

CABINET

Date of Meeting	Tuesday, 23 rd July 2024
Report Subject	The Council's Transition to a Restricted Capacity Residual Waste Collection Model
Cabinet Member	Deputy Leader of the Council and Cabinet Member for Streetscene and Transportation
Report Author	Chief Officer (Streetscene and Transportation)
Type of Report	Strategic

EXECUTIVE SUMMARY

From 2024/2025, the statutory target for the amount of waste prepared for reuse, recycled and composted has increased to 70%, having previously been set at 64% in the preceding years as part of Welsh Government's "Beyond Recycling" Strategy.

However, as a Council, Flintshire did not manage to achieve the previous statutory target of 64% in any of the preceding four years and, without significant service change, will not meet the 70% target required by 2025. This could lead to further significant financial penalties being imposed by Welsh Government, which are already expected to be in excess of £1million for 2021/22 and 2022/23.

Following the public consultation in early 2024 and the Council's adoption of the Resource and Waste Strategy in March 2024, a recommendation was approved by Cabinet to consider a further report in June 2024 to outline the Council's transition to a restricted capacity residual waste collection model, which was committed to in Priority Two of the Strategy and recognised as an effective method of reducing residual waste and maximising recycling collected.

To support with this, the Council engaged with WRAP Cymru, Local Partnerships and their consultants, WPS and CRS, to undertake a modelling exercise to simulate different residual waste collection methods for the purpose of identifying the optimum model for:

1. maximising recycling potential and improving performance.
2. reducing our impact on the environment by reducing greenhouse gas emissions
3. reducing operational costs

That exercise has now drawn to a close and consideration must now be given to the outcome of the modelling work and the most effective collection model to be utilised. The purpose of this report is to outline the modelling work undertaken and present the proposed collection model to be adopted by the Council in order to achieve the statutory target of 70%.

RECOMMENDATIONS	
1	That Cabinet acknowledges and notes the outcomes of the modelling work undertaken on restricting the capacity of residual waste collections.
2	That Cabinet supports a transition to the most effective service delivery model of retaining a comprehensive weekly recycling collection service and reducing residual waste collections to once every four weeks while retaining the 180L black wheeled bin to realise maximum recycling performance increase, greenhouse gas emission reduction and cost reduction.

REPORT DETAILS

1.00	Outcome of Recycling and Waste Modelling Exercise															
1.01	<p><u>Background and Context</u> The recycling rate in Flintshire of 62.77% (2023/24) was again below the level required to achieve the target of 64% (previous target) and well below the level required to achieve the current target of 70%.</p> <p>The table below shows Flintshire’s performance over the last four years, where we have continually missed the target, year after year.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #202020; color: white;"> <th style="text-align: left;">Year</th> <th style="text-align: left;">Target</th> <th style="text-align: left;">Actual Performance</th> </tr> </thead> <tbody> <tr> <td>2020/21</td> <td>64%</td> <td>63.98%</td> </tr> <tr> <td>2021/22</td> <td>64%</td> <td>60.08%</td> </tr> <tr> <td>2022/23</td> <td>64%</td> <td>61.51%</td> </tr> <tr> <td>2023/24</td> <td>64%</td> <td>62.77% (awaiting verification by NRW)</td> </tr> </tbody> </table>	Year	Target	Actual Performance	2020/21	64%	63.98%	2021/22	64%	60.08%	2022/23	64%	61.51%	2023/24	64%	62.77% (awaiting verification by NRW)
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1.02	<p>The Waste (Wales) Measure (2010) made the targets for reuse, recycling and composting statutory from 2012-13. This status allows Welsh Government to levy financial penalties against Councils that fail to achieve them. The statutory targets are weight based and have increased gradually over time.</p> <p>We have continually reported that the Council faces significant fines for not achieving the statutory recycling targets during 2021/22 and 2022/23. The fines for missing the targets over these two financial years equate to more than £1million.</p> <p>Following the 2023/24 end-of-year reporting, it is known that Flintshire has again not achieved the statutory recycling target resulting in the possibility of a further significant financial penalty.</p> <p>From April 2024, the target has now increased to 70% and the Council faces further fines per annum, based on current recycling levels, which could exceed £1million annually.</p>															
1.03	<p><u>Waste Data Analysis</u> Compositional analysis for the residual waste stream was undertaken in 2022. This information shows that, despite providing a comprehensive weekly recycling collection service, supported by additional provision at five household recycling centres (HRCs), a number of residents continue to place valuable recyclable</p>															

materials into the residual waste bin where they are then lost from recycling and cost the authority a significant amount of money to dispose of.

Using data from 2022/23, to achieve the 70% recycling target, we need to divert 7,600 tonnes of material from the residual waste stream to the existing kerbside recycling services or HRCs.

The compositional analysis shows that 13,410 tonnes of material in the residual waste bin could have been recycled using the existing services and, of this, 6,940 tonnes was food waste. The following table summarises the materials found in the black bin.

Materials	% of Kerbside Residual	Mass of Materials (t)
Food Waste	30%	6,940
Dry Recycling	13%	3,010
Other Recycling	10%	2,310
Garden Waste	3%	690
Absorbent Hygiene Products (AHP)	2%	460

The remaining 42%, 9,710 tonnes, is non-recyclable waste that was correctly presented in the residual waste bin.

Having analysed the compositional analysis, a separate review was undertaken on the recycling performance of kerbside collected waste alone. This has demonstrated that, over the last six years, the kerbside recycling performance has remained consistent between 49% and 51% (see **Appendix 1**), whilst the overall recycling performance (the recycling performance capturing all the recyclable materials collected by the Council) has fluctuated between 60% and 69%.

The analysis does show variations in tonnages collected, with increased yields being seen in 2020/21 due to the impact of the COVID pandemic, for example, however, the performance is unaffected and remains static.

This indicates that, while the current kerbside collection model remains the same, as it is now, there will not be any significant improvement in the recycling performance and capture of vital resources from the residual waste stream.

1.04 Council Risk and Assurance

Due to the current risk of infraction fines and inability to achieve statutory targets, this has been highlighted as a strategic risk rated RED for the Authority.

As this has been reported as a strategic RED risk, an internal audit was undertaken on the service during 2023-2024 to identify the reasons for the failure to meet recycling targets and provide assurance that the Council is taking effective steps to mitigate the risk.

This audit has an assurance rating of RED with four clear actions identified that the Council will take to mitigate the potential of fines and increase recycling performance. A copy of the internal audit report is presented in **Appendix 2** and will be presented to the Governance and Audit Committee in July 2024.

1.05	<p><u>Welsh Government Position</u></p> <p>The Cabinet Secretary for Climate Change and Rural Affairs has still yet to decide whether to impose any fines for 2021/2022 and 2022/2023 and, as such, is monitoring Flintshire’s performance and actions closely.</p> <p>In arriving at a decision, the Cabinet Secretary has stipulated that the Council must be committed to improving its performance to achieve the statutory minimum targets, which is of fundamental importance, and the plan needs to be credible, in terms of the actions proposed and the commitment from the Authority in place to deliver them.</p> <p>To assist the Council in developing its plan, Welsh Government commissioned the support of its professional advisors, WRAP Cymru and Local Partnerships, who were engaged to support officers in the review of the Council’s strategy and identify any opportunities for operational improvement and efficiency.</p> <p>This work led to the development of a Resource and Waste Strategy (Appendix 3) which was adopted by the Council in March 2024. This Strategy demonstrates a strategic approach to address the performance of the Authority and mitigate against the risk of fines.</p> <p>The Strategy has been developed in line with the waste hierarchy, supporting the principles of waste prevention and minimisation, supporting re-use, recycling and finally residual recovery and landfill for items not suitable for re-use or recycling. The Strategy outlines the global, national, and local context including drivers for change so that our residents are fully informed as to why there is a need to focus on recycling performance, infraction fines and waste compositional analysis.</p> <p>It also considers upcoming legislative and policy change such as the introduction of Extended Producer Responsibility, Deposit Return schemes and the inclusion of Energy from Waste (EfW) being included in the Emissions Trading Scheme (ETS). All of which will impact the materials that we collect, our performance, and ultimately the cost of disposal.</p> <p>As detailed in the Cabinet report of 12th March 2024, a recommendation was approved to bring a further report on the Council’s transition to restricting the capacity of the residual waste collected, as committed to in Priority Two of the Strategy, a fundamental action for achieving the statutory recycling target of 70%.</p> <p>This report now outlines the modelling exercise that has been undertaken on Flintshire’s collection services in order to identify the most efficient collection model.</p>
1.06	<p><u>Recycling and Waste Modelling</u></p> <p>In December 2023, WSP, in conjunction with CRS, were appointed by WRAP Cymru to support Flintshire in the review of options to improve its recycling performance through the assessment of three different collection models.</p> <p>The exercise that took place sought to identify the most efficient and effective model focusing on three aspects:</p> <ol style="list-style-type: none"> 1. maximising recycling potential and improving performance. 2. reducing our impact on the environment by reducing greenhouse gas emissions 3. reducing operational costs

The options put forward for modelling were based around the restriction of residual waste, as evidenced data demonstrates that this method increases the capture rate of dry recycling and food waste at the kerbside.

As we intended to change the existing operational shift patterns and remove Saturday collections in the future, the modelling options have factored in a change from a six-day working week to a five-day working week, Monday to Friday.

The table below sets out the 'baseline' position, based on Flintshire's current collection methodology (fortnightly collection with a 180L black wheeled bin on a six-day collection), and an 'enhanced baseline' (fortnightly collection with a 180L black wheeled bin on a five-day collection) with three modelled options for consideration, 1a, 2a and 3a.

Option	Description
Baseline (existing)	180L Fortnightly - 6 day working week (90L capacity per week)
Enhanced Baseline	180L Fortnightly - 5 day working week (90L capacity per week)
Option 1a	180L black wheeled bin collected 3 weekly - 5 day working week (60L capacity per week)
Option 2a	180L black wheeled bin collected 4 weekly - 5 day working week (45L capacity per week)
Option 3a	120L black wheeled bin collected fortnightly - 5 day working week (60L capacity per week)

1.07	<p>The modelling of options 1a, 2a and 3a has been undertaken on the enhanced baseline position as the service intends to transition to a five-day working week for several operational efficiency reasons, which are namely to: -</p> <ul style="list-style-type: none"> • Improve recruitment opportunities. • Reduce leave requests for the same working day. • Decrease the impact of sickness absence. • Reduce reliance on agency staff. • Improved service delivery • Reduce operational impact from residents being at home (e.g., access obstruction from parked cars) • Allow for flexibility to change collection days (Christmas/New Year/adverse weather) • Allow for vehicle maintenance on non-working days. • Streetscene contact centre does not operate on the weekend restricting support to customers on a Saturday collection day.
1.08	<p><u>Modelling Process</u></p> <p>The three options were modelled using WRAP's Kerbside Analysis Tool (KAT). This uses a combination of actual data from our existing collection service, such as vehicle and resourcing levels, unit costs, and material yields, and combines them with evidence-based assumptions drawn from reliable data sets from other local authorities. KAT is an established and widely used tool which has supported many councils to assess and implement changes to waste collections.</p>

Appendix 4 provides further detail on what data was provided for the modelling exercise to take place, how the assumptions were calculated, and the methodology for calculation. Making use of WRAP’s “CarbonWARM” emission factors, the greenhouse gas reductions from each option were also calculated.

1.09 Modelling Outcomes - Recycling Performance

The modelling exercise has identified that Option 2a (180L black wheeled bin collected 4 weekly - 5 day working week (45L capacity per week)) achieves the highest performance increase at 5.9 percentage points, against the Enhanced Baseline.

The greatest restriction on available weekly residual capacity results in the highest diversion of food and dry recycling from the residual stream, while the 4-weekly collection frequency means that capture is maximised.

Option 1a (180L black wheeled bin collected 3 weekly - 5 day working week (60L capacity per week)) and option 3a (120L black wheeled bin collected fortnightly - 5 day working week (60L capacity per week)) exhibit similar performance increases at 4.5 and 4.3 percentage points respectively, with Option 3a expected to be slightly lower due to the more frequent residual waste collection, resulting in less uptake of weekly food waste recycling services.

The following table sets out the change in recycling yields, overall waste arisings and performance that the modelling has calculated:

Option	Mass Reused & Recycled (t)	Mass Composted (t)	Total Municipal Arisings (t)	Re-use, Recycling & Composting Rate %	Change relative to Baseline - % Points
Baseline	27,314	16,689	71,542	61.5%	
Enhanced Baseline	27,314	16,689	71,542	61.5%	0.0%
Option 1a – 180L 3 weekly	28,347	18,769	71,350	66.0%	4.5%
Option 2a – 180L 4 weekly	28,580	19,417	71,217	67.4%	5.9%
Option 3a – 120L fortnightly	28,345	18,623	71,370	65.8%	4.3%

The potential increase in recycling performance is based on 2022/23 data when the recycling rate was 61.51%. Applying the potential increase on to 2023/24 performance, we could realise an improvement in performance of up to 68.67% (based on option 2a).

While Option 2a has identified the largest performance increase, this collection model does not fully achieve the statutory target of 70% on its own. This is why it is just one of several actions identified in the Resource and Waste Strategy aimed at achieving the target and meeting our strategic objectives.

Some actions from the strategy have already been implemented, some are at planning and proposal stage (such as this), and others will require investment and industry solutions to implement. The service will continue to work towards implementing those identified action throughout the six-year life cycle of the Strategy.

1.10 The table below provides further details of the individual waste stream yield increase or decrease for each option. This identifies higher yields of dry recycling (paper, card, tins, plastics, glass) and food waste, with significant decreases in residual waste.

Material Stream	Baseline	Enhanced Baseline	Option 1a	Option 2a	Option 3a
	Mass (t)	Mass (t)	Mass (t)	Mass (t)	Mass (t)
Kerbside Dry recycling	12,682	12,682	13,974 +1292	14,249 +1567	13,974 +1292
Food waste	4,480	4,480	7,146 +2666	7,976 +3496	6,958 +2478
Residual waste	22,855	22,855	18,898 -3957	17,792 -5063	19,085 -3770

1.11 Modelling Outcomes - Carbon Reduction

With respect to greenhouse gas (GHG) emissions, Option 2a sees the largest emission reduction of -2,045 tonnes Co2e, compared to -1,575 tonnes Co2e for Option 1a and -1,491 tonnes Co2e for Option 3a. This is predominantly due to the increased amount of recycling and food capture combined with the greatest reduction in residual waste sent to Energy from Waste (EfW).

Material	Enhanced Baseline	Option 1a 180L 3-weekly	Option 2a 180L 4-weekly	Option 3a 120L fortnightly
GHG Emission relative to EfW - Tonnes CO2e	-7,868	-9,372	-9,823	-9,364
Emissions from fuel - Tonnes CO2e	873	803	784	878
Total - Tonnes CO2e	-6,994	-8,569	-9,040	-8,486
Difference to Enhanced Baseline (t CO2e)	0	-1,575	-2,045	-1,491

1.12 Modelling Outcomes - Cost Reduction

The table below sets out the whole system costs for the three options against the baseline and enhanced baseline.

Activity	Baseline (£)	Enhanced Baseline (£)	Option 1a 180L 3-weekly (£)	Option 2a 180L 4-weekly (£)	Option 3a 120L fortnightly (£)
Collection	7,061,552	7,088,551	6,766,737	6,734,054	7,216,173
Containers	308,085	308,085	308,085	308,085	453,005
Treatment	3,367,624	3,367,624	3,008,880	2,921,497	3,019,882
Garden Waste Income	-1,077,000	-1,077,000	-1,077,000	-1,077,000	-1,077,000
Total	9,660,261	9,687,260	9,006,702	8,886,636	9,612,060
Difference		+26,999	-653,559	-773,625	-48,201

1.13	<p>The key findings of the modelling were that:</p> <ul style="list-style-type: none"> • Collection costs are lower for options with less frequent residual waste collections (Options 1a and 2a) due to reduced labour/resource costs. • Annualised container costs are higher for Option 3a where 120L bins would need to be purchased and provided to all households (additional capital written down over a 10-year period). • All options exhibit higher recycling incomes than the Baseline and Enhanced Baseline options due to increased diversion of recyclate from the residual waste stream. • Food waste treatment cost increases for the options and sensitivities with greater residual restriction as the increase in yields causes more to be diverted. <p>Residual treatment costs reduce commensurately with the degree of residual restriction. Option 2a, which has the greatest residual restriction, sees treatment costs £440,000 lower than the Baseline.</p>
1.14	<p>Conclusion</p> <p>As can be seen from the modelling, Option 2a (180L bin collected every four weeks) achieves both the highest performance increase at 5.9 percentage points, as well as the largest projected financial saving at c.£770,000 per annum against the Baseline and c.£800,000 per annum against the Enhanced Baseline.</p> <p>The greatest restriction in available weekly residual capacity (45L capacity per week) results in higher diversion of food and dry recyclate from the residual stream, while the four weekly collection frequency means that capture is maximised. Reduced vehicle and staff numbers combined with increased material income and reduced processing costs results in the net annualised saving.</p> <p>Option 1a and 3a exhibit similar performance increases (between 4.3 and 4.5 percentage points), but option 1a (180L bin three weekly) does so at a considerably reduced cost, around £650,000 lower than the Enhanced Baseline and £600,000 lower than option 3a (120L bin fortnightly).</p> <p>With four weekly residual collections reducing costs and diverting more material from the residual waste stream, means that Option 2a therefore exhibits the lowest costs and best performance of all the three options.</p> <p>With respect to greenhouse gas emissions, Option 2a sees the largest emission reduction of -2,045 tonnes Co₂e, compared to -1,575 tonnes Co₂e for Option 1a and -1,491 tonnes Co₂e for Option 3a. This is predominantly due to the reduction of waste sent to Energy from Waste (EfW).</p> <p>In order to achieve the objectives set out in the Resource and Waste Strategy that was adopted by County Council in March 2024, it is recommended that Option 2a is progressed and the Council transitions to a restricted capacity residual waste collection model, which was committed to in Priority Two of the Strategy and recognised as an effective method of reducing residual waste and maximising recycling collected.</p>
1.15	<p>If Option 2a is approved for adoption and transition, then a further report will be provided to the Committee to outline the details of how the service change will be delivered, along with an implementation plan and communications plan. This will be accompanied by a revised Household Waste Collection and Household Recycling Centre Operations Policy.</p>

2.00	RESOURCE IMPLICATIONS
2.01	The work is being supported by Local Partnerships and Waste Resources Action Programme (WRAP) Cymru.

3.00	IMPACT ASSESSMENT AND RISK MANAGEMENT										
3.01	<p>A full Integrated Impact Assessment has been undertaken on the Resources and Waste Strategy and has assisted in informing the following:</p> <p>Ways of Working (Sustainable Development) Principles Impact</p> <table border="1"> <tr> <td>Long-term</td> <td>The proposals will drive improvements to recycling performance and achieving a Circular Economy. Through proactive engagement and education, we will drive behavioural change. Reducing the Council’s carbon emissions to support the climate change agenda for future generations. Working towards Net Zero 2030 targets and long term financial savings for the authority.</td> </tr> <tr> <td>Prevention</td> <td>The proposals will help prevent the increasing amounts of waste generated and therefore reduce the Council carbon footprint. Wastes that are odour or perceived as unhygienic in nature will be collected most frequently to minimise impact on our residents.</td> </tr> <tr> <td>Integration</td> <td>Through the provision of positive engagement in multi languages we ensure inclusion of all within our communities with our services. Reviewing and updating our assisted waste process will ensure everyone in our community can engage with the services we provide. Reviewing services at flats and houses of multiple occupancy we will include all of Flintshire’s residents to partake in the service.</td> </tr> <tr> <td>Collaboration</td> <td>The proposal requires further work with Welsh Government, and partners, to find sustainable solutions for nonrecyclable materials. Working collaboratively with businesses, third sector, schools and charities to deliver objectives. Working collaboratively, we will ensure preparedness for new and changing legislations.</td> </tr> <tr> <td>Involvement</td> <td>Improved engagement with Flintshire residents, businesses, schools, third sector and charities to ensure they understand their responsibilities and ensure waste minimisation, reuse and recycling before disposal. Through the provision of positive engagement in multi languages we ensure inclusion of all within our communities with our services. Reviewing and updating our assisted waste process will ensure everyone in our community can engage with the services we provide.</td> </tr> </table>	Long-term	The proposals will drive improvements to recycling performance and achieving a Circular Economy. Through proactive engagement and education, we will drive behavioural change. Reducing the Council’s carbon emissions to support the climate change agenda for future generations. Working towards Net Zero 2030 targets and long term financial savings for the authority.	Prevention	The proposals will help prevent the increasing amounts of waste generated and therefore reduce the Council carbon footprint. Wastes that are odour or perceived as unhygienic in nature will be collected most frequently to minimise impact on our residents.	Integration	Through the provision of positive engagement in multi languages we ensure inclusion of all within our communities with our services. Reviewing and updating our assisted waste process will ensure everyone in our community can engage with the services we provide. Reviewing services at flats and houses of multiple occupancy we will include all of Flintshire’s residents to partake in the service.	Collaboration	The proposal requires further work with Welsh Government, and partners, to find sustainable solutions for nonrecyclable materials. Working collaboratively with businesses, third sector, schools and charities to deliver objectives. Working collaboratively, we will ensure preparedness for new and changing legislations.	Involvement	Improved engagement with Flintshire residents, businesses, schools, third sector and charities to ensure they understand their responsibilities and ensure waste minimisation, reuse and recycling before disposal. Through the provision of positive engagement in multi languages we ensure inclusion of all within our communities with our services. Reviewing and updating our assisted waste process will ensure everyone in our community can engage with the services we provide.
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	Well-being Goals Impact	
	Prosperous Wales	Positive – improving waste minimisation, reuse and recycling of recycling materials resulting in world leaders in recycling performance
	Resilient Wales	Positive – Less demand for raw materials, promoting Circular Economy and greener spaces. Decarbonising our infrastructure and providing county-based disposal solutions.
	Healthier Wales	Positive – reducing vehicle movements and emissions and allowing for the responsible management and disposal of controlled waste
	More equal Wales	No impact
	Cohesive Wales	Positive – building community engagement with residents, businesses, third sector, schools and charities to deliver objectives.
	Vibrant Wales	Positive – improving waste minimisation, reuse and recycling of recycling materials and working towards carbon reduction
	Globally responsible Wales	Positive - reducing the reliance on the extraction of raw materials and destruction of natural habitats and ecosystems by the reprocessing of recyclable materials. By eliminating, minimising, reusing or recycling waste materials we will reduce carbon emissions.
3.02	We are highly unlikely to achieve the statutory recycling targets without making significant changes to services in order to improve recycling performance and reduce the amount of waste being presented in the residual waste bin.	
3.03	The risk of not achieving the statutory recycling targets could result in a significant financial penalty for the Council (£200 for every tonne not recycled) if Welsh Government were to choose to levy the infraction fines. This equates to more than £1million for failing to achieve the targets in 2021/2022 and 2022/2023, and potentially additional significant financial penalties in excess of this figure for 2023/24 and from 2024/25, for which there is no available budget. This would equate to a 1% rise in council tax per annum.	
3.04	The disposal of residual waste costs the Council £3.4m a year, as well as increasing the previously mentioned risk of an infraction fine. If the Council stopped disposing of enough residual waste to meet the 70% target (7,600 tonnes), this would reduce the Council's spend on residual waste disposal.	
3.05	An indifference to improving recycling performance and implement changes could result in the loss of the Sustainable Waste Management Grant from Welsh Government to invest in Flintshire. The value of this grant to Flintshire is currently £0.742m per annum.	
3.06	Negative public impression of the service will be managed through positive and proactive engagement, which is a key theme through each of the priorities within the strategy.	

3.07	<p>An increase in fly tipping is not anticipated following a transition to a reduced capacity collection model. This is based on evidence from other local authorities in Wales that have introduced a restricted residual waste capacity policy.</p> <p>By using the weekly food and recycling collections along with the fortnightly garden collections, there is enough room in the black bin for residual waste. The typical fly-tipped waste (i.e. bulky items such as mattresses, tyres, white goods, chairs and sofas) are most often items that would not typically fit in a wheeled bin. Bulky waste can be taken to the HRCs or collected through our bulky waste collection service and our residents are already in receipt of the solution to their waste disposal needs by way of a comprehensive weekly recycling collection service. By placing their recycling into the appropriate container, which will be collected from their property weekly, there would be no reason for them to take the decision to commit an illegal activity to manage their domestic waste. Following a similar service change in another regional local authority, this was evidenced with no increase in fly tipping observed.</p> <p>Nevertheless, a piece of work would be undertaken prior to a service change to ensure that residents have the correct recycling containers available to them and a detailed communications plan will be developed and presented to the Committee in advance of any approved changes.</p> <p>Should a fly tipping event take place then the Council's in-house civil parking and environmental enforcement team would undertake the necessary investigation to identify potential offenders. The householder's 'duty of care' responsibilities will also be shared through the communications plan so that residents are aware of their personal responsibilities for waste.</p>
3.08	<p>Households of 6 or more people can request a larger 240L wheeled bin as long as they can demonstrate that they are recycling all that they can. All households can request extra recycling bags or containers and it is easy to recycle more.</p>

4.00	CONSULTATIONS REQUIRED / CARRIED OUT
4.01	Deputy Leader of the Council and Cabinet Member for Streetscene and Regional Transport Strategy has taken place.
4.02	Flintshire residents were consulted on the Resources & Waste Strategy and a communications plan will be developed if the proposals are approved.
4.03	Elected members were consulted on the Resources & Waste Strategy and a communications plan will be developed if the proposals are approved.
4.04	Town and Community Councils were consulted on the Resources & Waste Strategy and a communications plan will be developed if the proposals are approved.
4.05	Members of the Senedd were consulted on the Resources & Waste Strategy and a communications plan will be developed if the proposals are approved.
4.06	Members of Parliament were consulted on the Resources & Waste Strategy and a communications plan will be developed if the proposals are approved.

4.07	Flintshire County Council officers and employees were consulted on the Resources & Waste Strategy and a communications plan will be developed if the proposals are approved.
4.08	Groups with protected characteristics were consulted on the Resources & Waste Strategy and a communications plan will be developed if the proposals are approved.
4.09	Environment & Economy Overview & Scrutiny Committee – to be held on 16 th July 2024

5.00	APPENDICES
5.01	Appendix 1 – Recycling Performance of Kerbside Collected Waste
5.02	Appendix 2 – Internal Audit Report
5.03	Appendix 3 – Resource and Waste Strategy
5.04	Appendix 4 – KAT Modelling Methodology

6.00	LIST OF ACCESSIBLE BACKGROUND DOCUMENTS
6.01	Towards Zero Waste Municipal Waste Sector Plan - Collections blueprint Beyond Recycling Strategy Climate Change Strategy Council Plan Cabinet Report - Resource and Waste Strategy WSP Consultants: https://www.wsp.com/en-gb

7.00	CONTACT OFFICER DETAILS
7.01	Contact Officer: Ruth Tulley, Regulatory Services Manager Telephone: 01352 704796 E-mail: ruth.tulley@flintshire.gov.uk

8.00	GLOSSARY OF TERMS
8.01	<p>Residual Waste Materials that remain following efforts to reduce, reuse, recycle or compost. Commonly known as ‘general waste’ or ‘black bin waste’.</p> <p>Dry Recycling Recyclable items collected such as, cardboard, paper, tin cans, plastic bottles/tubs/trays, glass bottles/jars, waxed cartons, aerosols</p> <p>Kerbside Collections the collection of recycling and waste from residential properties</p>

Household Recycling Centres Waste disposal centres where residents can dispose of domestic waste and recycling items that are not collected at the Kerbside.

Net Zero The balance between the amount of greenhouse gases being produced and the amount that are being removed from the atmosphere.

Circular Economy Extending the life cycle of products by reusing, regenerating, sharing, repairing, and recycling existing materials.

Waste Composition The types and volumes of materials found in a waste stream.

Resources Materials, such as glass, plastic, paper fibres, that can be utilised to produce new items.

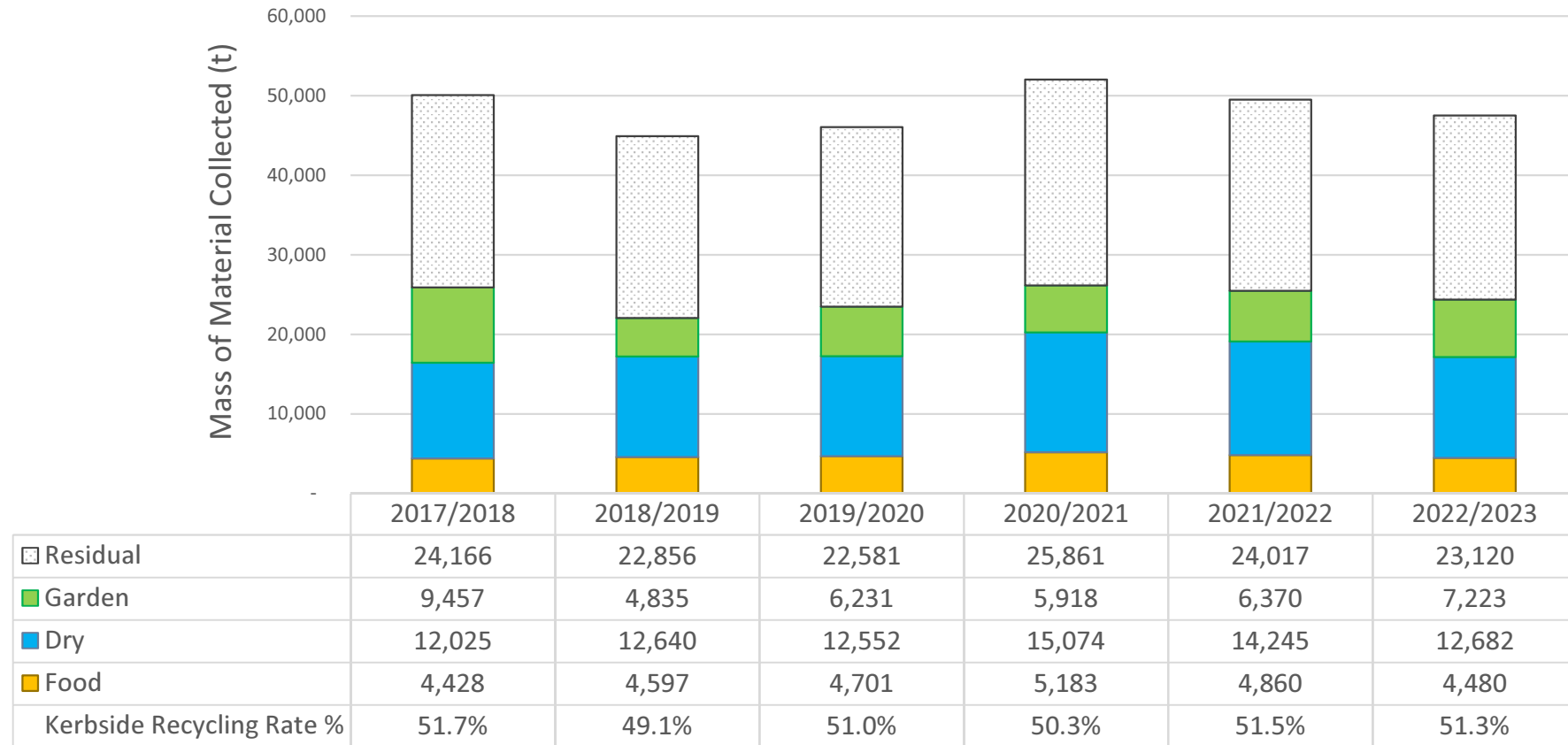
Infraction fine a financial penalty imposed by government for not meeting statutory recycling targets.

Fly tipping the illegal deposit of waste on to land.

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Appendix 1 – Recycling Performance for Kerbside Collected Waste

Kerbside Collected Material

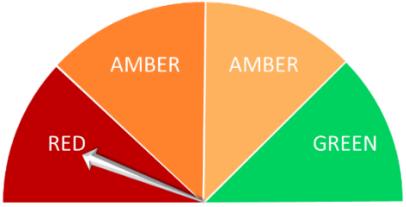


Kerbside recycling rate” shown in this figure is based just on materials eted at the kerbside.

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23/24 – Recycling Targets – Streetscene and Transportation- 17-2023/24

Final Report – May 2024

Assurance Opinion:	Number of Actions		Risks Reviewed as Identified in Scope
 <p>Urgent system revision required</p> <ul style="list-style-type: none"> • Key controls are absent or rarely applied • Evidence of (or the potential for) significant financial / other losses • System / process objectives are not being met, or are being met at a significant and unnecessary cost or use of resources <p>Conclusion: a lack of adequate or effective controls.</p>	Priority	Number	<p>Risk 1: The service does not achieve the current target potentially resulting in a significant fine to the Council.</p> <p>Risk 2: Current controls in place for managing recycling are not effective.</p> <p>Risk 3: Proposed actions to mitigate the risk of non-achievement of target are insufficient.</p> <p>Risk 4: The recycling data reported to Welsh Government is not accurate.</p>
	High (Red)	2	
	Medium (Amber)	2	
	Low (Green)	0	
	Total	4	

Audit Background

The Welsh Government (WG) has set statutory recycling targets for local authorities to achieve on an annual basis. Failure to achieve these targets could result in the Council receiving an infraction fine. The fine is based on waste tonnage recycled against total waste tonnage collected. Any shortfall is charged at a rate of £200 per tonne. It is within the remit of WG to levy the fine.

The service is responsible for managing waste collection, including the monitoring and reporting of recycling data. The service met the recycling target for 18/19 and 19/20 but has failed to achieve the ongoing targets since then and indications show that the current years target will also not be met. The target is due to increase in 24/25.

Year	FCC recycling	WG target	Recycling tonnage shortfall	WG Infraction fine	Comment
2018/19	69.16%	64%		-	
2019/20	65.85%	64%		-	
2020/21	63.98%	64%	17	£3,400	Fine not enforced
2021/22	60.08%	64%	3,314	£662,800	Enforcement fine to be determined
2022/23	61.51%	64%	1,784	£356,766	Enforcement fine to be determined
2023/24	Q1 66.59%	64%			66.59% but likely to reduce
2024/25		70%			

23/24 – Recycling Targets – Streetscene and Transportation- 17-2023/24

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The action taken to mitigate the risks against the achievement of target is shown in a range of ways.

1. Risk register
2. Operational performance monitoring
3. Medium Term Financial Strategy
4. March 2023 action plan to try and increase the Council's recycling levels.

The audit review sought to establish the effectiveness of risk management by the service in achieving the national targets set. Focus was placed on the adequacy of the controls in place / actions proposed to address the gap between current performance and target as well as the robustness of recycling data and operating model.

Areas Managed Well

- Controls are in place for the collection of recycling across the County.
- There is a clear process in place for validating recycling data for Welsh Government to ensure data is robust and reliable.

23/24 – Recycling Targets – Streetscene and Transportation- 17-2023/24

Final Report – May 2024

Findings and Implications	Agreed Action	Who	When
<p>1 (R)</p> <p><u>ACTION PLAN DOES NOT ALIGN WITH RISK MITIGATION</u></p> <p>The Welsh Government Waste Strategy (Beyond Recycling 2021) set statutory targets for all local authorities to achieve a minimum of 70% of all waste to be recycled by 24/25.</p> <p>The outturn performance for Flintshire Council for 21/22 was 60.08% and 61.51% for 22/23. The expected target at this point was to achieve 64% which the Council failed to meet. The Minister is still yet to determine if a fine (total £1M) will be levied against the Council for a failure to meet these targets.</p> <p>In January 2023, a Waste Strategy review report was presented to Cabinet and a decision was taken to run a pilot scheme for 3 weekly collections in one area of the county. This decision was called in by other Members as concerns were raised over costs of the scheme, data integrity and benefits to changing the process. This resulted in the scheme not being conducted.</p> <p>An initial action plan (March 2023) was produced by the service at the request of the Minister in response to failing to achieve the statutory recycling targets in 2021/22. The plan was shared with Welsh Government for approval, however in June 2023, the Minister informed the Council that they could not support the plan as it was felt that the proposed changes would not provide sufficient assurances that performance would be improved to achieve 70% by 24/25.</p> <p>We reviewed the action plan (16 actions) and would highlight the following:</p> <ul style="list-style-type: none"> • The plan contained a number of actions (12) that could potentially increase recycling collection rates and estimates were included for 6 actions (11-16%) with the monitoring of tonnages contributing an expected 7-12% increase. • However, none of these actions have been implemented as the action plan was not approved. • Work had commenced on 3 actions (additional Recycling, Compliance and Data Officers, WRAP support and an Environmental Improvement Co- 	<p>The work with Local Partnerships and WRAP has concluded on the Waste Strategy review and this has resulted in a new Resource and Waste Strategy being approved by Cabinet and adopted in March 2024.</p> <p>The Strategy includes five key priorities. In priority two, once action is to restrict the amount of residual waste that residents can dispose of in the black bin to encourage greater recycling by all residents either by reducing the frequency of collections or the capacity of the bin. This action is fundamental in achieving the statutory recycling target of 70%.</p> <p>Modelling data to support this action will be included in an operational report outlining what benefit a transition to this style of collection model would bring. This will indicate that a reduction to the capacity of residual waste collected is a key risk mitigation action.</p> <p>This Operational Report will be presented to Cabinet in June 2024 for consideration and approval.</p> <p>URN 03582</p>	<p>Regulatory Services Manager</p>	<p>30/06/24</p>

23/24 – Recycling Targets – Streetscene and Transportation- 17-2023/24

Final Report – May 2024

Findings and Implications	Agreed Action	Who	When
<p>ordinator), however it is unknown what impact these will have on recycling rates.</p> <ul style="list-style-type: none"> • The plan included 4 actions which would have no impact on these recycling rates and focussed more on service improvement, for example, the supply of body cameras, handheld devices and RFID tags for garden waste. These actions have been completed. • 10 actions required additional funding for 2023/24 totalling in the region of £1.3M investment (£933K WG and £395K FCC). This was based on: <ul style="list-style-type: none"> ○ grant funding (£500K), ○ increased income via improved tonnages (£125K), ○ Cost of 10 additional Engagement Officers (£433K), ○ Cost of 5 Enforcement Officers (£200K), ○ Cost of 1 Improvement Co-ordinator (£50K). • To date, funding has been identified for 3 additional Engagement Officers and the Improvement Co-ordinator. No other funding has been obtained. <p>Our review considered that these actions are now unrealistic given the current financial challenges the Council is facing.</p> <p>It should be noted that service is working with Local Partnerships and the Waste and Resources Action Programme (WRAP) to develop the Resource and Waste Strategy with clear and evidenced based actions. This is currently out to public consultation (December 23 – January 24) before a report is presented to Cabinet and the Minister in March 2024 for approval. Considerable reliance has been placed on the actions which WRAP may recommend and that these actions will need to be approved by Cabinet. (see #2).</p> <p>The risk is that this review has not been able to identify any interim risk mitigations which have been put in place to increase recycling collection rates. As a result, the risk of non-achievement of target is likely to materialise and a fine may be levied. This fine could be in the region of £1.2M for 2024/25 if current recycling levels remain constant.</p>			

23/24 – Recycling Targets – Streetscene and Transportation- 17-2023/24

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Findings and Implications	Agreed Action	Who	When
<p>2 (R) <u>APPROVAL & DECISION MAKING DOES NOT ALIGN WITH RISK MITIGATION</u></p> <p>The service is trying to mitigate against non-achievement of a statutory target; however, the Chief Officer cannot make unilateral decisions regarding what actions to take as these are policy decisions which require member approval.</p> <p>Member approval will require clear, accurate and a reliable presentation of information to inform risk management decisions to be taken.</p> <p>The service has provided communication to Cabinet, Council Members, the Welsh Government Minister, Local Partnerships and WRAP including progress on achieving recycling targets.</p> <p>In particular the service has delivered workshops and produced information for the Cabinet ‘Called In’ report in January 2023. A review of this information identified the service has presented a comprehensive range of options, including current tonnage levels and potential financial consequences of the fine. However, none of the options outlined in the Called In report were approved by Cabinet which is reflected in the original action plan, and which has driven service activity thus far.</p> <p>Actions which were approved i.e. education on recycling are actions which will take time to embed. The officers have only recently been recruited and have yet to commence employment in the new roles. There is a risk that the service has insufficient time to see the benefits of these actions reflected in improved tonnages by the end of 23/24.</p> <p>Data is showing that recycling collection tonnages are not improving, and residual waste tonnages are increasing. The service recognises and has highlighted that quarterly figures can mask the overall view due to variations in collection rates at different times of the year i.e. garden waste during summer months.</p> <p>It is unlikely that the service will achieve the 23/24 recycling target of 64%. A revised strategy and action plan is being developed and is being consulted upon. This will require approval from Cabinet prior to obtaining Welsh Government</p>	<p>Restricting the amount of residual waste collected is a key risk mitigation action. We are unable to deliver this without political approval and will present the Operational report on this basis.</p> <p>In March 2024, the Minister for Climate change wrote to the Leader of the Council requesting assurance that the Council was committed to implementing residual waste restrictions. Without political commitment the infraction fine (2021/22) still remains a possibility.</p> <p>URN 03601</p>	<p>Regulatory Services Manager</p>	<p>30/06/024</p>

23/24 – Recycling Targets – Streetscene and Transportation- 17-2023/24

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Findings and Implications	Agreed Action	Who	When
<p>approval. It is likely that the revised plan will contain difficult and challenging actions, some of which may have previously failed to gain approval.</p> <p>Current reporting has provided useful information for consideration when making decisions, however, there remains a risk that decision makers do not specifically identify those changes / actions which are critical to mitigating the risk and those which may be supportive / provide some improvement.</p> <p>There is a risk that Members decisions on whether to approve or not the actions suggested in the new action plan is not seen as fundamental to mitigating the risk of non-compliance with recycling targets. This has a significant bearing on the service’s ability to manage this risk and could result in financial penalties being placed on the Council.</p>			
<p>3 (A)</p> <p><u>RISK REGISTER DOES NOT ALIGN WITH RISK MITIGATION</u></p> <p>The Corporate Risk Register identifies risks in place in relation to waste recycling.</p> <ul style="list-style-type: none"> • RST07 - Inability to achieve national recycling targets due to increased residual waste tonnages collected. <ul style="list-style-type: none"> ○ Strategic Red Risk, current score of 12, target score of 2. ○ Our review suggests that it is expected that continued non-compliance will remain into 2024/25 as the service will not achieve expected target. • RST12 – Lack of responsiveness to industry or market changes e.g. recycling income leading to financial budget pressures <ul style="list-style-type: none"> ○ Operational Green Risk, current risk score 2, target score 2. ○ Our review agrees that recycling income is monitored on a regular basis and data is well controlled. ○ However, the levels of income collected could impact on this risk score. • RST43 - Inability to influence public behaviours and habits which negatively impacts service delivery and income streams. <ul style="list-style-type: none"> ○ Operational Amber Risk, current risk score 9, target score 4. 	<p>The key strategic risk is RST07 - Inability to achieve national recycling targets due to increased residual waste tonnages collected.</p> <p>We have referred to this risk within the Resource and Waste Strategy Scrutiny and Cabinet reports. The operational report will identify the actions we intend to take to mitigate this risk which is currently out of tolerance.</p> <p>We will highlight that without taking the key mitigating risk action (restricting residual waste capacity), our ability to bring the risk back into tolerance to avoid the infraction fine will be limited.</p> <p>URN 03588</p>	<p>Regulatory Services Manager</p>	<p>30/06/2024</p>

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Findings and Implications	Agreed Action	Who	When
<ul style="list-style-type: none"> ○ This risk has yet to be addressed. Actions have been included within the draft action plan but have yet to be fully delivered. <p>Risk RST07 is a strategic risk and in line with the risk management framework escalation depends on the worsening of risk score which currently is scored at 12. COT have oversight of all strategic risks.</p> <p>This risk is that additional mitigations have not been put in place; significant reliance is being place on the delivery of a new action plan and its subsequent approval as being sufficient for the mitigation of this risk.</p>			
<p>4 (A)</p> <p><u>MEDIUM TERM FINANCIAL STATEMENT DOES NOT ALIGN WITH RISK MITIGATION</u></p> <p>The MTFs statements produced in advance for 23/24 identified a number of proposed efficiencies which could be achieved by the service. Some of these efficiencies relate to changing the approach to collection of waste and levels of recycling.</p> <p><u>The data below is as was presented within the MTFs statements.</u></p> <ul style="list-style-type: none"> • Charge for assisted waste and recycling collections (+£20K); • Charge for Disposals on waste streams (+£TBC); • Charges for replacement containers (+£20K-£120K); • Compost Charges at HRC's (+£TBC); • Enforcements for recycling in residual waste bins (+£50K); • Food Waste Bags (+£10K); • Greenfield development as a regional waste facility (+£TBC); • Increase Charges, Reduce Collections Frequency for Garden Waste Collection (+£25K); • Introduce 2 Weekly Collections, bin reduction (+£200K); • Introduce 3 Weekly Collections (+£400K-£500K); • Introduce 4 Weekly Collections (+£600K-£800K); • Recycling Collections offer to businesses (+£TBC); • Reduce Frequency for Garden Waste Collection (+£50K); • Review provision on HWRC's (+£TBC); and 	<p>For financial year 2024/25, all portfolios were tasked with finding cost reductions.</p> <p>Restricting residual waste collections were included as a potential cost reduction option; however, following feedback from Overview and Scrutiny meetings held in February this proposal was removed from final budget setting, as detailed in a Cabinet Report of 20th February 2024.</p> <p>Following adoption of the Resource and Waste Strategy, and consideration of the operational report in June, the financial savings from restricting the capacity of residual waste collected will be included in the 2024/25 MTFs (if there are in year savings) if approved.</p> <p>The infraction fine, if imposed, would have to be met from the Corporate Contingency Reserve as a potential fine cannot be classed as a budgeted item in the MTFs.</p> <p>URN 03589</p>	<p>Regulatory Services Manager</p>	<p>30.06.2024</p>

23/24 – Recycling Targets – Streetscene and Transportation- 17-2023/24

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Findings and Implications	Agreed Action	Who	When
<ul style="list-style-type: none"> One budget pressure was also identified relating to Garden Waste Income Grant (-£50K annual). <p>From our review of statements:</p> <ul style="list-style-type: none"> Whilst the MTFS statements were drafted and submitted by the Chief Officer, the actions have not yet taken place; Significant amount of efficiencies are dependent on approval which was not received; The financial context has changed, and this should be reflected in the revised action plan; and There is nil mention as a pressure of the potential fine which may be levied. <p>The risk is that the MTFS statements and the revised action plan are not aligned.</p>			

Distribution List	
To be determined	Accountable Officer Responsible for the Implementation of Agreed Actions
Katie Wilby	Chief Officer, Streetscene and Transportation
Ruth Tulley	Regulatory Services Manager, Regulatory Services
Neal Cockerton	Chief Executive, Flintshire County Council

23/24 – Recycling Targets – Streetscene and Transportation- 17-2023/24

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Audit Priority:

Appendix A

Priority of Audit Finding	
Priority	Description
High (Red)	Action is imperative to ensure that the objectives of the area under review are met
Medium (Amber)	Requires action to avoid exposure to significant risks in achieving the objectives of the area
Low (Green)	Action encouraged to enhance control or improve operational efficiency

Audit Opinion:

The audit opinion is the level of assurance that Internal Audit can give to management and all other stakeholders on the adequacy and effectiveness of controls within the area audited. It is assessed following the completion of the audit and is based on the findings from the audit. Progress on the implementation of agreed actions will be monitored. Findings from **Some** or **Limited** assurance audits will be reported to the Audit Committee.

Assurance	Explanation
Green - Substantial	<p>Strong controls in place (all or most of the following)</p> <ul style="list-style-type: none"> Key controls exist and are applied consistently and effectively Objectives achieved in a pragmatic and cost effective manner Compliance with relevant regulations and procedures Assets safeguarded Information reliable <p>Conclusion: key controls have been adequately designed and are operating effectively to deliver the key objectives of the system, process, function or service.</p>
Amber Green – Reasonable	<p>Key Controls in place but some fine tuning required (one or more of the following)</p> <ul style="list-style-type: none"> Key controls exist but there are weaknesses and / or inconsistencies in application though no evidence of any significant impact Some refinement or addition of controls would enhance the control environment Key objectives could be better achieved with some relatively minor adjustments <p>Conclusion: key controls generally operating effectively.</p>
Amber Red – Some	<p>Significant improvement in control environment required (one or more of the following)</p> <ul style="list-style-type: none"> Key controls exist but fail to address all risks identified and / or are not applied consistently and effectively Evidence of (or the potential for) financial / other loss Key management information exists but is unreliable System / process objectives are not being met, or are being met at an unnecessary cost or use of resources. <p>Conclusion: key controls are generally inadequate or ineffective.</p>
Red – Limited	<p>Urgent system revision required (one or more of the following)</p> <ul style="list-style-type: none"> Key controls are absent or rarely applied Evidence of (or the potential for) significant financial / other losses Key management information does not exist System / process objectives are not being met, or are being met at a significant and unnecessary cost or use of resources. <p>Conclusion: a lack of adequate or effective controls.</p>

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Flintshire Resource and Waste Strategy

2024 - 2030

Cymraeg

Mae'r ddogfen hon hefyd ar gael yn Gymraeg.
Gweler y dudalen Gymraeg ar ein gwefan.

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Glossary

Carbon footprint A carbon footprint is a measure of the total amount of greenhouse gases, specifically carbon dioxide (CO₂) and other equivalents like methane (CH₄) and nitrous oxide (N₂O), emitted directly or indirectly by human activities.

Circular economy Extending the life cycle of products by reusing, regenerating, sharing, repairing, and recycling existing materials.

Composting The natural process of recycling organic matter, such as leaves and food scraps, into a valuable soil conditioner for soil and plants.

Decarbonisation The reduction or elimination of carbon emissions using low carbon sources.

Food Waste Food that is not consumed and discarded or by humans e.g. leftovers, peelings, expired products, inedible products.

Household Recycling Centres (HRCs) Waste disposal centres where residents can dispose of domestic waste and recycling items that are not collected at the Kerbside.

Infrastructure Structures and facilities needed for the operation of a service e.g., Waste transfer stations, depots.

Net Zero The balance between the amount of greenhouse gases being produced and the amount that are being removed from the atmosphere.

NGO Non-profit organisation that operates independently of a government.

Parc Adfer – Energy from waste facility set up by the North Wales residual waste treatment project to manage the residual waste generated by populations from five local authorities, Flintshire, Conwy, Denbighshire, Anglesey, and Gwynedd. Diverts waste from landfill and generates renewable energy.

Recycling The process of converting waste items into new products to prevent disposal, reduce the need for raw materials, reduce carbon emissions and decrease pollution.

Repair Fixing or restoring items that are damaged, faulty, broken to extend their life and avoid the need to recycle or dispose.

Residual Waste Materials that remain following efforts to reduce. Reuse, recycle or compost. Commonly known as 'general waste' or 'black bin waste'.

Residual Waste Bin Black bin provided for non-recyclable and non-compostable waste.

Resources Materials, such as glass, plastic, paper fibres, that can be utilised to produce new items.

Reuse Using items again for the same use instead of discarding them.

Single Use Items that are only used once before being recycled or thrown away.

Third Sector Charities, social enterprises and voluntary groups put in place to deliver essential services.

Waste Duty of Care A legal requirement for all those dealing with waste to take all reasonable steps to ensure its compliant disposal.

Waste Composition The types and volumes of materials found in a waste stream.

Workplace recycling reforms A law for all businesses, charities, and public sector organisations to sort their waste into separated recycling streams to maximise recovery of valuable resources.

Waste minimisation Reducing the amount of waste generated; therefore, preventing waste from being created rather than managing it after production and use.

Ultra Low Emission Vehicles (ULEV) Vehicles that produce low levels of harmful emissions.

DRAFT

Strategy Forward

In 2022 Flintshire Council released its climate strategy pledging to take urgent action to reduce carbon emissions to net zero by 2030 and committed to support and promote the Welsh Government's strategy to create a sustainable, circular economy in Flintshire.

Unsustainable consumption of precious resources has a significant impact on our environment and climate. Taking steps to reduce consumption and move away from traditional linear resource models of make, buy, dispose, to a circular model to preserve the environment for future generations is a must.

It will take a collective effort from residents, our workforce and the wider community to reduce consumption and our impact on the environment.

This Resource and Waste Strategy will set out our aims to enable and support residents living in Flintshire to make it easier for them to reduce their impact on the environment and their carbon footprint and move Flintshire towards a circular economy.

Our Vision

Our vision is to lead Flintshire towards a circular economy, maximise our resource efficiency, minimise waste and work collaboratively with our communities to take collective environmental responsibility.

Through an effective resource and waste strategy, we aim to safeguard the well-being of current and future generations, support the local economy, and reduce our impact on climate change.

Our strategic Objectives

1. To be a net carbon zero Council by 2030 and support wider decarbonisation actions across the County
2. Prioritise waste minimisation through proactive engagement with our communities
3. Increase reuse and repair through partnership with third sector organisations.
4. Achieve Welsh Government targets to reuse, recycle and compost over 70% of the waste we collect.
5. To provide efficient, innovative, and cost-effective services.
6. Meet budgetary requirements and avoid fines.
7. To invest in our infrastructure to future proof services to accommodate service growth.
8. Utilise proportionate and effective enforcement for non-conformance.

Our Current Services and Progress



Provide a weekly recycling service for **72,441** households



Spend over **£3.4M** on the disposal of residual (black bin) waste



Operate two closed landfill sites generating electricity for methane extraction



Produce soil conditioner from the composting of garden waste



Generate an income of **£750k** for the sale of recyclable materials



Operate five household recycling centres achieving **81%** recycling



Enforce against waste crimes such as fly tipping and side waste

2022/23 recycling rate:



2025 recycling target:

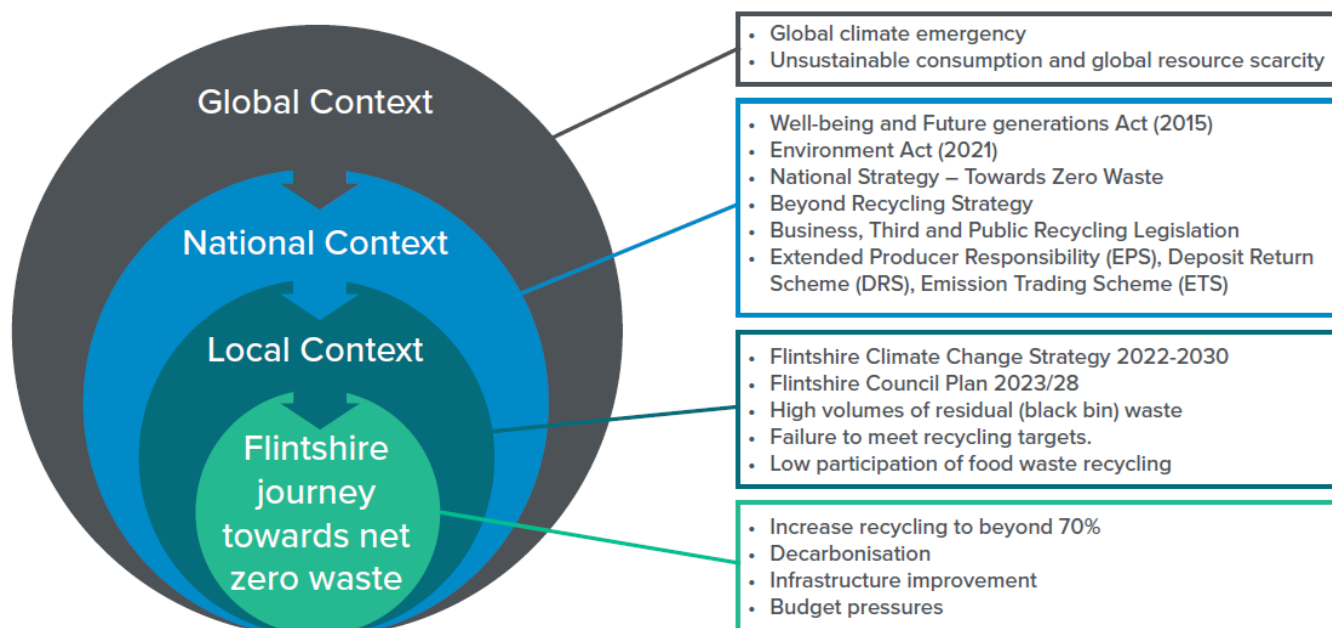


The Case for Change

The climate emergency and our unsustainable consumption of resources has been recognised by the Welsh Government and Flintshire County Council.

Moving to a circular economy is key to significantly reducing our carbon emissions and our over-exploitation of natural resources, and to help reverse the decline in biodiversity. Crucially, it can also improve economic and social outcomes. The drivers, and legislative and strategic framework in place to support our move towards a more circular economy are summarised below:

Figure 2: Global, national, and local context



Global Drivers

We are facing a global climate crisis, and it is now widely accepted that human activity is affecting the climate on a scale that is having detrimental effects on all living things. To avoid the worst impact of these effects we need to take urgent action to limit the increase in global temperatures by 1.5oC above preindustrial levels as outlined in the Paris Climate Change Agreement.

National Drivers

The Welsh Government has set an overall zero waste target by 2050 and ambitious recycling targets for councils in the interim period.

These are statutory targets and an Authority can be fined if they are not achieved.

In addition to the above targets, we also need to ensure we work with our communities to protect the long-term impact of our decisions in line with the Well-Being and Future Generations Act (2015) and adapt to the reforms that have been included within the Environment Act (2021). The reforms are designed to increase the recyclability of packaging waste, improve recycling, reduce litter, and increase business recycling.

Local Drivers

At a local level Flintshire Council has committed to tackle climate change and become carbon neutral by 2030 through its climate change strategy (2022/30)

There is a statutory obligation on Flintshire County Council to achieve a 70% recycling rate by 2024/25 or face significant financial penalties. Flintshire's current recycling rate of 61.51% for 2022/23 is significantly below the 70% target for 2024/25 and there is need, therefore, to take urgent action to increase our recycling rates and avoid being fined.

Flintshire is facing a budget gap of £32m in 2024/25 with potential solutions identified to bridge the gap at £18m, leaving a remaining shortfall of some £14m.

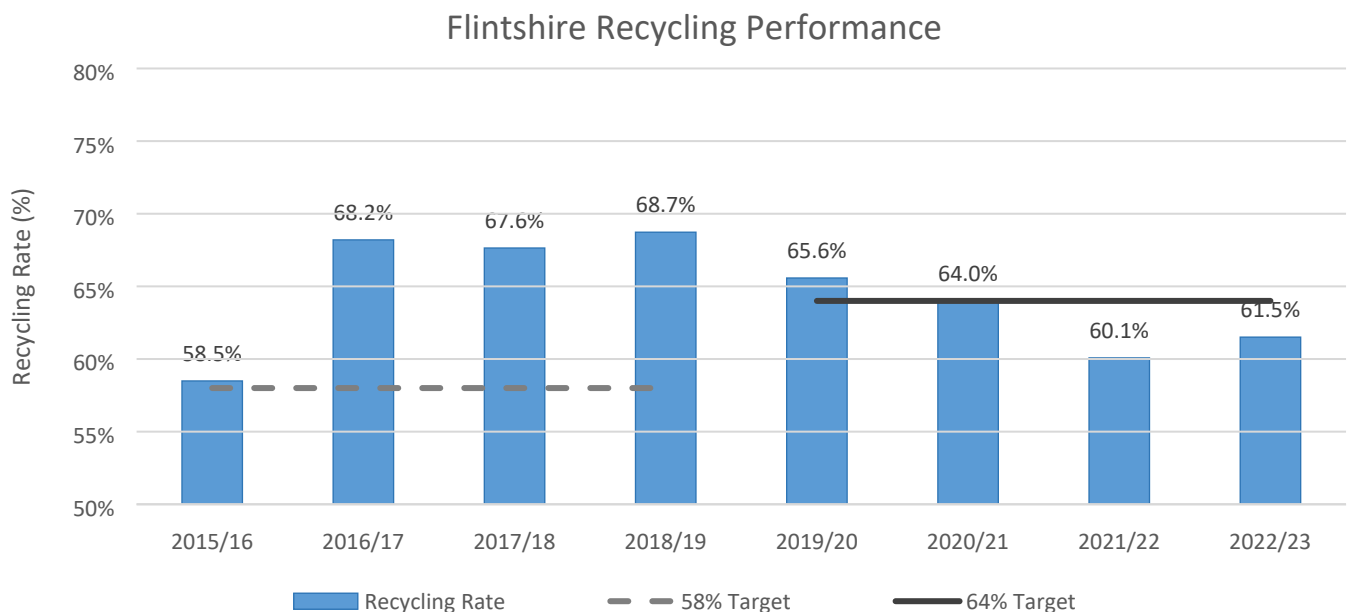
There is little left to cut and without more funding difficult decisions will need to be made to deliver a balanced budget.

Drivers for Change

In recent years we have achieved great success in increasing the amount we recycle in Flintshire to 61.51% in 2022/23. We would like to thank residents of Flintshire for engaging with our services to reach this target. Despite this progress we need to do more to increase our recycling rate to 70% and beyond, reduce our carbon impact and ensure that overall waste arisings reduce, increase reuse, and recycle as much as we can to promote a circular economy.

The table below shows our recycling performance since 2015/16 and whilst progress with recycling has kept pace with Welsh targets in previous years as an authority, we have failed to meet targets set in 2020/21, 2021/22 and 2022/23, and we are currently not on target to achieve a 70% recycling rate by 2024/25.

Figure 2: Recycling Performance and Targets



The Council faces significant fines for not achieving the statutory recycling targets. The fines for missing the targets over the two years 2020/21 and 2022/23 equate to circa £1M, and we are not set to meet the targets in 2023/24 resulting in the potential for additional fines.

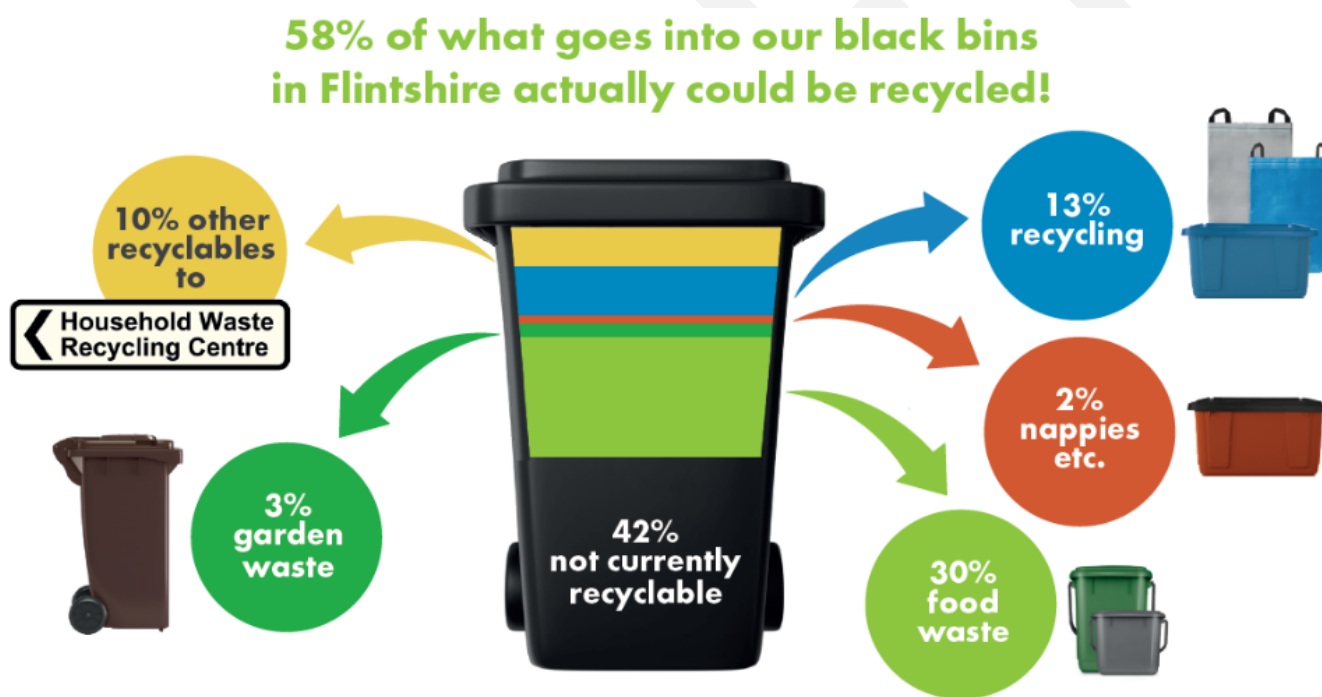
Furthermore, the targets increase again from 1 April 2024 and the Council will face higher fines of £1.2m per annum based on current recycling levels.

Waste composition

In 2022 an analysis of our household residual waste took place, the results of which can be seen in the pictorial diagram below.

The analysis shows that despite Flintshire's comprehensive weekly recycling service 58% of the contents of the residual waste bin (black bin) are materials that could be recycled either at the kerbside or at the household recycling centres. The remaining 42% are items that are not currently recyclable and should be placed in the residual waste stream.

Figure 3: Waste compositional Analysis



To help us reach a recycling target of 70% we need to divert recyclable materials from the residual waste stream (black bin) to the existing kerbside recycling services. The compositional analysis shows that 13,410 tonnes of material in the residual black bin, of which 6,940 tonnes was food waste, could have been recycled using our current service.

Taking into consideration the need to divert recycling from the residual waste stream to increase recycling rates and avoid financial penalties it is imperative that we take prompt corrective actions to meet statutory targets.

Within this strategy we have outlined our priorities that seek to address this risk to reduce our waste, increase recycling and decarbonise our activities so that we meet our strategic objectives.

Priority 1 – Waste Minimisation and Reuse

Our priority is to reduce overall waste arisings within Flintshire and increase the amount we reuse to avoid disposal. Our approach will be focused on helping residents, business schools and third sector reduce the amount of waste they produce and enabling better reuse of items.

What We Want to Achieve

- Raise awareness of waste minimisation and reuse in households, businesses, schools and third sector
- Encourage positive behavioural change towards waste prevention, minimisation and reuse.
- Reduce the overall amount of waste generated per household.
- Make it easier for residents to reuse and repair items.

How we will achieve this:

Communicating and Engagement

Consistent and clear messages are essential to support wider behavioural change. We recognise that the council needs to support residents across Flintshire to make the right decisions on how to minimise their impact on the environment. We want to improve our engagement with residents seeking more effective ways in which to communicate and raise awareness in ways that suits their needs including door knocking campaigns, roadshows, social media, mailshots and letter drops to households.

We will do this by:

- Setting out a communications plan for each year outlining key activities, promotional themes and how they will be delivered to residents.
- Promoting how residents can reuse and repair their items through targeted campaigns and collaboration.
- We will promote alternative places to donate/sell reusable items, such as online platforms or charities.
- Make minimising food waste a continuous targeted communication campaign.
- Promote how residents can avoid single use items, while supporting national drivers to prevent single use items being sold in the market place.
- Use data to identify households with high amount of waste to provide targeted messaging on reducing and reusing their waste.
- Ensure our communications literature is available in multilingual languages and readily available.
- Provide educational visits to Parc Adfer energy from waste facility to local students and community interest group.
- Promote alternative places to donate/sell reusable items, such as online platforms, charities or household recycling centres (HRCs)
- Work with schools within the county to create long term educational campaigns. Explore opportunities to work with eco groups and school councils.
- Work with local and national business to minimise waste at source and encourage less packaging, reuse and refill

Collaboration

- We will develop collaborative working with businesses, NGOs, schools and third sector including charities and social enterprise to achieve our goals.
- We will make it easier for residents to repair broken items by supporting community repair cafés.
- We will promote and make it easier for residents to borrow items, rather than buying new, through increased collaboration with the borrow bus and developing a 'library of things'.

Household Kerbside Collections

- Continue to provide vouchers towards the cost of reusable nappies to reduce the number of disposal nappies in the residual bin.
- We will ensure that collected bulky items from homes are segregated for reuse where possible.
- Promote home composting to minimise waste out of the home

Household Recycling Centres (HRCs)

- We will make it easier for residents to donate items for reuse at our HRCs and expand our relationship with local charities to recover reusable items.
- We will continue to promote our deconstruction facility at the Rockliffe (Oakenholt) HRC site, to deconstruct bulky items into their component parts in order to minimise waste.

Priority 2 – Increase Recycling

We need to increase our recycling rate to 70% and beyond by 2024/25 to ensure that we meet targets set out by Welsh government, avoid materials from being needlessly discarded, promote a circular economy, meet net zero carbon targets and avoid financial penalties for not conforming.

What We Want To Achieve

- To reduce food waste volumes in the residual waste bins
- To increase our recycling rate to 70% and beyond as set by Welsh Government
- To make it easy for residents to recycle their household waste.
- To provide all flats with a comprehensive recycling service
- Ensure businesses are compliant with workplace recycling reforms and legislative change.
- Divert recycling from the residual waste (black bin) into the correct recycling streams.
- Collect additional recyclable items at the kerbside.
- Reduce missed collections and provide real time service information.
- Restrict the amount of residual waste collected at the kerbside.

How we will achieve this:

Working with our communities we will provide a clear and comprehensive service to residents and business in Flintshire. Making it easy to recycle is key to engaging with residents and changing long term behaviours.

Communicating and Engagement

We will consistently promote how residents, businesses, schools and the third sector can easily recycle their waste, making it clear what can and cannot be recycled.

Using data, we will proactively engage with low performing areas and businesses in Flintshire to address barriers to recycling and monitor participation to inform targeted activity for engagement.

We will engage in a variety of ways including:

- Site visits and door knocking campaigns.
- Increased roadshows at high footfall locations including Connect Centres, household recycling centres, community events and fetes and local markets.
- Increase the use of social media, Council website and informative videos.
- Engage in National recycling campaigns and promote Recycle Week
- Continue to door drop leaflets and engage through council tax notices, annual calendars and targeted campaigns.
- Work closely with landlords/housing associations/FCC housing officers to provide joint solutions to improve recycling.
- Work with schools within the county to create long term educational campaigns to support our objectives. Explore opportunities with eco groups and school councils.

Household kerbside Collections

We will:

- Encourage residents to use the existing kerbside collection services already provided by the Council, including absorbent hygiene products, such as nappies and incontinence waste products, and clinical waste.
- Introduce new materials for collection at the kerbside with a focus on flexible plastics, small electricals, textiles.
- Introduce measures to increase resident participation in our food waste recycling collections service and promote home composting where possible.
- Find outlets for recyclable items we cannot currently recycle.
- Implement efficient and effective recycling and waste collection rounds, minimising their impact on the environment.
- Review suitability of our recycling containers.
- Provide a comprehensive recycling service to all flats within Flintshire, including food waste collections.
- Utilise technology to provide real time service information on collection rounds.
- Review our assisted collections policy and utilise technology to minimise missed collections and provide real time service information where possible.
- We will restrict the amount of residual waste that residents can dispose of in the black bin to encourage greater recycling by all residents either by reducing the frequency of collections or the capacity of the bin.

Household Recycling Centres (HRCs)

We will review our HRC provision with a view to providing an effective and efficient service to maximise recycling.

We will:

- Continue to seek sustainable markets for hard to recycle items.

- Do not allow mixed bags of waste into the residual (general) waste skip to ensure recycling is placed in the correct container.
- Introduce a clear bag policy so that recycling can be identified and removed prior to disposal.
- Deconstruct bulky household items that cannot be reused to recover recyclable material and avoid disposal.
- Ensure HRCs are accessible, efficient and clearly marked to improve customer experience.

Street Cleansing

We will explore sustainable methods for our street cleaning operatives and community litter picking groups to segregate recyclable littered items.

Commercial Waste

We will work with local business, business groups and leads to ensure they are compliant with forthcoming legislative changes to workplace recycling through active engagement and promote waste minimisation and reuse.

Priority 3 - Decarbonisation

We have committed to be net carbon zero Council by 2030 and supporting wider decarbonisation actions across the County.

What We Want to Achieve

- Meet Net Zero by 2030 in line with the council climate strategy.
- Ensure services are procured in line with carbon neutral objectives.
- Ensure our future infrastructure is carbon neutral.
- Enable residents to reduce their carbon footprint by minimising waste production.

How we will achieve this:

Communicating and Engagement

Communicate with residents, businesses, schools and third sector on how they can reduce their carbon footprint through waste reduction, reuse and recycling. This will be delivered using targeted campaigns using social media, the council website roadshows, door knocking.

Working collaboratively with internal colleagues, Welsh Government and NGOs we will educate residents on the importance of wider climate change issues such as Decarbonisation and net zero.

Fleet review and transition plan

A large proportion of the carbon emissions from waste activities are through the use of diesel collection vehicles. We are committed to reducing the environmental impact of our fleet by transitioning to ultra-low emission vehicles (ULEV).

We will develop a fleet transition plan that is linked to our strategic infrastructure plans and decarbonisation objectives while considering the natural replacement of vehicles.

Infrastructure

Develop waste infrastructure that meets net zero targets and enables our operations to decarbonise.

Priority 4 - Infrastructure

Delivering effective and efficient recycling services, that maintain the quality of the materials collected and ensure the capability of accommodating increases in future growth requires robust infrastructure to be in place.

What We Want to Achieve

- To ensure the authority has full control of recyclable materials collected from households and businesses.
- Improve operational efficiencies of collection and transfer of materials.
- Ensure our infrastructure has the capacity for future growth in tonnages and new materials.
- Ensure the infrastructure meets and enable our carbon net zero targets.

How we will achieve this:

Infrastructure review

We want to ensure that we have full control of the materials that we collect and ensure operational efficiencies for our services. We will therefore undertake an infrastructure review with a view to reviewing the business case for our own Recycling Waste Transfer Station for the deposit and processing of recyclable materials, to enable us to meet decarbonisation and net zero targets. We will also review the Council's current HRC provision to determine whether the current service provision should be maintained.

The review will take into consideration:

- Decarbonisation and net zero targets
- Future capacity for increased volume of materials and new materials
- Operational efficiencies
- Review the Councils infrastructure requirements.
- Compliance with new permitting requirements
- Set realistic, achievable targets

Priority 5 - Enforcement

We want to ensure that we make reducing, reusing, and recycling household waste as easy and as accessible as possible for all Flintshire residents.

We will continue to educate and support residents on their recycling journey, but we will also deliver fair and robust enforcement of waste policies and illegal activities such fly tipping, where necessary.

What We Want to Achieve

- Support residents that struggle to recycle and identify barriers.
- Signpost residents to the most effective way of managing their waste and recycling.
- Ensure that households participate and recycle their waste.
- Prevent fly tipping, littering and side waste presentation.
- Educate on household and business Duty of Care

How we will achieve this:

Communicating and Engagement

We will proactively engage with residents that may be struggling to manage their waste and encounter barriers to participation with the recycling service. This may include including visiting their property, to offer support through advice and practical measures to resolve issues.

We will regularly communicate waste Duty of Care requirements so both residents and businesses are aware of their responsibilities.

We will make it clear through regular communication that the authority will enforce against fly tipping, littering and side waste presentation and that action that will be taken and what those consequences are. We will publish details of enforcement action taken that result in Fixed Penalty Notices (FPNs) or prosecution to act as a deterrent.

Household Kerbside Collections

We will empower operational collection crews to identify households that could be struggling to manage their waste so that early intervention and support can be provided to avoid escalation.

Household Recycling Centres (HRCs)

- Continue to challenge and reject commercial waste from entering sites.
- Review the potential to introduce a resident booking system to prevent cross border tipping.
- Take action against those who display any verbal or physical aggression towards our staff who challenge our policies and procedures.

Enforcement

We seek to:

- Take a fair and reasonable three stage process to tackle service issues which includes issuing an informative/warning letter, use of Section 46 Notices and FPNs.
- Introduce the use of community protection warnings, community protection notices and/or Public Space Protection Orders for waste crimes that have a detrimental impact on the local community.
- Work collaboratively with our enforcement team to identify problematic areas in the community and facilitate educational sessions to prevent environmental crime occurrences.
- Undertake a zero-tolerance approach on significant waste related crime such as fly tipping.
- Take action against those who display any verbal or physical aggression towards our enforcement team.

Monitoring & Evaluating

We will measure our performance against our Strategic aims using performance indicators to track our outcomes to our objectives and ensure we are meeting targets and offering value for money.

Throughout the year we will report progress against a set of key indicators of performance (KPIs) that relate to the delivery of our priorities. This will be reported via including Programme Boards, Environment and Economy Overview and Scrutiny Committee, Cabinet committee and our Council Plan.

We will also regularly update residents and the community on our performance against targets.

Strategic Aim	Measurement	Unit	
Minimise overall waste	Kilogram of resident waste generated per year per person	Kg /person/ yr	Annually
Reduce food waste in residual waste stream	Increase in Food waste yield. Reduction in residual waste tonnages and composition Increase in food Waste Participation Numbers	tonnes/yr	Annually
Reuse / Recycling	Municipal Waste Collected and Prepared for Re-use/Recycling	Kg/hh/yr	Quarterly
Increase Recycling	Proportion of materials recycled	%	Annually
Satisfaction with services	Public Opinion Survey	Qualitative	Annually

1 Data Collection and Collation

WRAP's Kerbside Analysis Tool (KAT) uses a combination of actual data from our existing collection service, such as vehicle and resourcing levels, unit costs, and material yields, and combines them with evidence-based assumptions drawn from reliable data sets from other local authorities. KAT is an established and widely used tool which has supported many councils to assess and implement changes to waste collections.

Prior to the project commencing, we completed a number of KAT baseline data sheets. These provided as much of the key information required for KAT modelling as possible.

The data can be categorised into three themes: operational data, cost data, and material yield data. Categorisation of what data was supplied in each theme is:

Operational Data

The operational data supplied includes:

- Number and type of vehicles operated.
- Crewing levels.
- Mass of material collected.
- Length of working day.
- Tipping locations.
- Garaging locations.

Cost Data

The cost data supplied includes:

- Staff costs including operatives and supervision.
- Vehicle capital costs.
- Vehicle operating costs (standing and running cost).
- Waste transfer / infrastructure costs (staff, plant, operation and maintenance, consumables, energy etc.).
- Treatment cost for collected materials – residual waste and food waste.
- Material incomes from recyclables.
- Haulage (if applicable).
- Overheads.

Yield Data

Yield data was extracted from WasteDataFlow (WDF) and supplied for the financial year 2022/23. This includes:

- Kerbside residual waste
- Kerbside dry recycling

- Kerbside food waste
- Kerbside green waste
- HRC wastes (used for impacts on HRC's, rather than directly impacting collections modelling)

Additional Collection Data

In addition to that in the KAT proformas, further operational data was captured including a list of collection rounds and areas worked each day to give a much clearer picture of how current collections are arranged and resourced.

Of paramount importance when creating a service baseline is the measurement of productive time, i.e., the time during the working day when crews are actively collecting materials, and non-productive time, i.e., driving to the point of first collection, breaks, driving to offload materials, tipping times, return to collections, and return to depot. These are defined in the model using a number of parameters:

- Length of working day – taking into account breaks and other periods where vehicles not engaged in collection;
- Time spent travelling to first pick up;
- Time spent travelling from collection area to tipping point;
- Time spent travelling from tip to garaging location; and
- Time spent at the tip.

To maximise accuracy a 4-week sample (November 2023) of GPS data for the whole collection fleet was supplied as evidence and analysed using the model to produce a set of accurate, real-time parameters for the baseline model. This approach has been successfully employed in modelling projects undertaken in Wales by members of the project team and has been seen to produce reliable and realistic modelling outputs, where projected resource levels closely align with real world resource levels post implementation.

2 Modelling Assumptions

Yield uplifts, as a result of service changes, are key to the modelling process. As well as directly impacting recycling rates, changes to yields will affect the rate at which collection vehicles are filled and can therefore have a considerable influence on the resources required.

To accurately predict the changes from the options to be modelled, a detailed benchmarking exercise was undertaken drawing upon yields seen in other authorities across Wales.

Two types of residual waste collections were benchmarked to provide predicted yield uplifts:

- Authorities collecting via wheelie bins with weekly containment of 70 litres or less: Blaenau Gwent, Cardiff, Conwy, Neath Port Talbot, Newport, Powys, Torfaen, and Rhondda Cynon Taf.
- Authorities collecting the equivalent of one black bag of residual waste per week: Bridgend, Monmouthshire, Pembrokeshire, Vale of Glamorgan.

The two collection types were assessed because sack-based residual collections consistently exhibit the lowest residual waste yields, as well as the highest dry and food yields.

Yield uplifts were varied depending on the amount of weekly residual capacity, as well as the frequency of collection. The yields for each of the modelled options were agreed to be:

- For Option 1a, with residual capacity of 60L/week, dry and food yields are predicted to be at the median yield of bin authorities.
- For Option 2a, with a residual capacity of 45L/week, dry and food yields are predicted to be just below the median of sack authorities – this is due to an apparent tendency for sack-based collections to out-perform bin-based collections with similar nominal weekly residual volumes.
- For Option 3a, with a residual capacity of 60L/week, is predicted to realise the same dry yields as option 1a, but with more frequent residual collections (fortnightly as opposed the three weekly) food waste yield is projected to be slightly lower than Option 1a.

The agreed yield assumptions were:

Option	Description	Residual volume per week (l)	Yield - kg/hh/yr		Dry set out %
			Dry	Food	
Baseline	180l Fortnightly - 6 day working	90	168	62	80%
Enhanced Baseline	180l Fortnightly - 5 day working	90	168	62	80%
Option 1a	180l 3 Weekly - 5 day working	60	186	99	85%
Option 2a	180l 4 Weekly - 5 day working	45	190	110	90%
Option 3a	120l Fortnightly - 5 day working	60	186	96	85%

3 Carbon Assessment

Methodology

An assessment of the carbon impacts related to our current collection service and the modelled options was undertaken as part of the overall project. WRAP's Carbon

Waste and Resource Metric (Carbon WARM) factors were used to underpin the assessment.

The standard WARM conversion factors allow greenhouse gas emissions (in tonnes CO₂e) relative to landfill, to be calculated based on the mass of materials collected for each part of the service modelled. From the KAT modelling, the mass of each material stream collected for each service configuration was determined, and was used in conjunction with the relevant WARM factors to calculate greenhouse gas emissions for each option modelled.

With landfill disposal largely replaced by treatment of material via Energy from Waste (EfW) in Wales, the factors were modified to express greenhouse gas emissions relative to EfW.

In addition, we were keen to understand the contribution made by their collection fleet to overall emissions. The published Carbon WARM factors include an element of emissions attributed to the collection of material from the kerbside. However, the KAT modelling and our own data provide a more accurate measure of actual fuel usage.

The Carbon WARM factors were therefore modified to remove the collection emissions element, with the fuel data produced by KAT used to calculate the collections emissions instead. UK government (BEIS) emission factors for road fuel were used for the calculation.