Leeds CITY COUNCIL

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Report of Director of Environment and Housing

Report to Environment & Housing Scrutiny Board

Date: 22nd September 2016

Subject: Waste Theme - Update

Are specific electoral Wards affected? If relevant, name(s) of Ward(s):	☐ Yes	X No
Are there implications for equality and diversity and cohesion and integration?	☐ Yes	X No
Is the decision eligible for Call-In?	☐ Yes	X No
Does the report contain confidential or exempt information? If relevant, Access to Information Procedure Rule number: Appendix number:	☐ Yes	X No

Summary of main issues

This report provides an update on a series of waste issues that were presented to the Board in April 2016, or on which updates have subsequently been requested by Members:

- Addressing areas of underperformance in recycling;
- Engaging communities in the recycling agenda;
- Reviewing existing recycling services and recyclables collected;
- Maintenance of gullies.

Recommendations

Scrutiny Board is requested to note the content of this report and identify areas for further investigation.

1. Purpose of this report

The report covers areas of waste and recycling activity highlighted by the Board and sets out the current position and the key challenges or next steps.

2. Main Issues:

The appendices to this report provide summaries in the following main areas:

- Addressing areas of underperformance in recycling – Appendix 1;
- Engaging communities in the recycling agenda – Appendix 2;
- Reviewing existing recycling services and recyclables collected – Appendix 3;
- Maintenance of gullies – Appendix 4.

3. Corporate Considerations

Consultation and Engagement: Consultation and engagement is embedded within the individual areas of activity.

Equality and Diversity / Cohesion and Integration: An equality impact assessment is not required at this stage as this report is primarily an information report.

Council policies and City Priorities: Waste and recycling activities contribute to making *Leeds the best city to Live.* The waste strategy and waste collection policies referred to in this report have been consulted on previously and have previously been approved by Executive Board.

Resources and value for money: The financial implications will be taken account of as the directorate develops its budget proposals and will focus on maximising the value from existing capacity and infrastructure.

Legal Implications, Access to Information and Call In: This report does not contain any exempt or confidential information.

Risk Management: Risk management is embedded within the individual areas of activity.

4. Conclusions

The report covers a range of areas demonstrating the breadth and complexity of activities.

5. Recommendations

Scrutiny Board is requested to note the contents of this report, and highlight any areas for further investigation.

6. Background documents[1]

None

[1] The background documents listed in this section are available to download from the Council's website, unless they contain confidential or exempt information. The list of background documents does not include published works.

Appendix 1

Addressing areas of underperformance in recycling

1 Recycling performance

1.1 The performance of a number of waste/recycling streams and contribution to the overall recycling rate for the city can be seen from the table below.

City Recycling Performance

Waste stream	Performance contribution (%)			
	2013/14	2014/15	2015/16	2016/17 Q1 ytd (draft)
Kerbside green bin recycling	8.5	9.2	10.2	9.2
Kerbside garden waste collections	10.7	11.2	10.9	16.0
Kerbside food waste collections	0.4	0.4	0.4	0.4
Overall kerbside performance	**19.7**	**20.8**	**21.5**	**25.6**
Recycling extracted from black bin waste	8.6	7.3	1.7	1.1
Recycled street arisings	2.6	2.1	2.6	3.2
Household Waste Recycling Centres (HWRC)	9.6	9.1	9.1	9.5
Bring sites (e.g. bottle banks) and other recycling	3.3	3.6	3.5	2.8
Total recycling performance	**43.7**	**42.9**	**38.4**	**42.3**

1.2 A number of key facts stand out:

1.2.1 It should be noted that the contribution from the kerbside recycling collections has consistently increased year on year. However, these performance increases have been countered by a number of main factors.

1.2.2 Firstly, up until the transition to the Recycling and Energy Recovery Facility (RERF) in Autumn 2015, a proportion of the City's black bin waste was being sent to a contractor who processed this waste to remove some level of recyclables, rather than sending it directly to landfill. However, the market requirements for increasingly high quality recyclables have resulted more recently in this contractor being unable to achieve the level of recycling of previous years. Furthermore, when the Council's recycling performance figures underwent their routine verification by the Environment Agency during Summer 2016, the EA identified that one of this contractor's sub-contractors had been wrongly classifying an element of the waste

being sent to them as being recycled. Although the material was being composted, the process was not eligible to count towards the NI-192 performance indicator. For this reason, the recycling performance figure has had to be adjusted accordingly from the figure previously reported to E&H Scrutiny Board.

1.2.3 Secondly, delays in moving up to the targeted level of recycling performance from the Mechanical Pre-Treatment element of the RERF, both during the commissioning process last year, and now into 2016/17, have also impacted negatively on the overall recycling rate. This is discussed more fully in section 2 below, however, it should be noted that the issues of the increasingly stringent market quality requirements for recyclables referred to in the paragraph above in respect of the Council's previous contractor are the same as those to which Veolia's current performance problems can be partially attributed;

1.2.4 Thirdly, garden waste is another significant factor affecting recycling performance, with the material collected at the kerbside constituting over a quarter of household waste recycling. The levels of garden waste produced each year can be significantly affected by the weather conditions, and tonnages in 2015/16 were lower than originally forecast.

2 RERF recycling performance

Background

2.1 The RERF has delivered a major step change in moving away from the Council's historical reliance on landfill, along with its significant negative environmental impacts. It is estimated that the new facility will process around 4 million tonnes of waste over the 25 year life of the contract, the majority of which would otherwise have been landfilled based on the Council's former contractual arrangements and outlets for this material.

2.2 This move away from landfill will result in a reduction in carbon emissions of around 62,000 tonnes per annum, equivalent to taking 29,000 cars of the road each year.

2.3 It is a contract requirement that 10% of incoming waste will be recycled at the front end of the process each year. This material is extracted by the mechanical pre-treatment facility which removes paper and card, plastics, ferrous and non-ferrous metals.

2.4 In addition to the recyclables captured at the front end of the process, further recycling is achieved post-incineration. For reporting purposes this cannot be included in the performance indicator (NI-192) against which the Council is measured, but both the further metals extracted from the incinerator bottom ash and all of the remaining bottom ash itself (which is used as aggregates or in other construction applications) are recycled.

2.5 In addition to this, the flue gas treatment residues are now used to replace virgin lime in an industrial process rather than being landfilled. This means that practically every output from the RERF process is being used as a resource rather than a waste, and almost 100% of waste is being diverted from landfill, which is in excess of the contractual target of 96.5%. The only elements that may have to be landfilled are small amounts of non-processable waste for which a suitable treatment is not available.

Current performance of Mechanical Pre-Treatment Facility (MPT) and Improvement Plan.

2.6 Under the contract the Council measures recycling performance against an annual target. Progress is tracked monthly and there are quarterly sub-targets that Veolia must achieve. Failure of the first quarterly sub-target was confirmed once the monthly report for June was received in early July. The sub-targets are not in direct proportion to the annual target as waste flows change throughout the year, therefore the first target was set at 15% of the annual 10% total. This equated to a target of 2478 tonnes of recycling for the first quarter and only 634 were achieved.

2.7 In accordance with the contract, the Council has issued an Improvement Notice which required Veolia to identify reasons for the failure and to submit an Improvement Plan detailing how they plan to resolve the issues.

2.8 Veolia's Improvement Plan cites a number of issues as having impacted on recycling performance, but these can be summarised into two main areas:

a) Mechanical failures resulting in the unavailability of elements of the process – measures have now either already been put into place to resolve these, or the issues are in the process of being resolved in the conjunction with Veolia's sub-contractor. However, the main mechanical failure issues have been as follows:

- Machine failures, the most frequent of which has been the ballistic separators. This has resulted in multiple occurrences of extensive outage for rectification and testing;
- Delays in WTT (the MPT Subcontractor) fixing snags which would have ordinarily been resolved within the commissioning period. The ongoing rectification of these has resulted in occasions of downtime of the MPT Facility, thus affecting availability;
- The provision of access by WTT has not been sufficient to maintain the cleanliness of the MPT Facility. This has become increasingly evident since the commencement of operations.

b) Unavailability of markets for materials – Veolia have cited problems with securing outlets for the materials due to more stringent requirements from reprocessors relating to the quality of materials. Recyclable materials extracted from mixed residual waste are naturally of a lower quality to those separated for recycling at the kerbside. Whilst some of the plastics being targeted by Veolia for recycling have been problematic in this regard, the most significant issue is paper/card in terms of its potential contribution to performance. Members will be aware that Veolia have now secured planning permission to develop a Paper Pulping Facility (PPF) on the site adjacent to the RERF. As well as taking heat from the RERF and supporting the future delivery of a wider district heating scheme by the Council, it is also planned to process all of the paper/card captured by the RERF at this plant. Although this is an innovative proposal from Veolia in terms of the development of markets for the product resulting from this process, if successful, it will provide a secure outlet for the paper/card output from the RERF and would be significant in enabling Veolia to achieve its targeted level of recycling performance.

2.9 Veolia have issued the following profile of the forecast increase to targeted performance for the remainder of 2016/17:

Recyclable Material	Sep	Oct	Nov	Dec	Jan	Feb	Mar	2016/17 Total
MPT Availability (% of Target)	50%	70%	90%	100%	100%	100%	100%	
Ferrous	0.99%	1.39%	1.78%	1.98%	1.98%	1.98%	1.98%	
Non Ferrous	0.68%	0.95%	1.22%	1.35%	1.35%	1.35%	1.35%	
HDPE/PET	0.78%	1.09%	1.40%	1.55%	1.55%	1.55%	1.55%	
Paper/Card	0.40%	0.00%	0.00%	1.88%	2.81%	2.81%	5.50%	
Total	**2.84%**	**3.42%**	**4.39%**	**6.76%**	**7.69%**	**7.69%**	**10.38%**	**4.29%**

2.10 The Council is currently reviewing the response from Veolia, and will be working with Veolia in an attempt to challenge and enhance the projected timescales for improvement. However, given the performance shortfalls to date during this year, Veolia is not expected to achieve its annual recycling performance target for 2016/17.

Appendix 2

Engaging communities in the recycling agenda

1. Background

1.1 The recommendations in the Recycling Strategy Update report approved by Executive Board in November 2015 placed a clear emphasis for the medium term on a strategy of maximising existing capacity and infrastructure rather than rolling out new services given the current financial constraints. The Council agreed to support this with an effective programme of communications, community engagement, policy enforcement and service improvement. The sections below outline work completed since this time and further work planned in relation to communications and community engagement.

1.2 In July 2016, the Executive Board took a further report focused on securing behavioural change in relation to waste management and recycling. The principles guiding the agreed approach were that, first and foremost, the Council will aim to educate residents so that they understand their role with regard to responsible waste management. In circumstances, however, where an educational approach has not been successful, the Council will take an incremental approach from targeted support through to formal enforcement action. Residents would be given several opportunities to change and thus avoid the possible sanctions and penalties. It is anticipated that the need to undertake formal enforcement action will be the exception, and only where residents are choosing to disregard Council policy and persistently act unreasonably in a way which has a detrimental effect on others. The report also proposed a review of non-AWC areas and possible tailoring of the current waste and recycling provision.

2. Communications activities delivered and planned for 2016

2.1 Further quarterly campaigns around specific waste streams**:** Based on an 'invest to save' business case, information and awareness campaigns are being developed for glass, metals, paper and card, food waste and contamination. The general awareness Spring 2016 campaign focused on a quick reference 'what goes in your green bin' card sent to all households in April.

The 'your nearest bottle bank is closer than you think' glass recycling campaign is running during late August and early September, and again in December.

A jointly funded campaign in metal recycling with AluPro (Aluminium Packaging Recycling Organisation) entitled Metal Matters is under development for Spring 2017 pending local partner participation.

2.2 Waste vehicle advertising**:** to make best use of advertising systems on the sides of refuse vehicles, an in-house trial is underway using vinyl banners promoting the August glass recycling campaign. If the vinyl coverings are shown to be durable and effective, further campaign messages will be mounted on all fleet vehicles.

2.3 Education Programme Schools: the primary school waste and recycling advisors education programme involves delivery of presentations in schools aimed at encouraging positive behaviours in Leeds' citizens of the future. This work also serves to influence other members of the young person's household. Schools in the low and middle/lower recycling areas of the city are being targeted in the first phase of this work, which also links to visits to the RERF and the green bin materials recycling facility (MRF) in Beeston.

Secondary school and sixth form education programmes are being developed for launching in winter/ spring 2017.

2.4 RERF Visitor Centre: in line with the RERF Visitor Centre opening in March 2016, a series of presentations aimed at businesses, Elected Members, local communities and educational stakeholders is being delivered.

2.5 Interactive digital content: Encouraging digital channel shift by building on LCC's most visited service page is My Bin Day with almost 45,000 views in July 2016, the following digital software has been created:

'What Goes Where' recycling tool tailored for use on smart phones and tablets as a two click reference guide to what can be recycled and where launched during April 2016 (www.whatgoeswhere.org.uk/).

Leeds Bins App**:** enabling bin collection dates to be saved in a device's calendars with reminders and an interactive map of localised bring sites. The app links seamlessly to What Goes Where and LCC webpages. It was piloted during July and exceeded expectations by attracting over 2,000 downloads and achieving a 4.3 star rating on Google Play.

2.6 'Green-Up' Tower Blocks Recycling Incentive Scheme Pilot: four council housing tower blocks have been identified to engage in this scheme that offers either personal or group incentives for the most improved levels of recycling over either a month or quarter. The aim is to introduce some friendly competition between the blocks with rewards for the best improvement in recycling. Initial engagement with the tower block tenant-resident associations is underway with a launch planned for autumn.

2.7 Social Contract pilot: Engaging with existing community groups in Morley North/ South wards to start a conversation around the recycling challenge of the city and how we can work together to save money on waste disposal and potentially share some of that saving with the community groups. A one year pilot to be launched in the New Year following initial community engagement work to gauge interest.

2.8 Council Housing**:** Ongoing training at the RERF with Housing officers to proactively advise on recycling and correct bin use as part of a tenant's tenancy commitment. Weekly training sessions with over 110 officers trained since May 2016. Where households are not managing their bins correctly, information will be shared with Housing to educate and remind tenants of responsibilities.

Bin stickering: Work to Ensure that the right customer information is provided on bins resulted in over 95,000 green bin stickers being attached to bins in areas of low recycling activity. New stickers are being issued on all green bins and a clear quick reference card for users of new communal bins. New black and brown bins will also be issued with information stickers from the autumn.

3 Green Bin Contamination

3.1 Contamination within the green bins is a significant issue and results in significant additional cost to the Council due to the double handling of this waste under the Council's Materials Recovery Facility (MRF) contract with HW Martin. The annual cost of this contamination to the Council is currently estimated at around £600-700k per annum. Contamination will consist of a mixture of:

a) items which people genuinely believe are recyclable via the green bins (e.g. glass, wrong plastics, etc.);
b) mixed general waste arising from wholesale misuse of the green bin.

3.2 Since these elements are all mixed together through processing and to an extent in the collection vehicles, it is difficult to quantify these separately, but information from HW Martin, the Council's materials recycling facility (MRF) contractor is that misuse is the bigger contributor.

3.3 Based on a recent month's performance (which saw a contamination rate of around 21%), HW Martin separate the reporting of contamination into:

a) 'waste' (12%), the vast majority of which currently goes as a 'refuse derived fuel' (RDF) for incineration with energy recovery, with the small remainder going to landfill. This will contain more of the plastics, contaminated paper/card, other packaging which is more combustible;
b) 'fines' (9%), which goes to a local disposal outlet, with an element recovered for aggregates, but not counting towards the recycling rate. This will be a mixture of inert materials (glass, grit, rubble, etc.) and more of the organic wastes (i.e. food, garden).

3.4 Data on green bin recycling performance is by collection round, and it is very difficult to translate this meaningfully into specific communities or wards. In AWC areas recycling performance ranges from around 18% to 30% recycling (i.e. the green bin tonnage as a % of black and green bin tonnage combined), whereas performance for non-AWC areas is more like 8%. These figures are based on collected tonnages, and there will be an element of contamination in all of these figures, but this will naturally be higher in the non-AWC areas.

3.5 Co-mingled dry recyclables collections, such as that offered in Leeds via the green bins, typically result in higher contamination rates, but they also generally yield a higher tonnage of materials because of the ease of use for residents and the greater capacity provided in the wheeled bins than via multiple receptacles. The phased introduction of alternate weekly collections has seen an increase in the contamination

rate, although the net effect of the introduction of this service has been a substantial increase in the recycling tonnage captured at the kerbside.

4 'City Living Lab' Recycling Research Project

4.1 'Living Lab' research is an agreement between LCC and Leeds University to tackle the city's challenges using academic evidence based approach. The first research project is aimed at how recycling in low performing can be practically improved. During autumn/ winter 2016 the research will look at best practice in this field, what is currently happening and how to improve it.

4.2 The research will provide practical and independent guidance as to how to increase recycling rates and showcase the Leeds' sustainable city ambition.

5 Evaluating the impact of communications and community engagement

5.1 The primary measure of the impact of communications and engagement activities on kerbside recycling is naturally from data on the tonnages of recyclables collected. However it is inherently difficult to demonstrate an absolute link between these activities and performance increases/behavioural change given that there may be multiple other influencing factors. Performance data on tonnages collected also needs to be considered alongside, for example, data on contamination collected at the MRF to which the dry recyclables are delivered so as to assess the quality of materials delivered.

5.2 Similarly, glass recycling at bottle banks can be measured to identify trends in areas that might reflect a level of behaviour change, but this needs to be considered alongside any other local factors affecting uptake of the use of these facilities in particular areas of the City.

5.3 As such, supporting measures like campaign perception surveys from the Citizens Panel alongside activity data such as online 'hits', App usage and people seen at roadshows, etc..

5.4 According to sources such as Government sponsored WRAP (Waste and Resources Action Programme) organisation, behaviour change tends to take 6-12 months after the activity to show an impact. Since the beginning of concerted engagement campaigns in April 2016, initial results show a promising positive shift in recycling across the target areas of mid-level recyclers in Leeds. A full evaluation of the data will be prepared at the end of the year to identify success from the initial April and August campaigns.

Appendix 3

Reviewing existing recycling services and recyclables collected;

1. Recycling strategy and targets

1.1 Whilst it remains the Council's intention to resume the expansion of recycling services such as kerbside food waste and glass collections across the City once resources become available, a new approach is required in the medium-term which takes account of the current financial pressures and central government funding cuts, but also enables continued increases in recycling performance to be achieved.

1.2 To introduce an additional food waste collection route similar to that currently provided to around 12,500 properties in the Rothwell area of the City would cost an estimated £165k per annum, even taking account of avoided disposal costs. Similarly, a four weekly separate kerbside glass collection route covering around 24,000 properties would cost an estimated £140k per annum. To roll both of these services out to suitable properties city-wide would cost an estimated additional £5m per annum.

1.3 In acknowledgment of the current financial realities, in November 2016 the Executive Board approved a revised target to recycle 50% of household waste by 2020, with the longer-term target to exceed 60% remaining unchanged.

1.4 To achieve this target, Executive Board approved a medium-term strategy to focus on maximising existing capacity and infrastructure, supported by an effective programme of communications, engagement, enforcement and service improvement, but acknowledging the requirement for residents to participate fully if the revised target is to be achieved.

2. Waste Composition Analysis

2.1 In October 2015, Leeds City Council engaged its technical advisors to carry out a composition analysis of both the residual waste bin and the green dry recyclables bin. This was based on a representative sample from across the City of 250 black and 250 green bins. A summary of the results is set out in the charts below.

Fig. 1 ***Residual waste*** *composition by weight (%)*

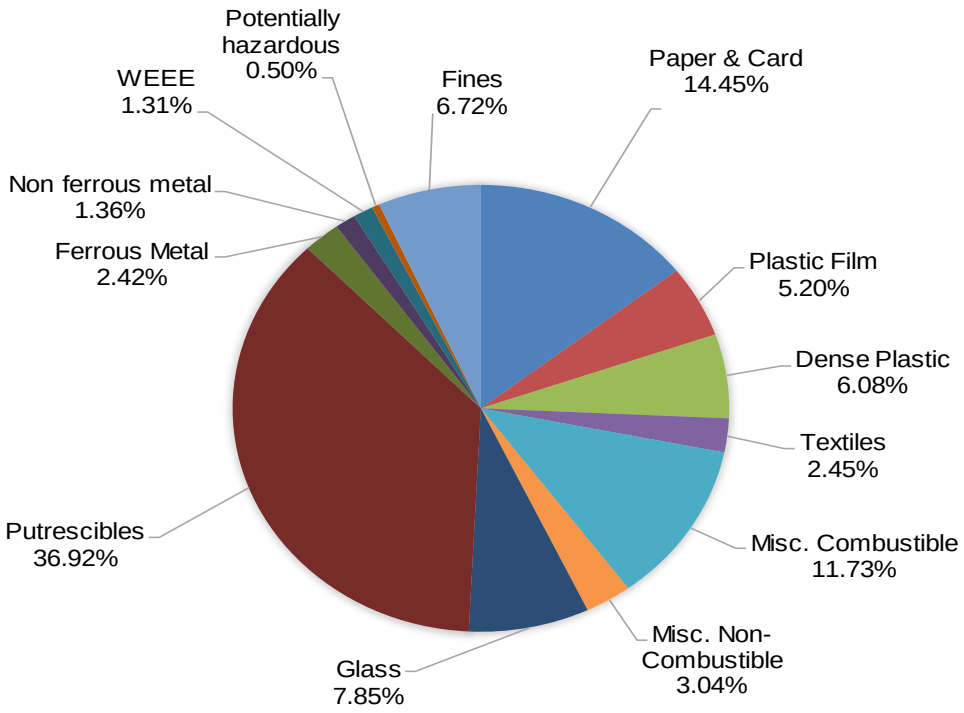
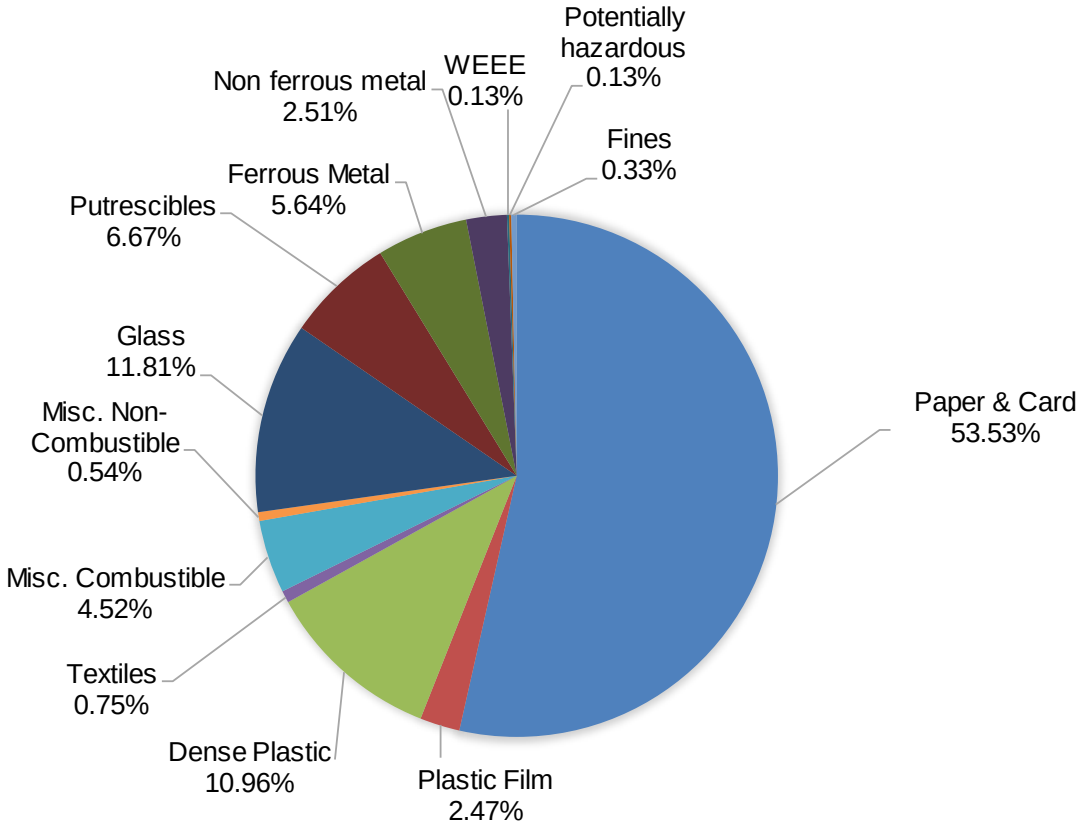


Fig 2 ***Recyclable*** *waste composition by weight (%)*



2 Textile recycling options

2.1 From the waste composition analysis above, textiles are seen to constitute 2.45% of the residual waste bin and 0.75% of the green recycling bin, although Veolia have reported higher levels of textiles in the black bin waste stream.

2.2 Options appraisal work is in progress to assess options for reducing the volume of textiles within the residual waste bin in terms of economic viability, operational feasibility and impact on recycling rates. Some options have been discounted, such as the Council providing a separate textiles collection (due to its costs). The main options being considered are:

- **Increasing textile reuse through promotion of the existing charity network** – this approach safeguards the income being received for these materials by the charities rather than diverting a proportion via a kerbside collection. It maximises existing outlets, and represents a low-risk approach to increasing textiles. However, it will fail to capture textiles from those residents who would only recycle their textiles with the convenience of a kerbside collection;
- **Expansion of provision of textile banks on Council land across the city** – again, this is a relatively low risk approach in that it represents a simple expansion of the existing provision and contractual arrangements. However, its success is subject to the ability to identify new sites for the additional banks. Again, it will fail to capture textiles from those residents who would only recycle their textiles with the convenience of a kerbside collection;
- **Incorporation of textiles into the existing green bin collection scheme** – this would probably be delivered through the provision of dedicated textiles bin bags to put into the green bin, and would be expected to produce a substantial increase in the tonnage of textiles captured. However, initial discussions with the MRF contractor indicate that there would be an increased processing cost to the Council from the inclusion of these materials, and the Council would be subject to the market values for textiles in terms of the extent to which this cost would be offset. The cost of provision of bags to residents would also have to be borne by the Council. As noted above, this service would also divert a proportion of textiles away from the existing charities.

2.3 Work is ongoing to explore the costs and benefits of these options further.

3 Maximising recycling from the Household Waste Recycling Centres (HWRCs)

3.1 The HWRCs are currently recycling, on average, over 60% of the materials that they accept. In reality this percentage is higher when the inert materials (soil, rubble, etc.) collected on site are included, but these do not technically count towards the formal performance indicator (former NI-192). The majority of this waste does currently undergo some separation by the Council's treatment contractor, but only limited materials are able to be recovered for recycling.

3.2 Although there is some scope for minimising the tonnages disposed of in the general waste skips on the sites through measures such as enhanced customer engagement by staff, a substantial proportion of the materials in these skips are inherently difficult or

expensive to recycle, in particular carpets, mattresses and dense plastics. The costs of haulage depending on the location of the reprocessing outlet or the economies of the vehicle payloads that can be achieved are also a factor, as is the availability of space for separate containers on some of the smaller HWRCs.

3.3 However, the Service continues to monitor the market for reprocessing these materials, and plans to run an initial trial to separate out carpets for recycling on a limited number of the sites. If successful, this could be expanded across the City.

4 Maximising the glass recycling bank network

4.1 Although a kerbside collection of glass is currently not viable or technically feasibly in a comingled stream, expanding glass collections is still aspirational and remains within the council's longer term Waste Strategy. Leeds City Council (LCC) is unable to incorporate glass into the mixed recyclable kerbside collection as doing so would impact unacceptably upon the quality of other materials in the green bin.

4.2 In Leeds, glass for recycling is captured via a network of bottle banks across the city, recycling sites and some high rise property bins. The overall amounts of glass captured over the financial year 15/16 were:

Bottle banks	7,769 tonnes
Household Waste Recycling sites	1,551 tonnes
Communal collections	334 tonnes
Total	**9,653 tonnes**

4.3 Depending on where in the city a resident lives, the ease to recycle via bottle banks varies due to their distribution. For example, Wetherby has the best provision (963 people per bring site) whilst Moortown has the worst (5,990 people per bring site). Consideration is currently being given to a programme of work to expand the current glass bank provision, focusing on areas where there is currently under-provision.

4.4 The Council is running campaigns targeted at glass recycling in order to increase the number of people using bottle banks to create savings through diversion from RERF/MRF. The glass campaign will be embedded within 'Invest to Save', a series of campaigns, each focusing on a different theme. The main aim of the campaign is to get more glass recycling out of the existing LCC infrastructure. These communications aim to look at the low/mid performing areas:

- Making residents aware of the facilities available - will use the line *'Your nearest bottle bank is closer than you think';*
- Getting residents to use them.

The first campaign, in August, had a summer BBQ theme and the second, in December, will have a festive theme. Both campaigns will involve communication via:

- Social media (twitter and Facebook)
- Bus shelters
- Proactive texts
- Radio ads
- Billboards
- Editorials (local magazines)
- Sky ad smart

Appendix 4

Maintenance of gullies.

1. Overview

1.1 The city's 143,000 gullies are serviced by two Directorates:

- Planned and emergency cleansing - Environment and Housing, Environmental Action (City Centre Team)
- Installation, structural maintenance and repairs – City Development, Highways and Transportation Service.

1.2 Staffing and Working Arrangements

The Gulley Cleansing Service is managed and co-ordinated via the City Centre Environmental Action Team. The service operates 7 days per week, between the hours of 6.00am and 16:30pm. There are 20 staff in total, manning five gulley cleansing vehicles. Due to the shift pattern, a max 10 staff are at work at any one time.

1.3 Cleansing programmes

1.3.1 Cyclical, ward-based cleaning takes place over 6 days (every day except Thursdays), using four vehicles.

1.3.2 A list of priority gullies known to be problematic and requiring more regular cleaning has been in use over many years. The original list comprised of approximately 1,000 gullies, but now contains in excess of 5,000. These 'wet spot' priority gullies are scattered throughout the city and are programmed for cleaning on a monthly, 3 monthly or 6 monthly basis according to risk.

1.3.2 One vehicle is dedicated to cleaning wet spot gullies six days of the week. Gulley crews will work on each until the gulley is flowing, with those unable to be cleaned and requiring repair being referred to Highways for attention.

1.4 Reports/Complaints

On every Thursday, all 5 gulley crews are deployed to work on either gullies for which a complaint has been received or those where it was not possible to complete the cyclical ward-based clean within a reasonable time. If the gulley is still not able to be cleared on this day and the cause of the blockage has not been established, it is reported to Highways for repair.

1.5 Budget for Cleansing & maintenance

The current budget for gulley cleansing is in the region of £800k per annum. The Highways team is responsible for the repair of all the city's gullies. Around £250k per annum has been allocated for all drainage expenditure items which include gulley repair and maintenance.

1.6 Update of actions since April 2016

There have been a number of developments in this work in recent months & these are highlighted below.

2.1 Electronic recording of work.

2.1.1 At the end of June, software was installed on all gulley tankers which enables detailed records to be made in the field which are collated to provide a full record of work undertaken across the city. As each gulley is attended, the crew records the condition of the cover, the quantity of silt in the gulley, whether parked cars created access problems, whether the gulley required repair, or whether it was successfully cleaned and left flowing well.

2.1.2 To date, the condition of around 8,000 gullies has been entered onto the database.

2.1.3 Once the whole city has been recorded in this way, service managers will be able to readily see when a particular gulley was cleaned and if not, when it was referred for repair. The information can be accessed by both cleansing and highways services and will greatly facilitate communication on referrals and remedial action taken.

2.1.4 The current approach of routinely deploying the majority of the cleansing crews on a cyclical ward by ward basis means the deployment of the whole resource is not fully determined according to flood risk management. The introduction of the software now in use by crews allows a much better understanding of the condition of the road drainage network in order to apply flood risk management principles more effectively.

2.1.5 Meetings have been held with the contact centre to find a technical solution for the customer to ‘self-serve’ and find information direct, on the condition and servicing of certain gullies.

2.2 Reducing down-time through water fills.

2.2.1 Gulley tankers are permitted to draw water from certain water points across the city provided that a metered standpipe of a particular internal diameter is used to avoid affecting water pressure locally. Each gulley tanker requires over 8,000 litres of water to be filled; a task which can currently typically take anywhere between 50 minutes and 1 hour 15 minutes depending on the water pressure at the outlet in use. Each tanker needs to be filled completely once per day and can need topping up on average up to 2/3 times a day depending on weather conditions and condition of gullies being cleansed. Typically, the act of filling up the tankers alone can lead to at least 70 hours of down-time each week across the service.

2.2.2 A costed design solution for a fast-fill water supply at the Kirkstall site is being developed. This is intended to be through a 50,000 litre holding tank capacity below ground able to fill 3 x 8,000 litre gulley tankers consecutively in 15 minutes. A 25,000 litre tank filled from surface water drainage is also being explored.

2.2.3 The detail and full cost of such a scheme are awaited before a final decision can be made based on the efficiencies available from a significant reduction in down-time of gulley cleansing vehicles and the other approx 19 cleansing vehicles which fill at this location.

2.3 Fleet replacement.

2.3.1 New gulley tanker vehicles will be delivered and in use from October. This will assist in reducing down-time due to reduced vehicle maintenance and the need for repair.

2.4 Co-ordination between Environmental Action and Highways Services.

2.4.1 Gullies are cleansed by staff in Environmental Action and maintained and repaired by Highways Services, presenting a situation of what is in effect one operation completed across two Directorates. Whilst the process of repairing a gulley starts as a notification in one service and ends with the repair in another, the timely transfer of information both ways will encompass some risk. Liaison between the two teams has improved, but is not yet routinely reliable and complete, although the software in use now will help. Discussions have commenced on the start to end process being within one service and to include the full process within the scope of road surface drainage design, provision and upkeep. In addition, the contribution of the condition of gullies to managing flood risks across the city is best approached on a city-wide basis, which could at times be in tension with local expectations and demand. The advantages of the gulley cleansing operation having a direct connection with flood risk management are clear.