

## Projects and Waste Minimisation Update

### SUMMARY

This report provides an update on the Authority's waste minimisation, efficiency and joint working projects.

### RECOMMENDATION(S)

- 1) *The Authority is asked to approve the investment in the Borough food waste business cases detailed in Appendix 1.*
- 2) *The Authority is asked to note the information within this report.*

**1. Introduction** - The West London Waste programme has been designed to deliver efficiency enhancement with a whole system, data driven approach in line with our Mission and Purpose highlighted in our Business Plan.

The delivery of the projects is in conjunction with the constituent Boroughs to derive the greatest benefit from joint working in West London. This report covers the main project updates with governance of the wider programme managed through the WLWA senior management team.

**2. Data** – officers are capturing data in the following areas to measure performance and inform efficiency projects:-

- Waste Data Flow (borough data reporting), near live dashboards
- HRRC - resource performance, usage, vehicle movements, carbon
- Collections - routing data, diversion from residual, bin sensor/smart bin
- Waste Composition food waste, kerbside capture rates
- Market and legislative drivers - Sector Deal, Resources and Waste Strategy

### 3. Joint working

The Projects and Waste Minimisation Teams are working with Boroughs and Operations to deliver an efficiency and waste minimisation culture across the whole system. Effective engagement with residents and a consistent message/approach across all sites in West London helps deliver the wider system benefits from food waste and resource capture at both sites and kerbside.

Food Waste Investment Fund was approved in order to deliver waste and carbon reduction across the system with a focus on the greatest proportion of the remaining residual waste. The first two/three months of 2020/21 the priority was dealing with the implications of Covid-19 across all teams. During the last 3 months a significant amount of work has been undertaken and good progress has been made in relation to this food waste initiative:

- Regular engagement with Environment Directors and their teams has resulted in commitment from all boroughs to participate in value stream mapping exercises to identify opportunities
- Value stream mapping (VSM) exercises have been undertaken by the WLW Projects team with teams from every borough

- Several opportunities have been identified – flats being a common theme
- Working with boroughs opportunities have been considered in detail and developed into projects
- Information and data has been gathered and financial appraisals have been produced by the Projects team and validated by the Finance team

We can now make recommendations about investment in projects so that boroughs can progress with their own internal decision making processes. Please see Appendix 1 Food Funding report. Please note that there are a few more projects in the data gathering stage and in consideration with boroughs. These will be evaluated and reported to subsequent Authority meetings.

The HRRC sites (seven) in West London are operated by the Boroughs with the Brent HRRC (Abbey Rd) operated by WLWA. This has been identified as an area where joint working could deliver carbon and financial benefits with a whole system approach, please see Appendix 2.

Officers have identified potential savings through joint procurement and will be engaging with the markets to establish potential economies of scale of services and commodities, for example:

- Fuel (fuel oil, DERV etc.)
- HRRC material off-take (Metals, card, paper, gas cylinders)
- Staffing cover/agency
- Reuse services

Officers will update the procurement register if any of the projects are viable following the market testing.

4. **Risk** – Project specific risk is highlighted in the Appendices. The Covid-19 lockdown has created an increased risk to all projects therefore the full programme is under constant review with a priority on joint working and delivery of savings.

There are still further consultations and a revised timetable for legislation is expected, related to the Resources and Waste Strategy, which must be considered during the development of all projects.

5. **Financial Implications** – During the budgeting for the 2020/2021 year there was no requirement for an additional bulky waste service or a booking system at the HRRCs. The delivery of these projects will be unbudgeted in 2020/21. The cost impact is currently unknown but it is expected to be low. The projects overall impact on the whole system is expected to help mitigate some of the costs due to Covid-19.

6. **Staffing Implications** – None

7. **Health and Safety Implications** – The Projects Team has moved predominantly to working from home during the Covid-19 pandemic. All fieldwork has been risk assessed for the tasks to be completed and have had additional Covid-19 controls included in the mitigation measures.

Members of the Waste Minimisation Team have moved to working on the Abbey Rd site during the pandemic and have all had the required inductions to operate on the site including the update for operations during the C19 pandemic.

8. **Legal Implications** - None

9. **Joint Waste Management Strategy**

The projects mentioned in this report are intrinsically linked to the Authority's Joint Waste Management Strategy. The projects are driving the design of the new policy through data, best practice and identification of opportunities as well as delivering change to meet the desired outcomes and targets in the Strategy.

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## Appendix 1 – Food Waste Investment (Report by the Project Director and Finance Director)

### Background

The 2020 WLWA budget proposed to take greater initiative to provide an **incentive to overcome barriers** in delivering a step change in the amount of food waste removed from collected household residual waste. This £3M one off investment will deliver structural service change to help divert waste from the residual stream. Current composition analysis shows approx. gross £8M per annum additional cost (potential saving) of food in the residual waste stream.

### Consultation

Following consultation we were asked to agree a mechanism to fulfil three key criteria:

1. Capital investment in advance
2. Fairness, taking into consideration investments already made by Boroughs
3. Total value of the investment should be greater than the sum of its parts

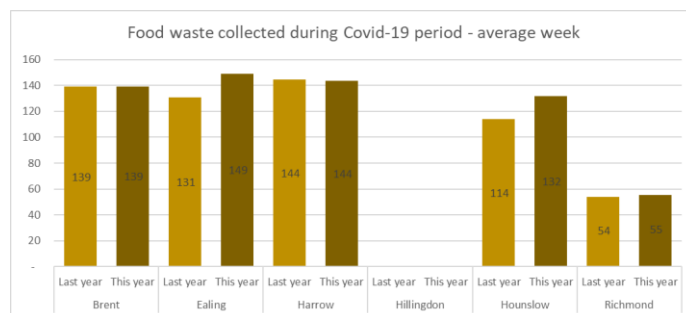
### Barriers

Discussions which have been compounded by the experience of managing services during a pandemic indicate the barriers are predominantly linked to food waste recycling being a growth model in a cost cutting environment eg:

- Food waste recycling is not **the priority service**
- Unable to access funding for capital expenditure needed to maintain the service
- Unable to access funding for capital expenditure needed to grow the service
- Operational constraints eg co-collecting vehicles
- Time for Officers to plan and think

### Current situation

The food waste communications campaign started in February, from March very little schools or business food waste was collected and yet collections are either flat or growing:



The food waste capture rate is estimated to be between 25-33% of the total food entering the waste system, the target is 4kg/hh/week providing a significant opportunity to deliver savings through increased capture and reduction.

### Funding due diligence

Borough proposals have been considered from the perspective of the return delivered to WLWA i.e. £500k funding should result in £600k of savings by extraction of food waste from the residual waste stream. It is expected boroughs will have undertaken their own feasibility/appraisal of the projects and programmes they have proposed.

The food waste project assessments have been completed for all boroughs with c.12hrs per Borough of Value Stream Mapping (VSM) of the food services with WLWA and Borough officers

working closely together in these sessions. This worked well to establish a baseline for the existing services and agree improvements to business cases and increase the proposed returns.

The VSM output can be found in Annex 1.

All Borough Business Cases have been focused on the operational projects to deliver structural service expansion and not using the funds to off-set short term cost. The projects have been assessed against a return on investment for WLWA of at least 120% over three years. Performance will be measured. For example for investment in vehicles we could monitor the volume of food waste collected by those vehicles and for communications we could measure the volumes collected before and after the engagement exercises. The detail of the performance measurement will be agreed with boroughs.

All Borough's business cases meet the WLWA requirement for funding of £500k based on the modelled returns and tonnages diverted, with the performance in many cases being well in excess of the 120% target.

Table A

Borough	Project	Investment	Return/tonnes (3yrs)
Brent	Provide 56,000 flats with equipment and consumables to increase the utilisation of the collection service	£500k	£826k (8.7kt diverted) 169% ROI
Ealing	Introduce service to 30,000 flats that currently do not receive a food waste collection service  Supply of new equipment and targeted communications to 25,000 homes in 11 current collection rounds to improve volumes collected i.e. efficiency	£500k	£949k (10.13kt diverted) 190% ROI
Harrow	Introduce commercial collections (1500) and Flats Above Shops (800 FAS) service	£500k	£708k, 7.5kt diverted 141% ROI
Hillingdon	Introduce separate kerbside food service to homes either with no service or currently receiving a mixed organic service	£500k	£939k, 6kt diverted 200% ROI
Hounslow	Introduce service to 25,500 flats that currently do not receive a food waste collection service  Supply of new equipment and targeted communications to 10,500 homes in 5 current collection rounds to improve volumes collected i.e. efficiency:	£500k	£809k, (8.6kt diverted) 167% ROI
Richmond	Provide 17,000 flats with equipment and consumables to increase utilisation of the collection service  Introduce a commercial waste collection service to 540 new commercial customers	£500k	£1,101k, 11.6kt diverted 223% ROI
<b>Total</b>		<b>£3,000k</b>	<b>£5332k (181% ROI)</b>

The funding will be used to provide additional rounds serving properties new to food waste services across the west London area, providing a more consistent service to borough residents. The intention is that we invest the full £3 million in these borough programmes/projects. It is worth noting that the projects will be refined and tailored to individual boroughs without materially altering the forecast outcomes.

### **Key Project Risk**

The key risk is that projects do not perform as modelled meaning that they cost more and break even at a later date or not at all. The main component of this risk is that resident/customer participation does not meet modelled increases and tonnage collected is lower than forecast.

However, given the overall return is well in excess of 120% for every boroughs programme of work the headroom is very significant meaning there is very little risk from a WLWA perspective. However it is worth noting that boroughs will bear most of the project risks and will have undertaken their own appraisals and risk analysis. WLWA Officers will work closely with boroughs to support them in delivering projects successfully.

WLWA have sought to mitigate these risks in the modelling by working with the boroughs and consultation on assumptions. We have also used data and information to check and rework financial appraisals to ensure the reasonableness and accuracy of the picture, maintaining audit trails of supporting information and data.

### **Added value**

The VSM identified a list of core projects designed to enhance the existing service efficiency as well as gather data to inform the targeted elements of the investment projects. The WLWA Projects team will work with Boroughs to ensure these core projects and economies of scale benefits are delivered.

The VSM also identified several additional projects that would improve the overall system efficiency and quality, optimising the benefit from the investment in projects identified above. These include:

- Next day caddy deliveries
- Optimising collection rounds e.g. bin sensors, routes etc

These will be delivered at a multiple borough level where possible.

### **Recommendation**

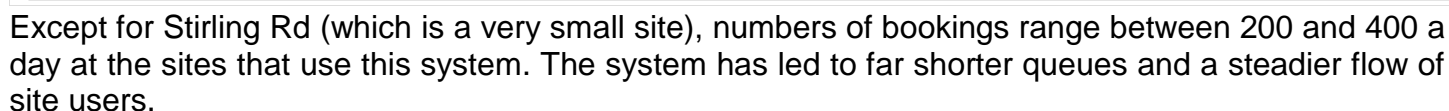
To approve the investment in the programmes/projects identified in the Table A.

## Annex 1 Value Stream Mapping output

Borough	Brent	Ealing	Harrow	Hillingdon	Hounslow	Richmond
Communal bin store survey						
Operational improvements - inc staff training, vehicle configuration						
Peripheral order fulfilment - improving in-house service - record reason						
Training - improve user experience - returning caddies etc						
Existing capacity study						
Collect in depth service data to improve decision making						
Identify existing service issues						
Participation monitoring (traditional method) - for targeted user feedback						
Participation (innovative ways eg vehicle cameras, exception reports)						
Participation heat mapping to target operational and comms resources						
Carry out a study into provision of caddy liners						
Collect data from outside sources eg supermarkets						
Develop an bespoke App - QR codes, collection day etc						
Increased frequency of composition analysis						
Crew actively report missing/damaged caddy/contamination via incab system						
Demographic study - Identify/target resources						
Work with planning dept - pedestrian flows - locating bins						
Work with planning dept on future development designs						
Work with Landlords/Managing agents						
Charging for commercial waste by weight						
Introduce/expand communal services to flats						
Comms 1 - Stickers, leaflets, letters, lamp post collection day sign etc.						
Comms 2 - Targeted engagement						
Introduce a commercial service						
Provision of segregated kerbside services						
Home treatment of food waste						
Communal collection container for FAS and commercial - fob access						
Introduce service to FAS						
Supply of collection equipment FOC						
WLWA joint procurement (caddies, liners, bins)						
In house Project Management Resource						
Introduce a schools service						
Cross border operations						
Synergies between high-rise and trade						
Introduce/target service to HMOs						
Waste minimisation						
Lobbying for legislative change						
Communal site improvement						
Subscription model						
System in place to actively remove contamination from communal bins - feedback						
New resident pack						
Consistency of communication across boroughs						
Link with existing apps						
Smart routing - Bin sensors						
Peripheral order fulfilment by 3rd party e.g Amazon						
Micro AD						
Investigate alternative tipping locations to improve operational efficiency						
Communal bin cleansing						
Bin cleaning/cleanliness inc pedal operated food waste bins						



Site bookings systems have been implemented at six of the seven HRRC sites and have successfully moderated queues and enabled the site to increase the recycling levels on site. This has enabled officers to map service usage across most of the HRRC system. This has enabled heatmaps and to be generated and provide an incite into the interaction and efficacy of the Kerbside system and the usage of HRRCs.



**Legend**

- Non Recyclables (dark grey)
- Garden Waste (green)
- Card/Paper (blue)
- HRRC Sites
- WLWA Boroughs

**Map Labels:**

- Hillingdon
- Harrow
- Brent
- Brent Abbey Road
- Ealing Greenford Ealing
- Ealing Acton
- Hounslow
- Hounslow Space Way
- Richmond Townmead
- Richmond upon Thames

**Scale:** 0, 2.5, 5 km

**North Arrow:** Indicated by a stylized arrow pointing upwards.

Non-recyclables (non-bulky), garden waste and card/paper have been included on this map because these materials are recyclable via kerbside systems.

- Hot spots for the different materials overlap
- Proximity to sites is a key factor (less-so in Brent)

Green waste services are heavily influenced by proximity to the HRRC with hotspots showing users not engaged with the kerbside subscription services.

Using this data officers are investigating the whole waste system in the West London region and working with the Environment Directors on the fortnightly calls to identify more joint working initiatives designed to deliver service and cost benefits.

These include:

Benefit	HRRC	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Pool resource Overtime/agency review and reduction	Staffing cover							
Ops savings Vehicle movement reduction Carbon saving	Haulage/compaction							
Trade service increase Disposal saving	System abuse							
Increased Revenue Material off-take QC Best Value	Material offtake							
Increase revenue Optimise trade service	Area Trade arrangement							
Admin time saving Reporting automation and accuracy	Weighbridge upgrade							
Increased Revenue Disposal saving Carbon benefit	Reuse (saving + income)							
Carbon Reduction Waste reduction Vehicle movement reduction	Bulky waste service							
Cost reduction Economy of scale	Consumable procurement (Fuel etc.)							

Officers are continuing with the pilot scheme for the bulky waste services and are currently achieving c.60% diversion from residual as well as significant reductions in vehicle movements reducing carbon and improving the traffic flow on the HRRCs.

The Waste Minimisation Team has been busy supporting the diversion and analysis of recyclables at Abbey Road HRRC. The team commenced the resident engagement by surveying of residents during the week of 24<sup>th</sup> of August to understand the use of the facility instead of recycling services offered at the kerbside to supplement the data gathered from the booking systems. The survey will further expand to other borough facilities in the coming weeks.

The team will be leading a series of multi-facet repair events in responding to the declaration of climate emergency, and this includes running of one bike repair workshop across each of the six West London boroughs during Repair Week in October. Following closely, the team will also lead on running online workshops to reduce single-use plastics by promoting the use of reusable period and nappy products.