any missed collections of your recycling and waste within 24 hours of collection. You can report a missed collection at any time on your collection day, once your collection status has	We will not return if your bin has a report against it, such as contaminated/overloaded. We will attempt to return before 2
	Label all wheeled bins with the correct address and bin type. Collect a maximum of 5 re-useable garden sacks/ 2 green wheeled bins (garden waste) per collection.	changed to 'collected'. You can use the link www.cardiff.gov.uk/missedcollections to report a missed collection, or see your collection status. Recorded collections can be reported up to	working days if we know that we have missed an entire street/round due to a service failure. We will aim to update the re-scheduled collection date at www.cardiff.gov.uk/missedcollections
	Return your containers to where we found them. This will be on the highway outside your property, an alternative agreed collection point or within your property boundary if a registered collection has been	48 hours after a failed collection. Place your containers on the nearest highway for collection at the above times, unless an alternative collection point has been agreed.	If your recycling or food waste is missed, we may return to collect on your next scheduled collection. We will collect any loose bags outside of your food waste caddy in this instance.
	arranged. Replace any wheeled bins, damaged by our refuse collectors free of charge.	Only use the recycling and waste containers provided- failure to do so may result in a Fixed Penalty Notice of up to £100 being issued. To not remove or replace your label.	We will check the vehicle CCTV cameras and trackers when all reports of non-collections are received. We will only return to make a recollection if the report is found to be genuine.

Place stickers onto your recycling or waste, letting you know if we can't collect them e.g. incorrect items.

If you have a front garden, return your re-useable garden sack to your property boundary.

Advertise, recommend and process all applications for hygiene waste collections.

Offer an alternative collection point for hygiene waste, by agreement of customer and collection team.

Remove properties from the hygiene service if hygiene bags have not been placed out for 4 consecutive collections.

To leave your waste containers at your property, if you are moving to another address.

If you have a wheeled bin, all waste must fit inside your bin. Any bags outside your bin will not be collected, and may result in a Fixed Penalty Notice of up to £100 being issued.

To make full use of the weekly recycling and food waste services available. To not abuse these services, by placing incorrect material into them to allow you a weekly collection of general waste. This may result in a Fixed Penalty Notice of up to £100 being issued.

To maintain the condition of your wheeled bin and containers, and keep them within your property boundary at all times (except during your collection period).

Not to compact waste tightly into your wheeled bin. If this happens your waste may not empty into our vehicle and recollection would not be arranged.

If your wheeled bin, or re-useable garden sack, is too heavy for collection, remove the excess waste before presenting for your next collection. As a guide, your bin should weigh no more than 20kg.

To identify your correct collection dates and methods, by looking at all information

We will clear up any litter which has been created as a result of waste collection. If there is too much to clear with the equipment available, we will communicate with our Street Cleansing team to action.

Report any issues on our incab devices for further action e.g, to identify any wheeled bins that we have damaged and need replacing.

Replace your wheeled bin within 15 working days. This may increase in times of high demand

You will receive a delivery of hygiene bags, and the date of your first collection, within 10 working days. This may increase in times of high demand.

Investigate all reports of noncollections of hygiene waste, using all resources available.

If the Council is at fault, re-collect your hygiene bags within 3 working days.

		made available e.g.via the Cardiff Gov App, website, information at Hubs Ensure that no items of a hazardous nature are placed into your recycling and waste bags; consider the health and safety of our crews at all times e.g. wrap sharp objects before placing into your bags. To place your hygiene waste kerbside, unless an alternative collection location has been agreed. This must be requested at the time of the initial application. To put your hygiene waste in Council issue bags only for collection. To inform us if you no longer require the hygiene service or if you are moving house. To not use any verbal or threatening behaviour towards our staff.	
Recycling and Waste Collections- blocks of flats	Collect your household recycling and waste in the specific container provided and clear up any rubbish spilled during the collection. The above will happen at the same frequency as traditional household collections, unless additional arrangements have been made. We will collect and return your containers from an agreed collection	Landlords/developers/property management companies Proactively maintain contact with the Waste Strategy Team when planning any new development/making changes to existing development. This is to ensure: • A collection point and collection method is agreed. • Your bin store is accessible and safe for our crews to collect from.	We will return within 48 hours if you report that we have not collected your communal bins on the scheduled collection day, and there was no underlying cause for the missed collection (e.g. we will not return for contaminated bins). We will attempt to return within 48 hours if we know that we have missed an entire street/round due to a service failure.

point, which should be agreed in the planning and development stage.

Provide flat specific information including leaflets, and bin store signage.

Have a dedicated officer to assist in improving recycling participation, and correct waste presentation, in blocks of flats.

Replace any communal bins, damaged by our refuse collectors free of charge.

Provide advice and support during the planning development stage, in relation to the type/number of bins required, access requirement for our crews and collection method statements

Offer a sale of recycling and waste containers

Offer a hygiene collection in blocks of flats.

Reserve the right to not collect recycling and waste in incorrect containers, where containers are contaminated with incorrect items, or where a health and safety issue has been identified at the collection point.

- You have an adequate number of recycling and waste bins for the development.
- Payment is made for bins and delivery in advance.
- Recycling/waste bins and information is available for your residents before they move in.
- We have a contact for the development, should any issues arise in the future e.g. contamination issues, lack of bins, health and safety issue identified.
- Regularly monitor the presentation of waste from your building, to ensure it is compliant with our waste collection requirements e.g. no additional bags outside of the bins. Make arrangements to remedy any incorrect presentation.
- If you choose to buy bins from an alternative supplier, they must meet the Council's specification. If they don't, we do not have to collect your waste until the situation is resolved.
- Allow access to the development between 6am-4pm on the day of collection.

Further information can be found at www.cardiff.gov.uk/wasteplanning

Residents

We will check the vehicle CCTV cameras and trackers when all reports of non-collections are received. We will only return to make a recollection if the report is found to be genuine.

If a non-collection of your food waste or recycling is reported, we may collect on your next scheduled collection. We will collect any additional green recycling bags outside of your bin in this instance.

Any issues relating to the collection of communal bins will be recorded on our in cab device

		 Make full use of the recycling and waste collection schemes available at your block of flats Let us know if you think recycling arrangements can be improved at your block of flats Follow all recycling and waste presentation guidelines provided Responsibly dispose of any bulky waste you have- do not simply leave within your bin store without making collection arrangements. Inform us of the specific collection point for your hygiene waste. Do not place hygiene bags in any other container for collection. Ensure full access between 6am-9pm for hygiene bag collection. To not use any verbal or threatening behaviour towards our staff. 	
Provision of wheeled bins, food waste liners, green recycling bags, red striped waste bags and food	Provide recycling and food waste equipment free of charge, and in a variety of ways to meet customer needs. Provide re-useable, garden waste bags for a small fee. These can be ordered by contacting C2C, if you	If you are unable to attend a local stockist, please order your recycling and food waste equipment for delivery before you run out. This will ensure you can still participate in all services available. Please use all equipment as specified by the Council. Incorrect use may result in a	Deliver food waste liners and green recycling bags to all local stockists twice a week. Where demand is consistently high, consider increased deliveries to stockists.

Deliver a limited supply of red striped waste bags twice a year, enough to place out up to 3 bags per fortnightly general waste collection (bag areas only). This will be 3 rolls as standard.

Replace wheeled bins, lost or stolen from a property, for a set delivery fee.

Identify an appropriate local stockist within each electoral area of Cardiff, to allow the collection of a maximum of 2 rolls (1 additional for a neighbour) of green recycling bags and food waste liners per person.

Fixed Penalty Notice of up to £100 being issued.

Green recycling bags should not be used for any alternative purpose e.g. transporting non-recyclable waste to HWRC/charity shops, used for business waste, used outside of Cardiff.

Be polite and courteous to staff within our local stockists, who have been asked to implement a control process to allow you a maximum of 2 rolls of bags per visit.

Let us know if you require an alternative delivery address, where initial delivery has been unsuccessful, or you know you will not be home to receive delivery.

To not use any verbal or threatening behaviour towards our staff.

To deliver the maximum stock of bags that can be held at each stockist, with consideration to available space.

Deliver all ordered items within 15 working days of the order being received. This may increase in times of high demand

Post rolls of bags through your letterbox, where design allows.

Leave a delivery note in the following circumstances:

- -where we have been unable to deliver item/s.
- where item/s have been left at an alternative location.
- where you have paid for the item/s.

We will deliver wheeled bins to the frontage of your property.

We will not leave garden waste sacks on your doorstep. If your letter box allows, they will be posted. Alternatively, you must be home for delivery.

We will not leave red striped waste bags on your doorstep. They will be posted through your letter box. Where no letter box is available, or no access to communal areas can be made, a note of unsuccessful delivery

Bulky Waste Collections	Offer a bulky waste collection service, for large items. Work to procure a partnership with a local charity, to further enhance the re-use of bulky items that can be used again. We may be able to offer assistance with the removal of your bulky waste, if arrangements are made in advance. Inform our fly-tipping removal teams of all bulky waste collection	Present your items in line with the terms and conditions agreed to during your booking process. Seek alternative solutions to a bulky waste collection service, in line with the waste hierarchy e.g. provide for re-use, consider repair etc To not use any verbal or threatening behaviour towards our staff.	will be made. We will send you a letter to allow you to collect your bags Visit your property twice to attempt delivery of chargeable items. Collect your items between 6am-4pm on the day of collection. If a collection is missed due to service disruption, our contact centre staff will be informed. We will arrange to make a re-collection as soon as possible. We will update our in cab devices which will identify any reason why we have been unable to collect your bulky waste item.
Household Recycling Centres	bookings, to ensure they are not incorrectly assumed as fly-tipped items. Provide you with the closest date for collection, in line with demand for the service and resource available. You will be informed of your proposed collection day before any payment is made. Offer free to access HRCs for all Cardiff residents, with an annual allowance.	To book a slot online or via the Cardiff Gov app before attending site. Bookings can be made via telephone if you are unable to	Leave a calling card to advise of any issues with collecting your item/s or confirm item has been collected We will open 7 days/week (excluding Christmas Day and New Year's Day).
(HRC)		book online.	

Ask all customers for proof of Cardiff residency at the point of entry and refuse access to those bringing waste from other Local Authority areas.

Ask customers to maximise opportunities for recycling and implement a 'no mixed waste' policy to ensure recycling has been maximised.

Provide assistance and offer advice to all customers.

Maintain service provision 7 days a week (with the exception of Christmas and New Year).

Operate a van booking in procedure for those with larger vehicles or bringing in larger volumes of waste. This procedure limits individuals to 10 bookings/year.

Update social media where possible, in the case of unexpected needs to close. Make cancellations of bookings, to provide you with an email notification of cancellation where an email address has been provided.

To present your proof of Cardiff residency, and booking confirmation

To separate as many items as possible for recycling and follow any safety instructions provided by staff.

To not use any verbal or threatening behaviour towards our staff.

To use our commercial site at Bessemer Close for Commercial waste, or for any waste that you are unwilling/unable to separate for recycling.

Recycling and waste education

Implement and promote campaigns to increase recycling participation across the City.

Let you know if your collections will be delayed due to Bank Holidays or inclement weather via our waste app, website and C2C contact centre.

Ensure information regarding recycling and waste services is available to the public via a range of communication methods including:

- outreach sessions
- social media e.g. twitter and facebook
- website updates
- Leaflets and letters
- Advertising

Form partnerships with key stakeholders including student union, local volunteer groups, charities.

Arrange assessments for residents who may struggle to present waste for collection on the highway- these are known as registered collections.

Arrange assessments for residents who feel they require additional capacity for non-recyclable waste.

Provide us with correct information to enable us to complete our household visits.

Allow us access to the frontage of your property if requesting a registered collection. Our officers will need to complete a risk assessment.

Be open and honest when explaining why you need assistance with waste collections, or additional non-recyclable waste capacity.

Be polite and courteous to our staff, who are aiming to help and are asked to relay key messages.

Use your chosen communication reminder method to keep informed of recycling and waste messages/collection days etc.

Take personal responsibility to ensure you are participating in all recycling schemes available. Contact us if you require assistance.

Let us know if you no longer require a registered collection at your address.

Respond to registered collection review letters, to let us know if you still require the service.

Organise at least 1 outreach session a month, and inform you where we will be via social media and the website www.keepcardifftidy.co.uk

Visit you within 10 working days to arrange a registered collection.

Process any agreed registered collections by the end of the working day; your assistance will begin between 7-10 days.

Visit you within 10 working days to arrange an additional capacity bin assessment.

If any additional/larger bins are required, order these within 24 hours of the visit.

Provide basic recycling and waste collection information in the 15 most spoken languages across the City.

	Regularly review all properties signed up for a registered waste collection, to ensure they are still required. Complete regular monitoring of the City's participation in recycling schemes using a range of methods to include: - desk based data analysis - on street monitoring Produce improvement plans & changes of schemes when considering results of public satisfaction surveys. Continue the promotion of recycling and waste minimisation messages for school children, through our Really Rubbish Campaign.		
Compliments and complaints	Use your feedback to help us to improve our services. If something goes wrong, we will endeavour to put it right quickly. If possible, we will take action to ensure it doesn't happen again. We will ensure all compliments received reach our operational teams, via staff screens in communal areas.	Provide us with feedback via the various contact methods available to you.	Acknowledge your complaint within 5 working days of it being received. Aim to respond to your complaint within 20 working days. Let you know within the 20 working day period if we think it may take longer to investigate, and keep you informed.

Appendix 5: Outline Action Plan

Headline Action	Current Recycling Performance	Likely Impact on Recycling Performance
Improve Material	Further expand separate glass and other materials Oct/Nov 2022.	Medium
Quality, and 4. Make use of all available data	Targeted education and enforcement programme to reduce garden waste contamination and increase recycling (links with 4.1, 4.2, 4.3 of Table 1). For example, the Pink Sticker Campaign/ Student Food Recycling Campaign/Be Mighty Recycle Campaign.	Medium
2. Increase Recycling Participation and Capture	Implement immediate and medium-term improvements to Trade to focus on recycling performance: - Reviewing all residual only contracts and only retain customers who sign up to recycling (implemented) - Cease provision of one-off mixed skips — all waste must be segregated into recyclable materials (implemented) - Implement 'One Pass' vehicle to collect three separate streams and comply with Business Waste Regulations. - Reinvigorate the Schools 'Really Rubbish' Campaign, linking with Trade to promote recycling services and composting in Schools.	High
	Review residual waste provision and introduce measures to increase participation in food waste service.	High
	Increase range of materials and opportunities to recycle (e.g. AHP, Tetra packs, coffee pods, SDA recycling facilities at hubs/pop up recycling centres)	Medium
3. Increase opportunities to Recycle	Recently introduced 2 new vehicles to our cleansing fleet that have a split back, to enable the separate collection of recycling from community litter picks. We will continue to build on this to increase more cleansing and enforcement waste.	Low
6. Encourage and support the prevention, reuse and repair of materials	Supporting Reuse and repair activities, in line with the circular economy vision: Working with Benthyg Cymru/Repair Café Wales; Introducing Reuse facility at Lamby Way HWRC; develop business case for re-use / repair superstore; Working with CLARE Wales to build a Repair Directory	Low

Version 1

City of Cardiff Council Waste Compositional Analysis



Waste composition analysis of kerbside collected and communally collected household waste in Cardiff

Project code: 5130

Research date: April 2021 **Date:** September 2021

WRAP's vision is a world in which resources are used sustainably.

Our mission is to accelerate the move to a sustainable resource-efficient economy through re-inventing how we design, produce and sell products; re-thinking how we use and consume products; and re-defining what is possible through reuse and recycling.

Find out more at www.wrapcymru.org.uk

Document reference (please use this reference when citing WRAP's work): [WRAP, Year, Town, Title of Report, Prepared by xx]

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Front cover photography: [Mixed Dry Recycling in Wales]

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Executive summary

Resource Futures conducted a composition analysis of residual waste, recycling, and food for WRAP Cymru Collaborative Change Programme (CCP) and City of Cardiff Council in April 2021. Waste was collected for analysis from a representative sample of properties receiving kerbside waste collections and from a representative sample of properties receiving communal waste collections (flats).

The aim of the composition analysis is to better understand recycling performance in Cardiff, including comparing the performance of properties receiving both service types. The analysis will determine the proportion of residual waste which could have been recycled using existing services.

Using Output Area Classification (OAC), Resource Futures selected two samples:

- A sample of 210 kerbside households, proportionally stratified so that each demographic group was represented according to the same proportions as the wider Cardiff area. The sample included some of the same households included in the 2015 analysis. Waste samples were collected by Resource Futures.
- A sample of 201 properties receiving a communal waste service was selected to reflect their demographic profile across Cardiff. Waste samples were collected by Cardiff Council under Resource Futures supervision.

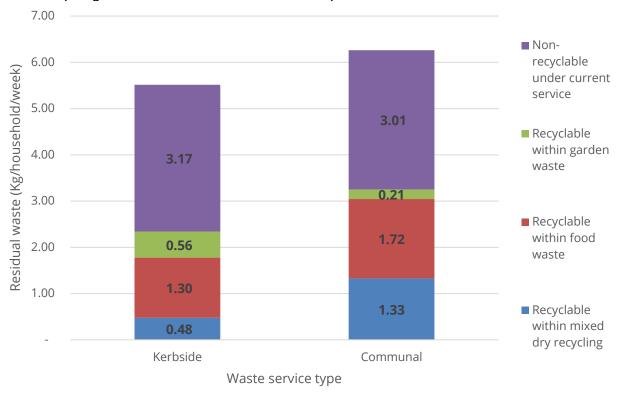
The fieldwork was undertaken at an industrial unit in Cardiff rented by WRAP, where a team of experienced Resource Futures staff analysed the samples of waste to the agreed category list (see Appendix 1). In total 9,803 kilograms of waste was collected and analysed over four weeks of fieldwork, including 4,752 kg residual waste, 3,768 kg dry recycling and 1,263 kg of separately collected food waste.

The overall arising of waste across all waste streams combined from the average household receiving a communal waste service was lower than from the average property receiving a kerbside waste service -10.91 kg/hh/week and 13.32 kg/hh/week respectively. However, there were clear differences in waste and recycling performance between the properties receiving a kerbside collection service and those receiving a communal collection service, as outlined below.

Residual waste

- A higher amount of residual waste was produced by communal properties (6.26 kg/hh/wk) than properties receiving a kerbside service (5.51 kg/hh/wk). Communal properties residual waste contained a higher proportion of material targeted by the mixed dry recycling, food waste and garden waste collections (51.9% or 3.26 kg/hh/wk) than residual waste collected from the kerbside (42.5% or 2.34 kg/hh/wk), as shown in the figure overleaf.
- Despite the provision of food waste and garden waste services to all households included in the study, the proportion of putrescible waste within all samples analysed remained high for both services. Putrescible waste made up the largest proportion of the residual waste by weight 39.4% or 2.17 kg/hh/wk at the kerbside and 35.0% or 2.19 kg/hh/wk for properties receiving a communal service. In both cases the most common kerbside recyclable material found was food waste.

 On average 21.2%, or 1.33 kg/hh/wk of the material within the communal residual waste was targeted by the mixed dry recycling collection. At the kerbside, a lower 8.7% of residual waste analysed, or 0.48 kg/hh/wk, was targeted by the mixed dry recycling collection and could have been recycled.



Mixed dry recycling

- Communal properties produced a lower arising of dry recycling (4.1kg/hh/wk) compared to kerbside properties (5.11kg/hh/wk).
- Materials targeted by the mixed dry recycling service were very well captured overall at the kerbside (89%), but less so when collected communal (64%).
- Higher contamination was found within the dry recycling stream for communal serviced properties (41.4%, 1.69 kg/hh/wk), compared to 23.7% (1.21 kg/hh/wk) for kerbside properties.

Food waste

- At the kerbside the arising of separately collected food waste was 2.67 kg/hh/wk.
 Separately collected food waste arisings were significantly lower for communal properties, just 0.55 kg/hh/wk.
- Communal properties had a much lower capture rate for food waste 19% compared to 62% for kerbside properties.
- Looking across all waste streams, kerbside properties produced more food waste than those receiving a communal service – 4.2 kg/hh/wk and 2.74 kg/hh/wk respectively.

The overall picture shows that communal properties are performing to a much lower recycling standard than kerbside properties.

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Acknowledgements

We would like to thank City of Cardiff Council for their assistance in delivering this project.

1.0 Introduction

Resource Futures was commissioned by the WRAP Cymru CCP team to conduct a waste composition analysis of kerbside collected and communally collected waste for City of Cardiff Council (Cardiff Council). The analysis included residual waste, dry recycling and food waste, and was undertaken over the full collection cycle. The kerbside collected waste compositional analysis took place from 23rd -March to 3rd April 2021. The communal properties waste compositional analysis took place from 6th April to 16th April 2021. This report presents the results of both analyses.

1.1 Recycling Service

1.1.1 Kerbside Collection

Cardiff Council provides a comprehensive kerbside collection service to its residents using a mixture of containers and bags for different materials.

Dry recycling is collected from residents weekly using green single use plastic bags. Materials accepted in the green recycling bag include:

- Recyclable paper,
- · Recyclable card,
- Plastic bottles, pots, tubs and trays, and,
- Tins, cans, empty aerosols and clean foil.

Glass is usually collected in a blue bin, but residents had temporarily been instructed to include glass in the green bags. This was due to COVID 19 impacting staffing levels, and consequently the collection service in Cardiff.

Food waste is collected weekly using an outdoor caddy.

Residual waste is collected fortnightly in either red striped bags or 140L black wheelie bins, which must have the lid closed to be collected. An optional fortnightly service for absorbent hygiene products waste is also available to residents on the opposite week to the residual week. Hygiene products are accepted within the normal residual waste too.

An optional garden waste service is offered by Cardiff Council. The service does not operate in the winter months and garden waste containers (240 L green wheel bins or white sacks) are chargeable.

A full list of materials and items accepted for recycling within each stream is given in Appendix 1.

1.1.2 Communal Properties Collection

Residents living in flats in Cardiff are provided with a very similar service to that offered to kerbside properties, with additional communal containment.

Dry recycling is collected from residents weekly, green bags are provided to households, and these must be placed in the communal green bin (660L-1100L). Food waste is also collected weekly. Caddy liners are provided to households and food waste is placed in communal brown 240L food waste bin for collection. Garden Waste collections are provided to

communal properties with gardens – garden waste must be placed unbagged into green 240L wheeled bins provided.

An optional service for hygiene products is offered to be collected in yellow bags, this is a fortnightly service, on the opposite week to residual collection. Hygiene products are accepted within the normal residual waste too.

A full list of materials and items accepted for recycling within each stream is given in Appendix 1.

1.2 Project Objectives

The aim of the composition analysis is to better understand recycling performance in Cardiff, particularly the difference in performance between the kerbside collected and communally collected waste services. The analysis will determine the proportion of residual waste which could have been recycled using existing services.

2.0 Methodology

2.1 Sample stratification and design

Output Area Classification (OAC) demographic system from the Office of National Statistics (ONS) was used to create a demographic profile of Vale of Glamorgan population, which was used to stratify the sample. This was the same methodology as used in the Welsh National composition analysis study in 2015.

The OAC data was combined with accommodation type data based on the 2011 Census available for the ONS to determine the profile of communal properties in Wales. Data was matched by Output Area. The data suggested that flats account for 26% of households in Cardiff.

The demographic profile of all properties in Cardiff is shown in the table below, as well as the demographic profile of flats in Cardiff.

Table 1: OAC Demographic profile for Cardiff Council - kerbside properties & flats

OAC Super group	OAC Supergroup title	Demographic profile (All housing types)	Demographic profile (Flats only)
1	Rural Residents	0.1%	0.0%
2	Cosmopolitans	15.0%	34.3%
3	Ethnicity central	4.7%	13.3%
4	Multicultural metropolitans	14.7%	11.7%
5	Urbanites	23.3%	19.6%
6	Suburbanites	19.5%	2.6%
7	Constrained City Dwellers	8.2%	13.6%
8	Hard pressed living	14.5%	5.0%
Total		100.0%	100.0%

2.1.1 Kerbside collected waste sample

Collection round data was provided by Cardiff Council. Individual postcodes were then profiled by OAC Supergroup to allow for selection of appropriate streets and houses for inclusion in the study.

A demographically representative sample of 210 household was selected, including some of the properties used during the Welsh National composition analysis study in 2015 to maximise comparability. The household sample was proportionally stratified so the proportion of households in each OAC supergroup stratum is the same as the overall authority profile.

The target number of households selected within each OAC group is shown in section 3.1.

Resource Futures created a detailed sample plan and paperwork identifying which households should be included in the overall sample frame.

2.1.2 Communal collected waste

Collection round data was provided by Cardiff Council and used to create a list of suitable communal properties which could be included in the study. Appropriate properties with communal waste arrangements were chosen based on OAC group. Care was taken to identify properties where waste could be clearly attributed to the correct number of households to enable accurate arising calculations. The type of communal properties was not considered (i.e., private vs social vs sheltered accommodation). A demographically representative sample of communal properties totalling 200 households was selected. The sample was non-proportionally stratified and results were weighted to match the overall communal properties profile.

The target number of households selected within each OAC group is shown in section 4.1.

2.2 Composition analysis fieldwork

The composition analysis fieldwork took place over 10 days for kerbside properties and 10 days for communal properties, to ensure the full collection cycle was included for each type of service. The fieldwork commenced on 23rd March 2021 and ended on 18th April 2021. Table 2 below shows the fieldwork schedule.

Table 2: Fieldwork schedule

Week starting	Streams Collected and Sorted	Service Type
23rd March	Residual, dry recycling and food waste	Kerbside
30th March	Recycling and food waste	Kerbside
6th April	Residual, dry recycling and food waste	Communal
13th April	Recycling and food waste	Communal

2.2.1 Kerbside sample collection

A Resource Futures site manager, collection vehicle driver and loader collected all waste samples during the fieldwork. The collection team was provided with a detailed daily collection list. The regular collection crews at Cardiff Council were briefed about the work

and were instructed not to visit certain streets each day until the sample collection had been completed. All waste was collected on the regular collection day.

2.2.2 Communal sample collection

Collections of residual waste and mixed dry recycling from communal bins were undertaken by Cardiff Council using an RCV and supervised by a Resource Futures collections supervisor. Food waste was collected by Resource Futures. The collection team was provided with a detailed daily collection list. All waste was collected on the regular collection day.

2.2.3 Sorting protocol and waste categorisation

Once collected, samples were delivered to a rented industrial unit in Cardiff. All collected waste was analysed and categorised into the agreed category list. Weights were obtained for each category of material using digitally calibrated scales. The disposal of sorted waste was arranged by Cardiff Council staff at Lamby Way with material being kept separate for recycling.

2.3 Analysis method

The material weights recorded during the composition analysis fieldwork were inputted into tailored MS Excel files, and all data values were quality checked to ensure accuracy. The report focuses on the main category level findings. More detail can be found in the accompanying MS Excel files.

Percentage composition was calculated by weight for each kerbside and communal demographic group level sample. The results from each demographic group were combined proportionally as a weighted average to calculate the overall composition. The average household arisings in kilograms per household per week (kg/hh/wk) were calculated for each material category by demographic group and as a whole.

The proportion of material in the residual waste which could be recycled at the kerbside was calculated, as well as the contamination levels of the recycling streams, according to the Cardiff Council material acceptance policies for each material stream. Nappy waste has not been included as recycling in the analysis as this waste stream is not currently sent for recycling.

2.3.1 Capture rates

Capture rates is defined as how much targeted recyclable material is found in the recycling as opposed to the residual (%). For example, if we measured 10kg of newspaper in the residual waste and 90kg in the recycling, this would result in a 90% capture rate.

2.3.2 Extended Producer Responsibility and Deposit Return Scheme

Future legislation such as Extended Producer Responsibility (EPR) and Deposit Return Scheme (DRS) is currently under consultation and is likely to come into play in the next few years, with potentially significant impact for local authority services.

There are currently two options being considered for the implementation of DRS: 'All In' – included items such as glass, plastic and metal beverage containers of all sizes

'On the Go' which only includes single (<750ml) size plastic, metal and glass beverage containers.

There are immediate and future plans for EPR schemes. The imminent proposal includes packaging waste. The future scheme could cover items such as textiles and building waste.

The material analysed was classified in a way which allowed an estimation of the potential impact of these schemes to be calculated. Full details of materials included in these schemes can be found in Appendix 2.

Please note that figures are accurate to one decimal point and where the table or chart sums do not add to 100% this is due to rounding in MS Excel.

3.0 Kerbside waste results

In total 5,574 kilograms of waste was collected from 210 kerbside households over 10 days, including 2,316 kg residual waste (of which 42kg was separately collected nappy and hygiene waste) 2,138 kg mixed dry recycling and 1,120 kg food waste.

3.1 Sample achieved

All collections were undertaken as planned, including waste from 210 households in the desired proportions.

3.2 Set out rates

The set out for week one and week two for each waste stream included in the analysis is shown in Table 3 below.

Table 3: Set out rates

Set out rate			
	Residual waste	Recycling	Food waste
Week 1	100.0%	94.8%	72.9%
Week 2	N/A	86.5%	71.9%

As shown in the table above there is variation in usage of both recycling service and food waste service between the first and second week of the collection cycle. Although the participation remained high, the recycling and food waste service was slightly less well used in the second week of the collection cycle.

3.3 Composition and arisings of kerbside collected residual waste

The average kerbside household residual waste arising was 5.51 kg/household/week.

Full detailed findings at demographic group and sub-category level are shown in the accompanying MS Excel files.

The composition and arisings from the analysis are shown in Table 4 and Figure 3.

Table 4: Residual waste composition by percentage weight and arisings in kg/hh/wk

Material category	Composition (%)	Arisings (Kg/HH/wk)
Number of households in sample	21	LO
1. Paper and Card	9.6%	0.53
2. Plastic Film	6.9%	0.38
3. Dense Plastic	4.7%	0.26
4. Textiles	6.6%	0.36
5. Other Combustible	17.6%	0.97
6. Other Non-Combustible	4.8%	0.27
7. Glass	3.1%	0.17
8. Putrescibles	39.4%	2.17
9. Ferrous Metal	1.7%	0.09
10. Non-Ferrous Metal	1.0%	0.06
11. WEEE	2.0%	0.11
12. Potentially Hazardous	0.9%	0.05
13. Fines	1.6%	0.09
14. Council Issued Sacks	0.1%	0.00
Total	100.0%	5.51

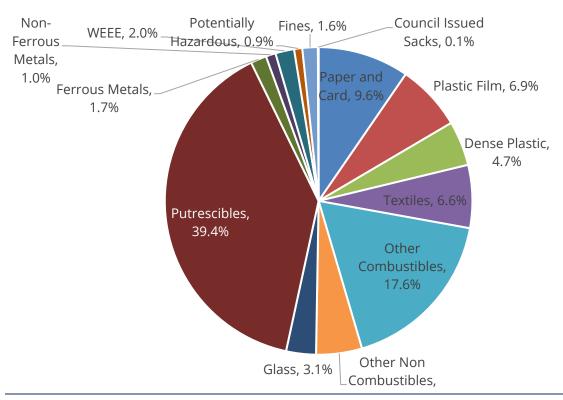


Figure 1: Residual waste composition in Cardiff kerbside properties (%)

Putrescible waste made up the largest proportion of the residual waste by weight, 39.4% of residual waste analysed or 2.17 kg/hh/wk. The majority of this material was food waste

(23.6%, 1.30 kg/hh/wk), of which 16.1% was classified as edible, 1.8% as potentially edible and 5.6% as inedible. Cooking fats and liquids found within food and drink containers accounted for 1% of residual waste and other organic material (mainly pet excrement) accounted for 4.6% of residual waste. Garden waste and soil accounted for 3.8% and 6.4% respectively.

Other combustible materials accounted for 17.6% and included items such as nappies (5.4%), other absorbent hygiene products (2.4%) as well as wood and cork (3.6%).

Paper and card accounted for 9.6% (0.53 kg/hh/wk) of residual waste analysed. While the majority of the material was tissues, paper towels and kitchen roll (4.6%), 3.7% could have been recycled at the kerbside had it been placed in the correct container by residents.

The total proportion of material by percentage weight which could have been recycled using the existing kerbside services (mixed dry recycling, food waste and garden waste collections) was 42.5%. The average weekly household arisings of kerbside recyclable material in the residual stream was 2.34 kg/hh/wk.

The overall proportion and arising of kerbside recyclable materials found within the kerbside residual waste stream are shown in Table 5 and Figure 4.

Table 5: Arising of material targeted by existing recycling service within residual waste

Composition of residual waste	Composition (%)	Arisings (Kg/HH/wk)
Dry Recycling	8.7%	0.48
Food Waste	23.6%	1.30
Garden Waste	10.2%	0.56
Non-recyclable at the kerbside	57.5%	3.17
Total	100.0%	5.51

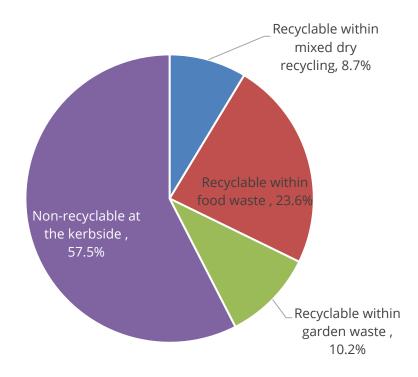


Figure 2: Recyclable material within residual waste

3.3.1 Absorbent Hygiene Product Waste

Cardiff Council offers residents a kerbside collection for absorbent hygiene products (AHP) waste on the second week of the collection cycle to allow residents to dispose of these materials weekly. The material was separately collected and analysed on the second week of the analysis to quantify its arising. As the AHP waste is not currently sent for recycling, it has been included within the residual figures in Table 4 above.

The arising of separately collection AHP waste in the Cardiff Council area was 0.20kg/hh/wk, of which the majority was nappies, 0.16 kg/hh/wk. It should be noted that this service was only used by residents in OAC 6, 7 and 8.

3.3.2 Other potentially recyclable material

A number of materials with recycling potential but not currently recyclable within the kerbside recycling service were also found within the residual waste. Overall, 7.3% of residual waste analysed (including textiles and WEEE) was recyclable through other routes.

Recyclable textiles, which include clothing, shoes, bags and household linens made up 5.3 % or 0.29 kg/hh/wk. This material could have been recycled either at the HWRC or through other textile recycling or reuse options such as textile banks, charity shops and door to door charity collections.

WEEE across all categories account for 2.0% of residual waste or 0.11 kg/hh/wk, should not be disposed of within the residual waste stream and could have been recycled at the HWRCs.

3.3.3 Estimated impact of future legislation

Future legislation such as Extended Producer Responsibility (EPR) and Deposit Return Scheme (DRS) is currently under consultation and is likely to come into play in the next few years, with potentially significant impact for local authority services.

There are currently two options being considered for the implementation of DRS:

- 'All In' included items such as glass, plastic and metal beverage containers of all sizes
- 'On the Go' which only includes single (<750ml) size plastic, metal and glass beverage containers.

There are immediate and future plans for EPR schemes. The imminent proposal includes packaging waste. The future scheme could cover items such as textiles and building waste.

Table 6 below summarises the potential impact of these schemes.

Table 6: Summary of potential impact of EPR and DRS schemes on residual waste

Composition of residual waste	Composition (%)	Arisings (Kg/HH/wk)
Materials potentially impacted by EPR (packaging)	14.2%	0.78
Materials potentially impacted by EPR long term (Textiles & building materials)	11.7%	0.64
Materials potentially impacted by 'All in' DRS scheme	1.3%	0.07
Materials potentially impacted by 'On-thego' DRS scheme	0.8%	0.04

The table above shows that up to 1.3% of residual waste could fall within the proposed DRS scheme -1.3% for the 'All in' scheme or 0.8% for the 'on the go' scheme.

The table above shows that 14.2% of the residual waste is packaging and could be impacted by the packaging EPR scheme. The future, broader scheme could potentially apply to a further 11.7% of the residual stream.

3.4 Composition and arisings of kerbside collected recycling

The composition findings and arising calculations from the analysis are shown in Table 7 and Figure 5

Table 7: Recycling waste composition by percentage weight and arisings in kg/hh/wk

Material category	Composition (%)	Arisings (Kg/HH/wk)
Number of households in sample	21	LO
1. Paper and Card	37.2%	1.90
2. Plastic Film	3.5%	0.18
3. Dense Plastic	13.7%	0.70
4. Textiles	0.8%	0.04
5. Other Combustible	3.3%	0.17
6. Other Non-Combustible	0.5%	0.03
7. Glass	27.6%	1.41
8. Putrescibles	5.0%	0.26
9. Ferrous Metal	3.3%	0.17
10. Non-Ferrous Metal	3.2%	0.16
11. WEEE	0.2%	0.01
12. Potentially Hazardous	0.3%	0.02
13. Fines	0.4%	0.02
14. Council Issued Sacks	1.1%	0.05
Total	100.0%	5.11

Paper and card accounted for the highest proportion of the mixed dry recycling analysed, 37.2%, of which 31.6% was recyclable paper and card. Of the remaining 5.6% which was not targeted for recycling, 2.5% was tissues and kitchen roll.

Glass accounted for 27.6% of the mixed dry recycling analysed, of which all but 0.5% was recyclable glass bottles and jars. On average, 21.8% of the recycling analysed was glass beverage containers.

Dense plastic accounted for 13.7% of the mixed dry recycling analysed this included 6.9% plastic bottles, 4.6% plastic pots, tubs and trays (PTTs) and 2.3% other dense plastic items not targeted by the recycling scheme. A further 3.5% of plastic film was also found within the mixed dry recycling.

The overall contamination level of the recycling analysed was significant - 23.7% or 1.21 kg/hh/wk of the material analysed was not targeted by the scheme. As well as the non-recyclable items mentioned above, the contamination included 4.0% solid food waste and 4.9% liquid food and drink waste.

Full detailed findings at demographic group and sub-category level are shown in the accompanying MS Excel files.

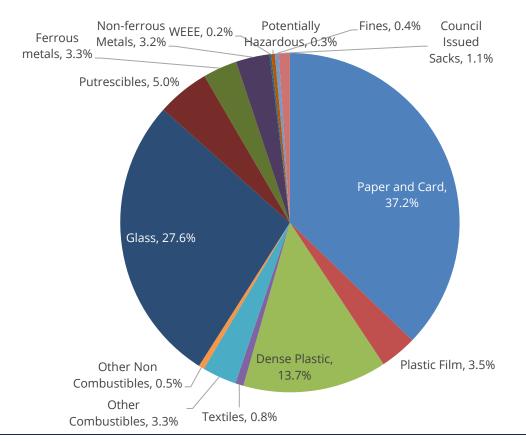


Figure 3: Recycling composition by percentage weight

3.4.1 Estimated impact of future legislation

As mentioned in Section 3.3.3 above, the impact of upcoming EPR and DRS legislation on local authority collected waste has been estimated and is shown in Table 8 below.

Table 8: Summary of potential impact of EPR and DRS schemes on mixed dry recycling

Composition of residual waste	Compositio n (%)	Arisings (Kg/HH/wk)
Materials potentially impacted by EPR (packaging)	71.6%	3.66
Materials potentially impacted by EPR long term		
(Textiles & building materials)	1.5%	0.08
Materials potentially impacted by 'All in' DRS scheme	27.1%	1.38
Materials potentially impacted by 'On-the-go' DRS		
scheme	16.2%	0.83

The table above shows that up to 27.1% of mixed dry recycling could fall within the proposed DRS scheme – 27.1% for the 'All in' scheme or 16.2% for the 'on the go' scheme.

The table above shows that 71.6% of the mixed dry recycling analysed was classified as packaging and could be impacted by the packaging EPR scheme. The future, broader scheme could potentially apply to a further 1.5% of mixed dry recycling.

3.5 Composition and arisings of kerbside collected food waste

The composition and arisings of kerbside collected food waste in Cardiff are shown in Table 9 below.

Table 9: Food waste composition by percentage weight and arisings in kg/hh/wk

Material category	Composition (%)	Arisings (Kg/HH/wk)
Number of households in sample	21	10
Inedible food waste	43.0%	1.15
Potentially edible food waste	12.3%	0.33
Edible food waste	37.8%	1.01
Cooking fat	0.0%	0.00
Liquids	0.0%	0.00
Other organic	3.0%	0.08
Other putrescibles	0.3%	0.01
Other waste	0.9%	0.02
Fines	2.7%	0.07
Total	100.0%	2.67
Contamination	7%	0.19

On average 93.0% of the food waste analysed was categorised as food waste– inedible food waste accounted for 43.0%, edible food waste accounted for 37.8% and potentially edible food waste accounted for 12.3% of material analysed.

A further 7.0% of the material analysed was not food waste. Other organic matter (mostly pet excrement) was also found within the food waste, as well as a small amount of garden waste (0.3%).

Other materials were found which were probably used to contain the food waste such as kitchen roll and tissues (0.6%), paper and card-based food packaging (0.1%) or carrier bags (0.1%). On average 2.7% of food waste was smaller than 10mm and classified as fines.

3.6 Capture rates

The capture rate (see 2.3.1 for description) for materials targeted by the food waste and mixed dry recycling services are shown in Table 10 and Figure 6.

Materials targeted by the dry recycling service were well captured overall, with 89% of items targeted by the service being found within the mixed dry recycling.

Glass was captured in 94% of cases – this included beverage containers, with 97% of recyclable material ending up in the mixed dry recycling and non-beverage glass bottles and jars which were slightly less well captured, 87%.

The overall capture rate for paper and card categories was 89% - corrugated card and food and drink cartons were best captured (94% and 90% respectively), while thin card (for example cereal boxes) was least well captured (84%).

The overall capture rate for metals was 66%. Non-ferrous drink cans were the best captured material (90%), while aluminium foil (which also included foil trays) was poorly captured at just 32%.

Overall, 62% of food waste was captured by the food waste service. Inedible food waste, and potentially edible food waste were all well captured, edible food waste had the lowest capture rate.

Table 10: Capture rates by target material (%)

Category	Subcategory	Capture Rate
	Recyclable paper packaging	85%
	Recyclable paper non-packaging	89%
Paper and	Thin card packaging	84%
Card	Thin card non-packaging	83%
	Corrugated card packaging	94%
	Food and drink cartons	90%
Dense	Plastic bottles	90%
Plastic	Plastic pots, tubs and trays	77%
Glass	Glass beverage containers	97%
Glass	Glass non-beverage bottles and jars	87%
	Inedible food waste	78%
Food Waste	Potentially edible food waste	75%
	Edible food waste	49%
	Ferrous tins	87%
	Ferrous aerosols	66%
Metals	Non-ferrous drinking cans	90%
	Non-Ferrous aerosols	73%
	Aluminium foil	32%
	Mixed dry recycling capture rate	89%
	Food waste capture rate	62%

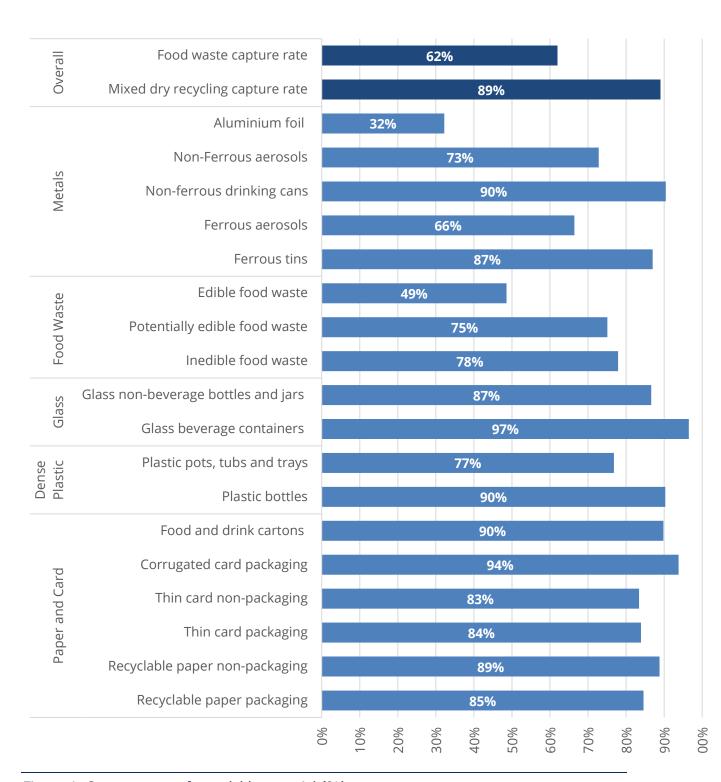


Figure 4: Capture rates of recyclable material (%)

4.0 Communal waste results

In total 4,229 kilograms of was collected from 209 communal properties over 10 days, including 2,436kg residual waste, 1,630kg recycling and 163 kg food.

4.1 Sample achieved

During collections, the Resource Futures collections supervisor identified that some of the blocks selected for inclusion in the analysis shared their waste containers with other neighbouring properties. Where this was identified, all waste containers were collected, and the number of properties adjusted to ensure that the collected waste came from a known number of households and enable accurate arising calculation.

The above led to some variation in the sample achieved compared to the planned sample, as shown in Table 11 below. As waste from each demographic group was sampled and analysed separately, the results were weighted to ensure they were representative of Cardiff's overall flats population.

Table 11: Sample achieved

OAC Super	OAC Supergroup title		
group		Target household numbers	Achieved household numbers
1	Rural Residents	0	0
2	Cosmopolitans	48	48
3	Ethnicity central	24	27
4	Multicultural metropolitans	25	42
5	Urbanites	39	39
6	Suburbanites	0	0
7	Constrained City Dwellers	64	53
8	Hard pressed living	0	0
	Total	200	209

4.2 Composition and arisings of communal properties residual waste

The composition and arisings of communal properties residual waste in Cardiff are shown in Table 12 and Figure 7 below.

Table 12: Residual waste composition by percentage weight and arisings in kg/hh/wk

Material category	Composition (%)	Arising (kg/hh/wk)
Number of households in sample	209	
1. Paper and Card	13.1%	0.82
2. Plastic Film	4.5%	0.28
3. Dense Plastic	7.1%	0.44
4. Textiles	4.1%	0.26
5. Other Combustible	17.2%	1.08
6. Other Non-Combustible	3.6%	0.22
7. Glass	7.2%	0.45
8. Putrescibles	35.0%	2.19
9. Ferrous Metal	3.1%	0.19
10. Non-Ferrous Metal	1.8%	0.11
11. WEEE	0.6%	0.04
12. Potentially Hazardous	0.6%	0.04
13. Fines	2.0%	0.12
14. Council Issued Sacks	0.2%	0.01
tal 100.0%		6.26

The average communal waste household's residual waste arising was 6.26 kg/household/week.

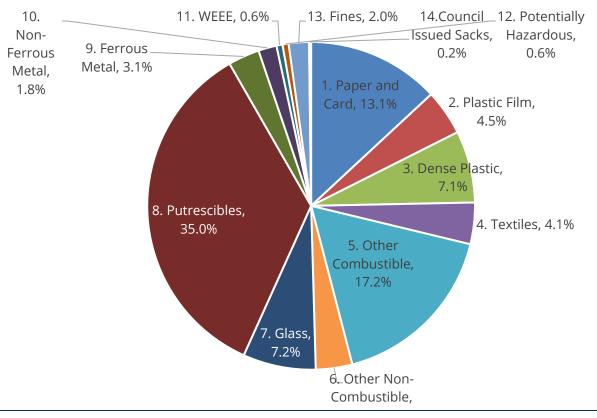


Figure 5: Residual waste composition in Cardiff communal properties (%)

Putrescible waste made up the largest proportion of the residual waste by weight, 35.0% of residual waste analysed or 2.19 kg/hh/wk. The majority of this material was food waste (27.4%, 1.72 kg/hh/wk), of which 18.9% was classified as edible, 1.6% as potentially edible and 7.0% as inedible. Liquids found within food and drink containers accounted for 1.9% of residual waste and other organic material (mainly pet excrement) accounted for 2.4% of residual waste. Garden waste and soil accounted for 1.6% and 1.7% respectively.

Other combustible materials accounted for 17.2% and was mainly composed of carpet and underlay (6.7%). The vast majority of this carpet was found in a single bin store where it weighed over 100kg. Though this is not typical behaviour and maybe skewing results, it is not uncommon to see bulky items disposed of with communal bins. Other combustible materials also included items such as nappies (1.7%), other absorbent hygiene products (1.1%) as well as wood and cork (1.7%) and furniture (1.0%).

Paper and card accounted for 13.1% (0.82 kg/hh/wk) of residual waste analysed. While the majority of the material could have been recycled using the existing recycling facilities (7.4%), the category also includes non-recyclable elements such as 3.7% of non-recyclable paper towels and kitchen roll.

The total proportion of material by percentage weight which could have been recycled using the existing kerbside services (communal mixed dry recycling, communal food waste and communal garden waste collections) was 51.9%. The average weekly household arisings of kerbside recyclable material in the residual stream was 3.25 kg/hh/wk.

The overall proportion and arising of communal properties collected recyclable materials within the residual waste stream are shown in Table 13 and Figure 8 below.

Table 13: Arising of material targeted by existing recycling service within residual waste

Composition of residual waste	Composition (%)	Arisings (Kg/HH/wk)
Dry Recycling	21.2%	1.33
Food Waste	27.4%	1.72
Garden Waste	3.3%	0.21
Non-recyclable at the kerbside	48.1%	3.01
Total	100.0%	6.26

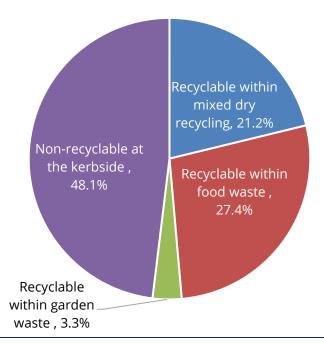


Figure 6: Recyclable material within communal properties residual waste

4.2.1 Other potentially recyclable material

A number of materials with recycling potential but not currently recyclable within the kerbside recycling service were also found within the residual waste. Overall, 2.6% or residual waste analysed (including textiles and WEEE) was recyclable through other routes.

Recyclable textiles, which include clothing, shoes, bags and household linens made up 2.0 % or 0.13 kg/hh/wk. This material could have been recycled either at the HWRC or through other textile recycling or reuse options such as textile banks, charity shops and door to door charity collections.

WEEE across all categories accounted for 0.6% of residual waste or 0.03 kg/hh/wk, should not be disposed of within the residual waste stream and could have been recycled at HWRC.

Full detailed findings at demographic group and sub-category level are shown in the accompanying MS Excel files.

4.2.2 Estimated impact of future legislation

Future legislation such as Extended Producer Responsibility (EPR) and Deposit Return Scheme (DRS) is currently under consultation and is likely to come into play in the next few years, with potentially significant impact for local authority services.

There are currently two options being considered for the implementation of DRS:

- 'All In' included items such as glass, plastic and metal beverage containers of all sizes
- 'On the Go' which only includes single (<750ml) size plastic, metal and glass beverage containers.

There are immediate and future plans for EPR schemes. The imminent proposal includes packaging waste. The future scheme could cover items such as textiles and building waste.

Table 14 below summarises the potential impact of these schemes.

Table 14: Summary of potential impact of EPR and DRS schemes on residual waste

Composition of residual waste	Composition (%)	Arisings (Kg/HH/wk)
Materials potentially impacted by EPR (packaging)	25.2%	1.58
Materials potentially impacted by EPR long term (Textiles & building materials)	13.6%	0.85
Materials potentially impacted by 'All in' DRS scheme	6.8%	0.42
Materials potentially impacted by 'On-thego' DRS scheme	1.6%	0.10

The table above shows that up to 6.8% of residual waste could fall within the proposed DRS scheme – 6.8% for the 'All in' scheme or 1.6% for the 'on the go' scheme.

The table above shows that 25.2% of the residual waste is packaging and could be impacted by the packaging EPR scheme. The future, broader scheme could potentially apply to a further 13.6% of the residual stream.

4.3 Composition and arisings of communal properties recycling

The composition findings and arising calculations from the analysis are shown in Table 15 and Figure 9.

Table 15: Recycling waste composition by percentage weight and arisings in kg/hh/wk

Material category	Percentage composition	Arising kg/hh/wk
Number of households in sample	209	
1. Paper and Card	28.0%	1.15
2. Plastic Film	3.1%	0.13
3. Dense Plastic	11.0%	0.45
4. Textiles	7.1%	0.29
5. Other Combustible	6.0%	0.25
6. Other Non-Combustible	0.9%	
7. Glass	21.4%	0.88
8. Putrescibles	13.4%	0.55
9. Ferrous Metal	3.0%	0.12
10. Non-Ferrous Metal	2.5%	0.10
11. WEEE	1.2%	0.05
12. Potentially Hazardous	0.4%	0.01
13. Fines	1.0%	0.04
14. Council Issued Sacks	1.1%	0.05
Total	100.0%	4.10

The overall contamination level of the recycling analysed was very significant – 41.4% or 1.69 kg/hh/wk of the material analysed was not targeted by the scheme. One of the samples analysed contained 64.8% non-target material, including nearly 25kg of furniture and 48kg of clothing. Though this is not typical behaviour and maybe skewing results, it is not uncommon to see bulky items disposed of with communal bins.

Paper and card accounted for the highest proportion of the mixed dry recycling analysed, 28.0%, of which 24.4% was recyclable paper and card. The remaining 3.6% was not targeted for recycling.

Glass accounted for 21.4% of the mixed dry recycling analysed, of which all but 1.2% was recyclable glass bottles and jars. On average, 15.9% of the recycling analysed was glass beverage containers.

Putrescible waste was a major contaminant of the mixed dry recycling -13.4%. The contamination included 11.4% solid food waste and 1.0% liquid food and drink waste.

Dense plastic accounted for 11.0% of the mixed dry recycling analysed this included 5.8% plastic bottles, 3.2% plastic pots, tubs and trays (PTTs) and 1.9% other dense plastic items not targeted by the recycling scheme. A further 3.1% of plastic film was also found within the mixed dry recycling.

Full detailed findings at demographic group and sub-category level are shown in the accompanying MS Excel files.

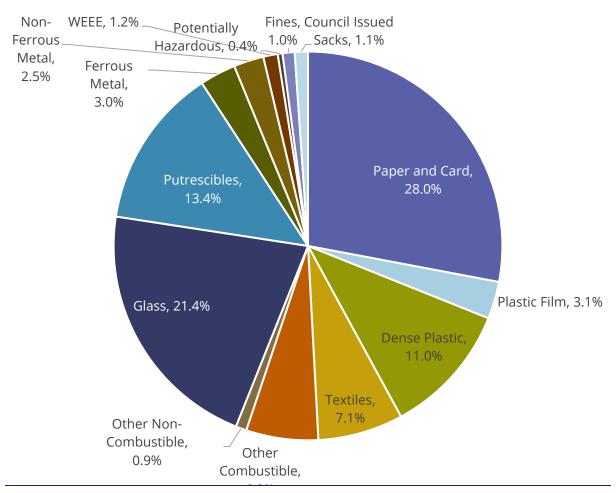


Figure 7: Recycling composition by percentage weight

4.3.1 Estimated impact of future legislation

As mentioned in section 4.2.2 above, the impact of upcoming EPR and DRS legislation on local authority collected waste has been estimated and is shown in Table 16 below.

Table 16: Summary of potential impact of EPR and DRS schemes on mixed dry recycling

Composition of residual waste	Compositio n (%)	Arisings (Kg/HH/wk)
Materials potentially impacted by EPR (packaging)	56.7%	2.32
Materials potentially impacted by EPR long term (Textiles & building materials)	9.4%	0.39
Materials potentially impacted by 'All in' DRS scheme	20.5%	0.84
Materials potentially impacted by 'On-the-go' DRS scheme	4.3%	0.18

The table above shows that up to 20.5% of mixed dry recycling could fall within the proposed DRS scheme – 20.5% for the 'All in' scheme or 4.3% for the 'on the go' scheme.

The table above shows that 56.7% of the mixed dry recycling analysed was classified as packaging and could be impacted by the packaging EPR scheme. The future, broader scheme could potentially apply to a further 9.4% of mixed dry recycling.

4.4 Composition and arisings of communal properties food waste

The composition findings and arisings calculations from the analysis are shown in Table 17 below.

Table 17: Food waste composition by percentage weight and arisings in kg/hh/wk

Material category	Percentage composition	Arising kg/hh/wk
Number of households in sample	20)9
Inedible food waste	43.7%	0.24
Potentially edible food waste	10.7%	0.06
Edible food waste	35.6%	0.20
Cooking fat	0.0%	0.00
Liquids	0.7%	0.00
Other organic	2.6%	0.01
Other putrescibles	0.4%	0.00
Other waste	6.3%	0.04
Fines	0.0%	0.00
Total	100.0%	0.55

On average 90.0% of the food waste analysed was categorised as food waste – inedible food waste accounted for 43.7%, edible food waste accounted for 35.6% and potentially edible food waste accounted for 10.7% of material analysed.

A further 10.0% of the material analysed was not food waste. Other organic matter (mostly pet excrement, 2.6%) was also found within the food waste, as well as a small amount of garden waste (0.4%).

Other materials were found which were probably used to contain the food waste such as kitchen roll and tissues (0.9%), paper and card-based food packaging (0.5%) or carrier bags (0.6%).

4.5 Capture rates

The capture rate (see 2.3.1 for description) for materials targeted by the food waste and mixed dry recycling services are shown in Table 18 and Figure 10.

Materials targeted by the dry recycling service were fairly well captured overall, with 64% of items targeted by the service being found within the mixed dry recycling.

Glass was captured in 67% of cases – this included beverage containers, with 69% of recyclable material ending up in the mixed dry recycling and non-beverage glass bottles and jars which were slightly less well captured, 60%.

The overall capture rate for paper and card categories was 68% - corrugated card and non-packaging thin card were best captured (80% and 78% respectively), while recyclable paper packaging was least well captured (38%).

The overall capture rate for metals was 40%. Non-ferrous drink cans and ferrous tins were the best captured metals (58% and 59% respectively), while aluminium foil (which also included foil trays) was poorly captured at just 19%.

Overall, only 19% of food waste was captured by the food waste service. Inedible food waste was best captured (29%), while edible food waste had the lowest capture rate (12%).

Overall, 18.5% of food waste was captured by the food waste service.

Table 18: Capture rates by target material (%)

Category	Subcategory	Capture Rate
Day on and Caud	Recyclable paper packaging	38%
	Recyclable paper non-packaging	70%
	Thin card packaging	59%
Paper and Card	Thin card non-packaging	78%
	Corrugated card packaging	80%
	Food and drink cartons	65%
Dongo Blastic	Plastic bottles	63%
Dense Plastic	Plastic pots, tubs and trays	50%
Class	Glass beverage containers	68%
Glass	Glass non-beverage bottles and jars	60%
	Inedible food waste	29%
Food Waste	Potentially edible food waste	31%
	Edible food waste	12%
	Ferrous tins	59%
	Ferrous aerosols	52%
Metals	Non-ferrous drinking cans	58%
	Non-Ferrous aerosols	55%
	Aluminium foil	19%
Overall	Mixed dry recycling capture rate	64%
Overall	Food waste capture rate	19%

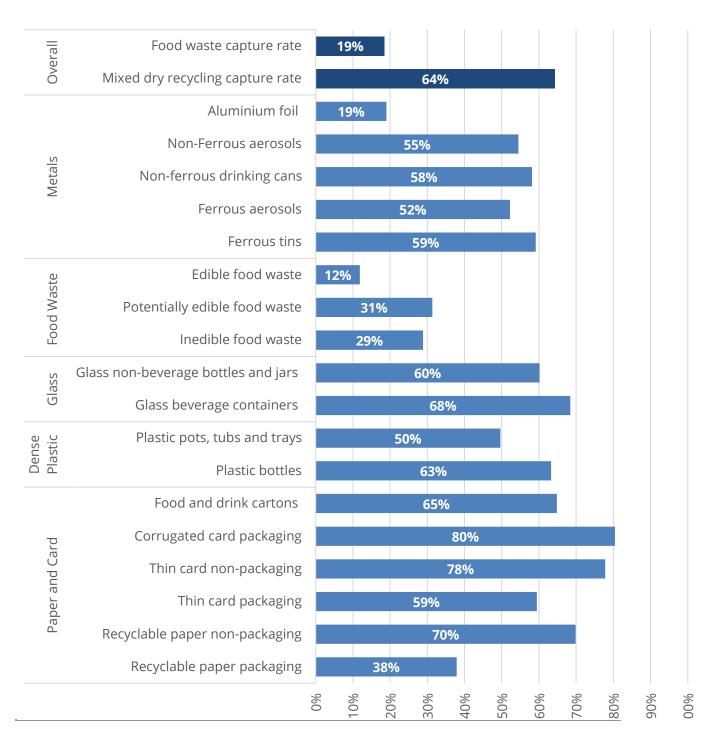


Figure 8: Capture rates by target material (%)

6.0 Conclusion

The overall arising of waste from the average household receiving a communal waste service was lower than the average property receiving a kerbside waste service -10.91 kg/hh/week and 13.32 kg/hh/week respectively. However, there were clear differences in waste and recycling performance between the properties receiving a kerbside collection service and those receiving a communal collection service.

A higher amount of residual waste was produced by communal properties (6.26 kg/hh/wk) than properties receiving a kerbside service (5.51 kg/hh/wk). Communal properties residual waste contained a higher proportion of material targeted by the mixed dry recycling, food waste and garden waste collections (51.9% or 3.26 kg/hh/wk) than residual waste collected from the kerbside (42.5% or 2.34 kg/hh/wk). Encouraging residents to take full use of the services provided may improve recycling and food waste performance.

Despite the provision of food waste and garden waste services to all households included in the study, the proportion of putrescible waste within all samples analysed remained high for both services. Putrescible waste made up the largest proportion of the residual waste by weight – 39.4% or 2.17 kg/hh/wk at the kerbside and 35.0% or 2.19 kg/hh/wk for properties receiving a communal service. In both cases the most common kerbside recyclable material found was food waste. The arising of food waste present within the residual waste indicates was 1.30 kg/hh/wk at the kerbside and 1.72 kg/hh/wk for communal properties. The proportion of residual waste which could have been recycled by the garden waste service provided was 3.3% or 0.21 kg/hh/wk for communal properties and 10.2% or 0.56 kg/hh/wk at the kerbside.

Overall, 21.2%, or 1.33 kg/hh/wk of the material within the communal residual was targeted by the mixed dry recycling collection. At the kerbside, a lower 8.7% of residual waste analysed, or 0.48 kg/hh/wk, was targeted by the mixed dry recycling collection and could have been recycled. Within the kerbside residual waste, the main recyclable materials were thin card (1.5%), recyclable paper (also 1.5%), plastic pots tubs and trays (1.3%), glass jars (0.8%) and aluminium foil (0.7%). Recyclable paper and card categories accounted for 7.4% of communal residual waste and could have been recycled had it been placed in the correct container. Plastic bottles accounted for 2.2% and plastic pots tubs and trays for 2.1%, while glass beverage containers accounted for 4.8% and glass jars for 1.8%. Metal tins, cans, aerosols and foil accounted for 2.8% of communal residual waste composition.

Materials which were potentially recyclable through other routes, such as textiles or WEEE were also found within the residual waste analysed. They accounted for 0.40 kg/hh/wk within kerbside residual waste and for 0.16 kg/hh/wk within the communal residual waste.

Communal properties produced a lower arising of dry recycling (4.1kg/hh/wk) compared to kerbside properties (5.11kg/hh/wk). Materials targeted by the mixed dry recycling service were very well captured overall at the kerbside (89%), but less so when collected communally (64%). Higher contamination was found within the dry recycling stream for communal properties (41.4%, 1.69 kg/hh/wk), compared to 23.7% (1.21 kg/hh/wk) for kerbside properties.

In communal bins, putrescible waste was a major contaminant of the mixed dry recycling – 13.4%. The contamination included 11.4% solid food waste and 1.0% liquid food and drink waste. Anecdotal evidence from the fieldwork team also suggested that there may be some confusion among residents in flats about the correct procedure for recycling food. There

were several occasions where compostable bags full of separate food waste and whole packaged food items were found within the communal mixed dry recycling bins. A further 7.1% was textiles (including 4.6% clothing), and 6.7% other combustible material, which included bulky items such as rolls of carpets and furniture which do not tend to be found within kerbside residual waste, mainly because they do not easily fit in an individual wheeled bin. The dry recycling contamination of communal bins also included 3.6% non-recyclable paper and card, 3.1% plastic film (excluding council issues recycling sacks) and 1.9% other plastic items not targeted for recycling.

Within kerbside dry recycling, 4.0% of the contamination was food waste which could have been recycled at the kerbside had it been placed in the correct container. The dry recycling contamination of kerbside bins also included 5.6% non-recyclable paper and card, 3.5% plastic film (excluding council issued recycling sacks) and 2.3% other plastic items not targeted for recycling.

Looking across all waste streams, kerbside properties produced more food waste than those receiving a communal service – 4.2 kg/hh/wk and 2.74 kg/hh/wk respectively. Communal properties had a much lower capture rate for food waste - 19% compared to 62% for kerbside properties. Inedible food waste was best captured but edible food waste was most poorly captured. This suggests that residents who do not participate in food waste recycling are more likely to manage their food poorly and dispose of packaged food. Most of the waste found in the food waste stream at both kerbside and communal properties was target material, 93% and 90% respectively

At the kerbside the arising of separately collected food waste was 2.67 kg/hh/wk. Separately collected food waste arisings were significantly lower for communal properties, just 0.55 kg/hh/wk. Food waste was also found as a contaminant within the mixed dry recycling, where it accounted for 0.20 kg/hh/wk at the kerbside and 0.47 kg/hh/wk for properties receiving a communal service.

The overall picture shows that communal properties are performing to a much lower recycling standard than kerbside properties. This suggests that the anonymity of communal waste services, as well as the difficulties with moving waste from properties to bin storage, and understanding the different bin uses all significantly impact performance in communal properties. Improving the supervision, signage and labelling of the bins in communal bin stores, as well as ensuring all residents are regularly provided with service information could help improve performance going forward. Further information on improving recycling performance in urban areas and making recycling work for people in flats is available from WRAP and ReLondon (formerly LWARB).

Appendix 1 Cardiff kerbside and communal properties recycling service

Table 19: Kerbside and Communal properties recycling service

	properties recycling service	Communal	Kerbside
		Recyclable	
Main Categories	Sub-categories	in	Recyclable at
		communal	Kerbside?
		service?	V (D
	Recyclable paper packaging	Yes (Dry	Yes (Dry Recycling)
		Recycling) Yes (Dry	Yes (Dry
	Recyclable paper non-packaging	Recycling)	Recycling)
		Yes (Dry	Yes (Dry
	Thin card packaging	Recycling)	Recycling)
	Thin card non-packaging	Yes (Dry	Yes (Dry
	Thin card non-packaging	Recycling)	Recycling)
	Corrugated card packaging	Yes (Dry	Yes (Dry
1. Paper and Card		Recycling)	Recycling)
1. Taper and card	Corrugated card non-packaging	Yes (Dry	Yes (Dry
		Recycling) Yes (Dry	Recycling) Yes (Dry
	Drink cartons (Tetra Pak)	Recycling)	Recycling)
	Kitchen roll and tissues	No	No
	Food contaminated P&C	No	No
	Other non-recyclable paper and	INO	INO
		No	No
	Other non-recyclable paper and		
		No	No
	Carrier bags	No	No
5 51 51	Black bin bags	No	No
2. Plastic Film	Plastic film packaging	No	No
	Plastic film non-packaging	No	No
	Plastic bottles-plain milk or not	Yes (Dry	Yes (Dry
	beverage ·	Recycling)	Recycling)
	Drink bottles > 750ml - single	Yes (Dry	Yes (Dry
	format	Recycling)	Recycling)
		Yes (Dry	Yes (Dry
	,	Recycling)	Recycling)
3. Dense Plastic	Drink bottles < 750ml - single format	Yes (Dry Recycling)	Yes (Dry Recycling)
St Bense Haste		Yes (Dry	Yes (Dry
	Drink bottles < 750ml - multipack	Recycling)	Recycling)
	DTT-	Yes (Dry	Yes (Dry
	PTTs	Recycling)	Recycling)
	Other dense plastic packaging	No	No
	Other dense plastic non-packaging	No	No
4. Textiles		No	No
		p 10	10

Main Categories	Sub-categories	Communal Recyclable in communal service?	Kerbside Recyclable at Kerbside?
	Shoes, bags, belts	No	No
	Non clothing textiles	No	No
	Not recyclable or reusable textiles	No	No
	Carpet and underlay	No	No
	Furniture	No	No
	Mattresses	No	No
5. Other Combustible	Nappies	No	No
5. Other combustible	Other Absorbent hygiene products (AHPs)	No	No
	Wood and cork	No	No
	Other combustible	No	No
	Stones and rubble	No	No
6. Other Non-Combustible	Plasterboard	No	No
	Other non-combustible	No	No
	Glass beverage containers > 750ml - single format	Yes (Dry Recycling)	Yes (Dry Recycling)
	Glass beverage containers > 750ml - multipack	Yes (Dry Recycling)	Yes (Dry Recycling)
7. Glass	Glass beverage containers < 750ml - single format	Yes (Dry Recycling)	Yes (Dry Recycling)
	Glass beverage containers < 750ml - multipack	Yes (Dry Recycling)	Yes (Dry Recycling)
	Glass bottles and jars -not beverage	Yes (Dry Recycling)	Yes (Dry Recycling)
	Glass non-packaging	No	No
	Garden waste	Yes (Garden waste)	Yes (Garden waste)
	Soil	Yes (Garden waste)	Yes (Garden waste)
	Inedible food waste	Yes (Food waste)	Yes (Food waste)
8. Putrescibles	Potentially edible food waste	Yes (Food waste) Yes (Food	Yes (Food waste)
	Edible food waste	waste)	Yes (Food waste)
	Cooking fat	No	No
	Liquids	No	No
	Other organic	No	No
	Ferrous drinking cans-single	Yes (Dry Recycling)	Yes (Dry Recycling)
9. Ferrous Metal	Ferrous drinking cans-multipack	Yes (Dry Recycling)	Yes (Dry Recycling)
	Ferrous tins	Yes (Dry Recycling)	Yes (Dry Recycling)

Main Categories	Sub-categories	Communal Recyclable in communal service?	Kerbside Recyclable at Kerbside?
	Ferrous aerosols	Yes (Dry Recycling)	Yes (Dry Recycling)
	Other ferrous items	No	No
	Non-ferrous drinking cans-single	Yes (Dry Recycling)	Yes (Dry Recycling)
	Non-ferrous drinking cans- multipack	Yes (Dry Recycling)	Yes (Dry Recycling)
10. Non-Ferrous Metal	Non-ferrous tins	Yes (Dry Recycling)	Yes (Dry Recycling)
To Hom Femous Treat	Non-Ferrous aerosols	Yes (Dry Recycling)	Yes (Dry Recycling)
	Alu foil	Yes (Dry Recycling)	Yes (Dry Recycling)
	Other non-ferrous	No	No
	White goods	No	No
	Other electrical items	No	No
11. Waste Electrical and	Computers and televisions	No	No
Electronic Equipment	Other electronic items	No	No
	Mobile phones	No	No
	Other small electronic items	No	No
	Water based paint cans	No	No
12. Potentially Household Hazardous Waste Items	Other paint cans	No	No
	Batteries	No	No
	Other Hazardous Waste	No	No
13. Fine Material	<10 mm Fines	No	No
14. Recycling sacks	Recycling sacks	No	No

Appendix 2 Potential impact of EPR and DRS schemes

Table 20: EPR and DRS Impact

Main Categories	Sub-categories	Potentially included in DRS?	Potentially included in EPR?
	Recyclable paper packaging	No	Yes Packaging
	Recyclable paper non-packaging	No	No
	Thin card packaging	No	Yes Packaging
	Thin card non-packaging	No	No
	Corrugated card packaging	No	Yes Packaging
1. Danier and Cand	Corrugated card non-packaging	No	No
1. Paper and Card	Drink cartons (Tetra Pak)	No	Yes Packaging
	Kitchen roll and tissues	No	No
	Food contaminated P&C	No	Yes Packaging
	Other non-recyclable paper and card packaging	No	Yes Packaging
	Other non-recyclable paper and card non-packaging	No	No
	Carrier bags	No	Yes Packaging
2. Plastic Film	Black bin bags	No	No
2. Flastic Film	Plastic film packaging	No	Yes Packaging
	Plastic film non-packaging	No	No
	Plastic bottles-plain milk or not beverage	No	Yes Packaging
	Drink bottles < 750ml - single format	Yes (All in only)	Yes Packaging
	Drink bottles < 750ml - multipack	Yes (All in only)	Yes Packaging
3. Dense Plastic	Drink bottles > 750ml - single format	Yes (Both options)	Yes Packaging
	Drink bottles > 750ml - multipack	No	Yes Packaging
	PTTs	No	Yes Packaging
	Other dense plastic packaging	No	Yes Packaging
	Other dense plastic non-packaging	No	No
	Clothing	No	Potential future scheme
4. Textiles	Shoes, bags, belts	No	Potential future scheme
i. readiles	Non clothing textiles	No	Potential future scheme
	Not recyclable or reusable textiles	No	Potential future scheme
5. Other Combustible	Carpet and underlay	No	Potential future scheme

Main Categories	Sub-categories	Potentially included in DRS?	Potentially included in EPR?
	Furniture	No	Potential future scheme
	Mattresses	No	Potential future scheme
	Nappies	No	No
	Other Absorbent hygiene products (AHPs)	No	No
	Wood and cork	No	Potential future scheme
	Other combustible	No	No
	Stones and rubble	No	Potential future scheme
6. Other Non-Combustible	Plasterboard	No	Potential future scheme
	Other non-combustible	No	No
	Glass beverage containers < 750ml - single format	Yes (All in only)	Yes Packaging
	Glass beverage containers < 750ml - multipack	Yes (All in only)	Yes Packaging
7. Glass	Glass beverage containers > 750ml - single format	Yes (Both options)	Yes Packaging
	Glass beverage containers > 750ml - multipack	No	Yes Packaging
	Glass bottles and jars -not beverage	No	Yes Packaging
	Glass non-packaging	No	No
	Garden waste	No	No
	Soil	No	No
	Inedible food waste	No	No
8. Putrescibles	Potentially edible food waste	No	No
o. i dd escibles	Edible food waste	No	No
	Cooking fat	No	No
	Liquids	No	No
	Other organic	No	No
	Ferrous drinking cans-single	Yes (Both options)	Yes Packaging
9. Ferrous Metal	Ferrous drinking cans-multipack	Yes (All in only)	Potential future scheme No Potential future scheme No Potential future scheme No Potential future scheme Potential future scheme No Yes Packaging Yes Packaging Yes Packaging Yes Packaging No
J. 7 Cirous Ficur	Ferrous tins	No	Yes Packaging
	Ferrous aerosols	No	
	Other ferrous items	No	No
	Non-ferrous drinking cans-single	Yes (Both options)	
10. Non-Ferrous Metal	Non-ferrous drinking cans- multipack	Yes (All in only)	
	Non-ferrous tins	No	
	Non-Ferrous aerosols	No	

Main Categories	Sub-categories	Potentially included in DRS?	Potentially included in EPR?
	Alu foil	No	Yes Packaging
	Other non-ferrous	No	No
	White goods	No	No
	Other electrical items	No	No
11. Waste Electrical and Electronic Equipment	Computers and televisions	No	No
	Other electronic items	No	No
	Mobile phones	No	No
	Other small electronic items	No	No
	Water based paint cans	No	No
12. Potentially Household	Other paint cans	No	No
Hazardous Waste Items	Batteries	No	No
	Other Hazardous Waste	No	No
13. Fine Material	<10 mm Fines	No	No
14. Recycling sacks	Recycling sacks	No	No

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Cardiff's Draft Recycling and Waste Strategy 2021-25

RESULTS REPORT







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Background

Cardiff's draft recycling strategy 2021-25 'Make a change to save our planet- Reduce, Reuse, recycle' outlines our plans to make Cardiff a world-leading recycling city. It aims to ensure that the Council continues to improve recycling services for residents and businesses.

Working with residents and understanding the city's communities is integral to influencing decisions, when seeking to continuously improve our recycling services. Therefore, a 6 week public consultation took place. The results in this report will support the development of the final recycling strategy for 2021-25, and the development of actions to deliver improvements to improve reduction, re-use and recycling.

The 7 key headline aims are:

- Improve material quality
- Increase recycling participation and capture of priority materials
- Increase opportunities for communities and residents to recycle
- Make use of all available data, to develop targeted actions
- Reduce single use plastics
- Encourage and support the prevention, reuse and repair of materials
- Contribute towards developing a circular economy within Wales

Methodology

- A bilingual online survey was developed by the Waste Strategy team in conjunction with the Cardiff Research Centre.
- The survey was promoted via the council's corporate Facebook, Twitter and Instagram accounts throughout the consultation period, receiving a total of 783 clicks
- There was also a paid-for social media ad campaign targeting all areas of the city, with added focus on areas of the city with traditionally low-response rates to consultations. The ads generated 2,917 clicks through to the consultation site and the ads were viewed 244,569 times (impressions).
- The survey was hosted on the Council website, and promoted to Council employees via DigiGov, Intranet and Staff Information.
- The survey was sent to the Citizens Panel which is made up of over 6,000 Cardiff residents.

Results

After data cleansing and validation, there were 3,305 responses to the consultation.

There were 2,475 valid Cardiff postcodes identified within the results. The map below (Figure 1) shows population representation at ward level for Cardiff residents.

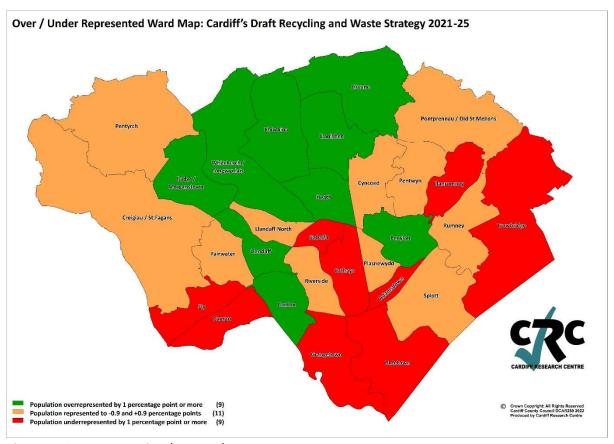


Figure 1. Representation by Ward

Those that did not provide a postcode are included in overall figures but are excluded from spatial analysis.

The responses have been analysed by age and gender, with responses related to households with resident children, southern arc residents, residents with a minority ethnic background, those with a disability, and those living in the least / most deprived areas of the city broken down to provide clear information.

In addition, the analysis includes the response from those living in the 'Southern Arc' of Cardiff which comprises the following electoral divisions: Adamsdown, Butetown, Caerau, Canton, Ely, Grangetown, Llanrumney, Riverside, Rumney, Splott, Trowbridge. (See map at Figure 2).

Specific questions have been viewed by property type which allows us to identify issues impacting respondents in certain types of properties.

Welsh Index of Multiple Deprivation

To help gain a better understanding of the experiences and views of Cardiff residents an additional level of analysis has been introduced that looks at responses by deprivation fifth.

The Welsh Index of Multiple Deprivation (WIMD) is the official measure of small area deprivation in Wales and is designed to identify those small areas where there are the highest concentrations of several types of deprivation. Each Lower Super Output Area (LSOA) in Wales is ranked in terms of overall deprivation as well as for several separate domains, with a rank of 1 assigned to the most deprived area.

The 216 LSOAs in Cardiff are ranked from highest to lowest by their overall deprivation rank and then split into five equal bands, ranging from least deprived (i.e. least deprived 20% of LSOAs in Cardiff) to most deprived fifth (i.e. most deprived 20%). Respondents are then assigned to a deprivation fifth according to their postcode. As such, respondents from outside Cardiff or those with a missing/incomplete/incorrect postcode will be excluded from this analysis.

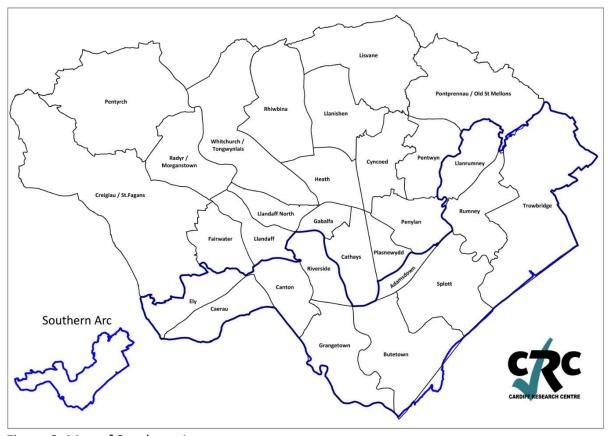


Figure 2. Map of Southern Arc

Section one – Improve Material Quality

A recent analysis of the material collected from green bags within the City identified that:

- 23.7% of items placed into green bags, collected from the kerbside were incorrect
- 41.4% of items placed into green bags, collected from blocks of flats were incorrect

Whilst our process is able to segregate small items of contamination, for example the incorrect plastic type, the range of 'dirty' material being included is a real issue, for example, food waste, nappies and even medical waste.

For this reason, we lose 30% of the material we collect for recycling, which is then used as fuel to create energy rather than used as a resource and made into new products. To put scale to the issue, that's over 10,000 tonnes of material lost in 2019/20. That's the weight of 10,000 giraffes!

While educating residents and enforcing correct use (by issuing £100 Fixed Penalty Notices) can play a part in changing behaviour, we know that an improved recycling service is required. Staying as we are is not an option.

Further separation of materials will improve the quality of items collected. Choosing a container that is not single use and needs to be returned to a property will encourage residents to use them correctly. It's also a more sustainable option.

We have considered a number of recycling collection options that are available to us, these options are explored in more detail in the draft recycling and waste strategy but can be briefly summarised as:

<u>Full kerbside sort</u> - this option requires the full separation of all recyclable materials, with 4 separate containers provided for glass, paper, cardboard and tins/cans/plastic bottles, tubs and trays. All recyclable materials, including food, are collected on a single collection vehicle and sorted into their own individual compartments on the collection vehicle.

<u>'Three stream' collection</u> - this option still requires the separation of material, but paper and cardboard is mixed together. Residents will have 3 separate containers for glass, paper/cardboard and tins/cans/plastic bottles, tubs and trays. Recycling is collected on one vehicle, and food waste is collected by a separate vehicle.

We have also considered the recycling container options available, which are re-useable hessian sacks, rigid boxes, stackable boxes, wheeled bins, kerbside caddies. There are a number of things to consider when choosing the most suitable container type for the whole City, including:

- Storage for differing housing types

- Size/capacity (e.g. a rigid box is 55L whereas a sack is 90L. A standard green recycling bag is 60L)
- Health and safety within collections
- Cost
- How material quality may be impacted (e.g. crews would be unable to see the contents of a wheeled bin)

Do you agree that Cardiff needs to improve the quality of material collected?

Over four in five (85.0%) respondents agreed that Cardiff needs to improve the quality of material collected.

	No.	%
Yes	2,677	85.0
No	471	15.0
Total Respondents	3,148	100.0

At least 80% of respondents within each demographic and geographic group agreed that Cardiff needs to improve the quality of material collected.

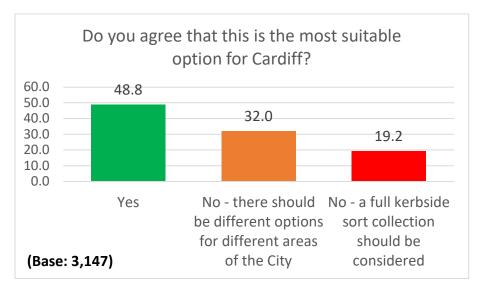
There was no correlation with level of deprivation.

After considering these options, and on balance with the challenges faced within an urban City we are currently trialling a new and improved collection method across 4,000 properties across the City. This collection involves 3 containers being provided, which is the 'three stream' collection option:

- A red re-useable sack for paper and cardboard
- A blue re-useable sack for tins/cans and plastic bottles, tubs and trays
- A glass caddy for glass bottles and jars

Do you agree that this is the most suitable option for Cardiff?

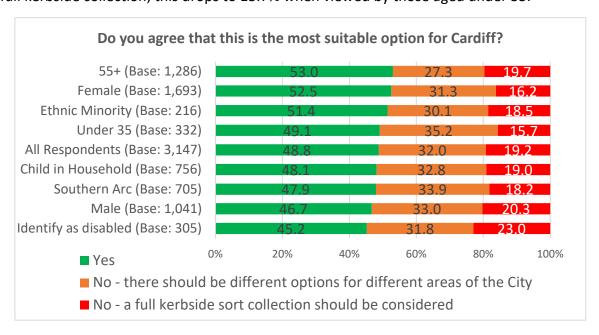
Almost half (48.8%) of respondents agreed with the proposals. Around one in three (32.0%) felt there should be different options for different areas of the City, whilst one in five (19.2%) felt that that a full kerbside sort collection should be considered.



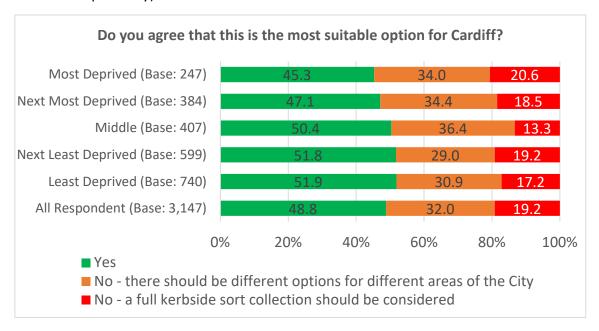
At least 40% of respondents within each demographic and geographic group agreed that this is the most suitable option for Cardiff.

Agreement was highest amongst those aged 55+ (53.0%) and females (52.5%); it was lowest amongst those identifying as disabled (45.2%), and males (46.7%).

Those identifying as disabled (23.0%) were the group that showed the greatest interest in a full kerbside collection; this drops to 15.7% when viewed by those aged under 35.



Respondents living in the least deprived areas of the city were more likely to agree that this is the most suitable option for Cardiff than those living in the least deprived areas (51.9% and 45.3% respectively).



Respondents living in semi-detached properties were most likely to agree (51.1%); those living in a Flat, Maisonette, Bedsit, Studio or Room only (43.8%) were least likely to agree.

Over two fifths (43.8%) of those living in a Flat, Maisonette, Bedsit, Studio or Room only cited '**No - there should be different options for different areas of the City**'; this is 16 percentage points higher than those living in a semi-detached property (27.8%).

If no, please explain your reasons why

Respondents were given the opportunity to explain the reason why they think there should be different options for different areas, or think that a full kerbside collection should be considered.

No – A full kerbside sort collection should be considered

All comments were grouped into themes, the top three themes along with example comments can be viewed below and overleaf. A full breakdown can be found in Appendix A.

Theme	No	%	Example Comment
Reusable sacks being blown away / not fit for purpose	149	33.2	 I feel that reusable sacks will get blown away/lost easily and have the potential for rubbish to be blown around the streets. Will they be waterproof enough to protect the paper recycling? HMOs already have a lot of bins outside These sacks empty their contents in the slightest breeze

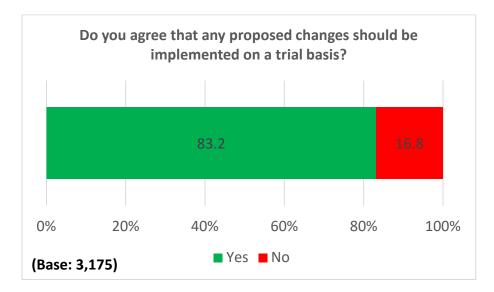
			 The current containers are totally unsuitable and are already leading to messy streets especially and the carts no longer come around. The contents get wet dirty and already the containers are becoming unpleasant There will be a risk to traffic on windy days when empty bags blow around Bags get wet, difficult to dry wet bags and store in house, bags blow away
Storage concerns	129	28.7	 Some people do not have the space in their homes for 3 separate refuse bins, example, people in 1 bedroom flats, the kitchens are tiny & have no room for 3 separate bins Nowhere to store the bags and rubbish live on busy street where bags will disappear and become lost Terraced houses with no rear access have no room for all the different sacks There isn't enough space in most properties for all these sorting containers, and people would not bring wet soggy dirty bags into their house. Too many containers involved. They will become dirty very quickly and nowhere to store them.
Sorting concerns	63	14.0	 People will still not learn and still mix waste it is up to the council to improve their internal processes Having to sort at home will discourage people from recycling. The Council should sort after collection not before It's a lot of work and still doesn't guarantee the right product for recycling being placed in the correct bin people will be less inclined to sort properly leading to less recycling, I've lived in Swansea and people there can't be bothered to use all the different bags.

No – There should be different options for different areas of the city

All comments were grouped into themes, the top three themes along with example comments can be viewed below. A full breakdown can be found in Appendix B.

Theme	No	%	Example Comment
Storage concerns	418	46.5	 Where do you intend, I keep your extra sacks or boxes? My house isn't any bigger than it was before. I live in a small flat and have no room. For 3 recycling bins, food waste bin and general waste bin. Unfortunately, we do not have space in our house for additional bins. We already have five when considering recycling, landfill, food, supermarket bags & teracycle. Our homes aren't designed for so many storage options Too many bags in my flat, how can I fit 5 bins in a small kitchen?
Vary approach by accommodation type / area	342	38.0	 Different types of property may require different options due to storage space available Not everywhere has storage, houses aren't the same as flats etc Different issues / risks in more rural locations Take Grangetown - HMOs, houses with gardens for bins, blocks of flats with shared bins, houses that open onto the street. One size cannot fit all It cannot be a one size fits all for such different housing stock - consider the differences between properties in Cyncoed (plenty of room) with terraced housing - limited indoor space
Bags not fit for purpose / unsecure/ blow away /porous / unhygienic	172	19.1	 Reusable sacks are going to blow away once empty. I live on Newport Road, sacks will get taken, blown away across traffic this will cause accidents Sacks blow away and tear too easily (know from previous experience) Bags will break, they will smell some built up areas waste will be spilt onto roads Sacks blow away and we have to pay to replace them, they're also nasty to move through the house if wet, glass bins need to be larger than those trialled previously and have better closure, so they don't fill with water

Do you agree that any proposed changes should be implemented on a trial basis? Over four fifths (83.2%) of respondents agreed that the proposals should be implemented on a trial basis.



Agreement was highest amongst females (86.9%) and those respondents aged 55+ (84.6%); it was lowest amongst males (78.6%), and those residing in the Southern Arc of the City (80.3%).

There was no correlation with level of deprivation.

If we were to provide alternative containers for your recycling across the city, which would you prefer:

'Recycling Caddies' was viewed as the preferred receptacle, with over one in three (36.9%) choosing this option. Three in ten (29.7%) would like 'Recycling boxes' as an alternative.

	No.	%
Recycling caddies	1,029	36.9
Recycling boxes	828	29.7
Re-useable hessian sacks	491	17.6
Other	438	15.7
Total Respondents	2,786	100.0

N.B. Don't know responses have been removed from the analysis

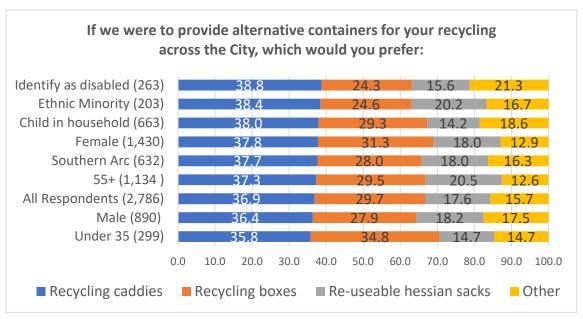
If other, please specify:

Respondents who selected 'Other' had their comments grouped into themes. The top three themes, along with example comments can be viewed below and overleaf. A full breakdown can be viewed in Appendix C.

Theme	No.	%	Example Comment
Keep current system	109	25.9	 I'm happy with the system we have, if people can't get that right they will never get a new system right. Keep it as it is. Green bags

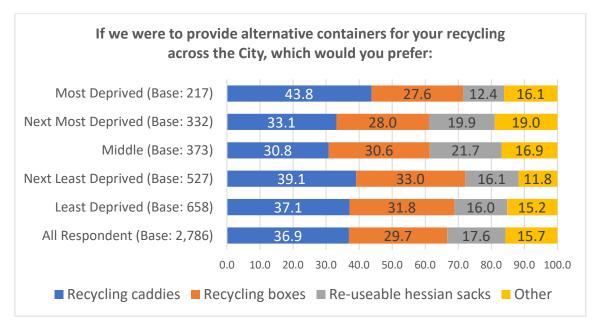
			 best as it is now!! Green bags which are 76.3% effective. The current bag system, fill in kitchen, take outside, I've no idea where all this proposed new stuff will be kept. Stick to the current but increase education and the fine process.
Wheelie bins / Weatherproof bins	100	23.8	 Bins with lids - keeping items fully dry and rats out!!!!!! Enclosed recycling bins for outside that are weatherproof Something weatherproof (rain & wind) with a lid that is large enough to contain the amount of recycling. 2 wheelie bins 1 for plastics and 1 for cardboard and paper Wheelie bins (something solid plasticnot bags or sacks as these blow away even if weighted)
Storage concerns	53	12.6	 Caddies that can be taken and recycled as consumers do not have to bring and store wet caddies. Not everybody has room or space to bring in wet sacks Keep to plastic sacks easy to store rather than containers which take up room to store. Box's with lids as I would have to store outside as no room in house None of the above - don't have room for them. At the moment householders don't recycle what make you think this is any better. householders don't have the room in their premises for all these bags especially those who live in flats. this is crazy

The preference for 'Recycling Caddies' was top amongst each of the demographic and geographic groups analysed.



Base sizes are in brackets

As with the demographic breakdowns, the preference for 'Recycling Caddies' was top amongst each of the deprivation breakdowns, most notably in the most deprived areas of Cardiff where over two fifths (43.8%) chose this option, this is 6.9 percentage points higher than in the overall findings (36.9%).



Respondents living in a Flat, Maisonette, Bedsit, Studio or Room only were the least likely to want 'Recycling Caddies' (30.5%).

How do you currently store your recycling before collection?

The most common method for currently storing recycling before collection is to 'Store in an external bin or container' (30.5%). One in four (24.8%) 'Keep bags full inside until collection day', whilst around one in six (15.2%) 'Store in a garage or outbuilding'.



If other, please specify:

Respondents who selected 'Other' had their comments grouped into themes. The top three themes, along with example comments can be viewed below and overleaf. A full breakdown can be viewed in Appendix D.

Theme	No.	%	Example Comment
Outside property- Garden / Drive	823	90.8	 Keep full bags in front garden next to bins. store full bags outside until collection day In the garden in bags In the front space of the property, outside Leave outside house on drive Just leave them outside the back door They sit outside in the yard because I have no other space In my side garden, where it is not seen. Outside house on private sheltered area store outside behind garden gate on path
Inside property	62	6.8	 Store them in an open container in the house then bag for collection. I have an internal bin for recycling alongside my internal bin for non-recycling. They are designed to be attractive and sit next to each other in my kitchen. Normally we produce less than one recycle bag per week, so it can stay in its container until it's ready to go. Indoor bins in bin bags

			 Store in box in kitchen and transfer to green bag the night before collection.
External Storage unit - large bins/ Shed/Garage/	24	2.6	 Store in my own purchased bins My sheds out my back garden Built storage units in drive Store excess cardboard in garage or external container until dry collection day

Respondents aged 55+ were much more likely to 'Store in an external bin or container' than their counterparts aged under 35 (34.6% and 25.2% respectively).

Those from ethnic minorities and those from the Southern Arc were most likely to 'Keep full bags inside until collection day' (32.9% and 31.0% respectively).

Respondents aged 55+ were more than twice as likely to 'Store in a garage or outbuilding' than those aged under 35 (18.7% and 7.8% respectively).



Almost three in ten (28.5%) respondents from the most deprived areas of Cardiff currently 'Keep full bags inside until collection day', this compares with just over one in five (21.3%) in the least deprived.

Respondents in the least deprived areas were twice as likely to 'Store in a garage or outbuilding' as those in the most deprived areas (20.9% and 10.0% respectively).

One in five respondents living in a detached or a semi-detached property (19.4% and 19.9% respectively) currently '*Keep full bags inside until collection day*'; this rises to over one in three (37.4%) when viewed by Respondents who live in a Flat, Maisonette, Bedsit, Studio or Room only.

Less than one in ten of those residing in a Flat, Maisonette, Bedsit, Studio or Room only or a Terraced property (8.8% and 8.5% respectively) currently 'Store in a garage or outbuilding'; this rises to one in four (25.6%) when viewed by those that live in a detached property.

Do you recycle every week?

Almost all (98.0%) respondents recycle every week. 64 (2.0%) respondents either don't recycle every week or don't recycle at all.

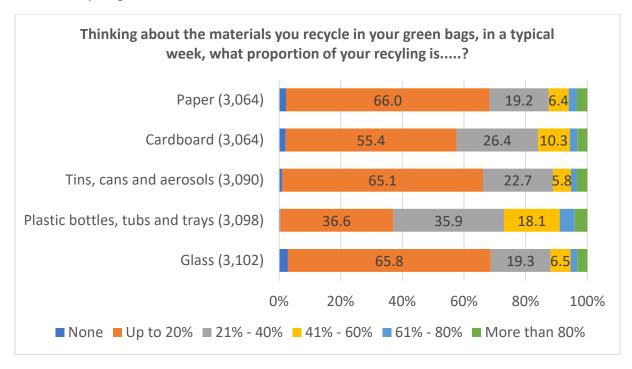
	No.	%
Yes	3,101	98.0
No	61	1.9
I don't recycle	3	0.1
Total Respondents	3,165	100.0

These findings were consistent across the demographic and geographic groups analysed.

Thinking about the materials you recycle in your green bags, in a typical week, what proportion of your recycling is.....?

When asked the proportion of materials recycled, there was a spread, indicating there was no dominant material placed in the green bag, suggesting that people recycle as many types of items as possible.

Over a third (35.9%) of respondents indicated that plastic bottles, tubs and trays made up 21-40% of their green bag in a typical week, with a further 18.1% saying it made up 41-60% of their recycling.



Where do you go to access information about the correct materials to put into recycling bags?

'Cardiff Council website' (54.4%) was viewed as the most popular place respondents would go to access information about the correct materials to put into recycling bags. Around three in ten would 'Look on the green recycling bags' and/or 'Look on packaging' (32.0% and 30.1% respectively).

Just 2.6% of respondents claimed they 'Don't know where to look for the information'.

	No.	%
Cardiff Council website	1,704	54.4
Look on the green recycling bags	1,003	32.0
Look on packaging	941	30.1
Cardiff Gov app	811	25.9
Don't know where to look for information	82	2.6
Request advice from local community / Ask Neighbour	62	2.0
Contact Cardiff Council digitally	35	1.1
Contact Cardiff Council over the phone	12	0.4
Other	127	4.1
Total Respondents	3,131	-

N.B. Percentages total more than 100% as respondents could select more than one option

If other, please specify:

Respondents who selected 'Other' had their comments grouped into themes. The top three themes, along with example comments can be viewed below. A full breakdown can be viewed in Appendix E.

Theme	No.	%	Example Comment
Council correspondence	38	31.1	 Leaflet delivered with sacks and caddy On trial and use booklet provided. Refer to the Leaflet that was put through the door - keep it on the side of the fridge Booklet
Online / social media	21	17.2	 Cardiff council Facebook Wales online Wales Recycles Recycle Now
I know what materials recycled/ Recycle what I think is correct	20	16.4	 I know what goes where Common sense Just put what I think can be recycled into green bag Make own decisions.

Almost two fifths (38.7%) of respondents aged under 35 would 'Look on the packaging', this compares with around one in four (26.5%) of those aged 55+.

Respondents aged under 35 and those from an ethnic minority were the two groups most likely to claim that they '*Don't know where to look for information*' (5.4% and 5.1% respectively), this is around double that of the overall findings (2.6%).

Three in ten (29.3%) respondents from the least deprived areas would 'Look on the green recycling bags', this rises to over one in three (36.8%) when viewed by respondents from the most deprived areas.

Just over one in four (26.3%) respondents from the least deprived areas would '**Look on packaging**', this rises to over one in three (35.6%) when viewed by respondents from the most deprived areas.

If you don't know whether an item can be recycled in your green bags, what do you do with it?

When respondents were unsure whether an item could be recycled in their green bags or not, around two in five would either 'Make every effort to find out how to recycle it' or alternatively, they'd 'Put it in their black bin / red striped bags' (41.7% and 41.1% respectively).

86 (2.8%) respondents indicated that they'd 'Take the item to a Household Recycling Centre'.

	No.	%
Make every effort to find out how to recycle it	1,303	41.7
Put it in my black bin/red striped bag	1,284	41.1
Put it in the green bag anyway	373	11.9
Take it to a Household Recycling Centre	86	2.8
Something else	79	2.5
Total Respondents	3,125	100.0

If something else, please specify:

Respondents who selected 'Other' had their comments grouped into themes. The top three themes, along with example comments can be viewed below and overleaf. A full breakdown can be viewed in Appendix F.

Theme	No.	%	Example Comment
Put in Black Bin / Green Bags	31	42.5	 Make a judgement to put it in green bag or black bin I make every effort to recycle but the. It has to go in the black bin if no joy. Put them in the general waste bin Guess - black bin or green bag

Find out information myself	30	41.1	 Check the product packaging check on website Look online to see where it goes Ask neighbours
Take to recycling centre / Similar scheme	12	16.4	 Depends what it is, household recycling centre or other scheme Teracycle Google to find out where it can be recycled taking advantage of volunteer run tetracycline schemes in the community

Female respondents and those aged 55+ were the two groups most likely to 'Make every effort to find out how to recycle it' (45.1% and 42.2% respectively); the least likely groups were those aged under 35 and respondents from a minority ethnicity (33.3% and 34.7% respectively).

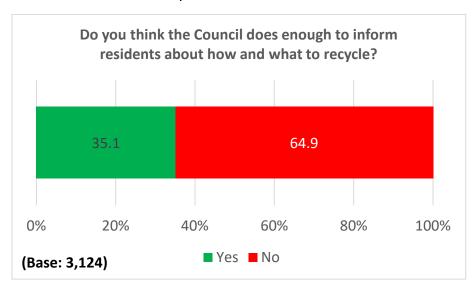
Just over one in three (34.4%) respondents who identify as disabled would '*Put it in my black bin/red striped bag*', this rises to 47.7% when viewed by those from a minority ethnicity.

One in ten (9.8%) respondents aged under 55+ would '*Put it in the green bag anyway*', this rises to almost one in five (17.7%) when viewed by those aged under 35.

Just over one in three (35.9%) of those respondents residing in the most deprived areas of Cardiff would '*Make every effort to find out how to recycle it*', this compares with 43.3% in the least deprived areas.

Do you think the Council does enough to inform residents about how and what to recycle?

Only around one in three (35.1%) respondents feel that the council does enough to inform residents about how and what to recycle.



Less than two fifths of all demographic and geographical groups analysed agreed that the council does enough to inform residents about how and what to recycle. Agreement was lowest amongst respondents who identify as disabled and those aged under 35 (30.9% and 32.7% respectively).

There was no correlation by deprivation.

If no, or if you have any comments, how could we improve this?

Respondents who felt the Council didn't do enough to inform residents about how / what can be recycled were presented with a list of pre-coded options as to how they felt the Council could improve on this.

'Making better use of social media and other digital platforms' was viewed as the main way the Council could make progress on this matter, with over three in five (63.0%) citing this option. This was followed by 'Deliver more leaflets / letters to households' (55.1%) and 'Work with children, including schools and youth clubs' (37.2%).

	No.	%
Make better use of social media, and other digital		
platforms	1,266	63.0
Deliver more leaflets/letters to households	1,107	55.1
Work with children, including schools and youth		
clubs	747	37.2
Work with communities and volunteers to help		
deliver messages	527	26.2
Issue £100 Fixed Penalty Notices for repeated		
incorrect use, to act as a deterrent	441	22.0
Improve the range of languages that information is		
available in	371	18.5
Increased outreach sessions in community		
locations	355	17.7
More face-to-face door knocking	233	11.6
Other	255	12.7
Total Respondents	2,009	-

N.B. Percentages total more than 100% as respondents could select more than one option

If other, please specify:

Respondents who selected 'Other' had their comments grouped in these. The top three theses, along with example comments can be viewed below and overleaf. A full breakdown can be viewed in Appendix G.

Theme	No	%	Example Comment
Clearer / Accurate / more accessible information	156	62.9	 It seems really complicated what can and can't be recycled. Is there a way of simplifying this information to make it clearer? Improve the recycling website for more comprehensive information

	1			
			More posts on social media groups (i.e., FB rouse groups) and radio	
			reuse groups) and radio	
			On website have a search facility where u	
			can enter items name and it can then advise	
			correct recycling process	
			Email residents when their collection is due	
			with an attachment of what goes in the	
			green bag	
			 A fridge magnet or something that isn't just 	
			going to end up being lost or recycled	
			Work with large stores to have information	
			on what can and can't be recycled.	
			Provide teracycle bins	
			Find a way to recycle things that currently	
			can't be recycled	
Recycle more items /			Have more places to recycle tetra packs and	
More improved	36	14.5	plastic that can be recycled with carrier	
recycling centres			bags. Also, more places for batteries	
recycling certifies			Have a permanent hire in North Cardiff. Just	
			Saturdays for a limited time frame and	
			limited materials not good enough!	
			Indicate on sacks which are left by your	
			operatives, the reason why they're left and	
			stop fining people, unless their actions are	
			grossly taking the mick.	
			Stop issuing fines as it does not act as a	
Educate / show	25	40.4	deterrent, improve education	
benefits of recycling /	25	10.1	Better understanding how	
Not fines			incorrect/contaminated waste means whole	
			bags need to be destroyed.	
			No fines - plenty of residents dump their	
			rubbish in the wrong bin knowing others get	
			the blame. Education and constant	
			messaging is the answer.	

'Make better use of social media, and other digital platforms' was highest amongst females (68.2%) and lowest amongst males (57.5%).

Almost two thirds (65.0%) of those aged under 35 would like the council to '*Deliver more leaflets/letters to households*', this compares with 52.2% of those that have a child in the household.

Over one in three (35.5%) respondents who identify as disabled would like the council to 'Work with communities and volunteers to help deliver messages', this compares with just over one in five (21.6%) when viewed by male respondents.

Around one in five respondents aged 55+ / have a child in the house (19.0 and 19.9% respectively) would like the council to 'Issue £100 Fixed Penalty Notices for repeated incorrect use, to act as a deterrent', this compares with almost three in ten when viewed by under 35's and those that reside in the southern arc (28.3% and 28.8% respectively).

Respondents who identify as disabled and those from a minority ethnicity were the two groups with the greatest proportion of respondents who would like the council to '*Increase outreach sessions in community locations*' (23.7% and 21.1% respectively).

'Make better use of social media, and other digital platforms' was the preferred approach across each of the deprivation groups.

A quarter (25.3%) of respondents residing in the most deprived areas of Cardiff would like the council to 'Issue £100 Fixed Penalty Notices for repeated incorrect use, to act as a deterrent', this compares with around one in six (17.4%) from the least deprived areas.

A quarter (24.7%) of respondents residing in the most deprived areas of Cardiff would like the council to '*Improve the range of languages that information is available in*', this compares with around one in seven (14.5%) of those from the least deprived areas.

Are you aware of what happens to your recycling and waste once it's collected? Less than a third (31.1%) of respondents were aware of what happens to their recycling and waste when it's collected. One in five (20.5%) were unsure, whilst almost a half (48.4%) stated that they didn't know.



Respondents from a minority ethnicity and those who identified as disabled were the two groups most likely to know what happens to their recycling and waste once it's collected (38.5% and 37.4% respectively).

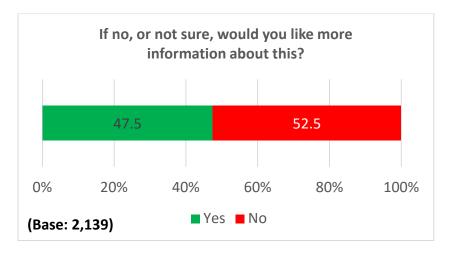
Almost three in five (58.7%) of those aged under 35 stated that they did not know what happens.

Over one in three (34.8%) respondents from the most deprived areas of Cardiff are aware of what happens to their recycling and waste once it's collected, this compares to 31.1% in the least deprived areas.

If no, or not sure, would you like more information about this?

Respondents who stated they were not sure or didn't know what happens to waste once it's recycled were asked if they'd like more information about this.

Opinion was split as to whether people would or would not like additional information on this matter (47.5% and 52.5% respectively).



Respondents who said they'd like more information were then asked to leave their contact details. These details have been passed onto the project team.

Minority ethnic respondents and those aged 55+ were the groups most likely to want more information (57.9% and 53.9% respectively); the least likely groups were those with a child in the household and those under 35 (41.7% and 42.2% respectively).

There was no correlation by deprivation.

Garden waste collections

Garden waste collections are not a statutory duty for local councils to provide free of charge. The pressures of COVID 19, and current availability of HGV drivers nationally, has meant a number of delays to collections over the past 18 months. We thank you for your continued patience.

We provide a garden waste collection for grass cuttings, non-invasive weeds, trimmings and foliage. However, we regularly find items such as general waste, green recycling bags, garden furniture and nappies when the garden waste load is being processed. In 2019/20, it cost the Council £95,000 to process incorrect material from within our garden waste collections.

From analysis, we know that on the whole, incorrect material is coming from areas that use green wheeled bins. Incorrect material is being 'hidden' at the bottom of the bins, so our collection crews are unable to reject the bin for collection.

We need to consider all options to improve this situation, and we would like to understand your views.

Do you use your garden waste collection?

Over four in five (86.3%) respondents use the garden waste collection.

	No.	%
Yes	2,685	86.3
No	426	13.7
Total Respondents	3,111	100.0

Over nine tenths (92.4%) of respondents aged 55+ use their garden waste collection, this compares with less than two thirds (62.3%) of those aged under 35.

Seven in ten (70.4%) respondents from the most deprived areas use their garden waste collection, this rises to almost all (97.4%) when viewed by respondents from the least deprived areas.

Almost all respondents who live in a detached or semi-detached property (97.3% and 96.3% respectively) use their garden waste collection; this drops to just over one in three (34.5%) when viewed by those that live in a Flat, Maisonette, Bedsit, Studio or Room only.

Respondents who indicated that they use the service were then asked a few additional questions in relation to the service.

Which of these do you use for your garden waste collections?

The majority (90.1%) of respondents who use the garden waste collection, use a green wheeled bin. Around one in ten (9.7%) us white re-useable sacks.

5 (0.2%) respondents stated that they don't use a garden waste container.

	No.	%
Green wheeled bin	2,412	90.1
White re-useable sacks	259	9.7
I don't use a garden waste container	5	0.2
Total Respondents	2,676	100.0

The use of 'White re-useable sacks' was highest amongst respondents who reside in the southern arc of the city and those aged under 35 (23.1% and 16.3% respectively).

The 'Green wheeled bin' was used by over four in five (85.2%) of respondents who reside in the most deprived areas of Cardiff. However, this increases to almost all (99.6%) when viewed by respondents from the least deprived areas.

Almost all respondents who live in a detached or semi-detached property (99.1% and 97.6% respectively) use a '*Green wheeled bin*'.

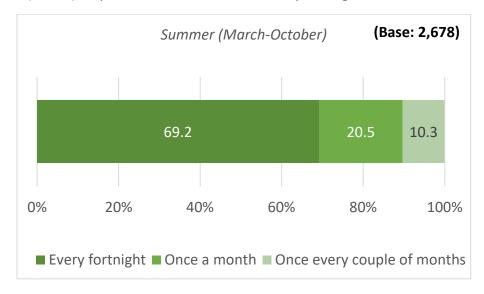
Just over three in ten (31.1%) respondents who live in a Terraced property use 'White re-useable sacks'

If you use your garden waste collection, how often do you put your garden waste out for collection?

Respondents who indicated that they use the garden waste collection service were asked how frequently they used this service in the summer versus the winter.

Summer (March-October)

Seven in ten (69.2%) respondents use the service every fortnight in the summer.



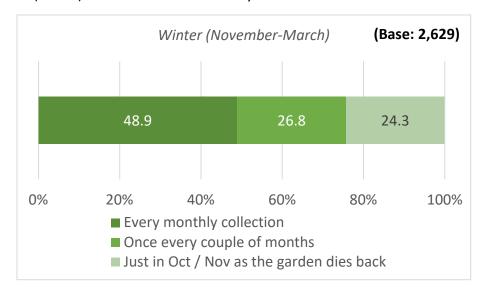
Over three in four (76.8%) respondents aged 55+ put their garden waste out every fortnight in the summer months, this compares with less than a half (48.3%) when viewed by respondents aged under 35.

Just over four fifths (81.4%) of respondents who reside in the least deprived areas of Cardiff put their garden waste out every fortnight in the summer, this drops to less than three in five (57.1%) when viewed by those that reside in the most deprived areas.

Over four in five (84.8%) respondents who live in a Detached property use the garden waste collection every fortnight in the summer months; this drops to less than a half of respondents who reside in a Flat, Maisonette, Bedsit, Studio or Room only or a Terraced property (45.0% and 46.8% respectively).

Winter (November-March)

Three quarters (75.7%) use the service regularly during the winter months, this includes around a half (48.9%) that use the service every month in the winter.



Respondents aged 55+ (55.4%) were the group most likely to use the service every month; least likely were those aged under 35 (30.3%).

Three in ten (30.9%) respondents in the most deprived areas stated that they use the service every month, this level of use more than doubles amongst respondents from the least deprived areas (63.4%).

Two thirds (66.1%) of respondents who live in a Detached property use the garden waste collection every month in the winter months; this drops to around one in four (26.3%) respondents who reside in a Flat, Maisonette, Bedsit, Studio or Room only.

Before the challenges of the past 18 months, we would move to a monthly collection in October. We recognise from feedback that this is often too early to accommodate leaf fall, and the end of the gardening season.

If we were to provide fortnightly garden waste collections up until the end of November, do you agree that you could cope without a collection in December, January or February?

Around three in four (76.3%) respondents feel they would be able to cope without a collection in December, January or February.

	No.	%
Yes	2,023	76.3
No	628	23.7
I don't use garden waste collections	2	0.1
Total Respondents	2,653	100.0

Respondents who reside in the southern arc and those aged under 35 (82.6% and 80.7% respectively) were the groups most likely to cope without a collection in the winter months (December, January or February); least likely to cope were males and those from a minority ethnicity (both 74.6%).

Over four fifths (84.7%) that reside in the most deprived areas stated they could cope without a collection in the winter months; this response drops to seven in ten (70.9%) for respondents in the least deprived areas.

Only two thirds (67.0%) of those that reside in a detached property agreed that they could cope without a collection in the winter months.

Councils in Wales currently charge for the collection of garden waste. By charging for the collection of garden waste, on a subscription basis, Councils are able to ensure they are only visiting the properties that need a collection. This makes collections more efficient (and more environmentally friendly) and provides a better service for residents with a reduction in potential delays to the service. In Cardiff, we visit 135,000 households over a fortnight, but we know that on average across the City, only 12% of properties put out their bin every collection. This reduces to 2% over the winter months.

Do you think we should introduce an annual charge of £35 for fortnightly garden waste collections, between March-November? This would be approximately £1.80 per collection. Residents would need to sign up and pay each year.

Four in five (79.4%) respondents disagree with the suggestion of introducing an annual charge of £35 for a fortnightly garden waste collection.

	No.	%
Yes	633	20.6
No	2,441	79.4
Total Respondents	3,074	100.0

Agreement was highest amongst respondents aged under 35 and those from a minority ethnicity (27.3% and 24.4% respectively); it was lowest amongst respondents who identify as disabled and those that have a child in the house (17.8% and 19.6% respectively).

There was no corelation by deprivation.

Respondents living in a Flat, Maisonette, Bedsit, Studio or Room were more than twice as likely to agree than those living in a semi-detached property (37.0% 17.5% respectively).

If you have said yes, why?

'I would rather pay for a kerbside collection than have to take my garden waste elsewhere' was cited by three in five (60.7%) respondents who would be happy to pay an annual charge. This was followed by 'Not everyone has garden waste at their properties, so those who do should pay for a collection' (55.6%) and 'It would make collections more efficient' (42.8%).

Although viewed as the least likely reason why respondents would pay for this service, over one in three (35.7%) said 'It's not a statutory service, so I'd like to see money invested in other services rather than garden waste collection'.

	No.	%
I would rather pay for a kerbside collection than have to		
take my garden waste elsewhere	383	60.7
Not everyone has garden waste at their properties, so those		
who do should pay for a collection	351	55.6
It would make collections more efficient	270	42.8
It's not a statutory service, so I'd like to see money invested		
in other services rather than garden waste collections	225	35.7
Other	35	5.5
Total Respondents	631	-

N.B. Percentages total more than 100% as respondents could select more than one option

If other, please specify:

Respondents who selected 'Other' had their comments grouped into themes. The top three themes, along with example comments can be viewed below and overleaf. A full breakdown can be viewed in Appendix H.

Theme	No.	%	Example Comments
Could incentivise composting	10	28.6	 It might encourage people to compost their own garden waste. If people have gardens should there be an initiative to encourage them to compost rather than fill garden waste bins maybe that's an option provide them with a composted if they pay for pickups. That would encourage composting — which is what I do. I do actually use the. garden waste collection about twice a year, if that. To encourage. composting — which is what I do with nearly all my garden waste.
Happy to pay	7	20.0	 I have garden waste all year round and happy to pay for extra collections. The current service is hit and miss, with many missed collections and large gaps. As a paid for service, I would expect the quality of service to have to improve. I previously lived in Cheltenham and an annual charge worked well.

Would want more collections if paying	6	17.1	 To be specific if I pay a fee, I expect collections to occur over winter as well just less regularly. It's a non-statutory service and I understand the council needs to invest money elsewhere. If the charge was anymore, I wouldn't be happy at all. Also just to note I think this has the potential to make garden waste recycling class divide Had the social implications been considered for charging? To make sure it is taken - fed up with being missed.
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If you have said no, why?

'It should be covered by my Council Tax' (68.5%) was viewed as the main reason why respondents don't think there should be an annual charge, this was followed by 'The material should be collected for free, as it contributes towards recycling rates' (52.3%) and 'I could not afford this fee' (20.7%).

183 (7.5%) respondents said 'I would rather take my garden waste to a Household Recycling Centre for free'

	No.	%
It should be covered by my Council Tax	1,670	68.5
The material should be collected for free,		
as it contributes towards recycling rates	1,275	52.3
I could not afford this fee	504	20.7
I don't have enough garden waste to pay		
for collections	503	20.6
I would just use my black bin/red striped		
bags	235	9.6
I would rather take my garden waste to a		
Household Recycling Centre for free	183	7.5
Other	349	14.3
Total Respondents	2,438	-

N.B. Percentages do not total 100% as respondents could select multiple options

Respondents who selected 'Other' had their comments grouped into themes. The top three themes, along with example comments can be viewed below. A full breakdown can be viewed in Appendix I.

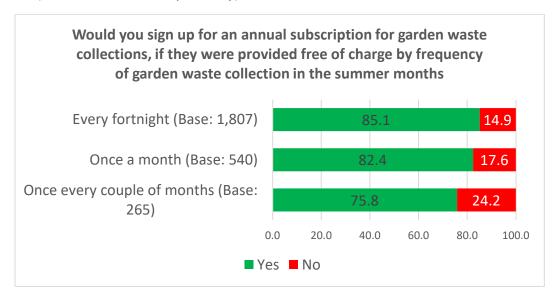
Theme	No.	%	Example Comments
May increase fly tipping / burning / incorrectly presented waste / using other receptacles	137	39.5	 It will result in waste being fly tipped. I worry that people may just dump this waste instead or put in black bags. I would not mind paying the fee but think it would encourage some people not to recycle green waste and burn it or put it in black bin. You could have a free opt-in service in which people have to register every year if they want collections. It will probably just get fly tipped somewhere if there is a charge. Will lead to people burning garden waste I'm their garden which will increase CO2.
Pay enough council tax at present	58	16.7	 I feel I pay enough for my council tax. My council tax is already inflated enough, and I should get at least some services for my payment. Refuse collection is the ONLY obvious service we get from the council for the extortionate council tax we already pay.
Not prepared to pay	50	14.4	 Cardiff residents would not pay for their collections, the majority believe that they pay their Council tax and the only service they receive is their waste collections, so asking them to pay more will not go down well. I wouldn't want to pay for fortnightly collections when I didn't need them that often - an option to pay for a single collection would be preferable, and pinpoint collection locations too. If you start charging for his service a lot of people will not pay and will just start dumping elsewhere. It should already be included in the extortionate council tax that we already pay.

Would you sign up for an annual subscription for garden waste collections, if they were provided free of charge? If you did not sign up, you would not receive a garden waste collection at the kerbside

Over three quarters (77.4%) of respondents would sign up for a free annual subscription for garden waste collections.

	No.	%
Yes	2,348	77.4
No	684	22.6
Total Respondents	3,032	100.0

The willingness to sign up for an annual subscription rises to over four fifths when viewed by those respondents who use the garden waste collection fortnightly or monthly in the summer (85.1% and 82.4% respectively).



Respondents with a child in the house and females were the groups most likely to sign up for an annual subscription (83.2% and 81.2% respectively); least likely were respondents who identity as disabled and those aged under 35 (70.1% and 70.3% respectively).

Just over seven in ten (72.0%) of respondents residing in the most deprived areas of Cardiff would sign up for an annual subscription; this increases to over four fifths (83.7%) when viewed by respondents from the least deprived areas.

Do you bring any garden waste to a Household Recycling Centre?

Three in ten (29.9%) respondents take garden waste to a Household Recycling Centre.



Respondents with a child in the house and those who identify as disabled were the two groups most likely to take garden waste to a Household Recycling Centre (33.9% and 33.2% respectively).

There was no correlation by deprivation.

If no, why?

Respondents who don't take any garden waste to a Household Recycling Centre were asked to explain why.

'I don't have any extra garden waste' (36.5%) was viewed as the main reason, this was followed by 'I feel it should be collected from the kerbside' (32.9%) and 'I don't want to take the material in the car, as it can make the car dirty' (25.4%).

	No.	%
I don't have any extra garden waste	780	36.5
I feel it should be collected from the		
kerbside	704	32.9
I don't want to take the material in the		
car, as it can make the car dirty	542	25.4
I can't take it in my wheeled bin, and don't		
have a different container to transport it	465	21.7
Not physically able to	400	18.7
I can't access a Household Recycling		
Centre, as I don't have a car	304	14.2
Other	290	13.6
Total Respondents	2,138	-

N.B. Percentages total more than 100% as respondents could select more than one option

Respondents who selected 'Other' had their comments grouped into themes. The top three themes, along with example comments can be viewed below. A full breakdown can be viewed in Appendix I.

Theme	No.	%	Example Comment
Lack of Household Recycling Centre's in Cardiff / Environment Concerns / Distance and time needed to travel	119	41.3	 There is no local hwrc in the north of Cardiff ridiculous to expect people to drive across the city to dispose of it The recycling centre is some distance now that Wedal Road is closed - using a car for this purpose is contradictory to the Council's greener city policy I live in North Cardiff and the nearest centre is over 10 miles away, which I vehemently disagree with for both time and environmental reasons. There should be a recycling facility for north Cardiff. You want us to travel miles across the city with a car full of stinking garden waste because you have closed Wedal Road and Waungron for us Cardiff North residentspull the other one. I am sure that 200+ cars travelling to the recycle centre produced more carbon dioxide that kerb collections It's very difficult to get to the tip from here, right across the other side of Cardiff. If there was a collection point closer, I might use it
Use home composter	39	13.5	 We are lucky enough to have a garden and allotment. We use as much of our garden waste as possible to compost I don't have much and i turn it all into compost. Good for the flowers see butty I compost at home using a council supplied top load bottom output compost bin I don't have to, I am able to compost
Minimal / No Garden Waste	36	12.5	 No garden waste - live in a flat I don't have a garden. I have Astro turf and patio, so no garden waste Not enough waste to worry about

Half (50.4%) of respondents aged under 35 claimed the reason the reason they don't take garden waste to a Household Recycling Centre was due to the fact '*I don't have any extra garden waste*'; this reason is lowest amongst respondents who identify as disabled (29.4%).

One in four respondents who reside in the Southern Arc, and one in four of those who identify as disabled (25.3% and 25.0% respectively) '*Feel it should be collected from the kerbside*'; amongst male respondents this figure rises to 36.5%.

Over one in three (34.9%) respondents who have a child in the household cited 'I don't want to take the material in the car, as it can make the car dirty'.

'I can't take it in my wheeled bin, and don't have a different container to transport it' was of most concern to respondents with a child in the household (26.7%); concern was lowest amongst those that reside in the southern arc (17.1%).

Respondents aged over 55 were more almost three times as likely to cite '*Not physically able to*' when compared to those aged under 35 (24.0% and 8.3% respectively).

Almost one in four (23.4%) respondents from the most deprived areas cited '*I feel it should* be collected from the kerbside'; this rises to 37.3% when viewed by respondents form the least deprived areas.

Around one in twenty (4.6%) respondents from the least deprived areas highlighted 'I can't access a Household Recycling Centre, as I don't have a car'. By contrast, this rises sharply to three in ten (29.7%) respondents from the most deprived areas.

If you weren't sure whether an item should be included in your garden waste collections, what would you be most likely to do with it?

Two in five (39.1%) respondents would 'Make every effort to find out how to recycle it' if they were unsure whether an item could be included in the garden waste collections or not. A further one in three (33.4%) would 'Put it in my black bin / red striped bag', whilst almost one in six (17.2%) would 'Take it to a Household Recycling Centre'

23 (0.8%) respondents indicated that they would 'Hide it in the green bin / white re-useable sack'.

	No.	%
Make every effort to find		
out how to recycle it	1,179	39.1
Put it in my black bin/red		
striped bag	1,005	33.4
Take it to a Household		
Recycling Centre	517	17.2
I don't know	188	6.2
Hide it in the green		
bin/white re-useable sack	23	0.8
Other	100	3.3
Total Respondents	3,012	100.0

Respondents who selected 'Other' had their comments grouped into themes. The top three themes, along with example comments can be viewed below. A full breakdown can be viewed in Appendix J.

Theme	No	%	Example Comment
Compost it	23	24.7	 Make use of it in the garden or compost it I have a compost bin in the garden. Use my allotment compost bins composting as much as possible
Green bin/ Confident what can go in garden waste collections	22	23.7	 I know what can go in a green bin Personally, I'm pretty clear about what is / isn't permitted so don't face that dilemma. As a gardener I know what can be recycled I know what goes in Garden waste, so it isn't an issue
Look it up / Ask Friends / Neighbours	16	17.2	 check Council website. Ask family/ friends Attempt to get clarification from Council. Ask manager of property where I live

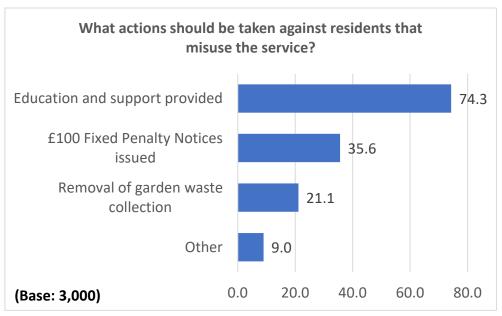
Respondents aged 55+ and those that identify as disabled (both 41.4%) were the groups most likely to '*Make every effort to find out how to recycle it*'; least likely were those aged under 35 (28.3%).

'I don't know' was selected by around one in twenty (4.8%) respondents aged 55+; this more than doubles when viewed by respondents aged under 35 (12.0%).

There was no correlation by deprivation.

What actions should be taken against residents that misuse the service?

The majority (74.3%) of respondents felt that 'Education and support provided' would be the most appropriate form of action taken against people who misuse the service. Over one in three (35.6%) cited '£100 fixed penalty notices issued', whilst around one in five (21.1%) think the 'Removal of garden waste collection' is the best way to deal with the issue.



N.B. Percentage do not total 100% as respondents could select multiple options

If other, please specify:

Respondents who selected 'Other' had their comments grouped into themes. The top three themes, along with example comments can be viewed below and overleaf. A full breakdown can be viewed in Appendix L.

Theme	No.	%	Example Comments
Greater implications for repeat offenders	80	31.9	 Possibly a sliding scale if education doesn't not work. Possibly told x number of times, then fine and removing service. By all means education and support, but penalty for repeat 'offenders'. Needs a phased approach, starting with education escalating to fines and ending with a temporary removal of services. But to be effective needs to be tailored to individual needs. Probably not an affordable solution though. Warnings to be given in that order, education, fine and removal of service if continued rule breaking.
Nothing	39	15.5	 No action should be taken as fly tipping is a bigger costly problem.

			 The council should accept some errors. Nothing - do not always look for an opportunity to fine or remove services.
Concerns around identifying the correct households / individuals	26	10.4	 I have seen children put litter in garden waste bins as they walk to or from school. Investigate why an item is there - it could be from a neighbour. My concern with fixed penalty notices in general is that 3rd parties could contaminate someone's perfectly acceptable waste caddy/bag/whatever as they pass by or even maliciously. Stopping waste collections due to the thoughtlessness of individuals who hide other material in bins/bags affects the majority who are not at fault.

^{&#}x27;Education and support provided' was viewed as the most desirable form of action that should be taken against people who misuse the service across each of the demographic / geographic and deprivation groups analysed.

Two in five respondents aged under 35 and those that reside in the southern arc (39.4% and 39.3% respectively) would like to see a '£100 Fixed Penalty Notices issued'.

Section 2 - Increase recycling participation and capture of priority materials

In Cardiff, we are currently recycling 58% of our material. This falls short of our statutory target of 64% and we are not seeing the year-on-year increases required to meet 70% recycling by 2025.

We know there is more we can do, improving recycling rates not just from households, but also looking at other operations. For example, our trade waste collections, household recycling centres and street cleansing.

But we also need your help. Despite offering weekly collections of food waste, we know that 30% of the waste within black bins/red striped bag is still made up of both avoidable, and unavoidable, food waste. If we could divert all food waste into the weekly food collection, we could see a performance increase of around 2%! You can put all sorts of food in your caddy. This includes bones, tea bags, coffee grounds and leftovers.

Do you participate in food waste collections?

Over nine in ten (91.1%) respondents indicated that they participate in food waste collections.



Respondents with a child in the household and those from a minority ethnicity were most likely to participate (94.3% and 92.5% respectively).

Participation varied from 87.6% in the most deprived areas of Cardiff, to 93.4% in the least deprived areas.

Participation was highest amongst those that live in a detached property (93.0%); this drops to less than four fifths (78.7%) when viewed by respondents who live in a Flat, Maisonette, Bedsit, Studio or Room only.

If you do participate in food waste collections, how often do you put your kerbside caddy out for collection?

Of the respondents who do participate in food waste collections, the vast majority do so every week (95.0%).

	No.	%
Every week	2,492	95.0
Every fortnight	87	3.3
Less often	42	1.6
I don't take part in food waste collections	1	0.0
Total Respondents	2,622	100.0

Over four fifths of all demographic and geographical groups analysed stated that if they do participate, that they do so every week; the highest proportion was seen by respondents who have a child in their household (97.4%).

At least nine tenths of all deprivation groups indicated that they particate every week.

If no, why not?

Respondents who don't participate were asked to explain why.

'I home compost' (39.1%) was seen as the main reason why respondents don't participate. This was followed by 'I don't waste any food' (33.6%) and 'It's dirty / unhygienic' (20.7%).

	No.	%
I home compost	100	39.1
I don't waste any food	86	33.6
It's dirty / unhygienic	53	20.7
I can put it into my black bin		
outside, where it won't smell	38	14.8
I live in a flat, and there is no		
food waste collection	26	10.2
Don't have the equipment I		
need	10	3.9
Other	47	18.4
Total Respondents	256	-

N.B. Percentages total more than 100% as respondents could select more than one option

Respondents who selected 'Other' had their comments grouped into themes. The top three themes, along with example comments can be viewed below. A full breakdown can be viewed in Appendix M.

Theme	No.	%	Example Comments
Hygiene / Vermin concerns	13	28.3	 There is a massive rat problem in my area, and it was attracting even more as waste container is kept outside in communal area. Attracts flies. By the time I generate enough to fill a caddy it is rotting and unhygienic. Encourages flies and rats.
Have a waste disposal unit / compost it	12	26.1	 I use a sink waste disposal unit for small items and only use the council system for such a bones. I try not to waste food. I have a sinkerator for non-compostable food waste and a compost heap. I have a waste disposal unit in my sink. We have a dog who has learned how to get into the food bin. I home compost.
Don't generate enough food waste	6	13.0	 I do not waste enough food to warrant collecting. It would take months to produce one bagful. I have minimal food waste. If required (very, very occasionally) I can use my waste disposal unit. As I live alone, I find I produce very little food waste and it is just a little too much hassle for me to worry about. In the black bin it goes.

What would encourage you to participate, or participate more regularly in food waste collections?

The majority (85.7%) of people responded 'Nothing – I already take part weekly, and could do no more'.

114 (4.1%) respondents cited 'Understanding the benefits of participating, for example the carbon impact'.

	No.	%
Nothing- I already take part weekly, and could do		
no more	2,401	85.7
Understanding the benefits of participating, for		
example the carbon impacts	114	4.1
Receiving a kitchen caddy or kerbside caddy	90	3.2
More information and education provided about		
how to take part in the service	71	2.5
Risk of receiving a £100 Fixed Penalty Notice if I		
don't take part	36	1.3
Reduced black bin/red striped bag collections e.g.		
moving to a 3 weekly collection/reducing bin		
size/limiting to 2 red striped bags per collection	19	0.7
Something else	181	6.5
Total Respondents	2,801	_

N.B. Percentages do not total 100% as respondents could select more than one option

If something else, please specify:

Respondents who selected 'Other' had their comments grouped into themes. The top three themes, along with example comments can be viewed below and overleaf. A full breakdown can be viewed in Appendix N.

Theme	No.	%	Example Comments
Don't generate enough food waste / Compost what I have	59	33.7	 If I was not living alone and generated enough food waste, I would use the service. I have very little food waste. I compost any peelings. We strive to avoid food waste in the first place and generally produce the minimum of food waste. Peelings etc. go onto our own compost bin. I compost my own food waste so only need a fortnightly collection. We waste so little food that the caddy was horribly smelly by the time it needed emptying.

Improved Caddie Design - Larger / Lockable	29	16.6	 Improved design of caddies e.g. ones that actually lock and can't be broken into by seagulls, causing mouldy bread to be scattered everywhere. Bigger kerbside caddy - as a family of 6 we offer have no room left on day 5, so up end storing a bauntil collected and hoping the next week is less wasteful. A 30% increase in kerbside caddy capacity. Food caddy is too small and the lids aren't very we fitting which allows for flies and maggots in the hweather. 	
Concerns around collections / Bin men	21	12.0	 Have the bin men actually collect them and also not throw the caddy's down the street. Actually collecting the caddy's would be a good start! The council to actually empty the communal food bin. 	

'Nothing - I already take part weekly and could do no more' was cited by at least three quarters of respondents from all demographic and geographical groups analysed and was selected by at least four fifths of respondents from each deprivation group.

Around one in eleven (8.7%) respondents aged under 35 claimed that 'Understanding the benefits of participating, for example the carbon impacts' would encourage them to participate / participate more regularly in food waste collections, this is more than double that of those aged 55+ (3.2%).

'More information and education provided about how to take part in the service' was highest by respondents who identify as disabled and those from a minority ethnicity (6.1% and 5.7% respectively); it was lowest by respondents aged 55+ and those with a child in the household (both 2.1%). Around one in twenty (5.6%) respondents from the most deprived areas selected this option; this was three times more than respondents from the least deprived areas (1.7%).

Respondents aged under 35 were twice as likely as their counterparts aged 55+ to participate more if there was a 'Risk of receiving a £100 Fixed Penalty Notice if I don't take part' (1.9% and 0.8% respectively).

Improving recycling participation in businesses

Cardiff Council's trade team collects recycling and waste from over 3,000 businesses in the City. The team offers collections of all recyclable materials, including food waste, paper, glass and cardboard. Despite this, recycling performance is at 40%.

Do you agree that the recycling performance of our trade waste collections needs to increase?

Three in four (75.2%) respondents agree that the recycling performance of our trade waste collections needs to increase.

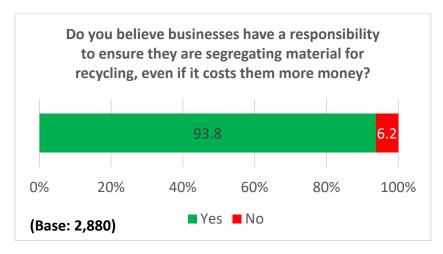


Agreement was highest amongst respondents aged under 35 and females (84.9% and 78.7% respectively); it was lowest by respondents aged 55+ and males (70.9% and 71.3% respectively).

There was no correlation by deprivation.

Do you believe businesses have a responsibility to ensure they are segregating material for recycling, even if it costs them more money?

The majority (93.8%) of respondents believe businesses have a responsibility to ensure they are segregating material for recycling, even if it costs them more money.



At least nine tenths of all demographic and geographical groups analysed agree that businesses have a responsibility to ensure they are segregating material for recycling, even if

it costs them more money. Agreement was highest amongst female respondents and those aged under 35 (95.2% and 94.3% respectively).

At least nine tenths of all deprivation groups agreed.

Household Recycling Centres

We are now recycling over 80% of material at our Household Recycling Centres. This improvement is due to the improved controls, including the booking in system which has deterred traders from illegally disposing of material, and the strong "No mixed waste" policy now being applied to all users. We thank all residents for embracing these controls and making our Household Recycling Centres one of the best performing within Wales.

Do you use Household Recycling Centres?

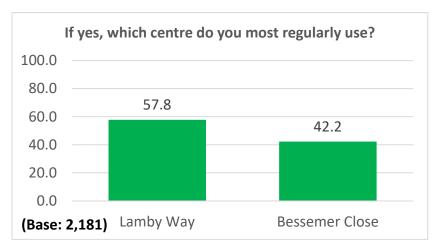
Around three in four (76.9%) respondents use a Household Recycling Centre.

	No.	%
Yes	2,213	76.9
No	666	23.1
Total Respondents	2,879	100.0

Respondents with a child in the household and males were viewed as the two groups most likely to use Household Recycling Centres (85.4% and 78.4% respectively); the least likely were those that identify as disabled and those from a minority ethnicity (61.8% and 64.5% respectively).

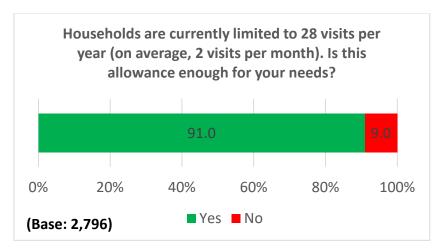
If yes, which centre do you most regularly use?

The centre at Lamby Way was found to me more regularly used than the centre at Bessemer Road (57.8% and 42.2% respectively).



Households are currently limited to 28 visits per year (on average, 2 visits per month). Is this allowance enough for your needs?

Over nine tenths (91.0%) of respondents feel that the current allowance is sufficient.



Agreement was highest amongst females and those aged 55+ (91.9% and 91.4% respectively. However, this drops to four fifths (80.9%) when viewed by respondents who identify as disabled.

Over four fifths of all deprivation groups analysed agreed that the current allowance is sufficient.

Are there any further improvements you would like to see at the Household Recycling Centres?

Respondents were provided with a list of pre-coded options and asked which, if any, Household Recycling Centre improvements they'd like to see.

'More Household Recycling Centres in Cardiff' (57.3%) was considered the key improvement respondents would like to see. This was followed by 'Increased opportunities to donate items to be re-used' (51.7%) and 'Removal of the pre booking system' (41.6%).

Around one in thirteen (7.8%) cited 'Improved layout'

	No.	%
More Household Recycling Centres in Cardiff	1,489	57.3
Increased opportunities to donate items to be re-used	1,343	51.7
Removal of the pre booking system	1,080	41.6
Improved customer signage	358	13.8
Increased interaction with site attendants	293	11.3
Improved layout	202	7.8
Other	397	15.3
Total Respondents	2,598	-

N.B. Percentages do not total 100% as respondents could select more than one option

Respondents who selected 'Other' had their comments grouped into themes. The top three themes, along with example comments can be viewed below. A full breakdown can be viewed in Appendix O.

Theme	No.	%	Example Comments
Better Accessibility - Vans / Cyclists / Pedestrians	108	28.1	 Better access for residents without cars. Let cyclists with bike trailers use the centres. Completely inaccessible to people without cars. People without cars are penalised yet they are taking the biggest steps for our environment. It is frustrating to be told that we need to do more ecologically when we are already making the biggest green sacrifice by not running a car and thus facilities are not available to us. Allow those without cars (i.e. on bicycles) to be able to use the centres. Recycling provision throughout the city is poor. Accessibility and location need to be improved.
Concerns around lack of Household Recycling Centres in Cardiff	77	20.0	 The promised recycling centre in North Cardiff. Stop selling off recycling centres and replace them asap. You took away the centre on wealth road and it now takes me an hour round trip if I am able to do it myself. Large centre in north Cardiff not the pretend one proposed in Llanishen.
Return of general waste tipping	42	10.9	 Opportunity to throw general household waste. Bring back general waste tipping. Even if for a limited amount per household. Taking the function away does not mean it ceases to exist!! More scope for general non recycling waste to be taken for when you are having a sort out.

Respondents aged 55+ and males (64.3% and 62.0%) were the groups most likely to want to see 'More household recycling centres in Cardiff; this was lowest amongst respondents who reside in the Southern Arc (40.8%).

Around one in five (21.2%) respondents aged under 35 would like to see '*Improved customer signage*'; this compares with one in eight (12.0%) respondents aged 55+.

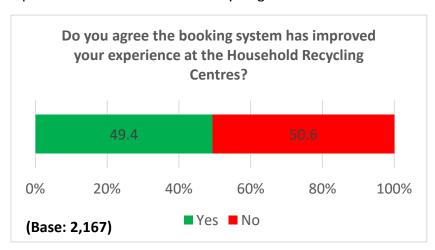
One in five (19.2%) respondents who identify as disabled would like '*Increased interaction* with site attendants'.

Over two thirds (67.9%) of respondents from the least deprived areas would like '*More household recycling centres in Cardiff*', this drops to less than half (45.8%) of respondents from the most deprived areas.

'Removal of the pre booking system' was cited by just over a third (35.9%) of respondents from the least deprived areas, this rises to half (50.9%) of those from the most deprived areas.

Do you agree the booking system has improved your experience at the Household Recycling Centres?

Opinion was split (49.4% Yes / 50.6% No) as to whether the booking system has improved respondents' experiences at the Household Recycling Centre.



Agreement was highest amongst female respondents (52.8%) and lowest amongst those from a minority ethnicity (41.8%).

Over a half (51.2%) of those from the least deprived areas agreed; this drops slightly to 44.0% amongst those from the most deprived areas.

If yes, what improvements have you seen?

Overwhelmingly, respondents indicated '*Reduced traffic and waiting times*' (90.5%) as the main improvement they've seen since the introduction of the booking system. Over three fifths (63.1%) cited '*More spaces to park safely*', whilst almost half (48.0%) highlighted '*Better quality of service from recycling attendants*'

	No.	%
Reduced traffic and waiting times	951	90.5
More spaces to park safely	663	63.1
Better quality of service from recycling attendants	505	48.0
Other	24	2.3
Total Respondents	1,051	-

N.B. Percentages do not total 100% as respondents could select more than one option

Respondents who selected 'Other' had their comments grouped into themes. There were 2 main themes that reported from the comments; these were:

- Positive/helpful staff
- Safer/Easier/Better organised

'Reduced traffic and waiting times' was seen as the main improvement seen across all demographic, geographic and deprivation group analysed.

Do you have any further comments in relation to Household Recycling Centres? Please tell us:

Respondents were given the opportunity to leave any further comments they had in relation to Household Recycling Centres. The top three themes, along with example comments can be viewed below and overleaf. A full breakdown can be viewed in Appendix P.

Theme	No.	%	Example Comments
Concerns around location / lack of Recycling Centres	216	28.3	 I live in North Cardiff and am still waiting for the promised recycling centre when it was taken from Wedal Road, and we were told Lamby Way wasn't hard to travel to. Need local recycling centres. It is too far to travel to use the two existing HRC's. There should be a permanent HRC in North Cardiff. Their current locations are not appropriate or the majority of households. Lack of alternative provision when sites have been closed.

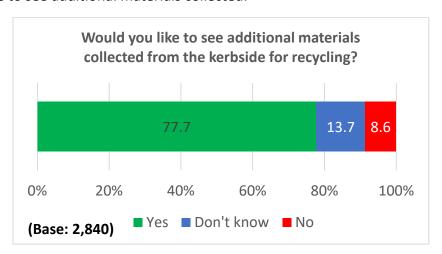
Positive staff / service comments	129	16.9	 The staff at the sites are always polite and very helpful. The staff are brilliant and super helpful. I think they are very well managed. My mother really appreciated the kind help she got when she took a carload of green + wood waste. Thankyou.
Remove Restrictions - Booking System / No. of site visits per year	119	15.6	 The booking system is horrendous. I think it should be removed. The ability to attend whenever you want will increase recycling and compliance. The booking system is too cumbersome and time-consuming. I like to visit recycling centre spontaneously sometimes. In certain situations, multiple visits per day may be required. For example house moves/clearances or major DIY projects or garden clearances. Shouldn't have a limit of how many times you can visit and should remove the pre booking system.

Section 3 - Increase opportunities for communities and residents to recycle

In order to increase our recycling performance, we need to make recycling as easy and accessible as possible for our communities. WRAP's National Recycling Tracker survey 2020 identified that 15% of respondents believed that local council's do not collect enough things for recycling.

Would you like to see additional materials collected from the kerbside for recycling?

Over three quarters (77.7%) of respondents would like to see additional materials collected from the kerbside collection for recycling. Less than one in ten (8.6%) stated that they wouldn't like to see additional materials collected.



Over seven tenths of all demographic and geographical groups analysed stated that they'd like to see additional materials collected from the kerbside for recycling; this was most notable by respondents aged under 35 (85.0%).

There was no correlation by deprivation.

At least three in four respondents by each household type would like to see additional materials collected from the kerbside for recycling.

If yes, what collections would you like to see offered?

Respondents who stated that they'd like to see additional materials collected were then presented with a list of pre-coded options and asked to indicate which of these additional materials they'd like to see collected.

Seven in ten respondents would like to see '*Small electoral items*' and/or '*Soft plastics*' collected (70.9% and 70.6% respectively).

A further two thirds would like to see '*Tetra Pak (Cartons)*' and/or '*Household batteries*' collected (66.9% and 66.8% respectively)

	No.	%
Small electrical items	1,557	70.9
Soft plastics	1,550	70.6

Tetra Pak (cartons)	1,470	66.9
Household batteries	1,468	66.8
Textiles	1,309	59.6
Coffee pods	595	27.1
Other	202	9.2
Total Respondents	2,197	-

N.B. Percentages do not total 100% as respondents could select more than one option

Respondents who selected 'Other' had their comments grouped into themes. A full breakdown can be viewed below.

Item	No.	%
Anything / Everything		12.1
Plastic food packaging - Crisp packets / Cereal bags / plastic wrapping	24	12.1
Polystyrene / Bubble wrap / Foams	22	11.1
Bulky Items - Fridge / Freezer / Washing Machine / Beds / Furniture	20	10.1
Hard plastics	16	8.1
Metals	12	6.1
Wood	10	5.1
Pet food pouches	9	4.5
Paint pots	9	4.5
Cooking oil	8	4.0
Paper / Books / Cardboard	8	4.0
Plastic / Polythene bags	7	3.5
Light Bulbs	6	3.0
Blister Packs - Tablets / Contact lenses	6	3.0
Animal waste	5	2.5
Aluminium / Tin foil	5	2.5
Clothes / Shoes	4	2.0
Terracycle	3	1.5
Misc.	29	14.6
Total Respondents	198	-

N.B. Percentages total more than 100% as respondents could select more than one option

Around four fifths of respondents aged 55+ and those who identify as disabled (79.2% and 81.2% respectively) would like to see '*Small electoral items*' collected; this compares with less than three in five (57.9%) when viewed by respondents aged under 35.

Four in five (80.1%) respondents aged under 35 would like to see '**Soft plastics**' collected; this drops to less than two thirds (63.8%) when viewed by respondents aged 55+.

Around a third (34.2%) of respondents aged under 35 would like to see '*Coffee pods*' collected; this is 11.6 percentage points higher than that of those aged 55+ (22.6%).

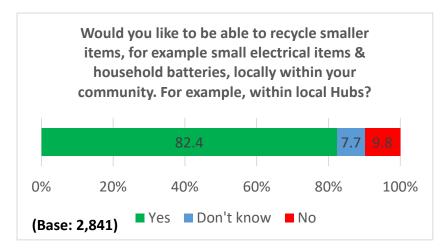
There was no correlation by deprivation.

Over two thirds of each household type would like to see 'Small electoral items' collected.

A quarter of both semi-detached and detached property respondents (24.8% and 25.6% respectively) would like to see '*Coffee pods*' collected; this rises to over one in three (36.6%) when viewed by respondents who live in a Flat, Maisonette, Bedsit, Studio or Room only.

Would you like to be able to recycle smaller items, for example small electrical items & household batteries, locally within your community. For example, within local Hubs?

Over four fifths (82.4%) of respondents would like to be able to recycle smaller items within their community. One in ten (9.8%) stated that they'd have no interest in this scheme.



Four fifths of all demographic and geographical groups analysed would like to be able to recycle smaller items within their community; this was most notable in female respondents (85.0%).

There was no correlation by deprivation.

If yes, which items would you like to be able to recycle?

'Small electrical items' and 'Household batteries' were viewed as the most popular items (86.4% and 84.7% respectively) that respondents would like to recycle in the local community (this is in line with what respondents would like to see collected from the kerbside).

Just under two thirds (64.5%) wanted to recycle '*Textiles*', whilst almost three in five (58.6%) stated they'd like to be able to recycle '*Soft plastics*'.

	No.	%
Small electrical items	2,017	86.4
Household batteries	1,976	84.7
Textiles	1,506	64.5
Soft plastics	1,367	58.6
Tetra Pak (cartons)	1,282	54.9
Coffee pods	629	26.9

Other	150	6.4
Total Respondents	2,334	-

N.B. Percentages do not total 100% as respondents could select more than one option

Respondents who selected 'Other' had their comments grouped into themes. A full breakdown can be viewed below.

Item	No.	%
Plastic food packaging - Crisp packets / Cereal bags / plastic wrapping	17	12.1
Anything / Everything	16	11.4
Light Bulbs	10	7.1
Hard plastics	10	7.1
Blister Packs - Tablets / Contact lenses	9	6.4
Metal	8	5.7
Clothes / Shoes	7	5.0
Bulky Items - Fridge / Freezer / Washing Machine / Beds / Furniture	7	5.0
Polystyrene / Foams	6	4.3
Wood	6	4.3
Pet food pouches	6	4.3
Kitchenware - Saucepans / Kitchen Utensils / Cutlery	5	3.6
Paint pots	5	3.6
Aluminium / Tin foil	4	2.9
Plastic / Polythene bags	3	2.1
Books	3	2.1
Misc.	39	27.9
Total Respondents	140	-

N.B. Percentages total more than 100% as respondents could select more than one option

The ability to recycle 'Small electrical items' was highest amongst respondents who identify as disabled and those aged 55+ (89.1% and 88.8% respectively); it was lowest amongst those with a child in the house and females (83.1% and 84.5% respectively).

The ability to recycle '*Household Batteries*' was more prevalent by males and those with a child in the household (87.6% and 86.7% respectively).

In line with what respondents said they'd like to see collected from the kerbside, those aged under 35 were almost twice as likely as those aged 55+ to want '*Coffee Pods*' recycled within the community (38.4% and 21.5% respectively).

Over four fifths of all deprivation groups analysed would like to see 'Small electrical items' recycled within the community.

Are you aware of Terracycle initiatives, to recycle 'hard to recycle' items such as crisp packets, cleaning products, food pouches?

Less than two in five (37.8%) respondents are aware of Terracycle initiatives to recycle 'hard to recycle' items such as crisp packets, cleaning products and food pouches.

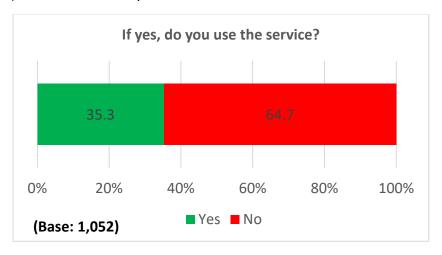
	No.	%
Yes	1,065	37.8
No	1,753	62.2
Total Respondents	2,818	100.0

Awareness was highest amongst respondents aged under 35 and those with a child in the household (43.1% and 42.2% respectively); it was lowest amongst males and those that reside in the southern arc of the city (30.6% and 32.9% respectively).

There was no correlation by deprivation.

If yes, do you use the service?

Respondents aware of the Terracycle initiative were asked is they used the service; just over a third (35.3%) indicated that they do.



Respondents aged 55+ and those with a child in the house were the two groups identified as most likely to use the service (39.2% and 38.1% respectively).

One in four (25.4%) respondents who reside in the most deprived areas of Cardiff stated that they use the service, this rises to around two in five (41.1%) when viewed by respondents from the least deprived areas.

If no, why not?

Respondents who were aware of the initiative but didn't use it were presented with a list of pre-coded options so they could tell us why they don't use the service.

'I don't know where the recycling points are' (51.7%) was the most common reason why people don't use the service, this was followed by 'None local to me' (36.5%).

	No.	%
I don't know where the recycling points are	351	51.7
None local to me	248	36.5
I don't have the types of item they recycle	65	9.6
Other	121	17.8
Total Respondents	679	-

N.B. Percentages do not total 100% as respondents could select more than one option

If other, please specify:

Respondents who selected 'Other' had their comments grouped into themes. The top three themes, along with example comments can be viewed below and overleaf. A full breakdown can be viewed in Appendix Q.

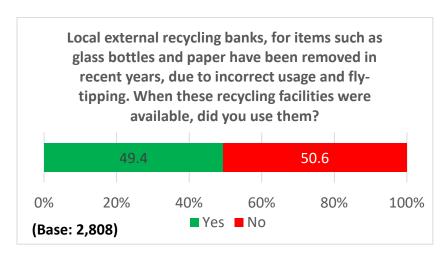
Theme	No.	%	Example Comments
Don't have the time / Insufficient Storage / Space to store and recycle numerous items	36	30.5	 I don't have time and not enough space to store items between drop-offs. It's too difficult to store and recycle different things. Too time consuming. Don't have room to store individual recycle waste. Not hygienic to store all the different containers etc. It's too much effort to store it all up to then take to the centre, we do not have the internal storage space.
Location / Collection / Drop off point not convenient	18	15.3	 Difficult to drop off at times when open. I would have to drive (not very green) to access a collection point. Only once a week on a Saturday morning not at all convenient for me. Collection point keeps moving, timing is inconvenient.
Accessibility Issues	14	11.9	 I'm disabled and can't drive so I can't go carry rubbish around with me.

Difficult to access.
I don't have a vehicle to get there.

'I don't know where the recycling points are' was the most common reason for not using teracycle initiatives across each of the demographic, geographical and deprivation groups analysed.

Local external recycling banks, for items such as glass bottles and paper have been removed in recent years, due to incorrect usage and fly-tipping. When these recycling facilities were available, did you use them?

Half (49.4%) of respondents indicated that they used to make use of this facility when it was available.



Respondents aged 55+ and those that identify as disabled were the groups most likely to have used the local recycling banks (both 56.0%); least likely were those aged under 35 and respondents with a child in the household (35.7% and 43.1% respectively).

There was no correlation by deprivation.

When you no longer have a use for a large household item, for example a dining table/sofa, how do you remove it from your house?

Respondents were presented with a list of pre-coded options and asked to select any methods they used.

'Try to donate it to charity shop' (69.9%) was the most conventional way respondents would try to dispose of an unwanted item. This was followed by 'Book a Council bulky waste collection' (55.7%) and 'Advertise for free on social media platforms' (48.6%).

Although viewed as the least common way to dispose of an item, 'Arrange a collection from the company I'm buying a new item from' was selected by over one in four (27.6%) respondents.

	No.	%
Try to donate it to a charity	1,914	67.9
Book a Council bulky waste collection	1,571	55.7

Advertise for free on social media platforms	1,371	48.6
Attempt to sell online, and on social media platforms	1,005	35.7
Take it to a Household Recycling Centre	881	31.3
Arrange a collection from the company I'm buying a new item from	777	27.6
Other	102	3.6
Total Respondents	2,819	-

N.B. Percentages do not total 100% as respondents could select more than one option

Respondents who selected 'Other' had their comments grouped into themes. The top three themes, along with example comments can be viewed below. A full breakdown can be viewed in Appendix R.

Theme	No.	%	Example Comments
Pay for a commercial registered company	21	25.0	 Pay for removal by registered clearance company. Book a commercial disposal as the lead times for Council collections mean I have to store the items for weeks/months before collection. Use a private waste management company. Employ a registered waste carrier. Pay a private contractor.
Offer to family / friends	14	16.7	 Offer it to younger generation family members. Always offer to family first. Ask friends and family if they want the item.
Leave outside for scrap metal dealers	9	10.7	 If it is metal, I leave it in the forecourt and the Scrap Metal dealers often remove it. Put it kerbside for ironmonger collection where possible. Saw it up & leave metal parts for scrap metal collectors.

^{&#}x27;Try to donate it to charity shop' was the most common way respondents would try to dispose of an unwanted item across each of the demographic and geographic groups analysed.

Three fifths of respondents aged 55+ and those that identify as disabled would 'Book a Council bulky waste collection' (59.6% and 60.1% respectively); this falls to just over two fifths (43.9%) when viewed by respondents aged under 35.

Over three fifths (62.5%) of respondents aged under 35 would 'Advertise for free on social media platforms'; this is 22 percentage points higher than their counterparts aged 55+ (40.5%).

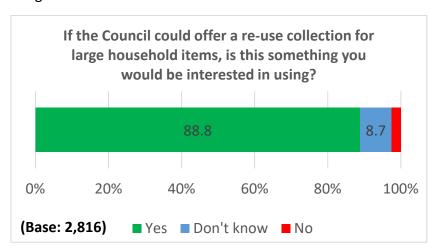
One in four (24.2%) respondents aged 55+ would 'Attempt to sell online, and on social media platforms'; this more than doubles when viewed by respondents aged under 35 (61.2%).

Males were more likely than females to 'Take it to a Household Recycling Centre' (37.7% and 28.0% respectively).

Over a half (55.0%) of respondents in the most deprived areas of Cardiff indicated that they would '*Try to donate it to charity shop*'; this rises to over seven in ten (72.3%) when viewed by respondents form the least deprived areas.

If the Council could offer a re-use collection for large household items, is this something you would be interested in using?

Just under nine in ten (88.8%) respondents would be interested in a re-use collection for large household items. Just 2.5% of respondents stated that this is a service they would not be interest in using.



All demographic and deprivation breakdowns were broadly consistent with the overall findings.

Section 4 - Make use of all available data, to develop targeted actions

Through our Capital Ambition, Cardiff has identified its vision to be a Smart City. One of our missions is to be a 'data-driven city' using data to improve decision making, provide better services and promote innovation in the City. We will also work to identify sources of data, within the recycling services operation, that we can further publish in line with the open data strategy. (This would be in line with data protection guidelines and personal data would not be published).

This includes areas such as education and enforcement action statistics, as well as promoting the open data available in relation to recycling and material destinations including Stats Wales and information published from Waste Data Flow at www.myrecyclingwales.org.uk

Would you be interested in information on any of the following?

Respondents were presented with a list of pre-coded options and asked to select those in which they'd be interested in receiving information.

'Where recycling materials are sent to be processed, and their end destination' (57.1%) was seen as the most common topic. This was followed by 'Recycling performance' (47.8%) and 'The breakdown of material collected e.g. what material is within green recycling bags, black bins etc.' (44.8%).

Over a quarter (26.4%) stated 'No, I'm not interested'.

	No.	%
Where recycling materials are sent to be processed,		
and their end destination	1,460	57.1
Recycling performance	1,223	47.8
The breakdown of material collected e.g. what		
material is within green recycling bags, black bins etc	1,146	44.8
Street cleansing statistics	986	38.6
Contamination levels	924	36.2
Education and enforcement activities	743	29.1
Number of household collections provided	571	22.3
No, I'm not interested	675	26.4
Other	68	2.7
Total Respondents	2,556	-

N.B. Percentages total more than 100% as respondents could select more than one option

Respondents who selected 'Other' had their comments grouped into themes. A full breakdown can be viewed below / overleaf:

Theme	No.	%
Participation Rates - Ward / House type	10	15.4
Fly-tipping / Littering	7	10.8
Failed / Missed collections	6	9.2
What happens after collected	6	9.2
Other orgs. / Community info	5	7.7
Sanctions imposed	4	6.2
Details on the process	3	4.6
Misc.	27	41.5
Total Respondents	65	-

N.B. Percentages total more than 100% as respondents could select more than one option

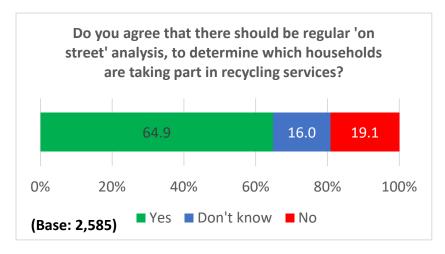
Males were more likely than females to be interested in '*Recycling performance*' (47.9% and 38.4% respectively). Similarly, those aged under 35 were seen to be more interested than those aged 55+ (50.0% and 40.6% respectively).

Males and those aged under 35 (44.6% and 43.8% respectively) also showed a far greater interest in '*The breakdown of material collected e.g. what material is within green recycling bags, black bins etc*' when compared to females and those aged 55+ (35.8% and 36.5% respectively).

Respondents with a child in the household and females were the two groups more inclined to cite '*No, I'm not interested*' (25.3% and 24.0% respectively).

Do you agree that there should be regular 'on street' analysis, to determine which households are taking part in recycling services?

Over three in five (64.9%) respondents agree there should be regular 'on street' analysis, to determine which households are taking part in recycling services.



At least three fifths of all the demographic and geographical groups analysed agreed that there should be regular 'on street' analysis.

Seven in ten (69.2%) respondents from the most deprived areas agreed. However, this drops to 63.1% when viewed by respondents from the least deprived areas.

Where it is identified a household is not taking part in a recycling collection service, do you agree that education and support should be provided to find out why?

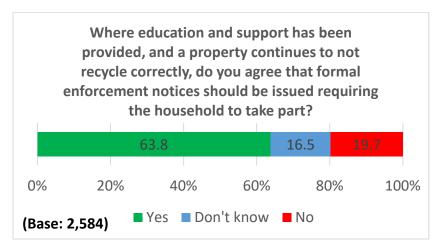
Nine in ten (90.3%) respondents agree that where it is identified a household is not taking part in a recycling collection service, that education and support should be provided to find out why.

	No.	%
Yes	2,333	90.3
No	252	9.7
Total Respondents	2,585	100.0

Results by demographic / deprivation breakdowns were broadly consistent with the overall findings.

Where education and support has been provided, and a property continues to not recycle correctly, do you agree that formal enforcement notices should be issued requiring the household to take part?

Over three fifths (63.8%) agree that where education and support has been provided, and a property continues to not recycle correctly, that formal enforcement notices should be issued requiring the household to take part. One in five (19.7%) disagree with this approach.



Agreement was highest amongst respondents who reside in the southern arc of the city and those from a minority ethnicity (68.9% and 68.6% respectively); it was lowest amongst those that identify as disabled and respondents with a child in the household (61.3% and 63.3% respectively).

Over two thirds (67.1%) of respondents from the most deprived areas agreed with formal enforcement notices; this is 4.1 percentage points higher than that of the findings from the least deprived areas (63.0%).

Do you agree that the Council should embrace new technologies, to improve our services? This could include technologies such as litter bin sensors, mobile working devices, on vehicle bin weighing equipment etc.

Almost half (48.7%) of respondents agree that the Council should embrace new technologies to improve services. However, this rises to almost two thirds (65.4%) when 'Don't know' responses are removed from the analysis.

	Including		Excluding	
	Don't know		Don't k	now
	respo	onses	responses	
	No.	%	No.	%
Yes	1,261	48.7	1,261	65.4
Don't know	659	25.5	-	-
No	667	25.8	667	34.6
Total Respondents	2,587	100.0	1,928	

Agreement was highest amongst respondents aged under 35 and males (63.2% and 54.5% respectively); it was lowest amongst respondents aged 55+ and females (44.1% and 46.5% respectively).

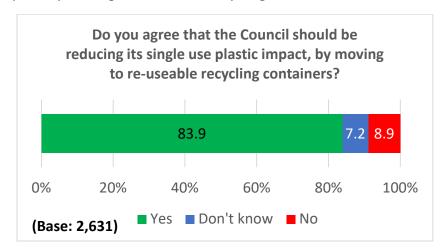
Section 5 - Reduce single use plastics

Cardiff's One Planet Strategy proposes a wide range of ambitious actions that will begin to form the basis of a delivery plan to achieve Carbon Neutrality. Within this, there is a commitment to reduce the Council's use of single use plastics, and the recycling and waste service is integral in developing and implementing an action plan for single use plastics.

We currently issue 24 million single use green recycling bags across the City, for the kerbside collection of dry recyclables. We recognise the recycling collection service needs to be reviewed not only to improve material quality and increase recycling rates, but to also significantly reduce our carbon impact in terms of single use plastics.

Do you agree that the Council should be reducing its single use plastic impact, by moving to re-useable recycling containers?

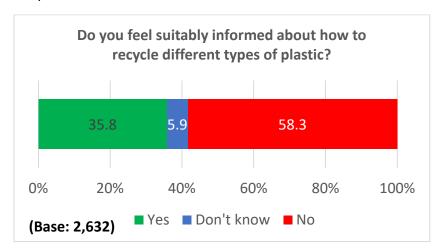
Over four fifths (83.9%) of respondents agree that the Council should be reducing its single use plastic impact, by moving to re-useable recycling containers.



Agreement was highest amongst respondents aged under 35 and females (86.7% and 85.6% respectively); it was lowest with minority ethnicity respondents and those that identify as disabled (76.7% and 77.0% respectively).

Do you feel suitably informed about how to recycle different types of plastic?

Almost three in five (58.3%) respondents do not feel suitably informed about how to recycle different types of plastic.



Respondents aged under 35 (39.8%) and those with a child in the household or reside in the southern arc (both 38.7%) were the groups identified as feeling most informed; least likely were males and those aged 55+ (32.0% and 32.4% respectively).

There was no correlation by deprivation.

Are you aware of Re-fill Cymru, and its app / website identifying locations that provide re-fill across the city?

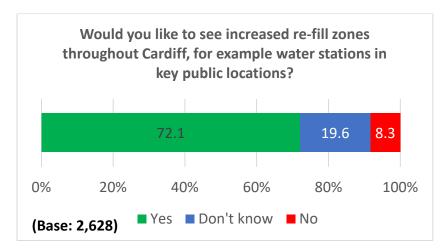
Around one in eight (12.7%) respondents are aware of Re-fill Cymru, and its app / website identifying locations that provide re-fill across the city.

	No.	%
Yes	335	12.7
No	2,295	87.3
Total Respondents	2,630	100.0

Awareness was highest amongst respondents from a minority ethnicity and those aged under 35 (18.0% and 16.0% respectively); it was lowest by males and those aged 55+ (9.1% and 10.3% respectively).

Would you like to see increased re-fill zones throughout Cardiff, for example water stations in key public locations?

Over seven in ten (72.1%) respondents would like to see increased re-fill zones throughout Cardiff.



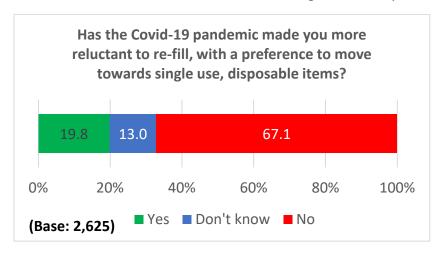
Respondents aged under 35 and those that reside in the southern arc were the groups identified as the most likely to want increased water zones throughout the city (85.7% and 77.8% respectively); least likely were those aged 55+ and males (67.4% and 67.7% respectively).

There was no correlation by deprivation.

Has the Covid-19 pandemic made you more reluctant to re-fill, with a preference to move towards single use, disposable items?

One in five (19.8%) respondents feel that the Covid-19 pandemic made them more reluctant to re-fill, with a preference to move towards single use, disposable items. However, over two thirds (67.1%) indicated that the pandemic has had no influence on them moving towards single use, disposable items.

Agreement with this rises to almost two in five (38.6%) when viewed by respondents who said they would not like to see increased water zones throughout the city



Respondents who identify as disabled and those aged under 35 were the groups most reluctant to refill due to the pandemic (24.6% and 23.8% respectively); least likely to be affected were males and those that reside in the southern arc of the city (17.8% and 17.9% respectively).

There was no correlation by deprivation.

How do you think the Council could reduce, or support initiatives that reduce single use plastic across the city?

Respondents who selected 'Other' had their comments grouped into themes. The top three themes, along with example comments can be viewed below. A full breakdown can be viewed in Appendix S.

Thomas	Na	0/	Evample Comment
Theme Tax on plastic / Ban sale/ restrict use of single plastic	No. 218	22.9	 Persuade businesses not to use single use plastic if at all possible. Force companies to stop using so much single use plastic. Ban the sale of items sold in single use plastic containers. Plastic tax. Enforce shops and manufacturing to use recyclable materials in the first place.
Support Initiatives - Incentivise / Lower taxes for environmentally friendly businesses	205	21.6	 By lowering business rates for appropriate businesses. Assist independent zero waste shops. Tax relief for businesses that take part. Reduce business rates for retailers who provide re-fill in their shops. Subsidies for shops that provide package free produce e.g. rice, shampoo etc to enable them to make their products cost effective in these difficult financial conditions.
Greater Legislation / Fines / partnership with Businesses / Manufacturers	192	20.2	 Put pressure on supermarkets who use unnecessary plastic packaging. Pressure companies to stop producing them. Pressure business to drive change. Work with supermarkets and takeaway business to reduce single use plastics. Better support businesses that don't use or sell plastic items or packaging. Legislate against the manufacturers!

Section 6 - Encourage and support the prevention, reuse and repair of materials

Welsh Government's Beyond Recycling strategy states 'In order to move to a circular, low carbon economy we will need to reduce the amount of waste produced by households, businesses and the public sector so that unnecessary waste is prevented, products are reused, and repair and remanufacturing are a core part of our society'.

Our vision is that the actions from Cardiff Waste Strategy will not just be about achieving statutory recycling targets but also aims and objectives that support waste prevention, reuse and a circular economy.

Do you participate in any of the following, which aim to prevent waste?

Respondents were presented with a pre-coded list of ways to prevent waste, and asked to identify any they participate in.

Overwhelmingly, the main thing respondents do to prevent waste is to 'Take re-useable shopping bags and refuse single use bags' (95.7%). This was followed by 'Love food, hate waste' initiatives such as only buying what you need, finding a use for leftovers, storing food correctly to enhance lifespan' (52.1%) and 'Choose 'preloved' for items such as clothes, furniture' (39.2%).

	No.	%
Take re-useable shopping bags and refuse single		
use bags	2,340	95.7
'Love food, hate waste' initiatives such as only		
buying what you need, finding a use for leftovers,		
storing food correctly to enhance lifespan	1,274	52.1
Choose 'preloved' for items such as clothes,		
furniture	958	39.2
Take re-fill containers, for drinks, food supplies		
etc	904	37.0
Home compost	817	33.4
Shop in zero waste stores	499	20.4
Borrow rather than buy	433	17.7
Use real nappies	103	4.2
Other	136	5.6
Total Respondents	2,444	-

N.B. Percentages total more than 100% as respondents could select more than one option

If other, please specify:

Respondents who selected 'Other' had their comments grouped into themes. The top three themes, along with example comments can be viewed below. A full breakdown can be viewed in Appendix T.

Theme	No.	%	Example Comments
Repair / repurpose Items / upcycle	31	23.5	 Repair and reuse where possible. I repair small electrical items (I am qualified to do this) Encourage free repair locations say once a month at Hubs. I would volunteer. Repair shoes, clothes etc. Repair if possible all domestic items specifically mechanical & electrical.
Use no packaging options - Loose fruit & Veg / Soap / ethical wrapping / reusable shopping bags	26	19.7	 Chose no-packaging options e.g. buy loose fruit & veg at a market/greengrocer instead of plastic-wrapped/bagged supermarket option. Only use soap instead of shower gel, bottle shampoo etc. Take Tupperware to Morrisons for meat/fish etc. leave packaging at supermarket where no option. Not buy pre-packaged food.
Social media sites - Freecycle / give away unwanted items	19	14.4	 Social media platforms for recycling within the community. Use Too Good to Go app to help reduce food waste. Giving away items I no longer need rather than sending to landfill.

'Take re-useable shopping bags and refuse single use bags' was cited by at least nine tenths of respondents across each of the demographic, geographical and deprivation groups analysed.

'Love food, hate waste' initiatives such as only buying what you need, finding a use for leftovers, storing food correctly to enhance lifespan' were used far more by females than males (59.4% and 42.9% respectively).

Female respondents were twice as likely as their male counterparts to *Choose 'pre loved'* for items such as clothes, furniture' (49.2% and 24.7% respectively).

One in five (19.5%) respondents aged under 35 reported to '*Home compost*'; this doubles when viewed by those aged 55+ (40.3%).

Over a third (37.6%) of females '**Shop in zero waste stores**'; this is more than double that of males, respondents aged 55+ and those that identify as disabled (14.3%, 14.5% and 15.6% respectively).

One in four (25.8%) respondents from the most deprived areas reported that they '*Home compost*'; this rises to over two fifths (41.0%) when viewed by respondents from the least deprived areas.

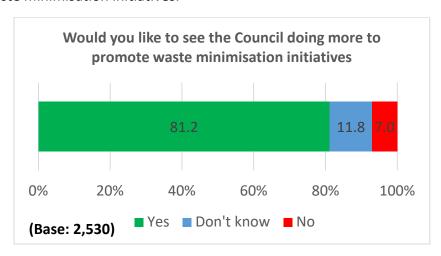
Respondents living in a Flat, Maisonette, Bedsit, Studio or Room only (54.2%) were twice as likely to '*Choose 'pre loved' for items such as clothes, furniture*' than those that live in a detached property (27.3%).

Over one in five (21.2%) respondents living in a Flat, Maisonette, Bedsit, Studio or Room only '*Borrow rather than buy*'; this falls to around one in eight (12.7%) when viewed by those that live in a detached property.

Respondents living in a terraced property and those in a Flat, Maisonette, Bedsit, Studio or Room only were the groups most likely to '*Take re-fill containers, for drinks, food supplies etc*' (44.1% and 42.9% respectively).

Would you like to see the Council doing more to promote waste minimisation initiatives?

Around four fifths (81.2%) of respondents would like to see the Council doing more to promote waste minimisation initiatives.



Over three in four respondents from all demographic, geographic and deprivation groups analysed would like to see the Council doing more to promote waste minimisation initiatives.

If yes, what options do you think we should explore?

Respondents who said they'd like to the council doing more to promote waste minimisation initiatives were then presented with a list of pre-coded options and asked to identify which ones they think the council should explore.

'Consider re-usable recycling containers, rather than single use plastics' (77.8%) was the most common option that respondents would like to see explored. This was followed by 'Work with partners, to increase the number of re-fill locations in Cardiff' (68.6%) and 'Increased promotion of waste minimisation initiatives' (65.6%)

	No.	%
	INO.	70
Consider re-usable recycling containers,		
rather than single use plastics	1,563	77.8
Work with partners, to increase the		
number of re-fill locations in Cardiff	1,378	68.6
Increased promotion of waste		
minimisation initiatives	1,319	65.6
Offering incentives to encourage home		
composting	1,054	52.4
Offering incentives to encourage use of		
real nappies	716	35.6
Other	136	6.8
Total Respondents	2,010	-

N.B. Percentages total more than 100% as respondents could select more than one option

If other, please specify:

Respondents who selected 'Other' had their comments grouped into themes. The top three themes, along with example comments can be viewed below and overleaf. A full breakdown can be viewed in Appendix U.

Theme	No.	%	Example Comments
Make more resources available - repair shops / libraries of items etc.	37	27.6	 Help support repair cafes and help extend "libraries of things" ideally through the hubs. Libraries of things (e.g. household tools, toy libraries, baking cake moulds/equipment, baby equipment (highchairs etc), instruments). Expand the number of re-use centres / shops Send out information on places to get small electricals repaired, e.g. mobile phones, printers, etc. Encourage a repair culture. Consider working in partnership with the Repair Cafe network to increase usage.

Better partnership / enforcement -in particular big business / manufacturers	32	23.9	 Massive fines for businesses or manufacturers making the waste to begin with, why can't we just buy things with minimal packaging, the amount of cardboard I go through alone each week from food packing alone is beyond, just waste, the info could be digitally printed onto clear 100% recyclable sourced plastic/paper packing. Legislate to force supermarkets to only supply recyclable packaging. Work with businesses to support innovation to reduce single use containers for food delivery. Get businesses to reduce their plastic waste and force them to take back the plastic waste they force their customers to take.
Foster a reuse culture	28	20.9	 Incentives provided to households for innovative reusing and repurposing ideas. Washable incontinence products where feasible. Promote wool over nylon and other plastic fibres. Reusable recycling containers must be washable. Donate refill items.

'Consider re-usable recycling containers, rather than single use plastics' was the favoured option by each of the demographic, geographical and deprivation groups analysed.

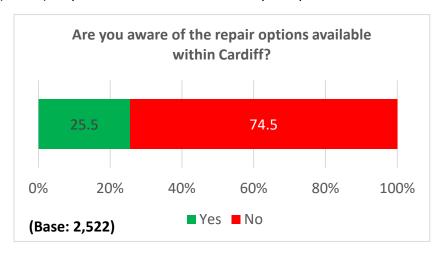
Over four fifths (81.9%) of respondents aged under 35 would like to see the council 'Work with partners, to increase the number of re-fill locations in Cardiff'; this drops to less than two thirds (63.1%) when viewed by respondents aged 55+.

Seven in ten (70.3%) respondents from the most deprived areas would like the council to 'Work with partners, to increase the number of re-fill locations in Cardiff'; this is 5.4 percentage points higher than that of the findings from respondents in the least deprived areas (64.9%).

Repair Cafes are available across the City, and there is a repair directory available at www.repairefficiencywales.co.uk.

Are you aware of the repair options available within Cardiff?

One in four (25.5%) respondents are aware of the repair options available within Cardiff.

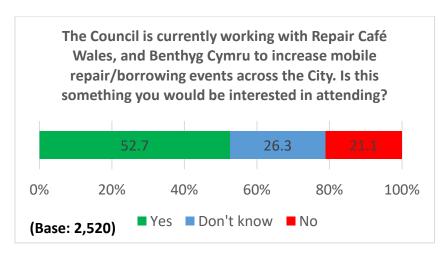


Awareness was highest amongst female respondents and those that reside in the southern arc of the city (30.7% and 30.0% respectively); it was lowest amongst males and those aged 55+ (17.9% and 23.5% respectively).

Almost three in ten (28.4%) respondents from the most deprived areas of Cardiff are aware of the repair options available in Cardiff; this drops to less than one in four (23.6%) when viewed by respondents from the least deprived areas.

The Council is currently working with Repair Café Wales, and Benthyg Cymru to increase mobile repair/borrowing events across the city. Is this something you would be interested in attending?

Over half (52.7%) of respondents would be interested in attending the events across the City.

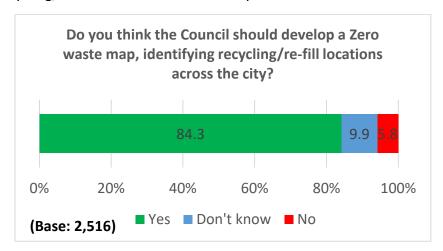


Respondents from a minority ethnicity and those aged under 35 were the groups that expressed the greatest interest (62.2% and 60.3% respectively); least interested were males and those aged 55+ (44.7% and 49.2% respectively).

There was no correlation by deprivation.

Do you think the Council should develop a Zero waste map, identifying recycling/re-fill locations across the city?

Over four fifths (84.3%) of respondents think the Council should develop a Zero waste map, identifying recycling/re-fill locations across the city.



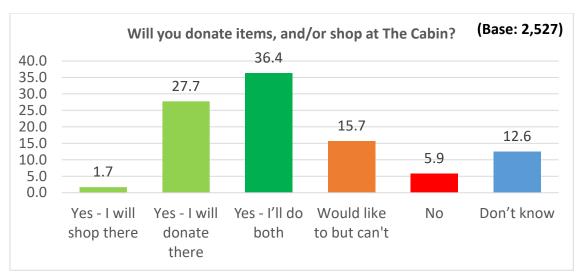
Those aged under 35 made up a significant proportion of respondents who agreed (93.4%); this compares with around four fifths (81.1%) of male respondents.

There was no correlation by deprivation.

In partnership with Wastesavers, the Council has launched a re-use shop 'The Cabin' at our Lamby Way Recycling Centre. You are able to donate items that are too good to waste, which will be sold back to communities at a small cost. As well as creating 30 jobs within the South East Wales region, the operation is also supported by 100 volunteers.

Will you donate items, and/or shop at The Cabin?

Almost two thirds (65.8%) of respondents stated that they shop / and (or) donate at The Cabin, this included 36.4% that will do both. Unfortunately, around one in six (15.7%) said they'd like to but can't.



Respondents aged under 35 and females were the groups identified as most likely to do both (46.7% and 41.3% respectively); least likely were males and those aged 55+ (31.3% and 32.2% respectively).

Three in ten (30.9%) of those who identify as disabled stated that they 'Would like to but can't'; this is double that of the findings from the overall respondents (15.7%).

Less than one in five (18.7%) respondents from the most deprived areas of Cardiff said '**Yes** – *I will donate there*'; this almost doubles when viewed by respondents from the least deprived areas (34.5%).

One in five (20.5%) respondents from the most deprived areas 'Would like to but can't'; this compares with around one in nine (11.5%) when viewed by those from the least deprived areas.

Section 7 - Contribute towards developing a circular economy within Wales

As stated in Beyond Recycling 'The Government cannot bring about the transition to a circular economy alone.' We recognise the individual actions play a big part in this transition and will work with our residents and other stakeholders to recognise their contribution.

As a Council, we also have a clear responsibility to work towards this goal, with much of our corporate vision outlined within our One Planet Cardiff strategy.

One of the areas we are working on is reducing carbon emissions, by considering the use of electric vehicles within our vast collections and cleansing fleet. We currently have 17 electric vehicles across the service and are one of the first Welsh local authorities to have an electric Refuse Collection Vehicle (RCV).

Do you agree that the Council should look to move to the electrical vehicles, where the relevant infrastructure is available?

Over four fifths (85.0%) of respondents agree that the Council should look to move to the electrical vehicles, where the relevant infrastructure is available. However, this figure rises to over nine tenths (92.4%) if 'Don't know' responses are excluded from the analysis.

	Including Don't know		Excluding Don't know	
	respo	onses	respo	onses
	No.	%	No.	%
Yes	2,039	85.0	2,039	92.3
Don't know	191	8.0	-	-
No	170	7.1	170	7.7
Total Respondents	2,400	100.0	2,209	100.0

Agreement was highest amongst those aged under 35 (91.0%); it was lowest amongst those who identify as disabled (80.2%).

Cardiff is committed to being a Child Friendly City, and we are working with our child friendly city teams, in making young person's ideas a reality. We are doing this by, for example, expanding Terracycle points throughout the City and painting a community mural at the Recycling Centre designed by children.

Do you agree that it's important to tap into the enthusiasm of young people, to make long term changes? For example, through offering recycling and waste minimisation talks to schools.

The majority (91.9%) of respondents agree that it's important to tap into the enthusiasm of young people, to make long term changes.

	No.	%
Yes	2,210	91.9
Don't know	91	3.8
No	103	4.3
Total Respondents	2,404	100.0

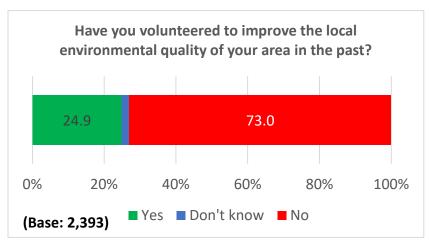
At least nine tenths of all demographic, geographical and deprivation groups analysed agreed that it's important to tap into the enthusiasm of young people, to make long term changes.

Cardiff Council is a partner of Caru Cymru, a Keep Wales Tidy initiative which aims to inspire everyone to take action and take care of the environment. The vision is for Caru Cymru to be interwoven into life in Wales, so it becomes second nature to 'do the right thing'. This could mean taking litter home, recycling 'on the go', cleaning up after your dog.

We are so lucky in Cardiff to have a comprehensive network of passionate volunteers through the Love Where You Live campaign.

Have you volunteered to improve the local environmental quality of your area in the past?

One in four (24.9%) respondents have volunteered to improve the local environmental quality of their area in the past.



These findings were consistent across the demographic groups analysed.

There was no correlation by deprivation.

If yes, how did you take part in the volunteering?

Respondents who stated that they'd previously volunteered to improve local environmental quality in their area were then presented with a list of pre-coded options and asked to indicate how they'd got involved.

'I just saw the opportunity and got involved' (43.5%) was viewed as the most common way in which respondents took part in volunteering. This was followed by 'I'm part of a community group e.g. Keep Grangetown Tidy' (27.0%) and 'I'm a Love Where You Live Litter champion' (12.6%).

	No.	%
I just saw the opportunity and got involved	253	43.5
I'm part of a community group e.g. Keep Grangetown Tidy	157	27.0
I'm a Love Where You Live Litter champion	73	12.6
I'm a Keep Cardiff Tidy Litter champion	58	10.0
Other	141	24.3
Total Respondents	581	-

N.B. Percentages total more than 100% as respondents could select more than one option

If other, please specify:

Respondents who selected 'Other' had their comments grouped into themes. A full breakdown can be viewed below / overleaf:

Theme	No.	%
Litter Picks	80	61.1
River Groups	15	11.5
Garden / Tree related	14	10.7
Not specified	12	9.2
Conservation group	4	3.1
Misc.	18	13.7
Total Respondents	131	-

N.B. Percentages total more than 100% as respondents could select more than one option

'I just saw the opportunity and got involved' was the most common way of getting involved across all demographic and geographical groups analysed. This was most notable by minority ethnic respondents and those that have a child in the house (51.0% and 49.7% respectively).

Respondents who identify as disabled (37.3%) were the group most likely to be '*Part of a community group*', this is more than double that of respondents aged under 35 (17.2%).

Only 1 (2.0%) minority ethnic respondent was '*I'm a Love Where You Live Litter champion*', this compares to over one in six when viewed by those aged under 35 and females (15.5% and 15.1% respectively).

Respondents in the most deprived areas were more likely to be '*Part of a community group*' than those that reside in the least deprived areas (40.4% and 31.2% respectively).

Would you like to learn more about volunteering in Cardiff?

355 (14.9%) respondents stated that they'd like to learn more about volunteering in Cardiff. Respondents who left their contact details have had their information passed onto the project team.

	No.	%
Yes	355	14.9
Don't know	462	19.4
No	1,564	65.7
Total Respondents	2,381	100.0

Minority ethnic respondents and those aged under 35 were the groups most likely to want to learn more about volunteering in Cardiff (23.1% and 20.2% respectively).

Less than one in ten (8.8%) of those who identify as disabled would be interested in learning more.

There was no correlation by deprivation.

Do you agree that a deposit return scheme should be launched in Wales, to reduce the impact of litter on the local environment? As part of this scheme, you would receive money back if disposable bottles were returned to a deposit return point. Please remember, this is a scheme that would need to be introduced by the Government in Westminster, and not Cardiff Council.

Four in five (79.2%) respondents agree that a deposit return scheme should be launched in Wales, to reduce the impact of litter on the local environment.

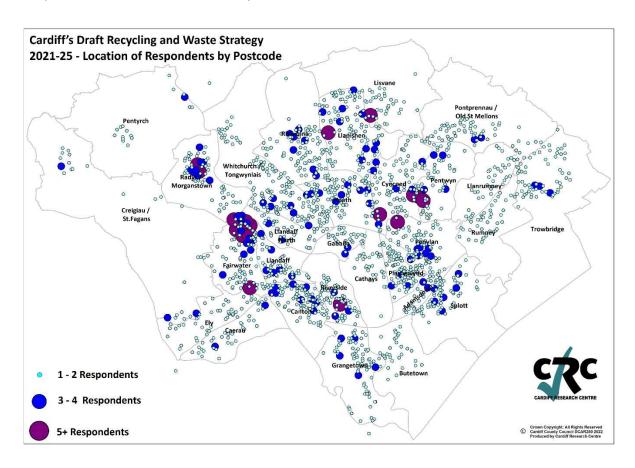
	No.	%
Yes	1,896	79.2
Don't know	278	11.6
No	221	9.2
Total Respondents	2,395	100.0

Agreement was highest amongst respondents aged under 35 and those who reside in the southern arc of the city (86.2% and 83.8% respectively); it was lowest with those who have a child in household and males (76.9% and 78.8% respectively).

Over four fifths (84.3%) of respondents in the most deprived areas agreed; this drops to 77.6% in the least deprived areas.

About You

Please provide your postcode below to allow us to more accurately pinpoint respondents' views and needs by area: -



What was your age on your last birthday?

	No.	%
16-24	27	0.9
25-34	313	10.9
35-44	563	19.6
45-54	517	18.0
55-64	696	24.3
65-74	500	17.4
75+	166	5.8
Prefer not to say	87	3.0
Total Respondents	2,869	100.0

Are you...?

	No.	%
Female	1,655	57.7
Male	1,079	37.6
Prefer not to say	124	4.3
Other	12	0.4
Total Respondents	2,870	100.0

Do you identify as Trans?

	No.	%
Yes	8	0.3
No	2,621	93.6
Prefer to self-describe	19	0.7
Prefer not to say	153	5.5
Total Respondents	2,801	100.0

Do any children live in your household?

	No.	%
No children	2,037	72.5
Yes, under 5 years old (pre-school)	232	8.3
Yes, aged 5 - 11 (primary school)	339	12.1
Yes, aged 11 - 16 (secondary school)	283	10.1
Yes, aged 16 - 18 in full-time education, or working	140	5.0
Yes, aged 16 - 18 but not in full time education or working	19	0.7
Total Respondents	2,808	-

N.B. Percentages do not total 100% as respondents could select more than one option

Which of the following best describes what you are doing at present?

	No.	%
Working full time (30+ hours per week)	1,357	47.8
Wholly retired from work	754	26.6
Working part time (less than 30 hours per week)	369	13.0
Permanently sick or disabled person	85	3.0
Caring for a child or adult	57	2.0
Looking after home	52	1.8
In full time education	28	1.0
Unemployed - Unregistered but seeking work	23	0.8
On a zero hour contract	17	0.6
Unemployed - Registered Job Seeker	14	0.5
On a government training scheme	1	0.0
Other	81	2.9
Total Respondents	2,838	100.0

What type of property is your home?

	No.	%
Semi-detached house	1,057	37.3
Terraced house	807	28.5
Detached house	611	21.6
Flat, Maisonette	241	8.5
Detached bungalow	62	2.2
Semi-detached bungalow	25	0.9
Bedsit, Studio or Room only	5	0.2
Terraced bungalow	3	0.1
Caravan / Mobile home / houseboat	1	0.0
Other	23	0.8
Total Respondents	2,835	100.0

Do you identify as a disabled person?

	No.	%
Yes	322	11.5
No	2,342	83.5
Prefer not to say	141	5.0
Total Respondents	2,805	100.0

Please tick any of the following that apply to you:

	No.	%
Long-standing illness or health condition		
(e.g. cancer, diabetes, or asthma)	425	42.9
Mobility impairment	241	24.3
Mental health difficulties	191	19.3
Deaf/ Deafened/ Hard of hearing	165	16.7
Visual impairment	58	5.9
Learning impairment/ difficulties	35	3.5
Wheelchair user	26	2.6
Prefer not to say	198	20.0
Other	38	3.8
Total Respondents	990	-

N.B. Percentages do not total 100% as respondents could select more than one option

Do you consider yourself to be Welsh?

	No.	%
Yes	1,868	66.9
No	926	33.1
Total Respondents	2,794	100.0

What is your ethnic group?

(Where the term 'British' is used, this refers to any of the four home nations of Wales, England, Northern Ireland and Scotland, or any combination of these).

	No.	%
White - Welsh/English/Scottish/Northern		
Irish/British	2,471	87.7
White - Any other white background	99	3.5
White - Irish	31	1.1
Mixed/Multiple Ethnic Groups - White &		
Asian	18	0.6
Asian/Asian Welsh/British - Chinese	15	0.5
Mixed/Multiple Ethnic Groups - White		
and Black Caribbean	9	0.3
Mixed/Multiple Ethnic Groups - Any		
other	8	0.3
Asian/Asian Welsh/British - Indian	7	0.2
Black/African/Caribbean/Black		
Welsh/British – Caribbean	7	0.2

Asian/Asian Welsh/British - Any other	5	0.2
Mixed/Multiple Ethnic Groups - White		
and Black African	4	0.1
Arab	3	0.1
Black/African/Caribbean/Black		
Welsh/British - African	2	0.1
Asian/Asian Welsh/British – Pakistani	1	0.0
Black/African/Caribbean/Black		
Welsh/British - Any other	1	0.0
White - Gypsy or Irish Traveller	1	0.0
Prefer not to say	124	4.4
Any other ethnic group (please specify)	12	0.4
Total Respondents	2,818	100.0

Appendix A - Do you agree that this is the most suitable option for Cardiff? No, a full kerbside sort collection should be considered

Theme	No	%	Example Comment
Reusable sacks being blown away / not fit for purpose	149	33.2	 I feel that reusable sacks will get blown away/lost easily and have the potential for rubbish to be blown around the streets. Will they be waterproof enough to protect the paper recycling? HMOs already have a lot of bins outside These sacks empty their contents in the slightest breeze The current containers are totally unsuitable and are already leading to messy streets especially and the carts no longer come around. The contents get wet dirty and already the containers are becoming unpleasant There will be a risk to traffic on windy days when empty bags blow around Bags get wet, difficult to dry wet bags and store in house, bags blow away
Storage concerns	129	28.7	 Some people do not have the space in their homes for 3 separate refuse bins, example, people in 1 bedroom flats, the kitchens are tiny & have no room for 3 separate bins Nowhere to store the bags and rubbish live on busy street where bags will disappear and become lost Terraced houses with no rear access have no room for all the different sacks There isn't enough space in most properties for all these sorting containers, and people would not bring wet soggy dirty bags into their house. Too many containers involved. They will become dirty very quickly and nowhere to store them.
Sorting concerns	63	14.0	 People will still not learn and still mix waste it is up to the council to improve their internal processes Having to sort at home will discourage people from recycling. The Council should sort after collection not before

			 It's a lot of work and still doesn't guarantee the right product for recycling being placed in the correct bin people will be less inclined to sort properly leading to less recycling, I've lived in Swansea and people there can't be bothered to use all the different bags
Keep process simple / may end up in general waste	58	12.9	 To complicated, recycled material will just go into black bin as it's less fuss Asking people to jump through hoops to recycle will only lead to further use of general waste instead of recycling. Most people won't have the space to store all these different 'containers' and may just give up and put more in general waste. It will discourage people from recycling as having to store different options
Need better containers	45	10.0	 The sacks are not suitable. Small plastic bins for each waste is better and would last longer than bags which will get lose and damaged easier. Containers last longer and prevents rats and seagulls attacking the rubbish. The sacks are not very good. Bins should be used. If you want to separate sure but each type of rubbish should be a bin not a sack All recyclables should be put in wheelie bins to avoid animals (cats, seagulls), smelling the food and destroying the bags, resulting in lose garbage in our streets. Why not dedicate green wheelie bins to recyclables and have bags for garden waste instead? (Just swap)
Increase litter/Vermin on streets	38	8.5	 The bags are a terrible idea they don't hold enough and the rubbish comes out and goes everywhere I'm on this trial. It's a nightmare. There's a clean up to be done after every collection, too many bins to store, the sacks are awful and need to be changed to plastic bins Reusable bags are likely to be blown around in gusty weather, leading to more litter in bushes, hedges etc As part of the trial the sacks are completely unsuitable. They do not stay closed and are

			prone to sea guls and fox's removing
			rubbish from the sacks which creates litter.
Accessibility concerns/health and safety	31	6.9	 Not everyone (such as disabled) can do this fully all the different boxes are dangerous left out for blind and disabled people. Sacks are a risk to wildlife and road users. Wheelchair users have enough problems with litter and cats on pavements The sacks will be heavy to carry once full. Depending on the cost of suitable vehicles, one collection seems more
Agree with trial	27	6.0	 environmentally friendly The more we can recycle the better Easy to do at home and allows money to be spent on other things, rather than sorting waste
Prefer current system	26	5.8	 If you make it hard for people to recycle they won't - keep it as it is I don't want a million bags to put stuff in - collect it and sort it The current way is fine in our area. The current system should be kept
Concerns over Bin collection/Recycling Centres	24	5.3	 Thousands of bags blowing all over the streets as your bin men are too idle to even put one food caddy back on the pavement and have been observed throwing them in a manner of a Welsh rugby line out a glass caddy for glass bottles sounds a terrible ides - the bin men throw things around as it is - how long before it broke? My sister-in-law who lives in Radyr watched your people tip everything into the same vehicle- so what is the point!
Negative comments	20	4.5	 You're asking us to sort more and yet charging more taxes I pay my council tax for you to sort my rubbish I'm not doing your jobs for you Every house will 3 bags, a food bin, a black bin and many houses will have green garden waste bin. The city will look an absolute shambles with all these bags and bins lying around. How many trips from the top of block of flats have to be made, how will old people in small houses manage. The council is paid to do a job, will council

			tax be reduced if the public have to do the council's job? • you need to educate the great unwashed.
Need more information/education	18	4.0	 you need to educate the great unwashed. perhaps fine those who put the wrong refuse into the green bags It is not clear what types of plastic is recyclable I am assuming that fully sorting means easier to recycle and better for the environment - but this info was not given above? This explanation above when surveying would make it easier to make an informed decision.
Benefits of full kerbside collection	17	3.8	 From what I read a full kerbside collection would use one vehicle thereby reducing cost and pollution Depending on the cost of suitable vehicles, one collection seems more environmentally friendly It seems this will minimise the chances of getting the wrong materials in the wrong containers
More Cost to replace bags	7	1.6	 Would there be a charge for missing sacks? Boxes would be better but not ideal. Once emptied re-usable bags are easily blown away. Residents would then have to pay for replacements.
Other	41	9.1	 We should be recycling at the micro level Trial different methods The problem is not that the materials you collect are "wrong" it's that you and the waste industry do not know how to deal with it. How can there be in your words "the wrong type of plastic!". Citizens don't make the plastic - manufacturers do so legislate against that. Citizens don't control waste management in the city- you do that what we pay you for. You have to figure out what to do with the waste. not the citizen If you choose this '3' option, it will not be long before you need to go for the bigger option.
Total Responses	449	-	

N.B. Percentages do not total 100% as respondents' comments could fall into more than one theme

Appendix B - Do you agree that this is the most suitable option for Cardiff? No, there should be different options for different areas of the city

Theme	No.	%	Example Comment
Storage concerns	418	46.5	 where do you intend, I keep your extra sacks or boxes? My house isn't any bigger than it was before. I live in a small flat and have no room. For 3 recycling bins, food waste bin and general waste bin. Unfortunately, we do not have space in our house for additional bins. We already have five when considering recycling, landfill, food, supermarket bags & teracycle. Our homes aren't designed for so many storage options Too many bags in my flat, how can I fit 5 bins in a small kitchen?
Vary approach by accommodation type/ area	342	38.0	 Different types of property may require different options due to storage space available Not everywhere has storage, houses aren't the same as flats etc Different issues / risks in more rural locations Take Grangetown - HMOs, houses with gardens for bins, blocks of flats with shared bins, houses that open onto the street. One size cannot fit all It cannot be a one size fits all for such different housing stock - consider the differences between properties in Cyncoed (plenty of room) with terraced housing - limited indoor space
Bags not fit for purpose / unsecure/ blow away /porous / unhygienic	172	19.1	 Reusable sacks are going to blow away once empty. I live on Newport Road, sacks will get taken, blown away across traffic this will cause accidents Sacks blow away and tear too easily (know from previous experience) Bags will break, they will smell some built up areas waste will be spilt onto roads Sacks blow away and we have to pay to replace them, they're also nasty to move through the house if wet, glass bins need

			to be larger than those trialled previously and have better closure, so they don't fill with water
Concerns over access to pavements/litter/mess /vermin	82	9.1	 Living in a part of the city with narrow pavements and houses that open directly onto the pavement, bin day is already a nightmare on the school run, with food bins and green bags blocking pavements. Navigating these with a wheelchair or buggy is very difficult. Having more containers on the street will make the footways impassable Birds. Seagulls cause a great deal of havoc within the Butetown community How do disabled people navigate a sea of bags, boxes and bins on the pavement? Sacks are light when empty and not secure. Open boxes cause rubbish to be blown and are prone to wildlife interference. I'm not keen on sacks/bags - living on the edge of the city the current bags get blown away if put out in stormy weather and spread litter all over the place.
People won't participate / Will end up in general waste / fly tipping	80	8.9	 I live in a small property and I haven't got room for various containers - I will be putting whatever I can in the black bin, so will be recycling less. I would support this if you had an alternate option for glass. I've seen the caddies and they are far too small. This will lead to people not recycling. I don't think this is realistic - you're making it more effort for people to recycle. The harder it is, the more people won't bother. People in Cardiff won't bother with more bins to separate waste it will lead to less being recycled and more fly tipping than there already is. Less likely to recycle if have multiple bins. One bag is easiest and encourages recycling
Keep current system	67	7.5	Should maintain the current system which is easy to use and understand and creates fewer storage difficulties

		 I sort my recycling well, fine those who don't rather than change. The green bags worked well, the reason that other items go in is that the black bins are too small The most suitable option would be for things to stay the same. The current routine should be optimised across the city increase where it is ineffective before rolling out more complex systems.
46	5.1	 Further education on recycling well should be the primary method of fixing the contamination issue Space is an issue. 5 containers is excessive. How hard have you tried enforcement? Educate or fine people who do not Recycle food waste or dry recyclables Not everyone is capable of understanding what you expect from them
43	4.8	 Not enough information up to the collection person to sort The streets are not the place for sorting rubbish. The state of our streets leaves no room for hundreds of different sacks which will be blown away in winds. Take all rubbish and sort it in a sorting centre. If residents aren't sorting items properly now that are likely to ignore extra sorting People are incapable of correctly sorting, this should be done at the depot
44	4.9	 Some areas should have sealable containers like bin bags and caddies only The sacks provided are not suitable for the proposal. Different material or different type needs to be provided ie on wheels so people can wheel it instead of carry it I was in North Wales last September, &their method of Collecting at the cottage we stayed in was Stackable Boxes, fitted on a Dolly trolley. The Bin men hosed them out after use. Bottles in the bottom one Cardboard & paper in
	43	43 4.8

			caddy for food, & a bin for general rubbish. I thought it was a very good system, that Llandudno had.! • Wheelie bins are already in many households, why not use them in conjunction with this new system.?
Accessibility concerns/health and safety	37	4.1	 Difficult for elderly people to understand and sort what about disabled? I think its ableist. Life is hard enough for many disabled people. I'm struggling hugely to cope already with waste management & many vulnerable people will find it very very hard. I am disabled, if my husband is away, I would not be able to take two bags, a box, food bin and main bin down all the steps to the collection point. They may be suitable for increasing recycling and for others but would be a nightmare for me and other mobility restricted people Placing out potentially 6 bins, that have to be sorted in the week is unsustainable and not viable for elderly and disabled
Bin Collection concerns	22	2.4	 Too much time taken at the side of the roadbin men can't cope with the current collection times Collection is already unreliable - this adds more complexity. Pilot trials already showing proposal isn't working - collections are being missed Confidence in the trial was lost when suitable collection vehicles were not available.
Communal/end of street facility	15	1.7	 I live in a small 1 bed flat with a communal bin area I live in a flat with limited space a communal bin storage area, which when built in the 90s was designed for a refuse collection of that time. These bin areas are now not adequate to take on this new Recycling model. I have a communal bin store
Other	80	8.9	I don't think any of the options proposed will deal with the issues identified. If you are going to add non recyclables to the

N.B. Percentages do not total 100% as respondents' comments could fall into more than one theme

Appendix C - If we were to provide alternative containers for your recycling across the city, which would you prefer – Other

city, which would you pr	No.	%	Example Comment
Keep current system	109	25.9	 I'm happy with the system we have, if people can't get that right they will never get a new system right. Keep it as it is. Green bags best as it is now!! Green bags which are 76.3% effective. The current bag system, fill in kitchen, take outside, I've no idea where all this proposed new stuff will be kept. Stick to the current but increase education and the fine process.
Wheelie bins / Weatherproof bins	100	23.8	 Bins with lids - keeping items fully dry and rats out!!!!!! Enclosed recycling bins for outside that are weatherproof Something weatherproof (rain & wind) with a lid that is large enough to contain the amount of recycling. 2 wheelie bins 1 for plastics and 1 for cardboard and paper Wheelie bins (something solid plasticnot bags or sacks as these blow away even if weighted)
Storage concerns	53	12.6	 Caddies that can be taken and recycled as consumers do not have to bring and store wet caddies. Not everybody has room or space to bring in wet sacks Keep to plastic sacks easy to store rather than containers which take up room to store. Box's with lids as I would have to store outside as no room in house None of the above - don't have room for them. At the moment householders don't recycle what make you think this is any better. householders don't have the room in their premises for all these bags especially those who live in flats. this is crazy
Box/ Stackable Box / Caddy	52	12.4	 Boxes for collection but something for inside properties too. IKEA used to sell stackable boxes that had a slanted front

			 which allowed things to be separated while also saving space As above, weatherproofing is essential, so caddies or covered boxes. If concerned about visibility of what's in the containers, why not make the lid transparent. Stackable boxes with lids. Collapsible boxes would allow for easier storage and not blow away.
None	40	9.5	 Don't provide alternative containers None, more of anything is a bad idea. You charge us more every year in council tax and want to give us more jobs to do on top of our day job. Collect all the rubbish and sort it at base. None of the above keep it as it is None stick with what we have. I have a full-time job which I'm not giving up to sort waste
Biodegradable - single use bags	37	8.8	 Non-reusable but bio-degradable sacks Bio-degradable bags which fit into existing bins in people's homes and take up the least storage space. Glass caddies sound like future lawsuits. Coloured bags such as the green ones used to date in a biodegradable material Not re-usable as they get dirty and are difficult to clean, both sacks and caddies
Sack Concerns	25	5.9	 Plastic rather than hessian. In windy weather empty hessian sacks will be scattered and lost. Not re-usable as they get dirty and are difficult to clean, both sacks and caddies Hessian sacks will get wet when outside and this makes bringing them inside awkward. None as hessian is hard to wash so becomes nasty and vices and caddies keep blowing away down the street and have smashed
Community Recycling facility	17	4.0	 Recycling points at all supermarkets Collection bins in neighbourhoods e.g.in supermarket carparks/areas in local parks.

			A community recycling rejet that is
			 A community recycling point that is emptied regularly
Dependent on property	14	303	 Mix of all 3 depending on the property I'm not convinced by a one size fits all approach. Some will generate more than will easily fit into the containers provided, others might not generate much What's most suitable for specific households and their situation and space
Will result in a rise in general waste/ fly tipping	15	3.6	 You know full well this will just increase fly tipping. People haven't got the space for this stuff. I will not be storing my recycling separately; I am pleased to recycle but it will now all be going in one bin None of these. I would recycle less. I don't have room to store any more boxes.
Bin men concerns	9	2.1	 Something that I don't have to search the streets for after the bin cowboys have thrown them down the street Hessian sacks are a waste of space. They will get soaked and be strewn everywhere especially on bin day when bin men empty them and chuck then anywhere like they do the white garden waste bags
Simpler the better	8	1.9	 If you make recycling complicated people won't do it. It's convenient to have 2 bins in your kitchen one recycling, one landfill but people won't sift through bins to recycle Your question is leading and does not allow for a negative answer. I am happy with all recycling going into one bag to be sorted by the council.
Other	55	13.1	 it's not our issue. We commence the recycling by passing the materials to you and it's a actually your job to get the recycling done! Seems to me you are looking for free advice! Look at the existing system, improve this first before going into costly changes! For instance, when was the last time you re-educated households? Never! If people were aware that tearing boxes up rather than putting them in whole, would minimise the use of green waste

Total Responses	421	-	 that's what I spend council tax for Keep current system and educate and fine to improve quality
			bags so less expenditure, less bags more efficient pickup! By the way, small food bags are enclosed within an outer bag! What is the point of that? Jumbled thinking! I would like a chance to see in person and vote that way - perhaps a well-publicised neighbourhood consultation to see the options. I would rather you sorted the waste as

N.B. Percentages do not total 100% as respondents' comments could fall into more than one theme

Appendix D - How do you currently store your recycling before collection – Other

Theme	No.	%	Example Comment
Outside property-	823	90.8	Keep full bags in front garden next to bins.
Garden / Drive			store full bags outside until collection day
			In the garden in bags
			In the front space of the property, outside
			Leave outside house on drive
			Just leave them outside the back door
			They sit outside in the yard because I have
			no other space
			 In my side garden, where it is not seen.
			 Outside house on private sheltered area
			 store outside behind garden gate on path
Inside property	62	6.8	Store them in an open container in the
			house then bag for collection.
			I have an internal bin for recycling
			alongside my internal bin for non-recycling.
			They are designed to be attractive and sit
			next to each other in my kitchen.
			Normally we produce less than one recycle
			bag per week, so it can stay in its container
			until it's ready to go.
			 Indoor bins in bin bags
			Store in box in kitchen and transfer to
			green bag the night before collection.
External Storage unit -	24	2.6	Store in my own purchased bins
large bins/			My sheds out my back garden
Shed/Garage/			Built storage units in drive
			Store excess cardboard in garage or
			external container until dry collection day
Communal Bins	22	2.4	 Living in a flat, communal bin store.
			Keep in cupboard until full then in
			communal bins
			Building has a bin room
			Apartment building bin store
Other	12	1.3	Black bin the lot
	- -		We sort into the correct containers on the
			day before collection.
			For homes with space outdoor bins would
			be useful. For flats shared bins
Totals Responses	903	-	20 305 311 101 1130 01141 04 0115
N.P. Parsantages do not to		100	condents' comments could fall into mare than one theme

Appendix E - Where do you go to access information about the correct materials to put into recycling bags — Other

Theme	No.	%	Example Comment
Council correspondence	38	31.1	 Leaflet delivered with sacks and caddy On trial and use booklet provided. Refer to the Leaflet that was put through the door - keep it on the side of the fridge Booklet
Online / social media	21	17.2	 Cardiff council Facebook Wales online Wales Recycles Recycle Now
I know what materials recycled/ Recycle what I think is correct	20	16.4	 I know what goes where Common sense Just put what I think can be recycled into green bag Make own decisions.
Previous advice issued	10	8.2	 Don't look been using same info for number of years Poster on my fridge printed in 2018 We had a printed list from the council a couple of years ago
Look at packaging or recycling sacks/bins	8	6.6	I look at the itemRed and blue sacks. Blue bottle bin
Work(ed) for Cardiff Council	5	4.1	 I already know about recycling from my employment with Cardiff Council I work within Waste Management
Text/email	5	4.1	Receive text from councilEmail advice from Community Council
Ask Friend / relative	4	3.3	My wifeAsk a friend to go online for me & check.
Other	20	16.4	 Everything goes in the green bag; the council can separate if they wish to do so. Library Local litter picking group local shop
Total Responses	122	-	

Appendix F - If you don't know whether an item can be recycled in your green bags, what do you do with it — Something else

Theme	No.	%	Example Comment
Put in Black Bin / Green Bags	31	42.5	 Make a judgement to put it in green bag or black bin I make every effort to recycle but the. It has to go in the black bin if no joy. Put them in the general waste bin Guess - black bin or green bag
Find out information myself	30	41.1	 Check the product packaging check on website Look online to see where it goes Ask neighbours
Take to recycling centre / Similar Scheme	12	16.4	 Depends what it is, household recycling centre or other scheme Teracycle Google to find out where it can be recycled taking advantage of volunteer run tetracycline schemes in the community
Other	10	13.7	We are trialling the new 3 bag systemVaries depending on what the item is
Total Responses	73	-	

N.B. Percentages do not total 100% as respondents' comments could fall into more than one theme

Appendix G - Do you think the Council does enough to inform residents about how and what to recycle? If no, or if you have any comments, how could we improve this – Other

Theme	No.	%	Example Comment
Clearer/Accurate/more accessible information	156	62.9	 It seems really complicated what can and can't be recycled. Is there a way of simplifying this information to make it clearer. Improve the recycling website for more comprehensive information More posts on social media groups (i.e., FB reuse groups) and radio On website have a search facility where u can enter items name and it can then advise correct recycling process Email residents when their collection is due with an attachment of what goes in the green bag A fridge magnet or something that isn't just going to end up being lost or recycled Work with large stores to have information on what can and can't be recycled.
Recycle more items /More improved recycling centres	36	14.5	 Provide teracycle bins Find a way to recycle things that currently can't be recycled Have more places to recycle tetra packs and plastic that can be recycled with carrier bags. Also, more places for batteries Have a permanent hire in North Cardiff. Just Saturdays for a limited time frame and limited materials not good enough!
Educate/show benefits of recycling/ Not fines	25	10.1	 Indicate on sacks which are left by your operatives, the reason why they're left and stop fining people, unless their actions are grossly taking the mick. Stop issuing fines as it does not act as a deterrent, improve education Better understanding how how incorrect/contaminated waste means whole bags need to be destroyed. No fines - plenty of residents dump their rubbish in the wrong bin knowing others

			get the blame. Education and constant messaging is the answer.
Fixed Penalties / Inspections / Enforcement	10	4.0	 Legislate to force supermarkets to only use recyclable packaging Most of the people not recycling are tenants. Mine are absolutely terrible at it! Letters need to go out to all tenants stating that they are at risk of losing their tenancy if recycling is not carried out. Work with us landlords closer to initiate this. ACTIVE BIN INSPECTIONS & ENFORCEMENT.
Engage more with areas of low recycling	9	3.6	 Engage with the elderly as many of them find the recycling system very confusing. Also target student/landlord/holiday accommodation. Much more focus should be on students. As a homeowner with post graduate lodgers most of them don't have a clue!
Social Exclusion - Age / Disability / Digital resources	8	3.2	 we get a lot of calls from elderly people or people with no social media they don't know what's going on and find it hard to find out also people live alone no friends or family not everybody has access to a PC or other device to check websites or to use social media
More reliable bin collections	7	2.8	 Collect recycling on time Collect the rubbish on the day. Do NOT skip collections
Incentives	6	2.4	 Positive reinforcement prizes for households who manage their recycling in an excellent The council could also put gold stickers on bins that are consistently filled with the correct recycling waste; the carrot is much better than the stick approach!
Other	24	9.7	 The council should find out what the shops are supplying the food in and ensure the correct service is available. Provide better storage for recycling, the plastic bags are weak, break and just aren't suitable Stop expecting residents to do the job they paid council tax for! Provide greater, more appropriate bin capacity, regular, reliable

			 collections. Residents will then be able to self-sort waste into the correct bin I have no idea what's best, people don't care enough on the whole to find out, don't bother reading leaflets through the door & are happy to leave it to your staff to deal with if they get it wrong. Drives me nuts!!
Total responses	248	-	

Appendix H - Do you think we should introduce an annual charge of £35 for fortnightly garden waste collections, between March-November? This would be approximately £1.80 per collection. Residents would need to sign up and pay each year. If you have said yes, why - Other

Theme	No.	%	Example Comments
Could incentivise composting	10	28.6	 It might encourage people to compost their own garden waste. If people have gardens should there be an initiative to encourage them to compost rather than fill garden waste bins maybe that's an option provide them with a composted if they pay for pickups. That would encourage composting — which is what I do. I do actually use the. garden waste collection about twice a year, if that. To encourage. composting — which is what I do with nearly all my garden waste.
Happy to pay	7	20.0	 I have garden waste all year round and happy to pay for extra collections. The current service is hit and miss, with many missed collections and large gaps. As a paid for service, I would expect the quality of service to have to improve. I previously lived in Cheltenham and an annual charge worked well.
Would want more collections if paying	6	17.1	 To be specific if I pay a fee, I expect collections to occur over winter as well just less regularly. It's a non-statutory service and I understand the council needs to invest money elsewhere. If the charge was anymore, I wouldn't be happy at all. Also just to note I think this has the potential to make garden waste recycling class divide Had the social implications been considered for charging? To make sure it is taken - fed up with being missed.
Risk of fly tipping	4	11.4	 Risk of fly tipping if no regular service. We already take ours to the tip and are applying for a second green bin. We already pay very high rates here. I don't want to see it thrown as fly-tipping.

Pay as you go system 2 5.7 I think you should offer it on a pay as you go basis like the additional collection bags cost would pay for it but I think paying monthly wouldn't suit everyone. Waste from surrounding properties / street 5.7 Paying for the service should weed out those misusing it - weed out - ho ho! Paying for the service should weed out those misusing it - weed out - ho ho! Not a reason but a comment, if this is done there should be a low-income scheme for families who are in receipt of a means tested benefit (Inc. Pension credit). The wealthiest people are being subsidised with free garden waste collection. They need to start practicing a closed system where they make sensible choices so that they recycle their garden waste in their own gardens. I am NOT satisfied that green waste has been sitting in my bin since November and that when it is collected the bin is likely to break with its weight as it has compacted, and I have had to add to it. I want an all-year-round collection. We have many trees with TPO's and we need this assistance.	Have no car / can't attend HMRC	3	8.6	I'm a pensioner and don't have a car.
not go to monthly collections in October/November and December. Also we currently put green recycling out every other month. Paying for the service should weed out those misusing it - weed out - ho ho! Not a reason but a comment, if this is done there should be a low-income scheme for families who are in receipt of a means tested benefit (Inc. Pension credit). The wealthiest people are being subsidised with free garden waste collection. They need to start practicing a closed system where they make sensible choices so that they recycle their garden waste in their own gardens. I am NOT satisfied that green waste has been sitting in my bin since November and that when it is collected the bin is likely to break with its weight as it has compacted, and I have had to add to it. I want an all-year-round collection. We have many trees with TPO's and we need this assistance.		2	5.7	like the additional collection bags cost would pay for
Misc. 17 48.6 Misc. 17 As.6 Misc. Mis	surrounding	2	5.7	not go to monthly collections in October/November and December. Also we currently put green
Total Respondents 35 -	Misc.	17	48.6	 Mot a reason but a comment, if this is done there should be a low-income scheme for families who are in receipt of a means tested benefit (Inc. Pension credit). The wealthiest people are being subsidised with free garden waste collection. They need to start practicing a closed system where they make sensible choices so that they recycle their garden waste in their own gardens. I am NOT satisfied that green waste has been sitting in my bin since November and that when it is collected the bin is likely to break with its weight as it has compacted, and I have had to add to it. I want an all-year-round collection. We have many trees
	Total Respondents	35	-	

N.B. Percentages do not total 100% as respondents' comments could fall into more than one theme

Appendix I - Do you think we should introduce an annual charge of £35 for fortnightly garden waste collections, between March-November? This would be approximately £1.80 per collection. Residents would need to sign up and pay each year. If you have said No, why - Other

Theme	No.	%	Example Comments
May increase fly tipping / burning / incorrectly presented waste / using other receptacles	137	39.5	 It will result in waste being fly tipped. I worry that people may just dump this waste instead or put in black bags. I would not mind paying the fee but think it would encourage some people not to recycle green waste and burn it or put it in black bin. You could have a free opt-in service in which people have to register every year if they want collections. It will probably just get fly tipped somewhere if there is a charge. Will lead to people burning garden waste I'm their garden which will increase CO2.
Pay enough council tax at present	58	16.7	 I feel I pay enough for my council tax. My council tax is already inflated enough, and I should get at least some services for my payment. Refuse collection is the ONLY obvious service we get from the council for the extortionate council tax we already pay.
Not prepared to pay	50	14.4	 Cardiff residents would not pay for their collections, the majority believe that they pay their Council tax and the only service they receive is their waste collections, so asking them to pay more will not go down well. I wouldn't want to pay for fortnightly collections when I didn't need them that often - an option to pay for a single collection would be preferable, and pinpoint collection locations too. If you start charging for his service a lot of people will not pay and will just start dumping elsewhere. It should already be included in the extortionate council tax that we already pay.

Potential to affect those that cannot afford it	44	12.7	 This will be an extra cost that some household won't be able to justify. Although there will be some correlation between income and whether a household has a garden this won't be clear cut. Those who don't care about recycling or don't want to pay for this may refuse to and may end up fly tipping their garden waste. This would disadvantage low-income families.
Service very poor at present	40	11.5	 Garden waste has not been collected since we moved into the area in December. This is not acceptable when this survey and your website indicate it should be monthly collections. Given how poor green waste collections have been over the last two years and how expensive council tax already is, charging more would be very disappointing.
Should not be taxed / penalised for having green space / they should be protected not concreted	33	9.5	 Gardens & green spaces are vital for our biodiversity- we should not be penalised for having green spaces.
Access to recycling centre - limited to car users	29	8.4	 You are punishing people who don't have a car. I'm greener than car users but can't take my waste to a centre. Council tax is high enough already. People may end up putting it in general waste. Not a good idea.
Waste from other properties / street / trees etc.	28	8.1	 Where I live the major contributor is leaf fall from tress on council property however, unlike some areas where the council sweep up leaves it's left to homeowners to clears the leaves from the roads, pavements and communal areas.
Not value for money	20	5.8	 I would pay if it was worth it to me, but it isn't. Please provide other options. Tips are miles

			away and you have to book. It encourages fly tipping.
It will discourage recycling	19	5.5	 It would discourage people from recycling their garden waste.
Different properties have different needs	16	4.6	 Do the bands that define the level of council tax take into account house and garden size.
I may be prepared to pay	15	4.3	 I would be content to pay a small additional charge per collection, but as I Probably only put my green bin out 5 times a year, each collection would cost me £7 if the £35 fee was introduced. With a flat annual rate there is no incentive for me to reduce my overall collections.
Change collection frequency	14	4.0	 I think we need more collections over the autumn and winter - every two weeks, to cope with leave fall. Perhaps tailing off in February.
Need a new free scheme / opt in / utilise technology	12	3.5	 Suggest a third way - require people to sign up via an app in a window (say, 24-72 hours) prior to collection time when they want their green waste collected. Then no need to charge, but you could reduce/streamline collection. I'd also be happy to put my green bins at the end of the road alongside everyone else's from my postcode, so collection spots are far fewer.
What about associated costs of scheme / management - and to remedy those that fly tip	11	3.2	 The cost of admin cost of collecting the fee could outweigh the benefits, simpler would be to add to Council Tax although not all get the benefit this is how tax works.
I use the service irregularly	11	3.2	 I have a very small garden and only use garden waste once a year, for me this would mean £35 for one collection.
Misc.	78	22.5	

Total Respondents	347	_	 Lack of HRC in north Cardiff. Neighbouring local authorities do not charge. The material is, I assume used to make compost to enhance public spaces. Without it the council would need to buy compost or let the public spaces get even worse than they are. I would like to know what happens between November and March. The council wastes money on things like painting rainbow colours on the road - if it has money for non-essential, attention-seeking nonsense it has money to recycle garden waste.
Total Respondents	34/	-	

Appendix J - Do you bring any garden waste to a Household Recycling Centre? If no, why – Other

Theme	No.	%	Example Comment
Lack of Household Recycling Centre's in Cardiff / Environment Concerns / Distance and time needed to travel	119	41.3	 There is no local hwrc in the north of Cardiff ridiculous to expect people to drive across the city to dispose of it The recycling centre is some distance now that Wedal Road is closed - using a car for this purpose is contradictory to the Council's greener city policy I live in North Cardiff and the nearest centre is over 10 miles away, which I vehemently disagree with for both time and environmental reasons. There should be a recycling facility for north Cardiff. You want us to travel miles across the city with a car full of stinking garden waste because you have closed Wedal Road and Waungron for us Cardiff North residentspull the other one. I am sure that 200+ cars travelling to the recycle centre produced more carbon dioxide that kerb collections It's very difficult to get to the tip from here, right across the other side of Cardiff. If there was a collection point closer, I might use it
Use home composter	39	13.5	 We are lucky enough to have a garden and allotment. We use as much of our garden waste as possible to compost I don't have much and i turn it all into compost. Good for the flowers see butty I compost at home using a council supplied top load bottom output compost bin I don't have to, I am able to compost
Minimal / No Garden Waste	36	12.5	 No garden waste - live in a flat I don't have a garden. I have Astro turf and patio, so no garden waste Not enough waste to worry about
Booking appointment concerns	25	8.7	 Having to go through a process on having to book a slot - is a nightmare!! Stupid booking in system if you are late, you can't go in Only Limited number of visits to centres are allowed and wouldn't want to waste them on my garden waste

			 The sites are not open at reasonable hours for the working residents. Sites could be run on shifts
Don't have access to car / Car too small to transport garden waste	24	8.3	 Small sports car with small boot Unable to has partner works long hours and I don't drive not everybody has transport.
Use kerbside collection	13	4.5	 The green bin is the perfect all-round solution so please leave it as it is Currently never have more than fits in my green bin I don't produce that much garden waste and what I do produce can go into my green bin.
Council Tax should cover this	8	2.8	 It's what we pay our rates for SERVICE! My rate bill of £220 per month should be enough to provide for you to collect my green bin every fortnight through the year, not just once a month in the winter
Don't want mess/ insects in car	5	1.7	 I don't want creepy crawlies in my car which would be inevitable if I had to Semi decomposed waste is not viable to transport in a car
Fly-tip	4	1.4	 It counts towards amount of times I can visit the dump - easier to fly tip and wait for council to clear it up
Dealt with by Landlord / Housing Association	3	1.0	 Block of flats maintenance including gardening is managed by the housing association and I am unsure how they dispose of the waste but know it is not added to the communal bins.
Other	30	10.4	 never heard of a household recycling centre Paid for a gardening service to remove it I never knew that was an option Full time worker with no time to take on this task
Total Responses	288	-	

N.B. Percentages do not total 100% as respondents' comments could fall into more than one theme

Appendix K - If you weren't sure whether an item should be included in your garden waste collections, what would you be most likely to do with it – Other

Theme	No	%	Example Comment
Compost it	23	24.7	 Make use of it in the garden or compost it I have a compost bin in the garden. Use my allotment compost bins composting as much as possible
Green bin/ Confident what can go in garden waste collections	22	23.7	 I know what can go in a green bin Personally, I'm pretty clear about what is / isn't permitted so don't face that dilemma. As a gardener I know what can be recycled I know what goes in Garden waste, so it isn't an issue
Look it up / Ask Friends / Neighbours	16	17.2	 check Council website. Ask family/ friends Attempt to get clarification from Council. Ask manager of property where I live
Don't have garden waste	11	11.8	I have no gardenI don't have any garden waste
Put in general waste bin	7	7.5	 Find out how to recycle it and then put in the black bin if not easy to recycle - depends on item When I can't reuse, I put it into my general waste bin in small amounts.
Burn it	6	6.5	 If it's true garden waste, burn it I often reuse things in my garden such as soil as best as I can. We have log burner fires in the kitchen and in the garden so we can make use of untreated wood in this way.
Depends on item	4	4.3	It depends what the item is
Food waste caddy	3	3.2	If small and biodegradable, then put in food waste eg flowers.
Other			Arrange for third party to take it awayThrow it over the fence
Total Responses	93	-	

Appendix L - What actions should be taken against residents that misuse the service – Other

Theme	No.	%	Example Comments
Greater implications for repeat offenders	80	31.9	 Possibly a sliding scale if education doesn't not work. Possibly told x number of times, then fine and removing service. By all means education and support, but penalty for repeat 'offenders'. Needs a phased approach, starting with education escalating to fines and ending with a temporary removal of services. But to be effective needs to be tailored to individual needs. Probably not an affordable solution though. Warnings to be given in that order, education, fine and removal of service if continued rule breaking.
Nothing	39	15.5	 No action should be taken as fly tipping is a bigger costly problem. The council should accept some errors. Nothing - do not always look for an opportunity to fine or remove services.
Concerns around identifying the correct households / individuals	26	10.4	 I have seen children put litter in garden waste bins as they walk to or from school. Investigate why an item is there - it could be from a neighbour. My concern with fixed penalty notices in general is that 3rd parties could contaminate someone's perfectly acceptable waste caddy/bag/whatever as they pass by or even maliciously. Stopping waste collections due to the thoughtlessness of individuals who hide other material in bins/bags affects the majority who are not at fault.
Knock on door / get greater understanding of why people are	23	9.2	 Be more understanding of individual property difficulties and assist on an individual basis where needed.

misusing the service			 Punitive measures are pointless. A visit to the house by the individual who does the collecting, and some backup literature would help. Threats are counterproductive as offenders will react angrily.
Concerns around current service	22	8.8	 Much of the misuse is due to collections being irregular and too few. Further reducing collections/charging further fees/implementing penalties is a joke. My collections are rarely on time and sometimes not at all, this causes a build-up of trash and street pollution. Get your house in order before imposing restrictions on waste collection I already pay for in council tax. Make your service fit for the purpose of serving the public who pay the council tax. You are there to help us.
Smaller fine	11	4.4	 £5 Fixed Penalty Notices as £100 is too extreme for having garden vegetation rubbish taken away.
Provide a clearer understanding of the service	11	4.4	 A booklet should be given to show what bin any sort of item should go in. I know a list is on your website, but no one can be bothered to go on it and look it up. Having a booklet to hand will increase compliance.
Confusion how service is misused	4	1.6	 How on earth can a garden waste collection "service" be misused?
Sliding Scale fines - The more you earn the more you pay	3	1.2	 Stop charging poor residents for making mistakes.
Don't empty the bin	3	1.2	Do not collect waste, put a sticker on the bin informing the owner that they need to sort it out.

Provide more HRC's / local drop off points	3	1.2	 Local (and they would need to be very local) collection sites might be possible/sensible in some parts of the city. But the sites would need frequent emptying.
Depends on item placed in bin	2	0.8	 If it was crystal clear that it wasn't garden waste (e.g. nappies) it should be a fine.
Misc.	33	13.1	 Charge more council tax for landlords. The Council should be 'educated' how to deal with the public. You really should not use this term. I don't need education on this, but I would need help in the future on putting these bins out. A fine balance between encouraging compliance and avoiding fly tipping. £100 reward.
Total Respondents	247	-	

N.B. Percentages do not total 100% as respondents' comments could fall into more than one theme

Appendix M - Do you participate in food waste collections? If no, why not – Other

Theme	No.	%	Example Comments
Hygiene / Vermin concerns	13	28.3	 There is a massive rat problem in my area, and it was attracting even more as waste container is kept outside in communal area. Attracts flies. By the time I generate enough to fill a caddy it is rotting and unhygienic. Encourages flies and rats.
Have a waste disposal unit / compost it	12	26.1	 I use a sink waste disposal unit for small items and only use the council system for such a bones. I try not to waste food. I have a sinkerator for non-compostable food waste and a compost heap. I have a waste disposal unit in my sink. We have a dog who has learned how to get into the food bin. I home compost.
Don't generate enough food waste	6	13.0	 I do not waste enough food to warrant collecting. It would take months to produce one bagful. I have minimal food waste. If required (very, very occasionally) I can use my waste disposal unit. As I live alone, I find I produce very little food waste and it is just a little too much hassle for me to worry about. In the black bin it goes.
Collection issues	5	10.9	 Sick and tired of retrieving my bin that your collectors have thrown randomly down the street. My food waste has been missed a few times, even though it was reported, I then would have to wait a week for a collection. It resulted in very stinky bins and no space to be able to place the second weeks waste. I have given up and place it in my black bin. This is because of the poor service from the council.
Storage issues	4	8.7	I live in a flat and do not have space for the extra bin.
Concerns around bags / caddies	4	8.7	 Caddy bins and the green bio bags are not robust enough, the green bio bags split making a mess on the

			kitchen floor, and as i don't have much waste mostly crumbs it's not feasible to have a caddy being kicked around the room.
Misc.	9	19.6	 I have tried - but I am very bad at it and it goes manky in the bin. I don't know when food waste collections are in my area or if we even have them. No legal requirements.
Total Respondents	46	-	

N.B. Percentages do not total 100% as respondents' comments could fall into more than one theme

Appendix N - What would encourage you to participate, or participate more regularly in food waste collections – Something else

Theme	No.	%	Example Comments
Don't generate enough food waste / Compost what I have	59	33.7	 If I was not living alone and generated enough food waste, I would use the service. I have very little food waste. I compost any peelings. We strive to avoid food waste in the first place and generally produce the minimum of food waste. Peelings etc. go onto our own compost bin. I compost my own food waste so only need a fortnightly collection. We waste so little food that the caddy was horribly smelly by the time it needed emptying.
Improved Caddie Design - Larger / Lockable	29	16.6	 Improved design of caddies e.g. ones that actually lock and can't be broken into by seagulls, causing mouldy bread to be scattered everywhere. Bigger kerbside caddy - as a family of 6 we offer have no room left on day 5, so up end storing a bag until collected and hoping the next week is less wasteful. A 30% increase in kerbside caddy capacity. Food caddy is too small and the lids aren't very well fitting which allows for flies and maggots in the hot weather.
Concerns around collections / Bin men	21	12.0	 Have the bin men actually collect them and also not throw the caddy's down the street. Actually collecting the caddy's would be a good start! The council to actually empty the communal food bin.
I already participate	9	5.1	No encouragement - I participate only when I have something to recycle.
Communal food waste bin suggestions	9	5.1	Having a communal food waste bin locally so I don't have to keep it on my property attracting rats.

Incentives	8	4.6	 Rewarded with payment, vouchers or reduced council tax.
Greater Education needed	8	4.6	 Sanctions don't help people. Education and reward are proven methods of encouragement that work.
Concerns around bag quality	7	4.0	Stronger bags that don't break!
Availability of food bins / bags	7	4.0	 Faster response in replacing caddy's. 2-3 weeks when a bin is lost, stolen, or vandalised makes it hard to continually use the service.
Nothing	6	3.4	 Nothing would encourage me to recycle food waste! It's unhygienic!
Misc.	18	10.3	 I've got two dogs. They are 100 percent efficient in consuming food waste! I'd rather improve my other recycling. Bin cleaning services. Not being charged when the council break or lose bins.
Total Respondents	175	-	

N.B. Percentages do not total 100% as respondents' comments could fall into more than one theme

Appendix O - Are there any further improvements you would like to see at the Household Recycling Centres – Other

Theme	No.	%	Example Comments
Better Accessibility - Vans / Cyclists / Pedestrians	108	28.1	 Better access for residents without cars. Let cyclists with bike trailers use the centres. Completely inaccessible to people without cars. People without cars are penalised yet they are taking the biggest steps for our environment. It is frustrating to be told that we need to do more ecologically when we are already making the biggest green sacrifice by not running a car and thus facilities are not available to us. Allow those without cars (i.e. on bicycles) to be able to use the centres. Recycling provision throughout the city is poor. Accessibility and location need to be improved.
Concerns around lack of Household Recycling Centres in Cardiff	77	20.0	 The promised recycling centre in North Cardiff. Stop selling off recycling centres and replace them asap. You took away the centre on wealth road and it now takes me an hour round trip if I am able to do it myself. Large centre in north Cardiff not the pretend one proposed in Llanishen.
Return of general waste tipping	42	10.9	 Opportunity to throw general household waste. Bring back general waste tipping. Even if for a limited amount per household. Taking the function away does not mean it ceases to exist!! More scope for general non recycling waste to be taken for when you are having a sort out.
Staff Issues / concerns	31	8.1	 Currently none of the site attendants appear to be willing to assist lone residents unload their vehicles. Less rude, unhelpful, obstructive behaviour from staff at Lamby way would be nice.
Better signage / Site plans / info before visit	30	7.8	

			 A plan of the recycling centre so that I can see which bins are where. This could be online or on site and would save time when looking for the right bin. Information on what to separate before attending the sites. That way we could pre-sort at home rather than picking through the items at the recycle centre.
Greater Recycling Facilities / Less waste streams	25	6.5	 Being able to recycle more items at these centres, such as food waste and plastic bags (currently only offered in some supermarkets), plus other unusual things like toners/ink cartridges. No reason why nearly all waste can't be separated and either recycled or disposed of in a better way. Recycling of tetra packs at Lamby way - we currently have to drive across the city to do this, which isn't very environmentally friendly.
Concerns around restrictions - Site visits / Booking system	21	5.5	 You should not need to book; you do not need to keep or process the data. You used to NOT allow for multiple same day bookings - which is useless if you have a day off work to have a clear out. As per - you have introduced too much red tape and layers of admin. Make it free, easy and accessible to all Cardiff residents. Remove booking, remove the limits.
Pop up / Temporary collection sites in local communities	17	4.4	 Containers across the city, in your local area to take items as 2 centres far from me and cost to travel and not for short trips/ little waste so I could recycle more effectively if we had local bottle, clothes, paper, containers.
Positive system / staff comments	11	2.9	Customer service at recycling centres excellent.
Introduce a repair café / second-hand donation site	8	2.1	 I see a lot of things being thrown away that could be reused, an onsite shop would be a great way to encourage people not to throw away items in good condition.
Opening Hours	7	1.8	

Total Respondents	385	-	
Misc.	18	4.7	Recycling Centres are a waste of time.
Concerns around parking facilities / road surfaces	7	1.8	 Please remove the need to reverse your car into spaces at Lamby way - it's a nightmare. The old system on the new site was much better.
			 Longer opening hours. I used to be able to drop off waste at a recycling centre either on my way to or from work as they were open 7am to 7pm.

N.B. Percentages do not total 100% as respondents' comments could fall into more than one theme

Appendix P - Do you have any further comments in relation to Household Recycling Centres?

Theme	No.	%	Example Comments
Concerns around location / lack of Recycling Centres	216	28.3	 I live in North Cardiff and am still waiting for the promised recycling centre when it was taken from Wedal Road, and we were told Lamby Way wasn't hard to travel to. Need local recycling centres. It is too far to travel to use the two existing HRC's. There should be a permanent HRC in North Cardiff. Their current locations are not appropriate or the majority of households. Lack of alternative provision when sites have been closed.
Positive staff / service comments	129	16.9	 The staff at the sites are always polite and very helpful. The staff are brilliant and super helpful. I think they are very well managed. My mother really appreciated the kind help she got when she took a carload of green + wood waste. Thankyou.
Remove Restrictions - Booking System / No. of site visits per year	119	15.6	 The booking system is horrendous. I think it should be removed. The ability to attend whenever you want will increase recycling and compliance. The booking system is too cumbersome and time-consuming. I like to visit recycling centre spontaneously sometimes. In certain situations, multiple visits per day may be required. For example house moves/clearances or major DIY projects or garden clearances. Shouldn't have a limit of how many times you can visit and should remove the pre booking system.
Better Accessibility	88	11.5	 There should be some facility that is open to people who don't own cars. I have to save a lot of things which can be recycled, e.g. tetra Pak which are not large, but I can only recycle them if I can drive.

			 They are not a solution for people without cars. Are you taking into account Cardiff is trying to reduce car ownership? If household recycling centres in Belfast can manage to provide unrestricted access to pedestrians, so should those in Cardiff. Please end this discrimination against taxpayers without a car.
Negative staff / service comments	45	5.9	 The recycling centres are restrictive and many of the staff unhelpful, some even rude. It's very hard to use when disabled - no support from staff.
Offer greater recycling facilities	40	5.2	 There should be greater ability to recycle polystyrene items, crisp packets and other items that are currently only recycled by specialist providers. I know many people would be happy to store these until ready to recycle at the centres. Hard plastics and similar items. I've previously been told to throw them in general waste which was annoying after making a special trip. Spring is here. What's happening with flower and plant pots?
Allow general / mixed waste tipping	39	5.1	 Very occasionally households produce more mixed waste than will fit in the small black bins or may be due to go on holiday and miss bin collection date. There should be somewhere to be able to take mixed waste in those circumstances. Please start taking black bags at the refuse centres and not recycling, I recycle 80% of waste and yet my black bin us still too small and I have one back a week I cannot put in, so I've bought a shed to store access black bin waste in.
Introduce a repair / reuse centre	28	3.7	 It would be nice to have a area for items people think are too good to recycle, perhaps a worker can then sort items or liaise with local charities before they go to the skips.

Signage / Layout suggestions	27	3.5	 Visiting the recycling centres seems to have got increasingly complex, which is putting people off going and probably contributing to the terrible amount of fly tipping in the city. We need more centres and for it to be clearer what can be recycled where in each centre. I do want to add that all of the staff at Lamby way are lovely and very helpful!
Introduce Pop up / Temporary collection sites in local communities	22	2.9	 More pop-up areas would be welcome such as Ty Glas.
Introduce a home collection service	12	1.6	 I'd love to have help to use them, but I don't have any transport, could there be a monthly vehicle to visit if needed to collect our bulky waste.
Increase Awareness	5	0.7	 Morning re Facebook / social media interaction. Giving advice of good practices and bad practices.
Greater enforcement for people misusing the system	4	0.5	 In Grangetown citizens misuse green bags so they should be fined.
Misc.	44	5.8	 Leave it as changes and charges in the current climate will lead to suicides. Just make it easier.
Total Respondents	764	-	

N.B. Percentages do not total 100% as respondents' comments could fall into more than one theme

Appendix Q - Are you aware of Terracycle initiatives, to recycle 'hard to recycle' items such as crisp packets, cleaning products, food pouches? If yes, do you use the service? If no, why not – Other

Theme	No.	%	Example Comments
Don't have the time / Insufficient Storage / Space to store and recycle numerous items	36	30.5	 I don't have time and not enough space to store items between drop-offs. It's too difficult to store and recycle different things. Too time consuming. Don't have room to store individual recycle waste. Not hygienic to store all the different containers etc. It's too much effort to store it all up to then take to the centre, we do not have the internal storage space.
Location / Collection / Drop off point not convenient	18	15.3	 Difficult to drop off at times when open. I would have to drive (not very green) to access a collection point. Only once a week on a Saturday morning not at all convenient for me. Collection point keeps moving, timing is inconvenient.
Accessibility Issues	14	11.9	 I'm disabled and can't drive so I can't go carry rubbish around with me. Difficult to access. I don't have a vehicle to get there.
Poorly advertised / lack of information / find it confusing	13	11.0	 Lack of information about how to make proper eco-bricks plus lack of places to take them to. Poorly advertised services. Tried to find one but website was really confusing.
Use service at local supermarket	9	7.6	 I recycle soft plastic at the Coop. Take soft plastics to the supermarket.
Don't have the need	7	5.9	I don't produce much of this waste.

			Don't generate much.
Unsure if initiative is still running	5	4.2	We used to before covid, but routine was interrupted when lockdowns hit.
Not cost effective / quality of end product	5	4.2	Very expensive to do on a personal level.
Council's Job	4	3.4	 Buck passing by Council in a weak attempt to comply with Senedd's increasingly onerous diktats. There comes a point where these requirements become unreasonable. That point has been passed.
Bin size	2	1.7	The local bins are very small and usually full.
Misc.	10	8.5	 They are still in a bag in my house waiting for me to do it! It's a waste of time.
Total Respondents	118	-	

N.B. Percentages do not total 100% as respondents' comments could fall into more than one theme

Appendix R - When you no longer have a use for a large household item, for example a dining table/sofa, how do you remove it from your house – Other

Theme	No.	%	Example Comments
Pay for a commercial registered company	21	25.0	 Pay for removal by registered clearance company. Book a commercial disposal as the lead times for Council collections mean I have to store the items for weeks/months before collection. Use a private waste management company. Employ a registered waste carrier. Pay a private contractor.
Offer to family / friends	14	16.7	 Offer it to younger generation family members. Always offer to family first. Ask friends and family if they want the item.
Leave outside for scrap metal dealers	9	10.7	 If it is metal, I leave it in the forecourt and the Scrap Metal dealers often remove it. Put it kerbside for ironmonger collection where possible. Saw it up & leave metal parts for scrap metal collectors.
Freecycle	7	8.3	Offer on Freecycle and Olio.Free via gumtree.
Dismantle and put into black bin	7	8.3	If its wood I cut it up and put in black bin.Cut it up and bin it.
Concerns around Council Bulky Waste Collection service	7	8.3	 This is an area that the Council could massively improve on - there just aren't enough facilities for disposal of these types of things. Incredibly hard to try and give away (charities are fussy, freecycle etc people just don't turn up!). Paid a national organisation to remove it as the council service was impossible to book in a timely manner.
Skip	6	7.1	Book a skip.

			 Paid for a skip as the waiting list was months and couldn't store it in the house so got wet and you wouldn't take it anyway.
As vulnerable / cost conscious limited options for me	4	4.8	I have had a wooden table in my front garden for almost a year now as I can't lift it being disabled and can't afford to get it collected.
Book Bulky Waste Collection from Council	3	3.6	 It depends on whether it still works or not. Last couple of times I booked bulky waste collections I put it out in the morning as instructed, but the scrappies beat you to it, and I just got a missed collection notice from your guys. So lost recycling tonnage and wasted journey/money.
Take to Recycling Centre	3	3.6	If I have to, cut it up and take it to the recycling centre.
Burn it	2	2.4	Chop some items up for firewood.
Misc.	7	8.3	Try to live with it.Depends on what it is made of.
Total Respondents	84	-	

Appendix S - How do you think the Council could reduce, or support initiatives that reduce single use plastic across the city – Other

Theme	No.	%	Example Comment
Tax on plastic / Ban sale/ restrict use of single plastic	218	22.9	 Persuade businesses not to use single use plastic if at all possible. Force companies to stop using so much single use plastic. Ban the sale of items sold in single use plastic containers. Plastic tax. Enforce shops and manufacturing to use recyclable materials in the first place.
Support Initiatives - Incentivise / Lower taxes for environmentally friendly businesses	205	21.6	 By lowering business rates for appropriate businesses. Assist independent zero waste shops. Tax relief for businesses that take part. Reduce business rates for retailers who provide re-fill in their shops. Subsidies for shops that provide package free produce e.g. rice, shampoo etc to enable them to make their products cost effective in these difficult financial conditions.
Greater Legislation / Fines / partnership with Businesses / Manufacturers	192	20.2	 Put pressure on supermarkets who use unnecessary plastic packaging. Pressure companies to stop producing them. Pressure business to drive change. Work with supermarkets and takeaway business to reduce single use plastics. Better support businesses that don't use or sell plastic items or packaging. Legislate against the manufacturers!
More Education / Awareness / Advice / Support	190	20.0	 Needs more advice for people. Education & information. Increased awareness of any schemes. Targeting primary and secondary schools for education and alternatives. I don't know the difference between single use plastic and other types. How does one

			find out? Should it not be printed on the green plastic sacks?
Foster reuse / refill culture	153	16.1	 Provide reusable containers for lower income households, to take to re-fill stations. Hygienic filling points, and perhaps Council logo aluminium bottles for re-filling to pupils etc. More availability of refilling stations. Free/subsidised containers for low-income houses. Recyclable/reusable recycling containers, including public bins.
Greater focus on takeaway establishments / Cafes / Bars	78	8.2	 Charge takeaways that don't use recyclable stuff. Make Cardiff "plastic free" work with businesses to support them to move to plastic free e.g. hotels, takeaways, bars & pubs etc.
Install Water Fountains	62	6.5	Increase areas where free water is available.Water stations in public places.
Use Compostable or recyclable bags / packaging	59	6.2	 The green bags are much more convenient to use than the hessian sacks, it encourages house to participate in recycling. Perhaps the council could Make the single use plastic bags biodegradable and environmentally friendly. Change the green plastic bags to recyclable one use bags, like the ones that the Which magazine gets delivered in.
Council to lead by example	58	6.1	 Aim to not use single use plastics across all Council activities and premises e.g. crisps / sandwich wrappers/ water bottles. Stop any council run event using single use plastic.
Don't know	54	5.7	I really don't know. It's one thing to improve recycling opportunities but not sure how you

			 would influence consumers to change their habits in terms of what they buy. Not sure what the council could do beyond what is already done.
Incentives	53	5.6	 Encourage by reward, e.g. vouchers to reduce resident parking fees or council tax rather than fining non-compliance. Incentives such as a cheaper product if bringing your own container.
More resources for better recycling	52	5.5	 Bring back local skips. Provide collection bins in local shops/supermarkets.
Needs a national approach	41	4.3	 See my earlier response. This needs a UK wide approach and local authorities cannot realistically move the dial without central government mandating changes from manufacturers.
Bins not bags	23	2.4	Have a wheelie bin for recycling, the green bags are too flimsy and break easily.
Greater provision on match days / events	17	1.8	 Joined up approach with local businesses. E.g. match days and large events that see large amounts of single use plastic cups throughout town. The council could look with businesses and provide reusable cups that need a deposit. They can then be returned to a bar/premises for their next drink or their deposit back. Or kept by the customer if they wish to keep it. There will still be some waste, but it will reduce the amount.
Council to collect all plastic	13	1.4	Provide collection of all plastic.
Cost, time and money	10	1.1	Support but not a cost of taxpayer.

Hygiene concerns	7	0.7	 Don't know, but re-fill is not the answer. Dirty grubby people touching things that you will then use your stuff to refill. Disgusting thought.
More important things to worry about	6	0.6	 Should concentrate on other important things like state of roads and affordable housing.
Look at initiatives in other countries	4	0.4	 Look at how Amsterdam run by local council, plant pine trees in the inner city, including lanes giving people sense of well-being as a result behaviour would change gradually.
Misc.	76	8.0	 I am not convinced it is a viable option for public consumption at the present time. Ban wearing of face masks - they are everywhere.
Total Respondents	950	-	

 $\label{eq:continuous} \mbox{Appendix}\,\,\mbox{T-Do you participate in any of the following, which aim to prevent waste-Other$

Theme	No.	%	Example Comments
Repair / repurpose Items / upcycle	31	23.5	 Repair and reuse where possible. I repair small electrical items (I am qualified to do this) Encourage free repair locations say once a month at Hubs. I would volunteer. Repair shoes, clothes etc. Repair if possible all domestic items specifically mechanical & electrical.
Use no packaging options - Loose fruit & Veg / Soap / ethical wrapping / reusable shopping bags	26	19.7	 Chose no-packaging options e.g. buy loose fruit & veg at a market/greengrocer instead of plastic-wrapped/bagged supermarket option. Only use soap instead of shower gel, bottle shampoo etc. Take Tupperware to Morrisons for meat/fish etc. leave packaging at supermarket where no option. Not buy pre-packaged food.
Social media sites - Freecycle / give away unwanted items	19	14.4	 Social media platforms for recycling within the community. Use Too Good to Go app to help reduce food waste. Giving away items I no longer need rather than sending to landfill.
Charity shops / 2nd hand goods	18	13.6	 Donate all clothes, toys and books in good condition to charity rather than putting into black bin. Shop in charity shops for books and CD'S. Take unwanted items to charity shops.
Use Repair Shops / cafes	15	11.4	 We use Repair Cafe facilities in Canton and Fairwater. Use of repair shop Wales. I volunteer at a monthly Repair Cafe where we try to repair items rather than see them thrown away.

No Unnecessary Buying / Buy based on need not want	13	9.8	 I don't pander to the pressure to continually buy things I don't really need. Repair old equipment and consume less generally - a simpler way of life.
Compost / Wormery / Allotment / Home growing	10	7.6	 Grow our own in allotment and compost garden waste there. We need more allotment spaces. Wormery.
Reusable / Washable nappies / sanitary products	9	6.8	 Reusable sanitary items bit like nappies but for menstruating females. Reusable sanitary protection.
Recycle single use plastic products	6	4.5	 Wash and re-use 'single-use' plastic bags, bottles and food packaging, but 2nd hand clothes and repair when broken, use bees wrap food wraps.
More action needed for manufacturers / big business	6	4.5	 I don't understand why you don't realise that I personally don't produce a lot of waste. It's on all the stuff you buy. Make manufacturers more responsible for using less protective packaging on their PR.
Would like to see more refill / zero waste stores	3	2.3	 Would like more on refill and zero waste shops. Should be more publicity.
Misc.	22	16.7	 Drive a hybrid car. Follow my own education & not yours. Educate others, lobby school to improve practice.
Total Respondents	132	-	

N.B. Percentages do not total 100% as respondents' comments could fall into more than one theme

Appendix U - Would you like to see the Council doing more to promote waste minimisation initiatives? If yes, what options do you think we should explore – Other

Theme	No.	%	Example Comments
Make more resources available - repair shops / libraries of items etc.	37	27.6	 Help support repair cafes and help extend "libraries of things" ideally through the hubs. Libraries of things (e.g. household tools, toy libraries, baking cake moulds/equipment, baby equipment (highchairs etc), instruments). Expand the number of re-use centres / shops Send out information on places to get small electricals repaired, e.g. mobile phones, printers, etc. Encourage a repair culture. Consider working in partnership with the Repair Cafe network to increase usage.
Better partnership / enforcement -in particular big business / manufacturers	32	23.9	 Massive fines for businesses or manufacturers making the waste to begin with, why can't we just buy things with minimal packaging, the amount of cardboard I go through alone each week from food packing alone is beyond, just waste, the info could be digitally printed onto clear 100% recyclable sourced plastic/paper packing. Legislate to force supermarkets to only supply recyclable packaging. Work with businesses to support innovation to reduce single use containers for food delivery. Get businesses to reduce their plastic waste and force them to take back the plastic waste they force their customers to take.
Foster a reuse culture	28	20.9	 Incentives provided to households for innovative reusing and repurposing ideas. Washable incontinence products where feasible. Promote wool over nylon and other plastic fibres. Reusable recycling containers must be washable. Donate refill items.
Education is key	23	17.2	

			 Until we re-educate everyone that the throw away and replace society is not good for the environment, we are facing an uphill struggle to minimise waste. More education. I've never ever heard of "real nappies", or "refill locations" or what they actually refill. Work with universities and colleges to educate students.
Partner with existing initiatives / 3rd sector	12	9.0	 Partner with existing initiatives like Benthyg Cymru. Use third sector groups to repair or recycle e.g. Men's heds, Repair Cafes, tools with a mission and similar initiatives. Try to make funds are available to support them unconditionally.
Have a community approach	12	9.0	 More support for community 'borrowing'. I would like to see support for community composting. For instance my street could replace on parking space with a communal composting bay.
Home composting initiatives	11	8.2	 Provide or sell compost bins to households. Availability of compost from green bins to householders to use in their gardens.
Tweak the system to accommodate different waste streams	8	6.0	 Have the last Friday of every month be furniture recycling day as in some German states. People put out the furniture they don't want on a Friday, anyone can come and pick it up on the Friday. On Saturday if it's still there, the council takes it to Charities that resell it. Collect recyclable materials such as plastic bags, film lids, tetra oaks etc as have to collect these separately and take to Sainsburys.

Minimise food waste - with cooking tips - leftover recipes	7	5.2	 Teach people to cook and use leftovers. Encourage more businesses to donate excess food on Olio or food charities (Tesco, Starbucks, chains with expired food).
Simplicity is key	7	5.2	 Make it much easier for people to dispose of things well where it's possible. Collect everything from residents and reduce the amount that has to go into black bags and landfill.
Consider vulnerable people	2	1.5	 Encouragement is always good, I and remembering that even with education and encouragement some people will simply not understand or be able to comply. Due to issues like mental health illnesses or special needs like autism.
Misc.	23	17.2	 I have answered to yes above but it where there are incentives, they should be for low-income families. Use products only sourced/made in Wales/UK. Don't offer incentives when not everybody can benefit.
Total Respondents	134	-	

N.B. Percentages do not total 100% as respondents' comments could fall into more than one theme







Separate Recycling Pilot

Survey Results March 2022



Gweithio dros Gaerdydd, gweithio gyda'n gilydd Working for Cardiff, working together















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Background

We need to improve our recycling rate. Cardiff currently recycles 58% of its waste, and while this is a strong performance for a core city, we are the lowest performing council in Wales. We should be recycling a minimum of 64%, and Welsh Government has asked us to make immediate improvements.

The Council has recently undertaken a separate recycling collection pilot for 4,000 homes across Cardiff in an effort to improve the quality of material we collect for recycling. We are also taking action against the 24 million single use plastic bags we issue every year.

The separate recycling pilot asked residents to split their dry recyclable material into 3 separate containers. A red sack for containers/packaging, a blue sack for fibres (paper and cardboard) and a blue caddy for glass bottles and jars.

The views gathered in the survey will help us to understand how you have found using the new service.

Methodology

Households taking part in the pilot were sent a letter with details of the survey and asked to give their views and experiences of the scheme.

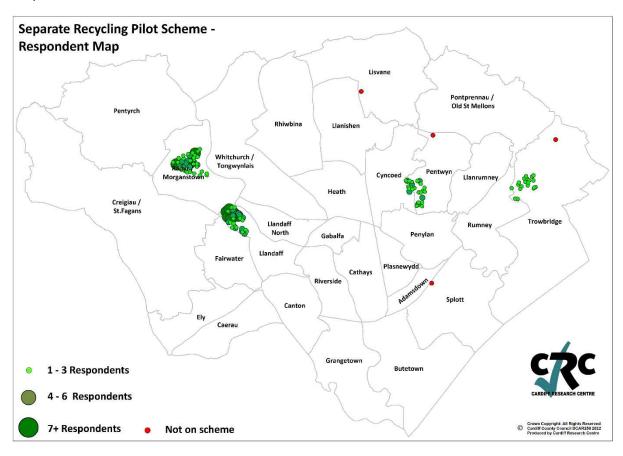
Links to the survey were also made available on the Have Your Say page of the Council's website.

Results

A total of 363 responses were received after data validation removed blank and duplicated responses. This number is too small to provide statistically robust data for sub-groups, so this provides the analysis of results overall.

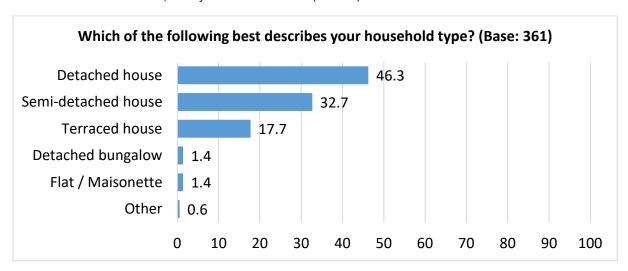
Please provide your postcode to allow us to more accurately pinpoint residents' views and needs by trial area:

Of those taking part in the survey, 332 provided their full postcode, which are shown in the map below:



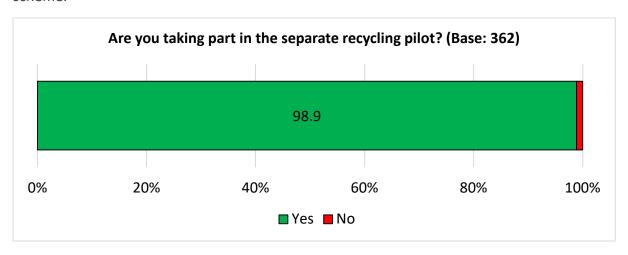
Which of the following best describes your household type?

Almost half (46.3%) of respondents lived in a detached house, with around a third (32.7%) in a semi-detached house, and just under a fifth (17.7%) in a terraced house.



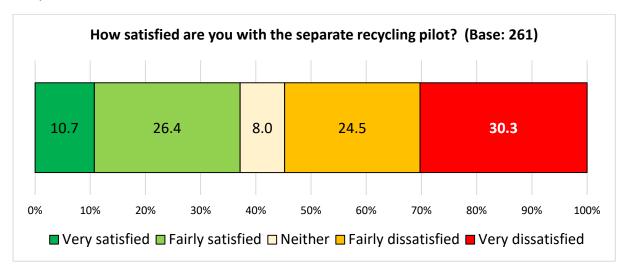
Are you taking part in the separate recycling pilot?

Just four respondents to the survey had not taken part in the separate recycling pilot scheme. Those answering 'No' to this question were not asked questions about the pilot scheme.



How satisfied are you with the separate recycling pilot?

Overall, 37.2% of respondents described themselves as satisfied with the separate recycling pilot, compared with 54.8% who felt dissatisfied. Three in ten respondents (30.3%) felt 'very dissatisfied'.



If dissatisfied, please tell us why:

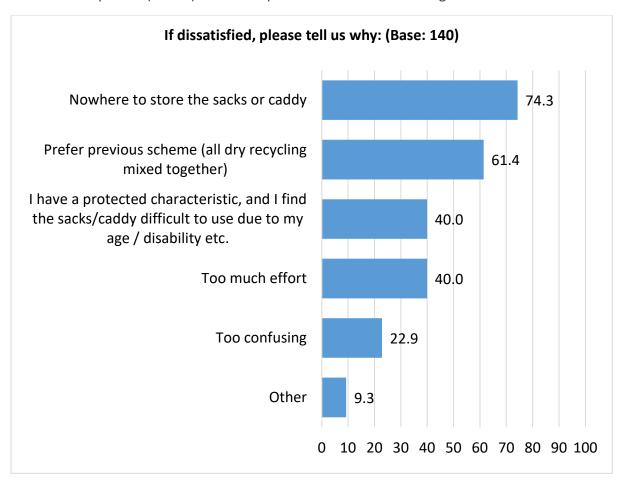
Respondents describing themselves as dissatisfied were asked to explain why.

Storage was the biggest issue, with three-quarters (74.3%) of respondents reporting they had nowhere to store the sacks or caddy provided for the pilot.

Three-fifths (61.4%) of respondents stated they preferred the previous scheme where all dry recycling was mixed together in a green bag.

Two-fifths (40.0%) of respondents found it difficult to use the sacks or caddy due to a protected characteristic such as age or having a disability. The same number (40.0%) found the separate recycling 'too much effort'.

Just under a quarter (22.9%) found the pilot scheme 'too confusing'.



Those answering 'Other' were asked to give further details – 53 comments were received, and grouped into the following themes:

Theme	No	%	Example Comment
Concerns around	35	66.0	 The recycling bags are poor quality, the weight
sack quality / design			used is insufficient to stop getting blowed down
			the road and the Velcro is difficult to use

Health & safety	28	52.8	 The bags blow about even in very light wind and then scatter litter The sacks don't close properly exposing the contents to rain. Also, flimsy and always have some paper and plastic items left inside after collection. Unsuitable, unfit for purpose plastic sacks The bags get put out and dogs urinate on them, which is disgusting. In Storm Eunice, traveling
			 around was a plethora of abandoned bags and boxes. Once emptied they blow onto the road causing a hazard to pedestrians and traffic alike. If anyone had done any sort of risk analysis on them, they would have realised that they are a health and safety issue. They blow around everywhere in bad weather, with everything spilling out, and smell of cat's urine when you bring them in.
Lack of specialist waste vehicles	12	22.6	 It is utterly stupid and ridiculous that the council makes the householder go through the separation of various dry waste products and then see the incredible sight of the bin-men dumping it all in the same truck!! It has been most disheartening after the effort we have made to segregate our recycling to see the contents of both red and blue sacks thrown together in the collection vehicle. It makes me feel I am wasting my time and wonder if I will bother in future.
Too awkward to use/store	7	13.2	 My mother is 96, lives on her own and is also part of this trial. She has always recycled but finds this separation beyond her. Too many bags/bins to carry down our long driveway - we now have six recycling bins with nowhere to put them in the house/garden - where are we supposed to store six bins? We are able to carry all six of the recycling bins now, but what about when we get older?
Other	4	7.5	 More waste is going in black bin as not deemed clean for the red bag. This is meaning users are either dropping the old green bags in areas that are not partaking in scheme or alternatively putting black bag waste in street bins!!! Your comments that the incorrect material recycling figures have improved will not correlate with the

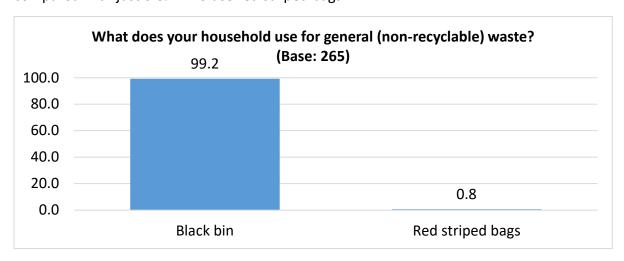
increase in rubbish / pressure put on local street bins in the area.

If you are not taking part in the separate recycling scheme, how are you disposing of these items?

Respondents not taking part in the separate recycling pilot were asked how they disposed of the items that were covered by the scheme. Three of the four responses received indicated these items were put in the green recycling bags for the co-mingled recycling collection; one respondent put them in their black bin or red striped bag.

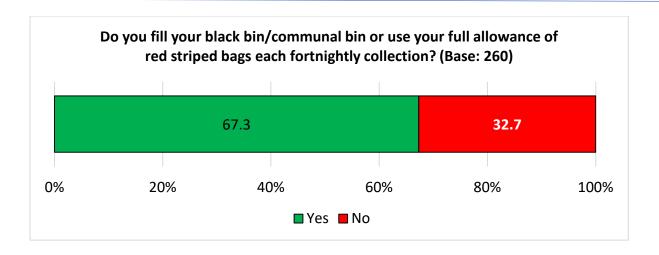
What does your household use for general (non-recyclable) waste?

Almost all respondents to this question (99.2%) used a black bin for their general waste, compared with just 0.8% who use red striped bags.



Do you fill your black bin/communal bin or use your full allowance of red striped bags each fortnightly collection?

Two-thirds of respondents (67.3%) stated they filled their bin or used their full allowance of red striped bags every fortnightly collection.

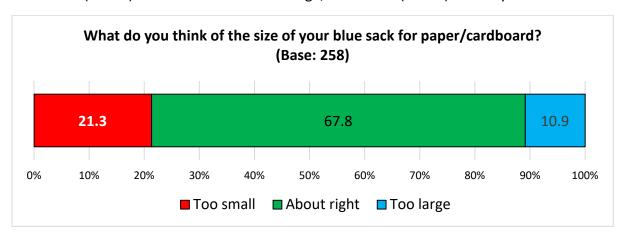


Paper and cardboard is collected in a blue, re-usable sack. The sack is 90L. A standard green recycling bag is 60L in comparison. The sacks are weighted at 500g, which is the standard weight used across Wales. The sacks also have a lid, which is secured by Velcro.

What do you think of the size of your blue sack for paper/cardboard?

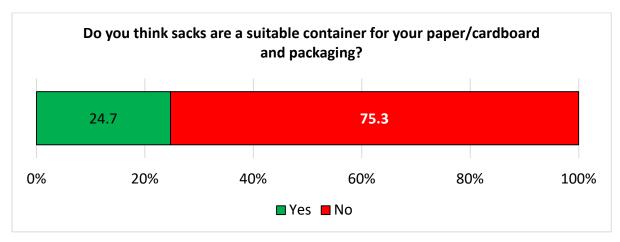
Typically, respondents were happy with the size of the blue sack used to recycle paper and cardboard, with 67.8% describing this as 'about right'.

One in ten (10.9%) felt the sacks were too large, one in five (21.3%) felt they were too small.



Do you think sacks are a suitable container for your paper/cardboard and packaging?

Just a quarter of respondents (24.7%) felt the sacks were a suitable container for paper and cardboard packaging.

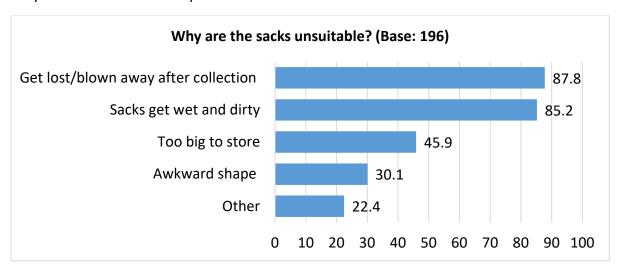


Those who didn't think the sacks were suitable were asked to explain why.

If no, why not?

More than four-fifths of respondents reported that the sacks get lost or blown away after the recycling has been collected (87.8%) and that the sacks get wet and dirty (85.2%).

Just under half (45.9%) found the sacks were 'too big to store' and three in ten (30.1%) felt they were an 'awkward shape'.



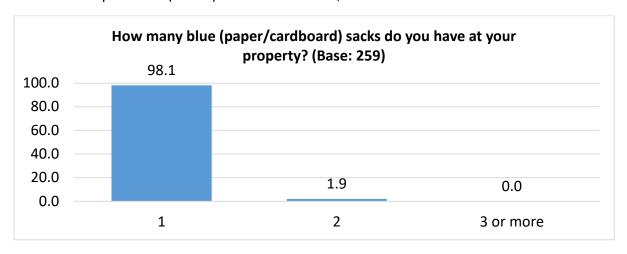
Those answering 'Other' were asked to give further details – 41 responses were received, and grouped into the following themes:

Theme	No	%	Example Comment
Concerns around sack quality / design	28	68.3	 Shredded paper came out of the top in high winds and blew around. Container was quite heavy to lift when full The sacks are not waterproof so cannot be stored outside. The graphic showing what is not allowed is not clear - why not have only the paper pictures on the sack or cross out the unwanted materials with a much heavier line. Also, the sack is not marked with house number so difficult to retrieve correctly when the bags have blown around the street If it's raining the contents get wet as there is a gap at the sides of the handles.
Bags cause obstructions / Health & safety issues	14	34.1	 Once open wind takes it into roads and gardens. Very, very dangerous having to avoid them. We have had increase of contents in road and magpies, crows and seagulls making most of it Get dumped in the middle of the courtyard causing an obstruction. sharp materials can cause cuts to hands

Storage Issues	7	17.1	 Where are people supposed to store them, particularly when they are wet? we have now garbage blown all over the place because people do have nowhere to store these sacks
Heavy / Awkward	4	9.8	Too unwieldy for me as a disabled person to handle.Surprisingly heavy when full
Other	2	4.9	 Not suitable in any way, shape or form.

How many blue (paper/cardboard) sacks do you have at your property?

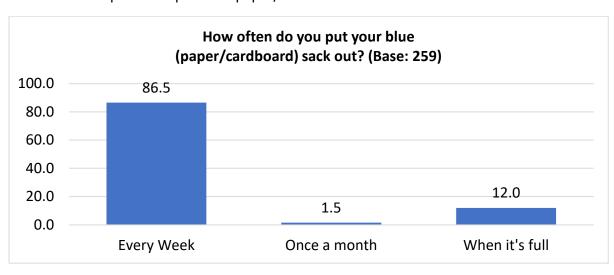
Almost all respondents (98.1%) had one blue sack; no-one had three or more.



How often do you put your blue (paper/cardboard) sack out?

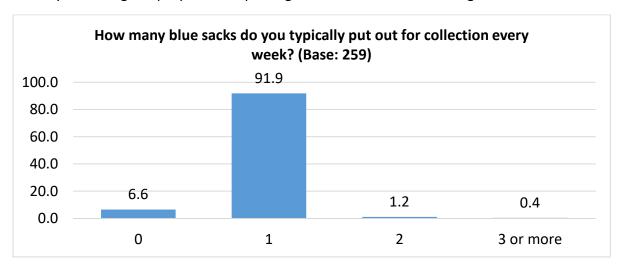
Around seven out of eight respondents (86.5%) put their blue sack for paper and cardboard out for collection every week, one in eight (12.0%) waited until the bag was full.





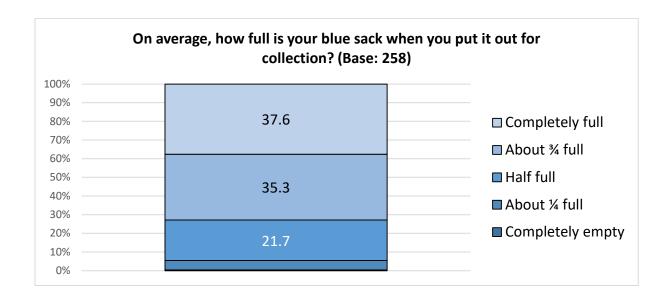
How many blue sacks do you typically put out for collection every week?

Nine in ten respondents (91.9%) typically put one blue sack out for collection every week, broadly reflecting the proportion reporting their household had been given one blue sack.



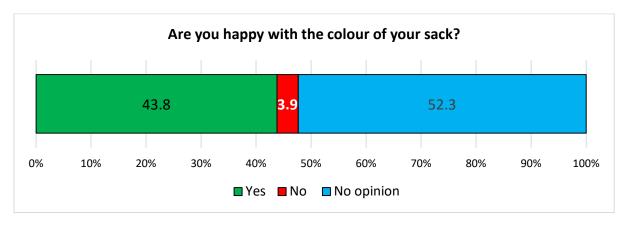
On average, how full is your blue sack when you put it out for collection?

Almost all respondents (94.6%) reported that their blue sack was at least half full when put out for collection, with more than a third (37.6%) stating that it was typically completely full.



Are you happy with the colour of your sack?

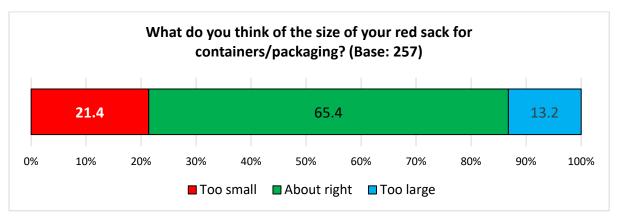
Over half (52.3%) had no opinion on the colour of the sack for recycling paper and cardboard; 43.8% were happy with the colour, whilst 3.9% were not.



Packaging (cans, tins and plastic bottles/tubs/trays) is collected in a red, re-useable sack. The sack is 90L. A standard green recycling bag is 60L in comparison. The sacks are weighted at 500g, which is the standard weight used across Wales. The sacks also have a lid, which is secured by Velcro.

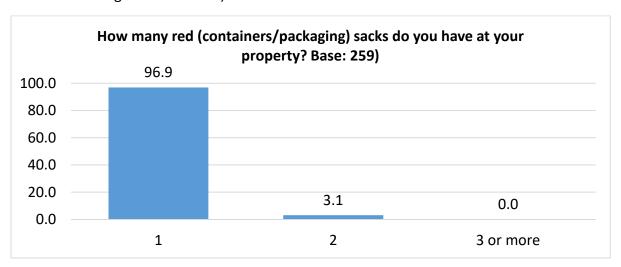
What do you think of the size of your red sack for containers/packaging?

Around two-thirds (65.4%) of respondents felt the red sack was about the right size, compared with 67.8% for the blue sack; 13.2% felt the red sack was too large, whilst 21.4% felt it was too small (reflecting the findings for the blue sack).



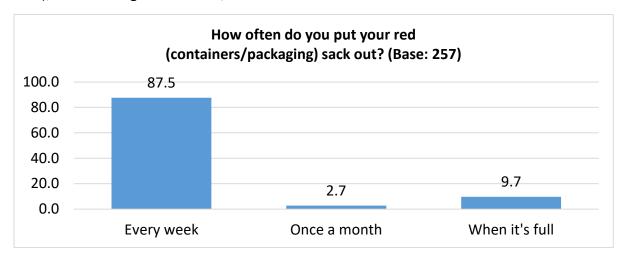
How many red (containers/packaging) sacks do you have at your property?

Most respondents (96.9%) had one red sack for their household, 3.1 had two (compared with 1.9% having two blue sacks).



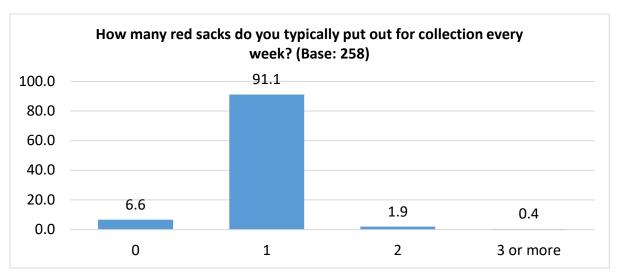
How often do you put your red (containers/packaging) sack out?

Seven out of eight respondents (87.5%) put their red sack of containers/packaging out for recycling collections every week (on a par with the 86.5% for the blue paper/cardboard sack), 9.7% waiting until it is full, and 2.7% once a month.



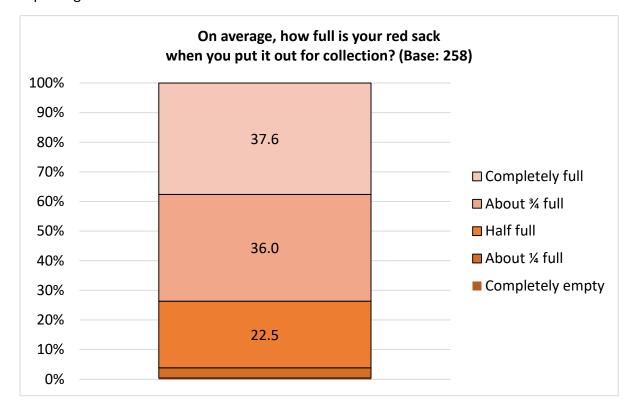
How many red sacks do you typically put out for collection every week?

The proportion of red sacks put out for collection every week matched that for the blue sacks, with over nine in ten (91.1%) putting one sack out every week (again reflecting the number of sacks each household reported to have).



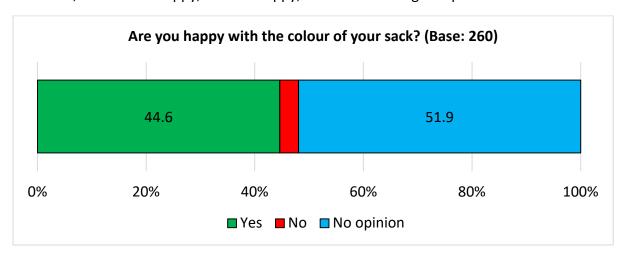
On average, how full is your red sack when you put it out for collection?

Again, the findings for the use of the red sack matched that of the blue sacks, with just over a third (37.6%) reporting it was 'completely full' when put out for collection, and 96.1% reporting the sack was at least half full.



Are you happy with the colour of your sack?

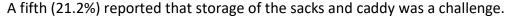
Again, the findings for happiness with the colour of the red sack reflected that seen for the blue sack, with 44.6% happy, 3.5% unhappy, and 51.9% having no opinion.

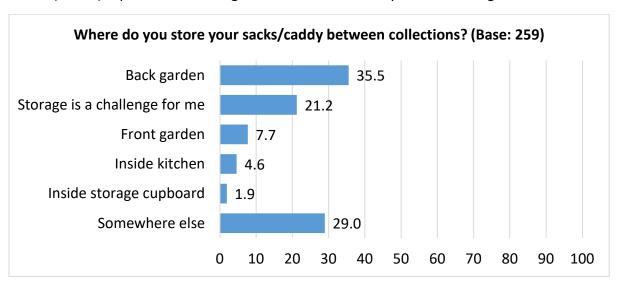


Where do you store your sacks/caddy between collections?

Respondents were given a list of options, and asked which they used to store their sacks and caddy for the separate recycling pilot.

Most respondents reported storing the sacks and caddy used for separate recycling in their back garden (35.5%), with a further 7.7% using their front garden, and 6.6% storing them inside.





If somewhere else, please specify:

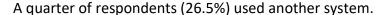
Those who said their store the sacks and caddy somewhere else than this list of options provided were asked for further details – 73 comments were received, and grouped into the following themes:

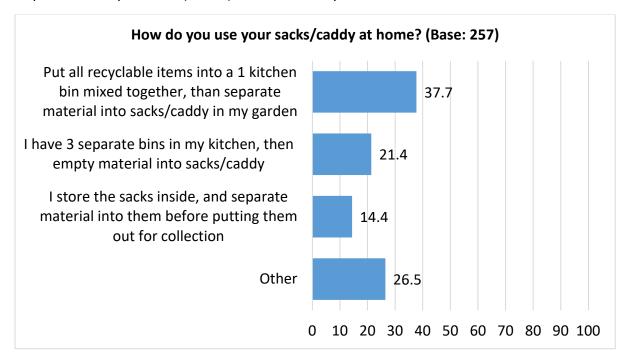
Theme	No	%	Example Comment
Garage / Shed	46	63.0	 I am fortunate to have a garage. I feel sorry for those that do not and have to have this clutter in their houses. In connected garage. Not a problem as they sit where the bins I used to use for green bags Garage, nowhere to keep them in the house too bulky Shed
Inside House	9	12.3	 In the house as I have nowhere else to put them. In cupboard under stairs
Inside another bin	7	9.6	 folded down inside black bin when not in use-take up too much space otherwise Inside green wheelie bin & sort recycling night before collection
On drive/parking space	5	6.8	Parking space at back of gardenEnd of drive near side garden gate
External Alleyway / Passageway	3	4.1	 In an undercover alleyway around the side of our property.
Garden	2	2.7	 Back garden for blue caddy
Other	5	6.8	 Storing is a challenge. Store in a number of locations to help dry/clean them out after each collection, before re-using. I hate putting any bins or caddies or sacks inside the house, even inside the garden. I was lucky enough to find a corner behind a wall, but no other house will be as lucky as I was. It is not clean to store any of these inside the home. Yuk.

How do you use your sacks/caddy at home?

Just over a third of respondents (37.7%) used a single receptacle to store all of their recycling in their kitchen, before separating the contents into the separate containers for collection, while a fifth (21.4%) used separate storage in their kitchen before moving the contents into the sacks/caddy for collection.

One in seven (14.4%) stored the sacks inside, using them to separate the materials as they went along, before putting each out for collection.





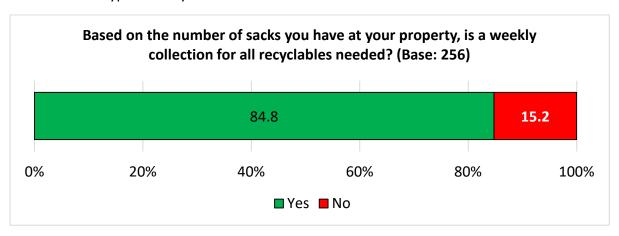
Those answering 'Other' were asked for further details – 64 comments were received, and grouped into the following themes:

Theme	No	%	Example Comment
Take out separated items immediately	35	54.7	 Take items directly to the garage and place in the appropriate sack. I put each item in the correct sack as i go but i find this really frustrating. Items straight into sacks Make numerous trips to the garden to put items in the bags. We just sort it as we go.
Collect indoors then transfer to bags	19	29.7	 I use my recycling bin in house for containers which I empty into red bag once a week It gets piled up in my conservatory, mixed, until it reaches a point where I need to put the rubbish into its respective bag. I do this maybe twice or three times a week.

			_	Put all in a green bag and then sort which is time consuming and inconvenient particularly in winter - dark and inclement weather
Other	13	20.3	_	All waste goes now into the black bin I have stopped recycling completely this pilot so off putting Plastics, tins and paper is inside but glass is outside, but I have a large house. Most houses won't have room to separate recyclables indoors. Recycling bags kept outside in a box (which I bought as they are too flimsy)

Based on the number of sacks you have at your property, is a weekly collection for all recyclables needed?

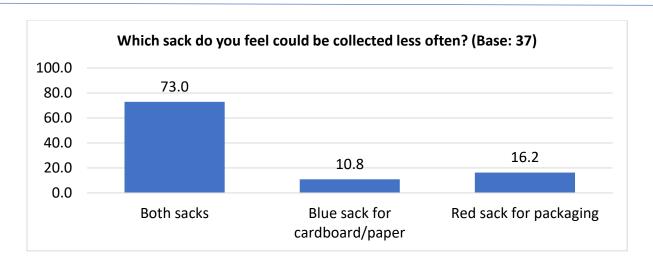
Around six out of seven respondents (84.8%) were satisfied that a weekly collection was needed for all types of recyclables.



Which sack do you feel could be collected less often?

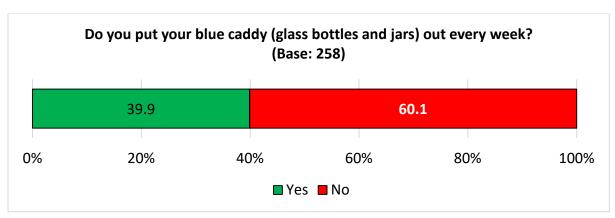
Those who felt a weekly collection was not needed were asked which needed to be collected most often.

Of the 37 responses received, almost three-quarters (73.0%) felt both sacks could be collected less often, 16.2% felt the red sack used for packaging required less frequent collections, whilst one in ten (10.8%) felt the blue sack for paper/cardboard could be collected less than once a week.



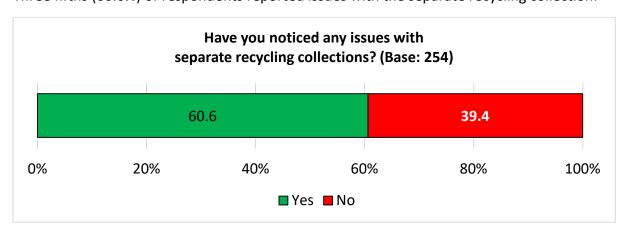
Do you put your blue caddy (glass bottles and jars) out every week?

Two-fifths of respondents (39.9%) reported that they put their blue caddy to recycle glass bottles and jars out for collection every week.



Have you noticed any issues with separate recycling collections?

Three fifths (60.6%) of respondents reported issues with the separate recycling collection.



If yes, please specify:

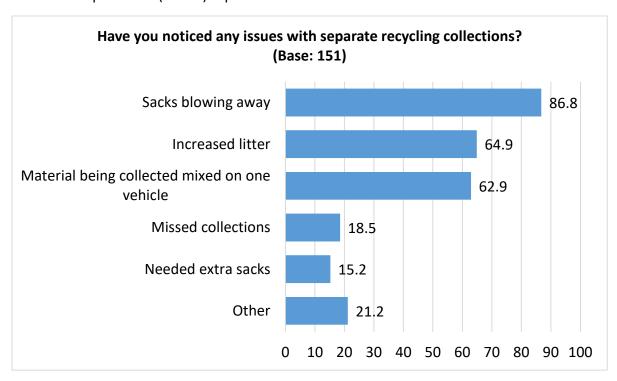
Those noticing issues were asked for further details, and were given a list of potential problems, as well as the option to add comments in their own words.

The biggest issue reported was that of sacks blowing away, with 86.8% of respondents answering this question highlighting this issue.

Over three in five respondents noted an increase in litter (64.9%), or that separated materials were then mixed on the vehicle collecting the recycling (62.9%).

Just under one in five (18.5%) reported missed collections, whilst 15.2% needed extra sacks.

A fifth of respondents (21.2%) reported other issues.



If 'Other', please specify:

Those answering 'Other' were asked for further details – 31 comments were received and grouped into the following themes:

Theme	No	%	Example Comment
Concerns around Collection	9	29.0	 Time of collections is spread too widely through day and night. If we had a 3 hour window the bags and contents would be less likely to spill/ be blown around Shredded paper in blue sacks when being emptied, is haphazardly done, with loads of paper waste falling on the road and No effort made by THE BIN MEN TO CLEAR UP THE MESS THEY HAVE CREATED.

Concerns around sack quality / design	8	25.8	_	Sacks not waterproof, paper gets soaked If you are going to ask people to separate refuse into different waste streams, then the containers must be as user friendly as possible. The bags are completely useless
Bags cause obstructions / safety issues	5	16.1	_	There are so many bins and bags in the courtyard that they cause obstructions, and our elderly neighbours find them a hinderance Now so many separate bins that pavements are blocked in many places causing safety issues
Concerns around reclaiming correct bags	3	9.7	_	Bags in road, very dangerous, trespassing on properties to retrieve lost bags
Other	5	16.1	-	It is a waste of time and resources and will make next to no difference to the final outcome. Please revert to what we had before, i.e., green bags, as many as we need to put out. I now have a black bin, a green bin, a brown caddy, a blue glass caddy, a red bag and a red bag 6 in total. It appears that residents are now expected to carry out Cardiff's recycling program despite paying the local authority to carry this out on our behalf. If it is decided to roll out this scheme and residents do the recycling for the local authority, I will certainly expect a reduction in my community tax.

Do you have any other comments you'd like to make about the separate recycling pilot?

Respondents were invited to leave any comments they felt had not been covered elsewhere in the survey. A total of 177 comments were received, and grouped into the following themes:

Theme	No	%	Example Comment
Concerns around bag design / quality	161	56.1	 The bags are too light and are blown away when empty. I have to locate my bags as they are often in the road or in a neighbour's garden. I have a large piece of wood that the refuse collectors place on the bags to stop them blowing away. The plastic glass caddy can be heavy to move too. The blue and red bags blow around in high winds. The sacks are not fit for purpose as they get wet inside and blow away. Your hardworking staff throw the emptied bins anywhere on the pavement. As they are not numbered, I worry that my bin could get mixed up with any of my neighbours who may have any disease or dirt ridden contents in their bag. The red and blue sacks need to be numbered and made of recycled plastic like the blue ones The woven material is difficult to clean, and the sacks are not waterproof or sturdy enough to store outside but by far the biggest problem is them blowing around the street which can be dangerous. It is not always easy to put recycling into the red sacks. Usually I have to stand on part of the bag, rip the Velcro open with one hand and put recycling in. Sometimes if I try to post things through the gap at the top, things fall out the other side. I love recycling but not sure about the sacks.
Storage	79	27.5	 Storage of sacks an issue. No room inside for so many receptacles and a struggle to find room in the garage. They need spreading out to dry after time kerbside after collection. I can't be lugging sacks through my home. Although the concept is grand the practicality is a different matter - it takes a great amount of space either inside or outside your property to store the bags and bins and most properties are not designed for them. It's too much to store in the small garden we have it's taking over on is unsightly.
Increased litter / Mess / Vermin	55	19.2	— Support recycling and separation of material but very unhappy with these blue and red sacks which
MIG22 / AGIIIIII			very unnuppy with these blue and rea sacks which

			_	are unfit for purpose - causing major littering which is very demoralising. Locally noticed a marked increase in dumping of green sacks and general household waste in the locality directly impacting on wildlife and general environment. Council staff collecting the waste trying to empty the blue caddy into a moving vehicle. This resulted in broken glass all over the road which needed to be cleaned up by torchlight as it was dark at the time of the collection. This was not acceptable as children play in the street and numerous cars using the road could incur punctures.
Collection Concerns	50	17.4	- - -	Why bother to separate when all go into one container? I would like to know what happens at the depot. Until the council have the correct vehicles for collection this is a pointless exercise. What is the point of us separating everything when they just get put together in the truck.
Alternative suggestions / ideas	28	9.8	_	I am a household of only 1 so obviously not accumulating as much waste as a family of 4 so weekly collections maybe required. Propose a wheely sized bin with colour coded draws to store items in or stackable plastic containers. Why do a pilot in easy areas? If you want to do a trial, do it somewhere congested or a busy road.
Generally, against the scheme	25	8.7	_	Abandon it.
				Awful scheme.
Time / energy taken to separate the recycling	21	7.3	_	Makes it more difficult to recycle as need to resort waste. I really don't have the time or energy once I come home from work to go through and separate all my items into these bags, I'm finding if I'm too tired or the weather is too bad to separate, I leave until the following week to put out which is leading to a huge amount of rubbish backing up. I much prefer the green bags, so much easier to put out. I am finding it really stressful.
Positive Comments	20	7.0	-	Very happy with pilot, hopefully this will become permanent. I think it is a much needed scheme to reach the city's goals for recycling.
Concerns around amount and size of bags / caddies	19	6.6	-	How many caddies can one house have? Come Christmas time they will all be full when each house has around 6 green recycling bags and the council have trouble collecting on time.

			_	I now have a total of six bins - black, glass, paper/card, food, plastic/tins and garden - it's unmanageable! I understand the need to recycle and support it but not in this format, it seems that it's more about making the council workers lives easier but the general public's harder. I'm fed up of having to stand in the pouring rain every week to separate my recycling. The bags are not fit for
				purpose and in my opinion - unhygienic. The time it takes me to sort my rubbish out every week has tripled. Surely there is a better way?!
Revert back to green bags	17	5.9	_	Go back to the green bag collection service. the problems caused by the pilot will then cease. Please go back to the original way of using green sack for all recycling waste. Also, it's very difficult to put shredded paper in the blue sack.
Black bin waste has increased	12	4.2	-	Black bin waste has doubled as many items now not able to be placed in sacks e.g. certain plastics, kitchen roll paper.
Waste of taxpayers' Money	11	3.8	_	It's wasted taxpayer money from beginning to end. It disrespects me as a human and my need for health and safety.
More needs to be done around soft plastics / Tetra packs / films	9	3.1	_	As stated earlier, we are very committed to recycling, and want more to be done to make recycling percentage higher but feel that it needs to be made more accessible for people and for less reasons for people not to recycle. also feel that some items should be able to be recycled at home (like tetra packs). to reduce use of single use recycling bags is great, but surely one hard multi use plastic bin, like black and garden waste bins, would make recycling simple and keep percentages higher.
Increased recycling awareness	5	1.7	_	Generally working well and helping to educate people on what should be in the sacks.
Other	35	12.2		We've had to purchase additional waste bins for inside the house. My main concern is that when the sacks are full there will be financial implications for residents, i.e. having to pay for extra collections or having to travel to a recycling centre. I've still got the original blue box for glass bottles etc, must have been very expensive to issue new ones for this second pilot scheme.

About You

What was your age on your last birthday?

	No	%
16-24	1	0.4
25-34	28	10.7
35-44	43	16.4
45-54	49	18.7
55-64	66	25.2
65-74	53	20.2
75+	16	6.1
Prefer not to say	6	2.3
Total	262	100.0

Are you...?

	No	%
Female	226	63.3
Male	125	35.0
Prefer not to say	6	1.7
Total	357	100.0

Do you identify as Trans?

	No	%
No	239	95.6
Prefer not to say	10	4.0
Other	1	0.4
Total	250	100.0

Do any children live in your household?

	No	%
No children	166	64.3
Yes, under 5 years old (pre-school)	28	10.9
Yes, aged 5 - 11 (primary school)	46	17.8
Yes, aged 11 - 16 (secondary school)	27	10.5
Yes, aged 16 - 18	22	8.5
Total	258	-

Which of the following best describes what you are doing at present?

	No	%
Working full time (30+ hours per week)	118	45.4
Working part time (less than 30 hours per week)	33	12.7
Permanently sick or disabled person	5	1.9
Wholly retired from work	84	32.3
Looking after home	4	1.5
Other	13	5.0
Caring for a child or adult	3	1.2
Total	260	100.0

Please tick any of the following that apply to you:

	No	%
Deaf/ Deafened/ Hard of hearing	10	12.3
Mental health difficulties	13	16.0
Learning impairment/ difficulties	2	2.5
Visual impairment	4	4.9
Wheelchair user	1	1.2
Mobility impairment	13	16.0
Long-standing illness or health condition (e.g. cancer, diabetes, or asthma)	30	37.0
Prefer not to say	26	32.1
Other	7	8.6
Total	81	-

Do you consider yourself to be Welsh?

	No	%
Yes	168	69.4
No	74	30.6
Total	242	100.0

What is your ethnic group?

(Where the term 'British' is used, this refers to any of the four home nations of Wales, England, Northern Ireland and Scotland, or any combination of these).

	No	%
White - Welsh/English/Scottish/Northern Irish/British	232	88.9
White - Irish	2	0.8
White - Any other white background	7	2.7
Mixed/Multiple Ethnic Groups	2	0.8
Black/African/Caribbean/Black Welsh/British	3	1.1
Asian/Asian Welsh/British	6	2.3
Other	1	0.4
Prefer not to say	8	3.1
Total	261	100.0



Equality Impact Assessment Corporate Assessment Template



Policy/Strategy/Project/Procedure/Service/Function Title: Recycling Strategy 2022-2025

New/Existing/Updating/Amending: New

Who is responsible for developing and implementing the					
Policy/Strategy/Project/Procedure/Service/Function?					
Name: Claire Cutforth Job Title: OM Strategy and Performance					
Service Team: Waste Strategy Service Area: Recycling Services					
Assessment Date: 14.9.22					

What are the objectives of the Policy/Strategy/Project/ Procedure/ Service/Function?

The science is clear that we will soon be facing a point of irreversible and catastrophic climate change, unless we take drastic action now. Nowhere is this more apparent than in the amount of waste we produce. It is, perhaps, the most visual example of our climate footprint and driving up recycling will make a major contribution to the planet as it conserves natural resources, reduces demand for raw material, saves energy and cuts emissions.

Wales is currently the third best nation for recycling worldwide with Cardiff performing well in relation to other core cities in the UK. However, we lag behind other authorities in Wales in terms of our recycling performance. The Welsh Government has set a statutory target to recycle 64% of all municipal waste by 2019/20, and 70% by 2024/25. Cardiff fell significantly short of the 64% recycling target in 2019/20, achieving only 58% recycling.

The main objective of the Recycling Strategy is to set out how Cardiff will meet and exceed the recycling targets and move towards more sustainable resource management. The strategy focuses on three key areas of intervention:

- 1. Improving the recycling performance of the Council's Trade waste service.
- 2. Expanding the residential recycling service to include new segregation streams.
- 3. Diverting recyclable materials from the residual (non-recyclable) waste stream through waste restriction.

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For residents the main impacts will be changes to the kerbside recycling and waste collections, with a potential reduction in residual waste collection frequency and recycling being segregated into 3 containers:

- Caddies for glass
- Reusable sack for fibres (paper and card)
- Reusable sack for containers (plastics and cans)

This document assesses the impacts of the proposed changes and identifies mitigations.

2. Please provide background information on the Policy/Strategy/Project/Procedure/Service/Function and any research done [e.g. service users data against demographic statistics, similar EIAs done etc.]

Glass caddies have previously been trialled, as part of the glass bottled and jars trial and there is an EQIA associated with this.

Similar schemes are in operation in neighbouring authorities – The Vale, Monmouth, Swansea, Newport.

In developing the Waste Strategy, and the proposed collection model, Cardiff has worked very closely with WRAP Cymru and other Welsh Authorities.

The Strategy has been out for public consultation via Cardiff Research Centre.

- The survey was promoted via the council's corporate Facebook, Twitter and Instagram accounts throughout the consultation period, receiving a total of 783 clicks
- There was also a paid-for social media ad campaign targeting all areas of the city, with added focus on areas of the city with traditionally lowresponse rates to consultations. The ads generated 2,917 clicks through to the consultation site and the ads were viewed 244,569 times (impressions).
- The survey was hosted on the Council website, and promoted to Council employees via DigiGov, Intranet and Staff Information.
- The survey was sent to the Citizens Panel which is made up of over 6,000 Cardiff residents.

A Pilot commenced in February 2021 to test the 3 stream recycling service. Participants were surveyed to obtain feedback on the scheme. Whilst on the whole residents adapted well to the scheme, some feedback was received relating to the reusable sacks, which will be taken into account before expanding the service city wide.

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3 Assess Impact on the Protected Characteristics

3.1 Age

Will this Policy/Strategy/Project/Procedure/Service/Function have a **differential impact [positive/negative/]** on younger/older people?

	Yes	No	N/A
Up to 18 years	Χ		
18 - 65 years	Х		
Over 65 years	Х		

Please give details/consequences of the differential impact, and provide supporting evidence, if any.

These changes will impact people of all ages.

They will now have to segregate their recycling rather than place it all in one bag. This could be confusing for some residents. Some residents may find caddies or sacks more problematic to manage than green bags.

Collection frequencies may change, which could be confusing for some residents.

Larger households may struggle to manage residual waste volumes.

What action(s) can you take to address the differential impact?

We offer an assisted collection service.

Education literature will be provided, and support and advice will be available via telephone or email for residents or their carers.

Additional capacity is available for larger households.

The Waste Strategy team can arrange visits for those struggling to manage their waste.

Information will be pictorial wherever possible to accommodate for different languages. Officers will also undertake outreach in the community to understand any requirements for translation.

Equality Impact Assessment Corporate Assessment Template

3.2 Disability

Will this Policy/Strategy/Project/Procedure/Service/Function have a **differential impact [positive/negative]** on disabled people?

	Yes	No	N/A
Hearing Impairment	X		
Physical Impairment	Х		
Visual Impairment	Х		
Learning Disability	Х		
Long-Standing Illness or Health Condition	Х		
Mental Health	Х		
Substance Misuse	Х		
Other			

Please give details/consequences of the differential impact, and provide supporting evidence, if any.

These changes will impact all people. Whilst there will be 3 recycling streams, rather than 1, residents can place out more than 1 green bag, so it does not follow that there will be more recycling containers on the streets. However, this risk must be considered and planned for.

What action(s) can you take to address the differential impact?

We offer an assisted collection service.

Education literature will be provided, and support and advice will be available via telephone or email for residents or their carers.

Caddies/bins can offer a preferred method of containing waste for the visually impaired as they contain waste more securely and are more easily detected.

Different sacks will be trialled as part of the pilot to see whether smaller/dual material sacks are beneficial in high density areas (i.e. reducing volume of sacks/waste on streets).

The Waste Strategy team can arrange visits for those struggling to manage their waste.

Alternative communication formats will be considered where necessary to ensure all disabled people are informed of the proposed changes.

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3.3 Gender Reassignment

Will this Policy/Strategy/Project/Procedure/Service/Function have a **differential impact [positive/negative]** on transgender people?

	Yes	No	N/A
Transgender People		X	
(People who are proposing to undergo, are undergoing, or have			
undergone a process [or part of a process] to reassign their sex			
by changing physiological or other attributes of sex)			

Please give details/consequences of the differential impact, and provide supporting evidence, if any.

The changes will apply to everyone using our service.

We offer an assisted collection service.

Education literature will be provided, and support and advice will be available via telephone or email for residents or their carers.

What action(s) can you take to address the differential impact?

No differential impact identified at this time. No action necessary.

3.4. Marriage and Civil Partnership

Will this Policy/Strategy/Project/Procedure/Service/Function have a **differential impact [positive/negative]** on marriage and civil partnership?

	Yes	No	N/A
Marriage			Х
Civil Partnership			Х

Please give details/consequences of the differential impact, and provide supporting evidence, if any.

The changes will apply to everyone using our service.

We offer an assisted collection service.

Education literature will be provided, and support and advice will be available via telephone or email for residents or their carers.

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What action(s) can you take to address the differential impact?				
No differential impact identified at this time. No action necessary.				
Two differential impact identified at this time. No action fiecessary.				

3.5 Pregnancy and Maternity

Will this Policy/Strategy/Project/Procedure/Service/Function have a **differential impact [positive/negative]** on pregnancy and maternity?

	Yes	No	N/A
Pregnancy		Х	
Maternity	Х		

Please give details/consequences of the differential impact, and provide supportin
evidence, if any.

Waste capacity could be an issued for families with nappies.

What action(s) can you take to address the differential impact?

Hygiene service is available.

3.6 Race

Will this Policy/Strategy/Project//Procedure/Service/Function have a **differential impact [positive/negative]** on the following groups?

	Yes	No	N/A
White			X
Mixed / Multiple Ethnic Groups			Х
Asian / Asian British			X
Black / African / Caribbean / Black British			Х
Other Ethnic Groups			Х

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Please give details/consequences of the differential impact, and provide supporting evidence, if any.

The changes will apply to everyone using our service.

Information will be pictorial wherever possible to accommodate for different languages. Officers will also undertake outreach in the community to understand any requirements for translation.

We offer an assisted collection service.

Education literature will be provided, and support and advice will be available via telephone or email for residents or their carers.

Additional capacity is available for larger households.

What action(s) can you take to address the differential impact?

No differential impact identified at this time. No action necessary.

3.7 Religion, Belief or Non-Belief

Will this Policy/Strategy/Project/Procedure/Service/Function have a **differential impact [positive/negative]** on people with different religions, beliefs or non-beliefs?

	Yes	No	N/A
Buddhist			X
Christian			X
Hindu			X
Humanist			X
Jewish			X
Muslim			X
Sikh			X
Other			Х

Please give details/consequences of the differential impact, and provide supporting evidence, if any.

The changes will apply to everyone using our service.

We offer an assisted collection service.

Education literature will be provided, and support and advice will be available

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via telephone or email for residents or their carers.			
Additional capacity is available for larger households.			
What action(s) can you take to address the differential impact?			
No differential impact identified at this time. No action necess	sary.		
3.9 Say			
3.8 Sex Will this Policy/Strategy/Project/Procedure/Service/Function have	a diffe	rential	
impact [positive/negative] on men and/or women?			
	T	T	
Mon	Yes	No	N/A
Men Women	Yes	No	х
Men Women	Yes	No	
Women Please give details/consequences of the differential impact, and			X
Women			X
Women Please give details/consequences of the differential impact, and			X
Please give details/consequences of the differential impact, and evidence, if any.			X
Please give details/consequences of the differential impact, and evidence, if any. The changes will apply to everyone using our waste service.	provide	suppor	x x rting
Please give details/consequences of the differential impact, and evidence, if any. The changes will apply to everyone using our waste service. We offer an assisted collection service. Education literature will be provided, and support and advice	provide	suppor	x x rting
Please give details/consequences of the differential impact, and evidence, if any. The changes will apply to everyone using our waste service. We offer an assisted collection service. Education literature will be provided, and support and advice	provide	suppor	x x rting
Please give details/consequences of the differential impact, and evidence, if any. The changes will apply to everyone using our waste service. We offer an assisted collection service. Education literature will be provided, and support and advice via telephone or email for residents or their carers.	provide	suppor	x x rting
Please give details/consequences of the differential impact, and evidence, if any. The changes will apply to everyone using our waste service. We offer an assisted collection service. Education literature will be provided, and support and advice via telephone or email for residents or their carers. What action(s) can you take to address the differential impact?	provide	suppor	x x rting
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Please give details/consequences of the differential impact, and evidence, if any. The changes will apply to everyone using our waste service. We offer an assisted collection service. Education literature will be provided, and support and advice via telephone or email for residents or their carers. What action(s) can you take to address the differential impact?	provide	suppor	x x rting

Equality Impact Assessment Corporate Assessment Template

3.9 Sexual Orientation

Will this Policy/Strategy/Project/Procedure/Service/Function have a **differential impact [positive/negative]** on the following groups?

	Yes	No	N/A
Bisexual			X
Gay Men			Х
Gay Women/Lesbians			Х
Heterosexual/Straight			X

Please give details/consequences of the differ	ential impact, and provide supporting
evidence, if any.	

The changes will apply to everyone using our service.

We offer an assisted collection service.

Education literature will be provided, and support and advice will be available via telephone or email for residents or their carers.

What action(s) can you take to address the differential impact?

No differential impact identified at this time. No action necessary.

3.10 Socio-economic Duty

Will this Policy/Strategy/Project/Procedure/Service/Function have a **differential impact [positive/negative]** on the Socio-economic Duty?

Yes	No	N/A
X	Х	

Please give details/consequences of the differential impact, and provide supporting evidence, if any.

There are no foreseen socio-economic impacts.

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What action(s) can you take to address the differential impact?			
No differential impact identified at this time. No action necessary	ary.		
3.11 Welsh Language Will this Policy/ Strategy/Project/Procedure/Service/Function have impact (positive/negative) on the Welsh Language?	a diffe	rential	
	Yes	No	N/A
			х
Please give details/ consequences of the differential impact, and evidence, if any.	provide	suppo	orting
There are no foreseen impacts based on the Welsh Language	€.		
We offer an assisted collection service.			
Education literature will be provided, and support and advice telephone or email for residents or their carers.	will be	availa	ble via
What action(s) can you take to address the differential impact?			
All services will be provided bi-lingually.			

Equality Impact Assessment Corporate Assessment Template

4. Consultation and Engagement

What arrangements have been made to consult/engage with the various Equalities Groups?

The strategy was out for public consultation for 6 weeks in Spring 2022.

After data cleansing and validation, there were 3,305 responses to the consultation.

At least 80% of respondents within each demographic and geographic group agreed that Cardiff needs to improve the quality of material collected.

Almost half (48.8%) of respondents agreed that a three stream recycling system proposal was appropriate, and one in five (19.2%) felt that that a full kerbside sort collection should be considered. Based on this feedback, the expansion will include a 3 stream system, using a kerbside sort methodology.

Around one in three (32.0%) felt there should be different options for different areas of the City, and this will be reflected in a phased approach to expanding the service, giving specific consideration to the needs of HMO's and flats.

Some concerns were raised regarding container types (the reusable sacks used in the trial area), and different receptacles will be researched and tested prior to full roll out of the service.

5. Summary of Actions [Listed in the Sections above]

Groups	Actions
Age	We offer an assisted collection service.
	Education literature will be provided, and support and
	advice will be available via telephone or email for
	residents or their carers.
Disability	We offer an assisted collection service.
	Education literature will be provided, and support and
	advice will be available via telephone or email for
	residents or their carers.
Gender Reassignment	
Marriage & Civil	
Partnership	
Pregnancy &	
Maternity	
Race	
Religion/Belief	

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Sex	
Sexual Orientation	
Socio-economic Duty	
Welsh Language	All services will be provided bi-lingually.
Generic Over-Arching [applicable to all the above groups]	Promote the changes to service clearly and bi-lingually. Ensure engagement with community groups and ward Councillors to help explain changes to harder to reach groups.
	Information will be pictorial wherever possible to accommodate for different languages. Officers will also undertake outreach in the community to understand any requirements for translation. Ensure translation into common languages.
	Additional capacity is offered to larger households.

6. Further Action

Any recommendations for action that you plan to take as a result of this Equality Impact Assessment (listed in Summary of Actions) should be included as part of your Service Area's Business Plan to be monitored on a regular basis.

7. Authorisation

The Template should be completed by the Lead Officer of the identified Policy/Strategy/Project/Function and approved by the appropriate Manager in each Service Area.

Completed By : Claire Cutforth	Date: 14/09/22
Designation: OM – Strategy and Performance	
Approved By: Matthew Wakelam	
Designation: Assistant Director Street Scene	
Service Area: Recycling and Neighbourhood Services	

7.1 On completion of this Assessment, please ensure that the Form is posted on your Directorate's Page on CIS - *Council Wide/Management Systems/Equality Impact Assessments* - so that there is a record of all assessments undertaken in the Council.

For further information or assistance, please contact the Citizen Focus Team on 029 2087 2536 / 3262 or email equalityteam@cardiff.gov.uk

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Statement to Environmental Scrutiny Committee by Mrs Linda A Gibbs

I very much support recycling and I am pleased that Cardiff Council is making good progress in that respect.

I live on Danescourt Estate and am concerned with the implementation, operation and evaluation of the pilot scheme that has been running since the beginning of 2022. The pilot scheme, as I'm sure Councillors are aware, is a scheme whereby recycling waste is further segregated by residents into numerous containers. I'm pleased to say that in principle, the majority of people on the Estate have no problem with segregating their recycling waste with a view to improving recycling percentages. However, despite numerous telephone calls to the Council, generally on a weekly basis, the regular practice is that the contents of the red sacks and the blue sacks, into which I and my neighbours have diligently segregated our recycling waste, are put into a refuse truck which has no segregation facility, except for the blue rigid plastic containers containing our glass recycling. This means that the contents of our red and blue sacks are all mixed up again. I have been told that the recycling waste is then segregated at Lamby Way, which seems to be a duplication of the process. It is very disappointing for myself and the other residents to see their efforts to segregate their recycling being mixed up again in the refuse truck.

The refuse truck with segregation for the red and blue sacks has only been to the Estate at most on three separate occasions. I was told that the hired refuse truck with segregation facilities had broken down and had not been replaced.

I have a concern that the Council may be in danger of losing the goodwill of Danescourt residents to continue with segregating their recycling waste. We have a Danescourt Facebook page and even in the last few days concern has been expressed by a number of residents that the refuse truck has no segregation facility for the red and blue sacks. Comments have been made to the effect that residents do not see the point of making an effort to segregate their recycling waste when it is all mixed up again in the refuse vehicle.

Additionally, during poor weather the red and blue sacks are blown everywhere, despite being weighted at the bottom, are not waterproof, wind proof or animal proof. One option is to use more sturdy containers, such as the one used to collect glass, although these could prove to be quite heavy when full. There are also concerns from residents about storing the numerous containers, particularly for those who do not have any garden facilities. I

understand and accept that the number of green plastic recycling bags being used is a cause for concern. I have suggested to one of the officers of the Council, that one large (non plastic) reusable sack be used for mixed recycling, which could then be segregated at the waste depot, which is happening at the present time with our red and blue sacks.

Although there have been opportunities to give feedback and one opportunity to complete a survey form, I believe that a public meeting with the residents of Danescourt Estate would have been a very effective way of communicating the situation with regard to the pilot. Residents would have had an opportunity to ask questions and the officers of the Council would have been able to convey what the findings of the pilot have been, together with any successes. Any concerns and suggestions for improvements could also have been discussed with possible remedies for the future.

In summary, I do not believe that the recycling pilot on Danescourt Estate has been carried out effectively, the process is flawed, plus a full and meaningful consultation has not taken place. Therefore, the basis on which the Environmental Scrutiny Committee is to discuss the Recycling Strategy for Cardiff 2021-2025 is incomplete.

CYNGOR CAERDYDD
CARDIFF COUNCIL

ENVIRONMENTAL SCRUTINY COMMITTEE

26 SEPTEMBER 2022

COASTAL RISK MANAGEMENT PROGRAMME - REVISED PROCUREMENT OF A CONSTRUCTION CONTRACT TO DELIVER THE COASTAL DEFENCE IMPROVEMENTS: PRE DECISION SCRUTINY

Reason for the Report

 A report titled 'Coastal Risk Management Programme – Revised Procurement of a Construction Contract to Deliver the Coastal Defence Improvements' is due to be considered by Cabinet at its meeting on the 22 September 2022.

Structure of Papers

- 2. The following Appendices are attached to this cover report:
 - Appendix 1 Cabinet Report September 2022.

Appendix 1, A and B to this report is exempt from publication on the basis that it contains information of the description set out in paragraphs 14 and 21 of Part 4 of schedule 12 A of the Local Government Act 1972 and in all the circumstances of the case, the public interest in maintaining the exemption outweighs the public interest in disclosing the information.

- Appendix 1. Financial Implications
- Appendix A Full Business Case Coastal Protection Scheme.
- Appendix B Technical note on revised scheme.

Background

- The Mott MacDonald, Rover Way Foreshore Coastal Defence Assessment, 2009
 and Cardiff Council Coastal Erosion Risk Assessment, Atkins 2013 concluded an
 identified need to improve the condition of costal defences in the River Rhymney
 and coast around Rover Way.
- 4. **Point 7** highlights the protection of 2,326 residential, 204 non residential sites

- 5. The original scheme has been revised as Welsh Government have confirmed they will not fund costs related to the Lamby Way Landfill site and infrastructure, as noted in **points 8 & 9.**
- 6. **Point 10** notes the proposed scheme will provide protection for a 1 in 200 year event and takes into account a climate change influence of 40%
- 7. Following a procurement exercise a successful, valid, tender was submitted however due to a variety of reasons the Contractor was unable to award the tender (points 11 & 12)
- 8. The outline business case (**points 13 15**), which was accepted by Welsh Government, clarifies the preferred option to improve coastal defence was Option 6 which would provide the following:
 - Rock revetment along the coast to manage erosion and wave overtopping
 - Sheet piling along Lamby Way Roundabout
 - Maintain earth embankments elsewhere and raise low points in earth embankments where required to reduce flood risk.
 - Rock scour protection added to Lamby Way Bridge.
- 9. **Points 16 34** relate to the revised business case and note in **point 21** that section 5 of the outline business case preferred option (Windsor Gardens and Parc Tredelerch) as not being at risk for 50 years and therefore not meeting Welsh Government criteria for funding currently.
- 10. Points 23 & 24 indicate the revised plans that take into account Welsh Government not funding proposed protection of Lamby Way landfill and associated infrastructure (i.e. highways and solar farm) but maintaining the plans for protecting the identified residential, non-residential sites.
- 11. It is also noted that a flood gate will need to be installed to protect Cardiff Sailing Club, **point 25.**

- 12. The increase in costs are explained in **points 28 31**, and relate to the design taking into account a climate change influence of 40%, previously 30%, and the proposed defences being larger, longer and higher.
- 13. **Point 34** notes that to meet Welsh Government Coastal Risk Management Programme requirements construction needs to start before 31st March 2023.
- 14. The following are required before a funding letter from the Welsh Government will be provided, **points 35 & 36**:
 - Full Business Case with tendered costs for the works.
 - Planning consent.
 - Marine Licence (NRW). Received and dated 21st July 2022. Scheme to be considered at November Planning Committee
 - Copy of the published Coast Protection Notice and report on representations received.
 - Copy of Coastal Protection Act Approval.
 - Any other statutory consents required to carry out the works.
 - Confirmation Land agreements/Crown Estates agreements are in place to enable construction.
 - General Arrangement Drawings.
 - Tender Appraisal Report.
 - Copy of successful tender.
- 15. Moving forward the key dates to progress the scheme are detailed in **point 37**:
 - Submission of Final Business Case to Welsh Government October 2022
 - Open tender for delivery of the coastal improvement project October 2022
 - Award tender for construction contract January 2023
 - Construction commencement March 2023
 - Construction completion August 2025
- 16. The procurement strategy is outlined in **points 38 43** and the tender assessment will be based 60 price / 30 quality / 10 social value split.

- 17. The final agreement with Welsh Government is outlined in **points 44 49.**
- 18. The Councils funding responsibilities are highlighted in point 48.
- 19. The ongoing maintenance costs are estimated to be £165,000 a year and include the proposed flood gate at Cardiff Sailing Club, **points 50 & 51**
- 20. As the revised scheme now excludes work that would protect Lamby Way landfill and infrastructure, estimated to cost £10M, the ongoing risks are noted in points
 52 56. It is also noted that the Council may decide to protect this area at a 'lower level' as the is less risk to residential properties.
- 21. **Points 57 & 58** identify the consultation with local members
- 22. Previous Scrutiny that has been undertaken in relation to the programme ion noted in **point 59**.
- 23. The reasons for the recommendations are identified in **points 60 62**, which include a recommendation to commit to the funding contribution required to deliver the improvements needed to protect the coast and residential properties.

Legal Implications

- 24. The contract for the works must be undertaken in compliance with Public Contract Regulation 2015 ('PCR'). The Cabinet report proposes an 'open procedure however it should be noted that:
 - All interested parties can submit a tender if this is an active market with many potential bidders then the process could prove cumbersome in terms of the number of bids received. Conversely if there are few potential bidders then this should not prove a problem.
 - If the Open procedure is used then no negotiation with bidders is permitted.
 - The procedure tends to be most suitable where tenders will be easy to evaluate.
 - All tender documentation will be required to be available at the date the contract notice is published. Legal advice should be sought on the procurement documents including the form of contract

- 25. It is also noted that in **point 65** that using NEC4 option C form of contract is preferred by the service area, this broadly means that a target cost is agreed and any financial gains and/or risks are shared between the client and the contractor.
- 26. **Point 67** notes the powers of the Council as the relevant Coast Protection Authority in relation to land ownership and contest to carry out the required works in the Programme.
- 27. **Point 69** advises the need that any documentation in relation to procurement states that awarding of the contract is subject to grant funding
- 28. The duties in relation to Equalities is noted in **point 70**
- 29. A 'standard' response regarding the Well Being of Future Generations is noted in **points 71 74.**
- 30. 'General' points are noted in **points 75 & 76** that include:
 - Any procurement undertaken is in accordance with financial and budgetary policies;
 - Consideration of the Welsh Language (Wales) Measure 2011 and the Welsh Language Standards;

Property Implications (Points 77 – 80)

31. Both Council and privately owned land are possibly impacted by the proposals, in particular Lamby Way, which is not included in the scheme, these will need to be investigated further to understand the full implications. This will be undertaken with Strategic Estates and in line with the Councils Asset Management process.

HR Implications

32. None are noted in the Cabinet report.

Proposed Recommendations to Cabinet

33. The report to Cabinet contains the following recommendations:

- i. To approve the revised design for the coastal protection scheme and the full business case to be submitted to Welsh Government for the Coastal Risk Management Programme.
- ii. Approve the commitment of the funding contribution identified within the financial implications in Appendix 1.
- iii. To delegate authority to the Director of Planning, Transport and Environment subject to consultation with the Cabinet Member for Climate Change, s.151 Officer and Director Governance and Legal Services, to deal with all aspects of contract award following the approval of the Full Business Case by Welsh Government.

Previous Scrutiny

- 34. At its meeting on 6 March 2018, Committee Members undertook pre-decision scrutiny on the Costal Risk Management Programme's Outline Business Case.

 The subsequent letter, highlighted the following points:
 - The Committee supported the plan to improve coastal flood defences between Rover Way in the west and Lamby Way in the east and felt that developing the Outline Business Case, had been a thorough process.
 - Members requested the new coastal flood defence scheme be designed to support wildlife in the area and to also allow and encourage a range of leisure opportunities, such as walking.
 - Further information on the modelling work undertaken to assess the impact creating the scheme would have on other nearby coastal areas was also requested.
- 35. In June 2021, Committee undertook pre-decision scrutiny on the Costal Risk Management draft Full Business Case. The recommendations agreed by Cabinet in the June 2021 Cabinet Report included:
 - The principal design for the Coastal Protection Scheme, and the requirements within the draft business case be submitted to Welsh Government for the Coastal Risk Management Programme.
 - Approval for the proposed procurement approach including the evaluation criteria/weightings
 - Approval for the commencement of procurement for the construction contract to deliver the coastal defence improvements.
 - Note the presentation of a further report to Cabinet with the final Full
 Business Case, including final tender costs, project risks and mitigations.
- 36. During Committee's consideration of the June 2021 Cabinet Report, the change in estimated construction cost was highlighted, along with the impact on the coastal path. In addition, Committee Members also sought assurance and requested insight on work to secure the Marine License.
- 37. In March 2022, the Committee considered the Full Business Case and Awarding the Contract for the works and recommended that the Full Business Case

painted a more balanced picture that factored in the cost of not carrying out the coastal risk management programme.

Way Forward

Cllr Caro Wild, Cabinet Member for Climate Change and Andrew Gregory, Director for Planning, Transport and the Environment have been invited to make a statement and answer Member's questions. They will be supported by further representatives from the Planning, Transport and the Environment Directorate who have been asked to make a brief presentation followed by Member's questions

Legal Implications

The Scrutiny Committee is empowered to enquire, consider, review and recommend but not to make policy decisions. As the recommendations in this report are to consider and review matters, there are no direct legal implications. However, legal implications may arise if and when the matters under review are implemented with or without any modifications. Any report with recommendations for decision that goes to Cabinet/Council will set out any legal implications arising from those recommendations. All decisions taken by or on behalf of the Council must (a) be within the legal powers of the Council; (b) comply with any procedural requirement imposed by law; (c) be within the powers of the body or person exercising powers on behalf of the Council; (d) be undertaken in accordance with the procedural requirements imposed by the Council e.g. Scrutiny Procedure Rules; (e) be fully and properly informed; (f) be properly motivated; (g) be taken having regard to the Council's fiduciary duty to its taxpayers; and (h) be reasonable and proper in all the circumstances

Financial Implications

The Scrutiny Committee is empowered to enquire, consider, review and recommend but not to make policy decisions. As the recommendations in this report are to consider and review matters, there are no direct financial implications at this stage in relation to any of the work programme. However, financial implications may arise if and when the matters under review are implemented with or without any modifications. Any report with recommendations for decision that goes to

Cabinet/Council will set out any financial implications arising from those recommendations

RECOMMENDATIONS

The Committee is recommended to:

- i) Consider the information in this report and the information presented at the meeting;
- ii) Determine whether they would like to make any comments, observations or recommendations to the Cabinet on this matter; and,
- iii) Decide the way forward for any future scrutiny of the issues discussed.

Davina Fiore
Director of Governance & Legal Services
20 September 2022



CARDIFF COUNCIL CYNGOR CAERDYDD



CABINET MEETING: 28 SEPTEMBER 2022

COASTAL RISK MANAGEMENT PROGRAMME - REVISED PROCUREMENT OF A CONSTRUCTION CONTRACT TO DELIVER THE COASTAL DEFENCE IMPROVEMENTS

CLIMATE CHANGE (COUNCILLOR CARO WILD)

AGENDA ITEM: 2

Appendix 1, A and B to this report is exempt from publication on the basis that it contains information of the description set out in paragraphs 14 and 21 of Part 4 of schedule 12 A of the Local Government Act 1972 and in all the circumstances of the case, the public interest in maintaining the exemption outweighs the public interest in disclosing the information.

Reasons for this Report

- 1. To seek Cabinet approval on the revised design for the coastal protection scheme and the full business case to be submitted to Welsh Government for the Coastal Risk Management Programme.
- 2. To provide a briefing to Cabinet on the financial agreement with Welsh Government to fund the delivery of the coastal protection scheme.
- 3. To seek Cabinet approval for the delegation of the award of contract following Welsh Government approval of the Full Business Case, to deliver the coastal defence improvements.
- 4. To seek Cabinet approval to commit to the funding contribution within the financial implications in Appendix 1.

Background

- 5. Following assessment reports; Rover Way Foreshaw Coastal Defence Assessment, Mott McDonald, 2009 and Cardiff Council Coastal Erosion Risk Assessment, Atkins, 2013, there was an identified need to improve the condition of costal defences in the River Rhymney and Coast around Rover Way.
- 6. The Coastal Risk Management Programme is in Cardiff Council's Corporate Risk Register.

- 7. The proposed scheme will reduce flood risk to 2,326 residential and 204 non-residential properties in southeast Cardiff.
- 8. The scheme has been revised removing the element of river and coastal protection protecting Lamby Way landfill and associated infrastructure.
- 9. Welsh Government have confirmed the Coastal Risk Management Programme grant will not fund any costs associated with the protection of Lamby Way landfill and associated infrastructure.
- 10. The scheme will provide defence for a 1 in 200 year severe weather event, plus an allowance for climate change influence of 40%.
- 11. A procurement exercise took place from October 2021 to January 2022 with one tender submitted.
- 12. Although the tender was valid, the Contractor was unable to accept award of the contract due to significant inflation following the outbreak of war in Ukraine. The NEC Option C Target Cost contract could not be legally modified to include the X1 clause for inflation.

The Outline Business Case

- 13. Cardiff Council received 100% funding from Welsh Government for the development of the Outline Business Case. Based on the assessments undertaken the preferred option identified was Option 6 to improve the coastal protection measures as follows:
 - Rock revetment along the coast to manage erosion and wave overtopping
 - Sheet piling along Lamby Way Roundabout
 - Maintain earth embankments elsewhere and raise low points in earth embankments where required to reduce flood risk.
 - Rock scour protection added to Lamby Way Bridge.
- 14. The consultancy services for the Outline Business Case were carried out by Jeremy Benn Associates (JBA) and procured under the Construction Consultancy Framework managed by the National Project Service (NPS), using the relevant 'Water Management' Lot under the framework.
- 15. Welsh Government accepted the submitted Outline Business Case in March 2018 as part of a funding application, to proceed to the Full Business Case.

The Full Business Case (revised)

- 16. Cardiff Council has received 100% funding from Welsh Government totalling £1.13M for the development of the Full Business Case to deliver the detailed design and cost estimates to construct the coastal defence improvements.
- 17. The development of the Full Business Case and detailed design was awarded to

- JBA following a competitive tender under the NPS Framework.
- 18. There was a requirement to develop the design and full business case concurrently with all required permissions, consents, and licenses for construction, including planning permission, marine license and flood risk activity permit.
- 19. With agreement with Cardiff Council. JBA employed a Contractor, Knights Brown, to provide Early Contractor Involvement (ECI) advice through the developed and detailed design stages. This enables the Client team to benefit from the knowledge and experience of a Contractor to advise on buildability of the design, programme and cost estimating whilst maintaining control of the design and statutory processes.
- 20. The preferred option in the Full Business Case, as indicated in the Cabinet Report dated 17th June 2021, for the coastal defence improvements is as follows:
 - Rock revetment along the coast to manage flood and erosion risk in front of Rover Way to the River Rhymney.
 - Raising earth embankments to reduce flood risk.
 - Installation of Sheet Pile with Dycel blocks and brushwood scour protection on the fronting slope along Lamby Way Roundabout.
 - Increase earth embankment at Parc Tredelerch and construct a flood wall at Windsor Gardens in Year 50.
- 21. Section 5 of the Outline Business Case preferred option (Windsor Gardens and Parc Tredelerch) have been delayed 50 years as there is no flood or erosion risk under present day conditions. Therefore, there is no criteria to support Welsh Government funding for this work at this time.
- 22. The cost to deliver Section 5 in 50 years' time has been estimated at £3.15M at the time of delivery. Welsh Government have confirmed they will not fund this element at this time.
- 23. The revised scheme removes the rock revetment along the coast in front of Lamby Way landfill and the erosion protection on meanders opposite Lamby Way roundabout and Cardiff Sailing Club. This change only removes protection to infrastructure relating to Lamby Way landfill and associated aspects such as highways and solar farm.
- 24. The risk of flooding of 2,326 residential and 204 non-residential properties in southeast Cardiff will be reduced. However, the current risk relating to the infrastructure of Lamby Way Landfill, highways and solar farm will remain. It is intended following the completion of the improvements to remove the risk from the Corporate Risk Register and manage the ongoing risks at a Directorate level.
- 25. A flood gate will be installed at the access to Cardiff Sailing Club which will need to be maintained and closed when there is a risk of flooding. This will be managed and maintained as part of the flood assets within the Assets and

- Engineering Team with operational aspects managed within Highway Operations.
- 26. The principle of the design is to minimise concerns relating to existing habitats in the tidal influence within the river and coastal foreshore whilst ensuring the coastal protection improvements have limited ongoing maintenance.
- 27. The full business case presents the preferred option as economic viable with a Benefit Costs Ratio of 1.6. The benefit cost ratio is an indicator showing the relationship between the relative costs and the benefits of a proposed project, expressed as monetary or qualitative terms. Projects with a value greater than 1.0 deliver a positive net present value to the investment being made.
- 28. The increase in estimated construction costs from the 2018 Cabinet Report has come from a requirement to design for an increase in climate change influence from 30% to 40% as required by Welsh Government and the site investigation boreholes undertaken during the detailed design process.
- 29. The cost increase relating the climate change is influenced by the following changes:
 - Coastal defences are now larger in height and profile.
 - River section defences are now raised and previous infills defences now require much longer stretches of defence to be constructed and raised.
- 30. The cost increase relating to the geotechnical site investigations is influenced by the following changes:
 - The results indicate much larger sheet piles are required.
 - Due to the location of bedrock the length of sheet pile is limited. This means
 that the slope in front of the sheet pile must be maintained to prevent failure.
 This led to the addition of scour protection to the bank slope fronting the
 sheet pile sections to retain the slope. The design will also replace the mud
 over the scour protection on the upper slope to maintain designated mud
 habitats.
- 31. The estimated internal costs to deliver the scheme is included in the £5.6M on costs. This will cover the following aspects:
 - Contract Management
 - Cost Management
 - Supervision of work
 - Ongoing support from JBA as designer
 - £5M allowance for risk relating to contract delivery, including inflation
- 32. The scheme will provide protection to existing key infrastructure, such as Rover Way, adjacent businesses and associated utilities.
- 33. The scheme will provide a gravel/stone dust path to form part of the Wales Coastal Path linking with existing public rights of way.
- 34. Construction of the coastal improvements need to commence before 31st March 2023 to meet the requirements of the Welsh Government Coastal Risk

Submission requirements and timelines

- 35. The Cardiff Coastal Improvement project is identified within the Welsh Government Coastal Risk Management Programme (CRMP). A funding letter from Welsh Government to enable the delivery of coastal defence improvement will not be issued without the following information being provided:
 - Full Business Case with tendered costs for the works.
 - Planning consent.
 - Marine Licence (NRW).
 - Copy of the published Coast Protection Notice and report on representations received.
 - Copy of Coastal Protection Act Approval.
 - Any other statutory consents required to carry out the works.
 - Confirmation Land agreements/Crown Estates agreements are in place to enable construction.
 - General Arrangement Drawings.
 - Tender Appraisal Report.
 - Copy of successful tender.
- 36. The Council has received the Marine Licence dated 21st July 2022 and planning will be reviewing the scheme at the November Planning Committee to support the process of planning consent.
- 37. The key programme dates are as follows:
 - i. Submission of Final Business Case to Welsh Government October 2022
 - ii. Open tender for delivery of the coastal improvement project October 2022
 - iii. Award tender for construction contract January 2023
 - iv. Construction commencement March 2023
 - v. Construction completion August 2025

Procurement Strategy

- 38. Cardiff Council commissioned Faithful & Gould to provide a procurement options report to review the best approach to procure the scheme.
- 39. Due to the specialist nature of the construction, the recommendation was not to utilise the frameworks available. Although, this may have provided the quickest procurement route, there was a need for the contractors on the frameworks to engage specialist contractors due to the nature of the work. It was felt this would have adversely influenced the cost of the contract and may have led to similar procurement timescales.
- 40. The approach will be an open tender. This approach allows any contractor to submit a tender for the construction of the coastal improvement schemes.
- 41. The contract to be used is a target cost contract (NEC ECC Option C) to share risk and reward in the construction stage. This approach should prove attractive

- to the market due to the incentives provided by pain/gain mechanism and shared risk between parties.
- 42. The risk profile for this project is high and Cardiff Council will likely get better value for money with this approach compared to a fixed sum contract where contractors would likely include a significant risk allowance within the lump sum price.
- 43. The tender assessment will be based on a 60 price / 30 quality / 10 social value split.

<u>Financial Agreement with Welsh Government to deliver the Coastal Protection</u> Scheme

- 44. The Welsh Government Coastal Risk Management Programme provides a oneoff opportunity for local authorities to implement coastal improvements with Welsh Government contributing 85% of construction costs (previously 75%).
- 45. The purpose of the Welsh Government funding is to assist local authorities in meeting ongoing revenue pressures and free up additional resources to self-finance the coastal risk management project approved through the business case submitted by a local authority.
- 46. Welsh Government will provide revenue funding to 85% of the capital value of the coastal scheme as a contribution towards the cost of construction work over a 25-year period from the start of the 2022/23 financial year in which work will commence. This un-hypothecated funding will be paid through the Revenue Support Grant (RSG), to support the level of borrowing which will need to be undertaken by the Council. The risk of borrowing in terms of timing and interest costs remain that of the local authority.
- 47. The constructions costs are the tendered cost from the successful contractor and an additional cost relating to risks delivering the scheme in the form of a risk register approved by Welsh Government within the full business case. This provides a defined cost for the scheme which will be used to determine the upper limit contribution made by Welsh Government. If costs of the project exceed the defined cost of the scheme, all costs will need to be met by the Council in full. No additional WG funding would be available.
- 48. Cardiff Council will be responsible for funding 15% of the total cost of the scheme following the tender award plus 100% of any costs over those identified in the risk register.
- 49. Funding for the coastal scheme is comes from supported borrowing from Welsh Government and a Council contribution. The Council contribution is above the levels identified in the Capital Programme. The additional funding to meet the Council's contribution will be managed using earmarked reserves and prioritisation of unallocated grant as set out in the financial implications. Any further costs in excess of the estimate will require movement within the existing approved Capital programme including budgets relating to Council maintained assets in Highways.

Revenue implications for ongoing maintenance

- 50. The future maintenance costs per annum have been estimated at £165,000 per annum or £16.5M for the 100-year life of the asset.
- 51. Like structures, such as bridges, the maintenance costs for the flood defences would not be evenly spread across the life of the asset and there would be key intervention periods for maintenance work. The flood gate for the Cardiff Sailing Club will be maintained as part of the highway asset.

Ongoing risks to Lamby Way Landfill and infrastructure

- 52. Two slips have occurred along the riverbank edging to Lamby Way Tip. Geomorphological assessment verified that an additional section not within the outline business case should be included. This led to the addition of erosion protection works to the meander opposite the sailing club.
- 53. This protection work has been removed from the contract due to constraints of budgets and Welsh Government confirming this element would need to be funded 100% by Cardiff Council.
- 54. The infrastructure will continue to be monitored and any protection works required will need to be undertaken by a separate contract.
- 55. The Flood Management Team will undertake a separate exercise to ascertain the ongoing risks associated to Lamby Way Landfill and associated infrastructure.
- 56. The cost to protect Lamby Way landfill site and associated infrastructure is estimated at over £10M. However, a decision may be made to protect the infrastructure at a lower level as the Council would not need to meet the Welsh Government requirements from Coastal Risk Management Programme funding and there is significantly less risk to residential properties.

Local Member Consultation

- 57. The Flood and Coastal Risk Management team consulted the relevant local members from Rumney, Splott, Trowbridge, Adamsdown and Penylan. These wards are impacted by the extent of flooding, if a scheme did not proceed.
- 58. Local Members have received updates as the scheme has progressed with the latest consultation taking place on 18th May 2021 in relation to the principle design for the coastal protection scheme.

Scrutiny Consideration

59. The Coastal Risk Management Programme was scrutinised by Environmental Scrutiny Committee on 6th March 2018. The Environmental Scrutiny Committee will consider this report on 26 September 2022. Any comments received will be report to the Cabinet meeting.

Reasons for Recommendation

- 60. To note the revised design for the coastal protection scheme and the financial requirements within the full business case to be submitted to Welsh Government for the Coastal Risk Management Programme.
- 61. To approve the delegation of the award of contract following Welsh Government approval of the Full Business Case, to deliver the coastal defence improvements.
- 62. To commit to the funding contribution for the construction coastal protection scheme.

Finance Implications

63. Finance implications are contained within confidential Appendix 1.

Legal Implications

- 64. The report recommends, amongst other things, commencing procurement. The estimated value of the procurement is such (above threshold) that the contract must be procured in compliance with one of the competitive procedures set out in the Public Contracts Regulations 2015 ('PCR'). In this case it is proposed that a provider will be secured by using the Open procedure under the PCR. The use of the Open procedure should meet the PCR requirement but please note:
 - i. All interested parties can submit a tender if this is an active market with many potential bidders then the process could prove cumbersome in terms of the number of bids received. Conversely if there are few potential bidders then this should not prove a problem.
 - ii. If the Open procedure is used then no negotiation with bidders is permitted.
 - iii. The procedure tends to be most suitable where tenders will be easy to evaluate.
 - iv. All tender documentation will be required to be available at the date the contract notice is published. Legal advice should be sought on the procurement documents including the form of contract.
- 65. It is noted that the service area wishes to use the NEC4 option C form of contract. Further legal advice should be sought but generally, Under Option C, the Client and the Contractor agree a target price. In addition, they agree their respective shares of any savings made if the "actual" price of carrying out the works is less than the target price, or any overrun if the target price is exceeded. Option C therefore provides a means by which financial "pain" and "gain" are shared between the Client and the Contractor.
- 66. Some of the key points to note about Option C are that:
 - i. the target price is subject to adjustment as a result of compensation

events, such as changes/variations to the Scope;

- ii. the Contractor is paid the full cost of carrying out the works (subject to any Disallowed Cost) plus its Fee, regardless of the target price, until completion of the whole of the works. Following that the Contractor's share of any savings or overruns assessed and taken into account by way of a payment adjustment;
- iii. any target price should be set at a realistic level.
- iv. The practical operation of Option C requires considerable management input, particularly on the part of the Project Manager in assessing amounts due to the Contractor
- v. Consideration will be required as to what options, additional clauses and amendments (if any) are to be made to the standard form. When matters were previously tendered the contract terms did not contain optional clause X1 (price adjustment for inflation) and consideration will nee to be given to how risk is to be allocated in this regard.
- The Council (as the relevant Coast Protection Authority) has a discretionary power for managing coastal erosion under the Coast Protection Act 1949 ("the CPA") The powers set out in the CPA allow the Coast Protection Authority to carry out capital works and along with The Coast Protection (Notices) (Wales) Regulations 2003 it sets out the procedural requirements. These requirements include the service of notices and the consultation requirements, the management of objections and payments compensation together with the requirement for consents from other bodies (in this instance NRW), that will need to be complied with. Where capital works are to be carried out on land that is not in Cardiff Council's ownership then the consent of third party landowners would need to be secured before any works are commenced. However, where an agreement cannot be reached then section 25 of the CPA contains powers of land entry (although this default entry power is not applicable to Crown land). Any acquisition of land or rights for the purposes of the works will need to comply with the Council's Acquisition and Disposal of Land Procedure Rules with regard to obtaining best value. It is recommended that the award of any contract for works takes into account timescales and possible delays arising from any requirement for access or acquisition of a purchase in land, and for any approval of a scheme works authorised the CPA, planning permission and other statutory authority required, such as marine licences, that may delay works being undertaken.

Grant

- 68. It is noted that the contract will be partly funded by way of a grant made available through the Welsh Government. Accordingly, the Service Area will need to be satisfied that the Council can comply with any grant conditions attached to the funding.
- 69. It is recommended that the advert and procurement documents make it clear that the award of contract is subject to grant funding.

Equality Duty

70. The Council has to satisfy its public sector duties under the Equality Act 2010 (including specific Welsh public sector duties) – the Public Sector Equality Duties (PSED). These duties require the Council to have due regard to the need to (1) eliminate unlawful discrimination, (2) advance equality of opportunity and (3) foster good relations on the basis of 'protected characteristics'. The 'Protected characteristics' are: • Age • Gender reassignment • Sex • Race – including ethnic or national origin, colour or nationality • Disability • Pregnancy and maternity • Marriage and civil partnership • Sexual orientation • Religion or belief – including lack of belief.

Well-Being of Future Generations (Wales) Act 2015 - Standard legal imps

- 71. The Well-Being of Future Generations (Wales) Act 2015 ('the Act') places a 'well-being duty' on public bodies aimed at achieving 7 national well-being goals for Wales a Wales that is prosperous, resilient, healthier, more equal, has cohesive communities, a vibrant culture and thriving Welsh language, and is globally responsible.
- 72. In discharging its duties under the Act, the Council has set and published well being objectives designed to maximise its contribution to achieving the national well being goals. The well being objectives are set out in Cardiff's Corporate Plan 2022-25. When exercising its functions, the Council is required to take all reasonable steps to meet its well being objectives. This means that the decision makers should consider how the proposed decision will contribute towards meeting the well being objectives and must be satisfied that all reasonable steps have been taken to meet those objectives.
- 73. The well being duty also requires the Council to act in accordance with a 'sustainable development principle'. This principle requires the Council to act in a way which seeks to ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs. Put simply, this means that Council decision makers must take account of the impact of their decisions on people living their lives in Wales in the future. In doing so, the Council must:
 - Look to the long term
 - Focus on prevention by understanding the root causes of problems
 - Deliver an integrated approach to achieving the 7 national well-being goals
 - Work in collaboration with others to find shared sustainable solutions
 - Involve people from all sections of the community in the decisions which affect them
- 74. The decision maker must be satisfied that the proposed decision accords with the principles above; and due regard must be given to the Statutory Guidance issued by the Welsh Ministers, which is accessible using the link below: http://gov.wales/topics/people-and-communities/people/future-generations-act/statutory-guidance/?lang=en

General

- 75. The decision maker should be satisfied that the procurement is in accordance within the financial and budgetary policy and represents value for money for the council.
- 76. The decision maker should also have regard to, when making its decision, to the Council's wider obligations under the Welsh Language (Wales) Measure 2011 and the Welsh Language Standards.

Property Implications

- 77. Strategic Estates have assisted the Coastal Risk Management Team to identify land ownership details relevant to the proposed scheme.
- 78. A mix of Council and privately owned land is potentially affected, the full impact of which needs to be explored in further detail, particularly in regard to Council managed operational and leased assets. For example it is noted Lamby Way is excluded from the scheme, a key operational asset where it is important to understand short, medium and long-term implications.
- 79. It is advised the project team engage with strategic estates as part of the governance of the scheme to review all land and property matters and fully understand the strategic and transactional implications.
- 80. Where there are any property transactions or valuations required to deliver any proposals, they should be done so in accordance with the Council's Asset Management process and in consultation with Strategic Estates and relevant service areas."

HR Implications

81. There are no HR implications to be considered in this report.

RECOMMENDATIONS

Cabinet is recommended to:

- 1. approve the revised design for the coastal protection scheme and the full business case to be submitted to Welsh Government for the Coastal Risk Management Programme.
- 2. Approve the commitment of the funding contribution identified within the financial implications in Appendix 1.
- 3. delegate authority to the Director of Planning, Transport and Environment subject to consultation with the Cabinet Member for Climate Change, s.151 Officer and Director Governance and Legal Services, to deal with all aspects of contract award following the approval of the Full Business Case by Welsh Government.

SENIOR RESPONSIBLE OFFICER ANDREW GREGORY Director Planning, Transport & Environment

Appendix A - Full Business Case

Appendix B – Technical Note on revised scheme

Appendix C - Marine License Order

The following background papers have been taken into account:

Cabinet Report 15th March 2018 – Coastal Risk Management Programme

Cabinet Report 17th June 2021 – Coastal Risk Management Programme – Full Business Case and Procurement of Construction Contract

National Strategy for Flood and Coastal Erosion Risk Management in Wales https://gov.wales/national-strategy-flood-and-coastal-erosion-risk-management-wales

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Mae'r ddogfen yn gyfyngedig



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