North London Joint Waste Strategy

Annual Monitoring Report

2018-19

November 2019

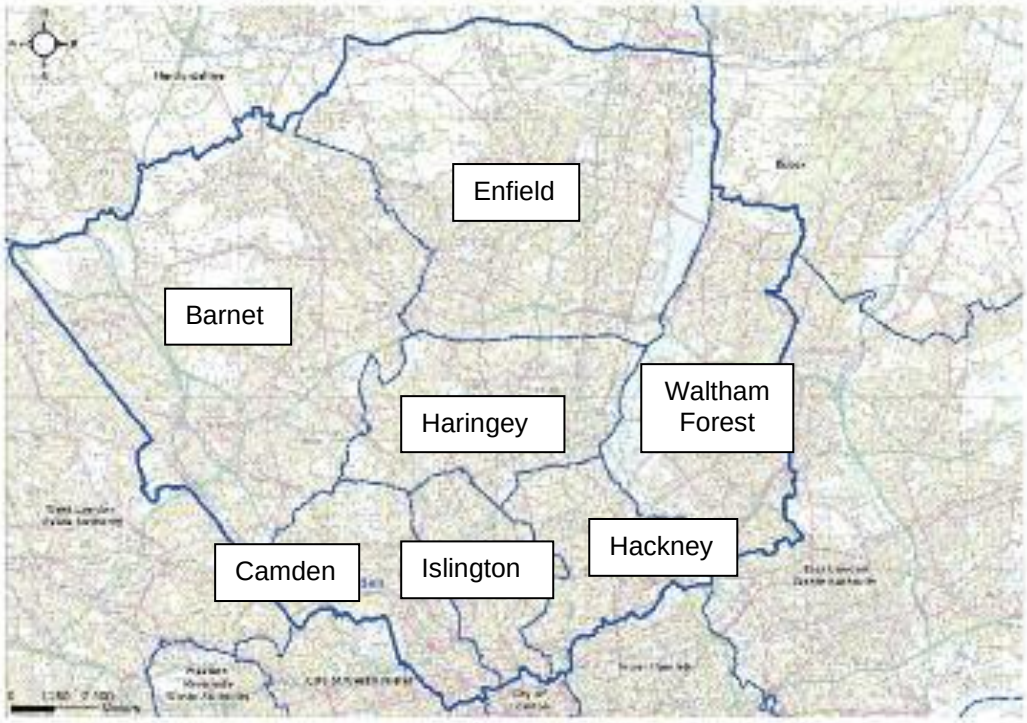
Front cover: Picture taken at a Waste Prevention event held at Chapel Market, to encourage residents to reduce food waste.

1 Introduction

The north London area covers almost 30,000 hectares and municipal waste arising in this area is collected by seven Waste Collection Authorities these are:

- London Borough of Barnet
- London Borough of Camden
- London Borough of Enfield
- London Borough of Hackney
- London Borough of Haringey
- London Borough of Islington
- London Borough of Waltham Forest

Figure 1.1: Map of the north London area



In 2009 the eight north London waste authorities (the seven waste collection authorities and the waste disposal authority – collectively described here as the Partners) adopted the North London Joint Waste Strategy (NLJWS), a combined waste strategy for the area between the years 2004 to 2020 that was consistent with both the National and the Mayor of London's waste strategies in place at the time. The NLJWS sets a framework for the management of municipal waste, i.e. the waste collected by the north London boroughs (including both household and non-household waste) and seeks:

- A recycling-led solution with the aim of achieving a combined household re-use, recycling and composting rate of 50% by 2020 (for the sake of simplicity, this is usually referred to as a 'recycling rate' of 50% elsewhere in Authority information).

- A reduction of biodegradable municipal waste going to landfill, so that by 2020 the proportion of such material that goes to landfill is reduced to 35% of 1995 levels (in line with the Landfill Directive targets)[1].

This annual monitoring report details the performance of the eight Partners towards achieving the objectives and targets set in the NLJWS during 2018-19. Details of previous years' progress are available in the previous reports, which are available on the NLWA website at: http://www.nlwa.gov.uk/governance-and-accountability/annual-strategy-monitoring-reports/

This annual monitoring report should be read in association with the previously published North London Joint Waste Strategy (February 2009) as it is not intended to duplicate text already published within that document. The NLJWS is available to view or download from the Authority's website at: North London Joint Waste Strategy.

Most of the data reported here is from WasteDataFlow, the web-based system for reporting waste management information by UK Local Authorities to government. Data from WasteDataFlow is publicly available at: WasteDataFlow.

Document layout

The green shaded boxes below contain the 'implementation actions' published in the NLJWS that the eight Partners have agreed to report annually. The numbering follows those as set out in the NLJWS.

Each implementation action is followed by some analysis and commentary.

Implementation actions which are not reported upon in this document generally do not lend themselves to annual monitoring and review, e.g. implementation 1.B. which states that the North London Partner Authorities have agreed to a series of Aims and Objectives.

Terminology

The Authority	–	the North London Waste Authority
The Boroughs	–	the seven north London borough councils of the Authority (as above)
The Partners or the Partner Authorities	–	the Authority and the Boroughs together

[1] The London Plan, consolidated with alterations since 2011, the Mayor's spatial strategy for the capital, (March 2016) now aims for London to "work towards zero biodegradable or recyclable waste to landfill by 2026" – Policy A (c). The London Plan is available on the GLA website http://www.london.gov.uk/what-we-do/planning/london-plan

2 North London demographics

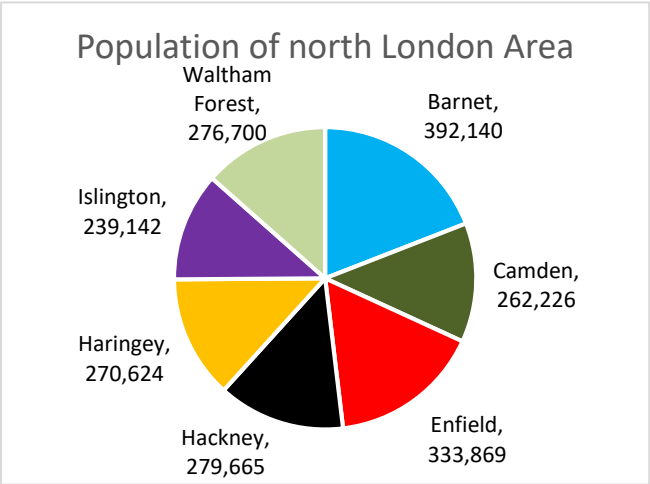
The data presented in this section is supplied by the Office for National Statistics (ONS) mid-year estimates and is reproduced in WasteDataFlow. These numbers remain important in managing the waste arising in north London and planning services for the future.

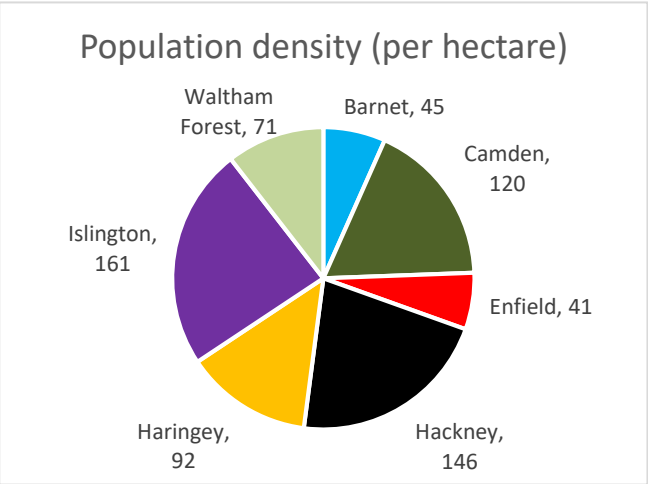
As set out below, the total population of the north London area is now estimated to be 2,054,366. This is a significant increase from the estimated 1,500,000 in 1991. These people live in an estimated 818,760 dwellings with on average 2.5 people living in each dwelling.

The continued increases in population and the number of households in London suggest that the amount of waste generated is likely to grow over the remaining period of this Strategy.

2.A	To ensure that the Strategy matches future changes in demography, the Partner Authorities have agreed to continue to share demographic information where it is required for strategy development and implementation.

Figure 2.1: Population of the north London area





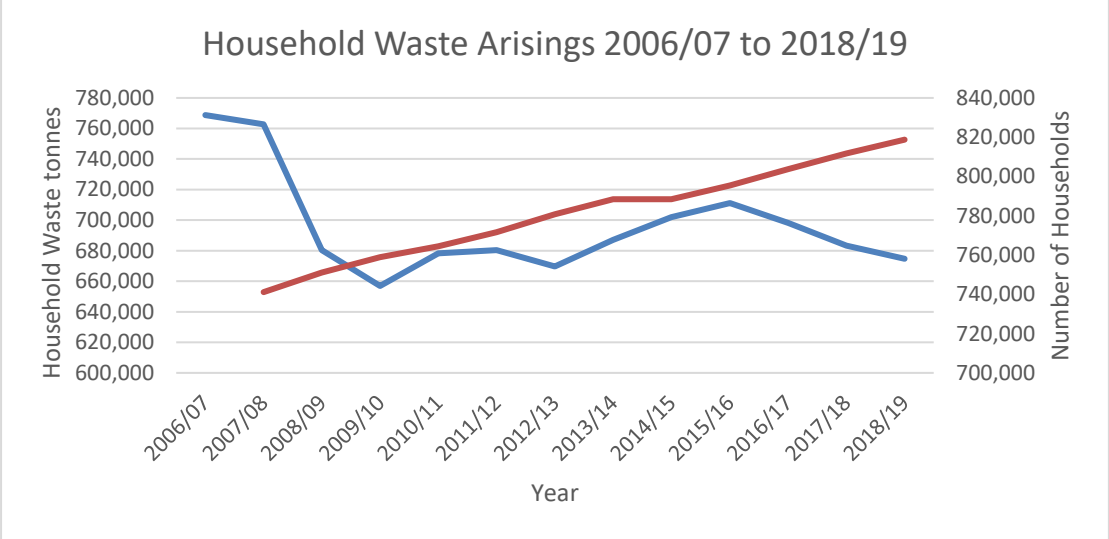
During 2018/19, the number of people living in all the north London boroughs and the north London area continued to rise. Population density varies widely across the Authority area by between 45 and 161 people per hectare.

North London has substantial areas of transient population and a relatively young population. High transience creates a considerable challenge in terms of ensuring that interaction between the Partner Authorities and householders through education or enforcement is consistent and effective.

The population of the north London area is currently growing at a rate of some 1% per annum and the dwelling stock is increasing by around 1% per annum.

When the NLJWS was published it was envisaged that an increasing population would produce an increase in the amount of waste arising which in turn would require a combination of an increase in the waste treatment capacity provided and intensification in the use of the existing facilities. Unexpectedly, the amount of waste produced between 2006/07 and 2012/13 fell despite the increase in population and dwelling stock, as shown in the below chart and it would appear to be related to the economic downturn during this period. 2013/14 saw a return to increasing waste volumes but this has not been sustained and the waste produced in the north London area has decreased again in 2018/19. Further details are provided in Section 21.

Figure 2.2



3 Waste prevention

The NLJWS contains a series of nine implementation actions to address the reduction and reuse of waste. The first of these actions is listed below with the remainder detailed in Section 4 of the North London Waste Prevention Plan 2018-20 available on the Authority's website in the Authority Strategies section of the website – http://nlwa.gov.uk/media/2686/wp-plan-2018-20-v2.pdf

4. A1 The Partner Authorities are gravely concerned about the year-on-year growth in waste and would urge greater action from Government to minimise waste and will lobby Government to achieve this.

The Authority produces a Waste Prevention Plan on a two-yearly basis which incorporates a range of actions to minimise waste. The Authority has been working in partnership with the seven constituent boroughs to deliver the first year of the North London Waste Prevention Plan 2018-20 (the Plan). The overall aim is to reduce waste arisings in north London by 20,000 tonnes over the two years. Three waste streams were prioritised for action - food waste, furniture and textiles. This activity was complemented by other activities promoting reuse and recycling, such as alternatives to single use plastics, unwanted mail and reusable nappies, recycling outreach and waste education projects.

Food waste reduction outreach events

The Authority delivers an extensive outreach programme, where officers speak to residents about how to reduce food waste. Feedback from a sample of 130 participants in the 2018-19 food waste reduction outreach programme demonstrated that 82% found the information provided useful and agreed they learnt things they didn't already know. In addition, 95% felt that they would be able to reduce their food waste as a result.

IMPACT
From a sample of the 13,510 residents we spoke to, 95% said they would reduce their food waste as a result of their conversation with us.

In 2018-19 the Waste Prevention team delivered a total of 114 outreach events, directly engaging with 13,510 residents, and exceeding the Authority's waste prevention programme objective of 10,000 conversations and 100 events by 14% and 35% respectively. The outreach programme was supplemented by social media activity, which was used to share practical advice about food waste prevention. Table 3.1 below shows the breakdown of events and conversations by borough and details of social media activity:

Table 3.1

Borough	Events delivered	Number of conversations	Impressions on social media (1)	Engagements on social media (2)
Barnet	16	1,688	4,900	53
Camden	22	2,092	7599	109
Enfield	13	2,020	4,577	46
Hackney	14	2,123	4431	70
Haringey	13	1461	9,595	465
Islington	20	2,299	7,295	84
Waltham Forest	16	1,827	14,424	460
Total	**114**	**13,510**	**52,821**	**1,287**

(1) Impressions are the number of times your content is displayed
(2) Engagements mean when someone 'likes', shares or comments on your content

Table 3.2 below indicates the number of additional events where officers delivered food waste information, and the number of residents engaged with at those events.

Table 3.2

Event	Number delivered	Number of residents engaged with
Stall at summer festivals and fairs	27	4,574
Presentation to community groups	21	231
Events at education institution	13	1,523 (students)
Green Office events	14	820

Recycling outreach events

During 2018-19, the Authority delivered 55 recycling events supported by social media activity. 3,560 north London residents were engaged in conversations against a target of 2,500.

A summary of the recycling events and social media activity delivered from 1 April 2018 to 31 March 2019 in each borough can be found in table 3.3.

Table 3.3

Borough	Number of events delivered	Number of conversations	Impressions on social media	Engagements on social media
Barnet	5	325	16,819	748
Camden	15	744	18,211	759
Enfield	6	467	16,889	752
Hackney	5	387	17,544	749
Haringey	6	420	17,617	753
Islington	10	708	18,864	760
Waltham Forest	8	509	17,970	757
Total	**55**	**3,560**	**123,914**	**5,278**

Projects

Seven '**Waste Less, Lunch Free'** events took place between August and September 2018. The events provided 2,589 residents with advice and tools to reduce food waste in their home and encouraged them to use their food waste recycling service for unavoidable food waste. These events included a cooking stall. Free recipe cards were provided to remind people about continuing to use their leftovers after leaving an event.

Bread is one of the most wasted foods, so a new waste prevention initiative, known as '**Save a Crust'** was delivered in February 2019. The project aimed to encourage north Londoners to throw less bread away by:

- raising awareness of the amount of bread that goes to waste;
- providing north London residents with practical advice on how to make the most of the bread they buy; and
- promoting bread waste reduction and money saving messages.

The project involved seven workshops (one in each borough) attended by 89 residents, and a high-profile event (held at Hollywood Green in Haringey) where attendees could watch a bread-focused cooking stall and taste sample recipes made with old bread. During the event, staff had 360 conversations with residents. The project also achieved extensive media coverage which amplified the reach of the 'Save a Crust' messages.

IMPACT
600kg of food waste diverted from disposal at the cookery event

The Authority contracted the environmental charity ecoACTIVE to deliver an **education programme** in north London schools. The programme was designed to encourage behavioural change amongst pupils, parents and school staff, and increase knowledge of the waste hierarchy and waste prevention practices that could be embedded into everyday life in school and at home. Over the course of the project, specialised educators engaged 4,485 pupils via

school assemblies, and worked closely with 268 pupils during hands-on practical workshops. The project was tailored to the needs of each school.

IMPACT
Decrease of 28.5 tonnes of waste across 14 schools in 2018/19
Annual average waste decrease of 56%

Source: Based upon the results of audits in participating schools.

Plastic waste

The Waste Prevention Programme includes action on plastics waste. To encourage a change of behaviour in north London residents away from using **single-use plastic** bottles of water towards reusable alternatives, a PR agency was commissioned to generate positive media coverage around reusable plastic and avoidance of single use bottles. A community event was delivered at Clissold Park in Hackney at which reusable water bottles were given to passers-by. During the event approximately 500 reusable bottles were handed out, staff had 290 interactions with passers-by and 80 selfies were taken with the aim of sharing the campaign message on social media. The impact of the event was extended by national, regional and trade media coverage, and extensive broadcast and online media coverage, including ITV London, London Live, BBC Radio London and Hackney Today. Social media activity generated 14,300 impressions and 370 engagements with the campaign, whilst the overall coverage generated more than 10.5 million 'opportunities to see/hear'.

The Authority is continuing to make an impact on reducing single use plastics by working with local businesses to create **Low Plastic Zones** – one in each north London borough. Businesses located within that area are encouraged to sign up to a north London charter of commitment to reduce their use of single use plastic. Businesses will then be accredited as a 'low plastic' business. When 50% of the businesses operating in the area have been accredited as 'low plastic' the area will be accredited as a Low Plastic Zone. Officers continue to work with the businesses that sign up to help them replace single use plastic items with sustainable alternatives and encourage their customers to use them.

In 2018-19 the Authority continued to support the **Waste Prevention Community Fund**. The Fund provides local community organisations with financial support to develop new approaches to tackling waste prevention and extend the reach and impact of waste prevention activity in north London. Seven projects were funded under the NLWA Waste Prevention Community Fund in 2018-19:

- Street Store by Hubbub Foundation, focusing on textile waste
- The Festival of Sustainable Fashion by London Community Resource Network, focusing on textile waste
- London Clothing Swap events by Life After Hummus, tackling textile waste.
- The Electrical Repair Directory by the Restart Project, focusing on

Waste Electrical and Electronic Equipment (WEEE) reduction.

- Cirque de Surplus by This is Rubbish
- Food Waste Cooking Club Socials by Life After Hummus
- Waste Warriors' Schools Workshops by BreadnButter, focusing on food waste reduction.
- The Loop@Grahame Park project by Groundwork London, aiming to reduce furniture waste.

This funding is not included within the contracts and services provided by the community sector and listed in Table 8.1.

Sharing best practice

In March 2019 the Authority held its fifth **North London Waste Prevention Exchange** at Inmarsat Conference Centre in Islington. The theme was *Re-imaging waste: moving away from single use towards a circular economy*. The conference was attended by 119 delegates. A panel of experts, chaired by Councillor Clyde Loakes, covered topics such as the psychology of reuse and the challenges and opportunities for reuse. In the afternoon, Ricardo Energy & Environment led a workshop aimed at helping residents make the right choices around plastics.

4 Home composting

4.D1 The Partner Authorities will provide a concerted and on-going promotional campaign to encourage home composting throughout the period of this strategy, offering residents purpose-built bins at subsidised rates and providing support to residents wishing to compost at home.

4.D2 The Partner Authorities will aim to ensure that 25% of all residents with gardens compost at home by 2014 to divert approximately 40,000 tonnes from the waste stream.

To encourage composting at home for those who have the space, all of the north London Boroughs offer home composting bins, available at a discount to residents.

5 Community composting

4.E The Partner Authorities will actively support appropriate community compost projects in north London, particularly where these contribute to statutory compost targets, through patronage of bids for external funding, direct support and through payment of third-party recycling credits.

Community composting projects would potentially be eligible to apply for the Waste Prevention Community Fund. However, none applied for support during 2018-19.

With the closure of an In-Vessel Compost Plant (IVC) at Edmonton EcoPark in 2018, Enfield compost is no longer produced locally so is no longer available free-of-charge to north London residents.

The IVC has been retired as the facility had reached the end of its planned operational life. In addition, the IVC is located on part of the area earmarked for the development of the Energy Recovery Facility as part of the North London Heat and Power Project. As a result, the IVC is currently undergoing decommissioning and will be demolished in 2020/21.

6 Public awareness campaigns

8. A	The Partner Authorities are committed to an ongoing Public Awareness Campaign throughout the period of this strategy and undertake to coordinate their respective contributions to this campaign where this will be beneficial.

During 2018/19, the Authority's public awareness work principally focused on:

- promoting and encouraging waste prevention amongst residents and local businesses;
- promoting the Authority's consumer facing services (waste prevention events, waste electrical and electronic equipment recycling services, and reuse and recycling centres - RRCs);
- Promoting recycling to a target demographic of north London residents aged between 18 – 34 through a three-year television and digital advertising campaign called 'Save Our Stuff'.

Awareness work also included participating in shorter-term national and international awareness weeks as this increases the impact of activities and the visibility of messages. Awareness weeks focus the activity of many organisations in a short period of time on a particular topic.

The Authority marked national **Recycle Week 2018** by organising a programme of seven evening recycling workshops, one in each borough, on a trial basis. The aim of the workshops was to enable residents that were not affiliated with an existing community group or residents that work during the day to find out more about recycling.

The Authority took part in the **European Week for Waste Reduction** for the tenth time with the following activity:

- Food waste prevention and recycling workshops;
- Delivering the London Upcycling Show and competition – a one-day event dedicated to upcycling old furniture and other items;
- Delivering repair cafés – events where people can come to learn how to repair and take home a repaired item of their own – furniture, textiles and bikes;
- The Restart Project - A searchable online electrical Repair Directory was launched during the week. The development of the directory was funded through the Waste Prevention Fund;
- The London Community Resource Network also delivered the 'Sustainable Threads' project. A one-day event dedicated to reducing clothing waste with presentations and activities on clothes swapping, repair and upcycling. This project was also supported through the Waste Prevention Community Fund.

The Authority's consumer facing waste prevention and consumer facing service campaigns continued. These campaigns are delivered using the Authority's 'Wise Up To Waste' brand and are designed to encourage north London residents to prevent waste and recycle more. In addition to promoting the reuse and recycling centres across north London, this communications work encouraged people to attend food waste prevention activities e.g. Save A Crust events, repair and swishing (clothing exchange). The ongoing public awareness raising work was delivered through advertising, media relations and digital communications (web and social media).

In 2018-19, the Authority delivered the final year of its three year 'Save our Stuff' household recycling campaign. This three-year campaign was a high-level, non-instructional campaign to motivate residents to recycle. The campaign targeted north Londoners aged 18 to 34 through a media mix and channels that they regularly use in the home and 'on the go' in a way that will engage them.
The campaign activity was delivered in two phases or 'bursts', the first from 10 September to 15 October 2018 and the second from 11 March to 19 April 2019. The campaign centred around a 30 second advert, which gave a humorous account of aluminium foil waste, delivered via targeted media (including Sky AdSmart television advertising, video on demand (VOD) advertising, YouTube, and social media advertising) and social media activity. The advert was viewed 2,626,478 times, exceeding the target of 2,521,354 views. The campaign resulted in a total of 1,003,119 views of the advert through Sky and 1,623,359 views on Video on Demand.

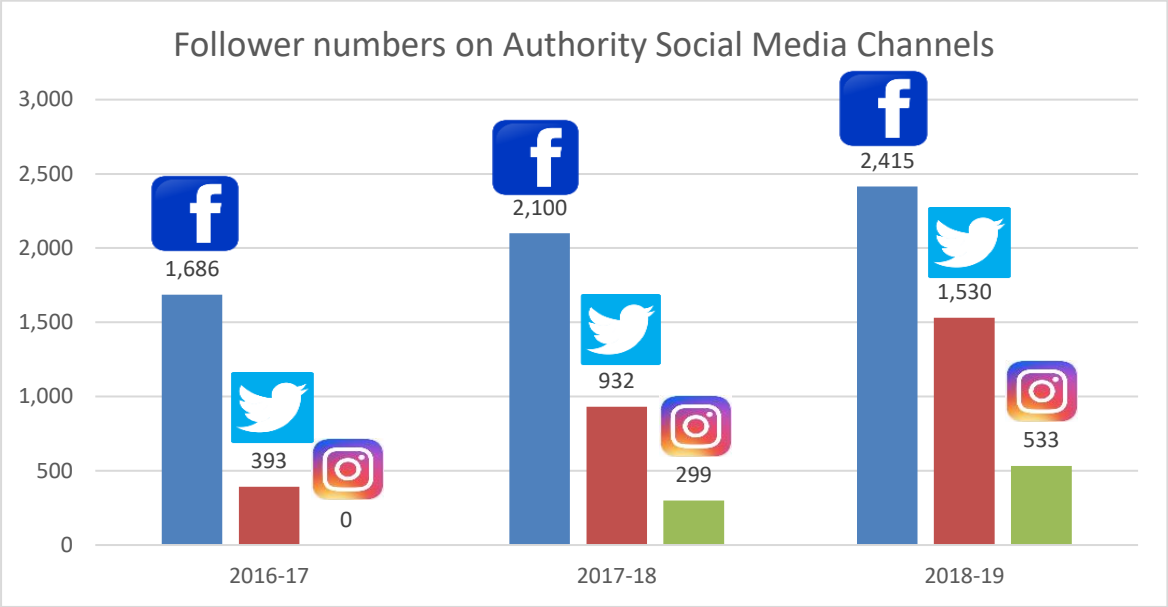
To assess the recognition and impact of the campaign, officers commissioned market research company Differentology to conduct online market research, which took place between March and May 2019. The research results indicated that the advert met its objectives in terms of taking a uniquely humorous approach in order to raise awareness and increase motivation to recycle.

Social and digital communications – Social and digital communications continue to be a growth area for the Authority and a key channel for communication to encourage residents to waste less and recycle more. The

Authority continues to grow its audience across three key social media platforms – Facebook, Instagram and Twitter.

Figure 6.1 below indicates follower numbers for each of the Authority's social media channels.

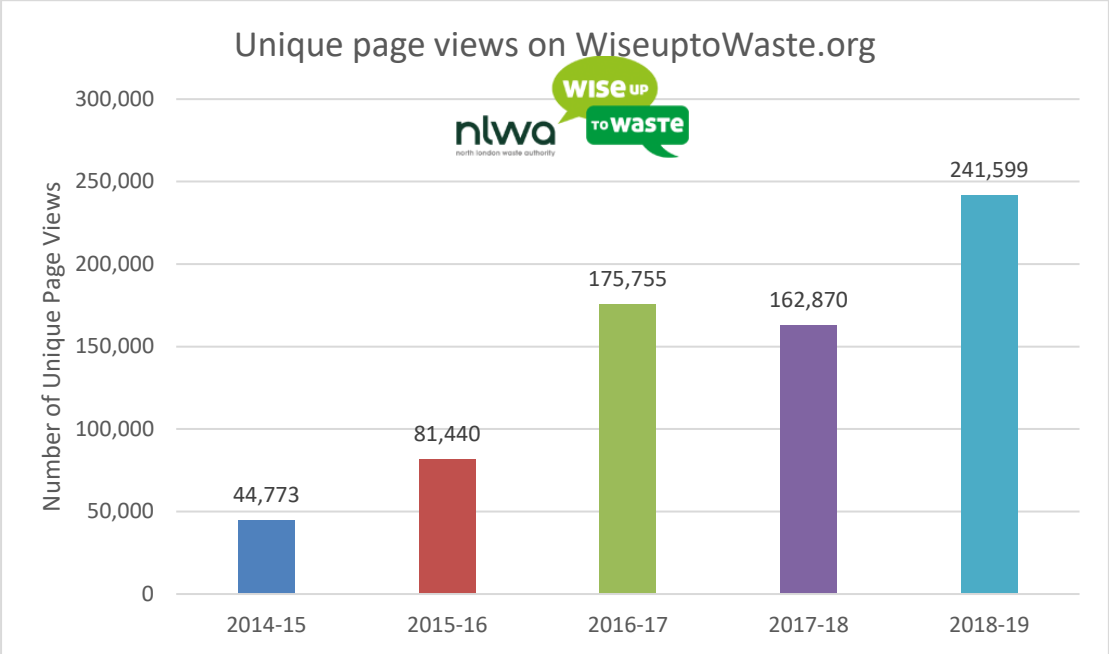
Figure 6.1



While increased follower numbers are not a useful measure of success in isolation, they indicate a growing appetite for the content generated by the Authority, which includes a range of information, from tips on how to reduce waste to notifications of upcoming events or additional sources of information and services. Work will continue in 2019-20 to increase the overall engagement rate with the Authority's content across all social media platforms.

Figure 6.2 below shows how traffic to wiseuptowaste.org.uk has increased, and residents have been making increased use of the website, over the past five years.

Figure 6.2



Data from 2017-18 and 2018-19 indicates that service information pages, such as 'what can I recycle?' and the reuse and recycling centres pages, continue to be some of the most highly visited pages on the website. However, in 2018-19 there was a significant increase in traffic to waste prevention campaign pages, including 'Save a Crust' and 'Repair Cafés', which have been heavily promoted by media and social media activity.

PR and press - At a local level and in the trade press, the Authority received a good amount of positive press coverage about waste prevention and recycling. Positive press coverage included coverage on a range of waste prevention initiatives. In particular, the Authority received extensive national, regional and trade media coverage (including broadcast media) about its Save a Crust initiative to help residents reduce bread waste, with the support of a PR agency, Barley Communications.

7 National programmes

8.D	The Partner Authorities will seek to obtain support for north London projects from National funding programmes, including the Waste and Resources Action Programme (WRAP) and the Waste Implementation Programme (WIP), as these arise.

The Partners continue to seek support from national funding programmes, when they are available.

In 2018/19 no external support from national funding programmes was received by NLWA.

8 A key role for the community sector

8.B1 The Partner Authorities welcome the support of community sector organisations in implementing this strategy and will actively encourage community sector involvement in delivery of waste services wherever this can be demonstrated to offer Best Value.

8.B2 The Partner Authorities will consider developing a Waste Community Compact in partnership with the Community Sector to build trust and encourage further involvement of this sector in implementing this Strategy.

In the north London area, the community and voluntary sector continues to provide services to the Partner Authorities. The value of contracts awarded to this sector for re-use and recycling is shown in Table 8.1 below. The services described here are in addition to the support described in Section 9 on re-use.

In 2018/19, contracts and services to the value of £161,766 were awarded to the voluntary and community sector. Details of the work awarded to different organisations are provided in Table 8.1 below.

Table 8.1: Contracts and services awarded to the community sector in 2018/19 and total value

East Barnet Community Festival	Community event
Fair in the Square	Community event
Well Street Common	Community event
East Barnet Community Festival	Community event
Jester Festival	Community festival
Highams Park Society	Community event
Camden New Town Community Festival	Community event
Walthamstow Village Community Hub	Community event
Angel Canal Festival	Community event
Friends of Highgate library	Venue hire
Highgate Roundhouse Youth Community Centre	Venue hire
Bridge Renewal Trust	Venue hire
Hornsey Vale Community Centre	Venue hire
Queens Crescent Community Association	Venue hire
Groundwork London	London Upcycling Show
TRAID	Repair services at Repair cafes
Keep Britain Tidy	Waste Less, Lunch Free, Save A Crust and Swish and Style events
EcoActive	Waste education services
Real Nappies for London (part of London Community Resource Network)	North London real nappy subsidy administration

London Environmental Education Forum (LEEF)	Event
Sustainability and Environmental Education (SEEd)	Membership services
Total Value	**£161,766**

Table 8.2: Waste collected by the community and voluntary sectors

	2018/19 (tonnes)
Textiles collected	2,755
Furniture collected	127
Books collected	263
Other[2] materials collected	4
Total waste collected by the Community and Voluntary Sectors on behalf of the Partners	**3,149**

9 Re-use

4.C1 The Partner Authorities will continue to actively support the development of best practice in waste re-use and will encourage the development of community sector and other Partnerships to deliver effective re-use services.

4.C2 The Partner Authorities will continue to support bids for external funding of re-use services and will seek to develop a means of rewarding effective re-use services directly through a "re-use credit" to reflect the avoided or deferred cost of disposal

Effective reuse and repair

Between September 2018 and March 2019, NLWA trialled a series of 21 **Repair Café** events (three in each north London borough). Across the 21 events, 240 attendees brought 262 old or damaged items to be fixed by specialists for free. In addition to potentially repairing an item, the specialists explained the fixing

[2] 'Other' materials are paper, card, food waste, green garden waste, metals and waste electrical and electronic equipment.

process so that the owner could repair it themselves in the future.

IMPACT
235 items fully or partly repaired at 21 events
1.4 tonnes of material diverted from disposal

Seven community exchange events - **Give and Take Days** – were delivered in January and February 2019 across the seven north London boroughs. The events were attended by 406 residents, who donated unwanted items and in return, took something they needed for free.

IMPACT
5.6 tonnes of material diverted from disposal

The **London Upcycling Show** is a high-profile event to encourage furniture reuse. The show consisted of an upcycling competition for north London residents in the run-up to the show, and a one-day exhibition. The exhibition featured demonstrations and workshops, exhibits of furniture, textiles, electrical items and homeware from a range of reuse, repair and upcycling organisations. As well as this, there was a competition. In November 2018, 341 people attended the event, 27 residents participated in the upcycling competition and 20 stalls holders exhibited and/or demonstrated ways to upcycle furniture, textiles and homeware. The judges are pictured below with Cllr Clyde Loakes, Chair of the Authority.

IMPACT
0.52 tonnes of material diverted from disposal

The Authority's community **Swish and Style** events encourage residents to reuse, repair and upcycle clothes, helping to retain valuable resources and divert reusable items from disposal. During the clothes swap (swish) element of the event, participants bring along unwanted clothing to swap for items brought by other participants. This project exceeded its objectives, attracting 423 residents.

IMPACT
More than 1 tonne of textiles diverted from disposal

Reuse and Recycling Credits

The Partner Authorities continue to support charities and other third sector organisations through the Authority paying re-use and recycling credits for waste that is diverted from disposal by these organisations. Credits are paid to organisations for the amount of waste that is collected for re-use and recycling. The credits are paid on a per tonne basis with the level of the payment reflecting the savings made by NLWA from avoided disposal costs.

17 organisations received the total sum of £181,524 for the reuse or recycling of 2,429 tonnes of wastes that would otherwise have had to be managed by the Partners in 2018/19.

Reusable nappy subsidies

NLWA pays a subsidy of £54.15 per baby to parents in north London who use **reusable (real) nappies** rather than disposable ones. The level of subsidy reflects the saving to NLWA of not having to dispose of the babies' disposable nappies. 699 vouchers and cash back claims were issued in 2018/19.

IMPACT
340 tonnes of disposable nappy waste avoided as a result of the scheme.

10 Reuse and Recycling Centres (RRCs)

4.G1	The Partner Authorities will provide continuously improving re-use and recycling centres in excess of the minimum statutory provision throughout the period of this strategy, which shall be freely available for the deposit of household waste by all Londoners on a reciprocal basis.
4. G2	The Partner Authorities will aim to achieve 60% recycling and composting diversion rates at all north London re-use and recycling centres by 2015.

In the north London area, the Partners provide eight RRCs and all residents in this area have access to them. The level of provision has been approximately 1 site per 100,000 dwellings since the North London Joint Waste Strategy was implemented.

The reuse and recycling rate at these facilities has increased from 54% overall in 2006/07 to 73% in 2018/19, maintaining the level achieved in 2017/18. In the last year there was a decrease in the overall tonnage received at RRCs compared with 2017/18 and this was seen proportionately across recycling and residual waste.

The target of diverting at least 60% of the waste delivered to RRCs for re-use, recycling and composting was reached before the target date of 2015 and this target continues to be met.

Figure 10.1: Reuse and Recycling Centres in North London

Table 10.1: Reuse, recycling and composting activity at north London Reuse and Recycling Centres (RRCs)

	2018/19
Total tonnes of material collected at RRCs	51,746
Reuse tonnes collected at RRCs	956
Recycling tonnes collected at RRCs	31437
Composting tonnes collected at RRCs	6,872
Residual tonnes collected for disposal at RRCs	12,480
Reuse, recycling and composting rate at RRCs	76%
Number of RRCs	8
Number of RRCs per 100,000 people	0.4

Reuse Shops

In November 2015, the Partners launched a reuse shop at the Kings Road Reuse and Recycling Centre. Branded as Second Time Around, the shop sells a range of items including furniture, toys, sports equipment, clothes, and other household items.

The items for sale have been donated to Second Time Around for reuse by residents or collected from the other Reuse and Recycling Centres managed by the Authority and would have otherwise been thrown away.

Income generated from the shop is used to cover the cost of providing the reuse shop service. Any surplus amounts will be used to enhance the Authority's wider waste prevention work.

Additionally, Enfield Council has an established reuse shop at Barrowell Green RRC, run by their RRC contractor, Suez.

During 2018/19 the combined tonnage diverted for reuse by north London reuse shops was 118 tonnes.

11 Liquid wastes

5.H The Partner Authorities will continue to provide statutory collection services for liquid household wastes during the period of this strategy and will develop such new facilities as may be required to manage waste in accordance with new legislation.

Liquid waste of cooking oil and engine oil are collected from the Reuse and Recycling Centres in north London. During 2018/19, 35 tonnes of engine oil and 14 tonnes of cooking oil were collected and sent for recycling.

12 Hazardous wastes

5.J1 The Partner Authorities will continue to provide or procure an effective household hazardous waste service for north London residents throughout the period of this strategy.

5.J2 The Partner Authorities will support and promote the Corporation of London's current household waste collection and disposal service and make appropriate arrangements for the separate collection of fluorescent tubes.

5.J3 The Partner Authorities will continue to collect the maximum range of household hazardous waste and waste electrical and electronic equipment at their re-use and recycling centres.

A range of hazardous wastes are routinely collected in the north London area. Batteries, mineral oil, paint[3], gas bottles and asbestos are collected at RRCs.

[3] Not all types of paint are classified as hazardous.

Additionally, electrical items (5.J3 refers) such as refrigeration equipment, televisions and monitors and fluorescent light tubes are also classified as hazardous waste and small waste electrical and electronic equipment (SWEEE).

Table 12.1: Total hazardous waste arising

	2018/19 (tonnes)
Asbestos	14
Automotive batteries	27
Household batteries	12
Mineral oil	44
Paint	32
Gas bottles	21
Total tonnes of hazardous waste collected[4]	**150**

Table 12.2: Waste Electrical and Electronic Equipment (WEEE) collected at Re-use and Recycling Centres.

	2018/19 (tonnes)
Large household appliances (Category A)	420
Cooling appliances (Category B)	633
Televisions and computer monitors (Category C)	289
Gas discharge lamps (Fluorescent tubes) (Category D)	8
All other WEEE (Category E)	1,223
Total tonnes of WEEE collected at Re-use and Recycling Centres	**2,573**

Additional WEEE is collected from residents at the kerbside, in bring-banks and other designated collection facilities in north London. The amount is included in the quantities recorded in Section 15, ozone depleting substances.

[4] Excluding fluorescent tubes, televisions, monitors and refrigeration equipment.

13 Kerbside recycling collection services

4.H1 The Partner Authorities will aim to provide door-to-door recycling services to 95% of relevant households and achieve 65% capture rates of targeted recycling materials during the period of this strategy.

4.H2 The Partner Authorities will offer door-to-door collections of biodegradable waste for all relevant households where home or community composting services are not provided in the period of this strategy.

4.I1 The Partner Authorities will work to provide all residents in multi-occupancy housing with either door-to-door collection services or a minimum of one “near entry” recycling site per 500 households as soon as possible.

4.I2 The Partner Authorities will work to achieve 65% capture rates of targeted recycling materials for recycling services serving multi-occupancy housing during the period of this strategy.

All households in the north London area now have access to kerbside or communal recycling collections of dry recyclables and over three quarters are offering separate containers for compostable wastes. Three boroughs charge for garden waste services.

The number of bring sites per person has fallen since 2006/07 as more residents receive a collection directly from their homes. This change has contributed to the increase in the amounts collected for recycling.

All of the Boroughs now collect the following set of targeted materials from residents every week: paper, cardboard, cartons, glass, metal cans and plastics including bottles, pots, tubs and trays. Most residents are also offered a separate kerbside collection of kitchen and garden waste.

Boroughs promote the recycling services they operate to increase uptake, provide information about what can and can’t be recycled and address any operational issues where the service is not being used correctly.

Table 13.1: Households receiving kerbside collections for recycling and composting

	2018/19
Number of households receiving a door-to door, near entry or communal collection of dry recyclables	818,760
% of households receiving a door-to door, near entry or communal collection of dry recyclables	100%
Number of households receiving a door-to-door, near entry or communal collection of biodegradable waste	647,258
% of households receiving a door-to-door, near entry or communal collection of biodegradable waste	78%
Number of bring sites per 100,000 people	8

Table 13.2: Tonnes of household waste collected for re-use recycling, composting and anaerobic digestion at the kerbside

	2018/19
Total household waste collected at the kerbside (tonnes)	559,112
Household waste collected at the kerbside for re-use (tonnes)	68
Household waste collected at the kerbside for recycling (tonnes)	105,101
Household waste collected at the kerbside for composting and anaerobic digestion (tonnes)	57,010

14 Other recycling options

4.K1 The Partner Authorities will make arrangements to compost street leaves, parks and other green waste wherever practicable in the period of this Strategy.

4.K2 The Partner Authorities will work to increasingly recycle and compost more street litter and non-household biodegradable waste to ensure that the need to purchase Landfill Allowances is minimised

On-site composting, by boroughs in parks where the waste is generated, keeps a large proportion of parks' waste out of the measured local authority waste stream. As the parks leaves and other green waste which is composted within the parks are not measured within either the total tonnage of municipal waste being generated or within the amount being composted, the net effect on the local authority composting rate is broadly neutral.

Following Environment Agency guidance published in 2012, the Partners ceased collecting street leaf sweepings for composting. Other green waste collected by the Partners continues to be composted. Details of tonnages composted in 2018/19 are detailed in table 14.1 below.

Table 14.1: Amounts of "other" waste composted and recycled

	2018/19 (tonnes)
Street leaves, parks and "other" green waste composted	381
Street litter and "other" waste recycled	683

15 Ozone-depleting substances

5.K The Partner Authorities undertake to support appropriate projects promoting the re-use of fridges and will ensure that the remaining fridges are reprocessed and ozone-depleting substances and metals recovered throughout the period of this strategy.

Currently there are 17 Designated Collection Facilities (DCFs) registered by the Partner Authorities. Refrigeration equipment collected at the DCFs is treated at specialist facilities so that ozone depleting substances are captured, and

other materials are recycled where possible. During 2018/19 1,118 tonnes of refrigeration equipment was reused and recycled from all sources.

Refrigeration equipment collected at Reuse and Recycling Centres is also reported in Section 12, Table 12.2 above.

16 Recycling and composting summary

4.L1 The Partner Authorities undertake to individually achieve the statutory recycling and composting standards set by Government and to exceed these standards wherever practical.

4.L2 The Partners Authorities will work to achieve 35% recycling and composting standards by 2010, 45% by 2015 and 50% by 2020 in line with the Government's Waste Strategy for England 2007.

Since the start of the Strategy period, the rate of recycling, composting and re-use has risen from 23% to 30% of the household waste stream in 2018/19.

The recycling and composting data reproduced in Table 16.1 includes household waste collected for re-use, recycling and composting or anaerobic digestion. Some types of household waste as well as non-household (commercial and industrial waste) are not included in this calculation.

Figure 16.1: Total amounts of household waste collected for re-use, recycling and composting (incl. RRCs) by tonnage, kgs <u>per household</u> and recycling rate.

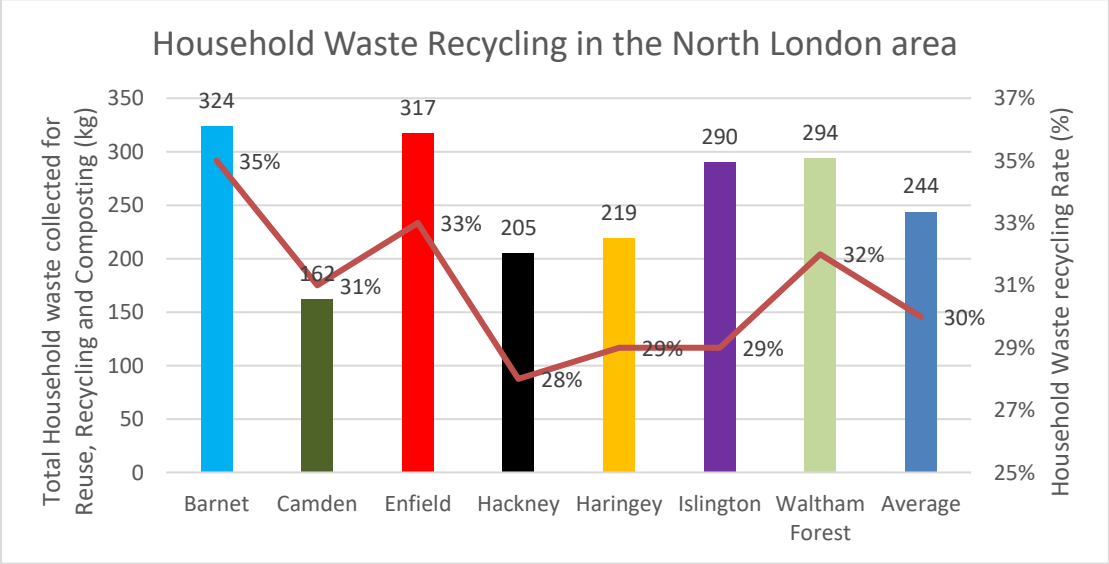
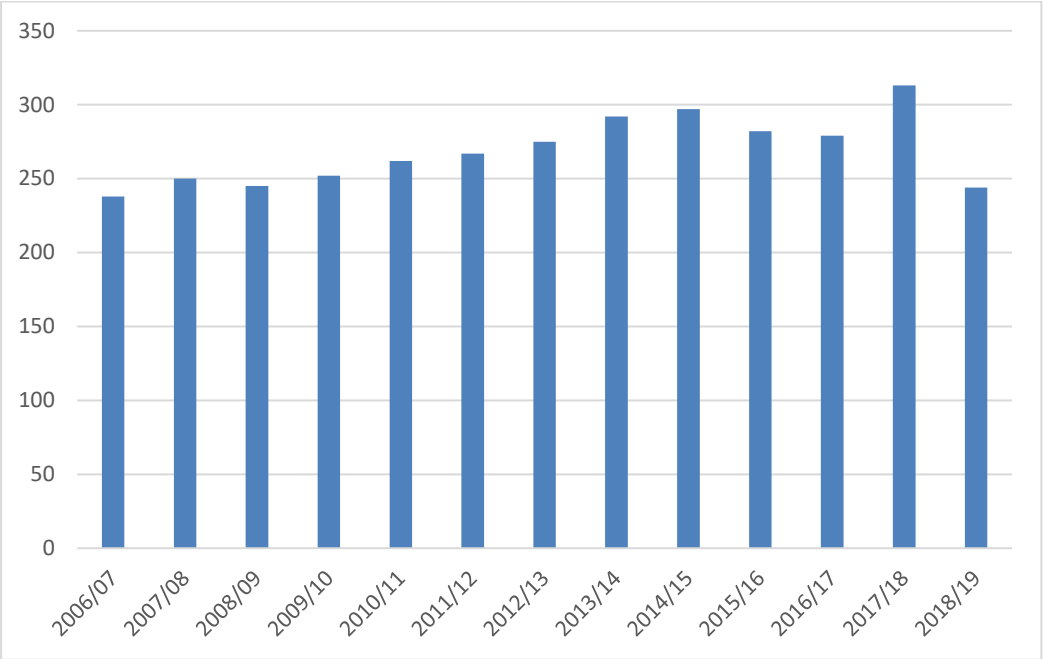


Figure 16.2: Average amount of household waste (kgs) collected per household for re-use, recycling and composting



On average, each household in north London separated 244 kilograms of waste for re-use, recycling or composting during the last year. This amount has increased over the last twelve months possibly due to the increased population density and housing stock.

17 Batteries and accumulators

5.C	The Partner Authorities will work to increase the level of recycling of household batteries in north London wherever practicable.

During 2018/19, 15 tonnes of household batteries were collected by the Partners for recycling.

The European Union Batteries Directive, which was implemented into UK Regulations in February 2010, sets a requirement for retailers that supply more than 32 kilograms of portable batteries per annum to operate a free of charge take-back scheme. Tonnage of portable batteries collected via in-store take-back schemes are not recorded separately in the national waste data management system for local authorities (WasteDataFlow), and therefore are not reported here.

18 Bulky waste

5. D2 The Partner Authorities undertake to maximise the potential of reusing and recycling materials from the bulky waste stream with the aim of providing a more sustainable service in partnership with community sector or commercial organisations.

During 2018/19, the Partners worked with their own providers to reuse and recycle their bulky waste items.

Table 18.1 below details the tonnes of bulky waste collected by the Partner Authorities in 2018/19. This measure includes items of bulky waste that are separated by or on behalf of the Partners from the waste stream for re-use and recycling. Some recyclable materials are extracted from the bulky waste stream at the Edmonton Bulky Recycling Centre.

Table 18.1: Bulky waste recycling

	2018/19
Total bulky waste collected (tonnes)	20,732
Bulky waste re-used or recycled (tonnes)	3,461
Bulky waste not re-used or recycled (tonnes)	17,271
% of bulky waste stream re-used or recycled	17%

19 Abandoned vehicles

5.A1 The Partner Authorities will continue to share information and best practice on abandoned vehicles arising, to ensure an integrated approach to provision of inspection, collection and disposal services across north London.

5.A3 The Partner Authorities will encourage the introduction of Authorised Treatment Facilities in appropriate locations in north London, will ensure that the general public are encouraged to use them appropriately, and will seek to secure sufficient facilities within the proposed North London Waste Development Plan Document.

During 2018/19, the Partner Authorities collected 489 abandoned vehicles.

There are currently 17[5] authorised treatment facilities for end-of-life vehicles in the Partner Authorities area. There remains sufficient capacity to treat the number of vehicles collected.

20 Construction and demolition waste

5.G1 The Partner Authorities will continue to support the provision of sufficient construction and demolition reprocessing facilities in the north London region.

5.G2 The Partner Authorities undertake to separate and re-use or recycle as much municipal construction and demolition waste from the municipal waste stream as is practicable.

Table 20.1: Construction and demolition waste recycling

	2018/19 (tonnes)
Total construction and demolition waste recycled	8,510
Recycled from Re-use and Recycling Centres	7,978
Recycled from other sources	531

These figures include construction and demolition waste collected at Re-use and Recycling Centres, waste collected from borough highways and property maintenance activities, and other miscellaneous sources.

21 Local Authority Collected Waste arising

2B This Strategy employs the Prime Minister's Strategy Unit recommended growth rate for municipal waste when planning for the new waste management facilities that will be needed in north London.

'Local authority collected waste' (previously known as 'municipal waste') is the term that is used to describe all waste collected by the seven waste collection authorities in the north London area, and by the Authority at the RRCs. Local authority collected waste includes all types of waste collected by the collection

[5] Source – Environment Agency

authorities, whether for reuse, recycling, composting, recovery or disposal and whether collected from households or businesses in the area.

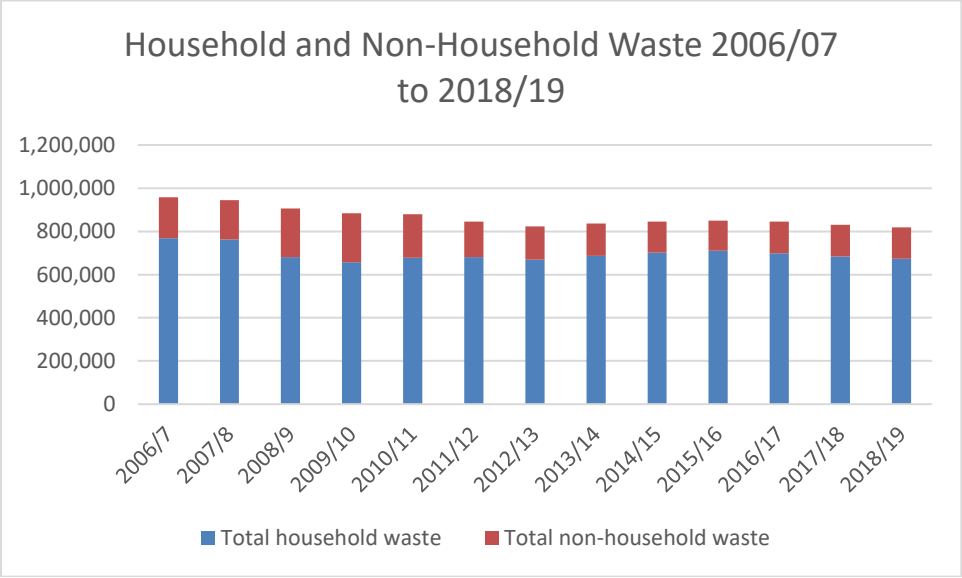
The amount of local authority collected waste in the north London area is shown in Table 21.1 below. The figures are taken from WasteDataFlow which continues to use definitions which were previously employed for measuring performance against 'National Indicators' (a series of indicators against which local authorities' performance on a range of issues was measured).

Table 21.1: Amounts of local authority collected waste in north London

	2018/19 (tonnes)
Total local authority collected waste (in accordance with the definitions of the former 'National Indicator' 193)	818,285
Local authority collected waste from households (in accordance with the definitions of the former 'National Indicator' 192)	674,705
Local authority collected waste from commercial and industrial producers	143,580

Figure 21.1 below shows the total amount of local authority collected waste broken down into household and non-household (business waste) components.

Figure 21.1: Tonnes of local authority collected waste arising



At the outset, the North London Joint Waste Strategy employed the Prime Minister's Strategy Unit[6] recommended growth rate for municipal waste of 3% until 2010 and 2.5% thereafter. Additional lower growth rates of 2%, 1% and 0.5% were included in the NLJWS as sensitivity analyses, as it was recognised that growth may be lower than predicted.

However, as can be seen in Figure 21.1 and Table 21.1, the actual amount of local authority collected waste decreased between 2006/07 and 2012/13 despite an increase in both the population of north London and the dwelling stock over the same period. The decline in the size of the local authority collected waste stream was not expected when the North London Joint Waste Strategy was published; although there was a rise in total local authority collected waste between 2012/13 and 2015/16, there has been a steady decline between 2015/16 and 2018/19.

The Authority has prepared more recent tonnage projections for its North London Heat and Power Project; these are available at http://www.northlondonheatandpower.london/documents/waste-modelling/

The Partners will continue to assess waste tonnages by comparing 'actual' tonnage information as it becomes available with the projections.

22 Disposal to landfill and energy recovery

4.N	The Partner Authorities will seek to minimise disposal to landfill throughout the period of this strategy and undertake to seek the recovery of energy from landfill gas wherever practicable.

Local authority collected waste is waste that is collected from households as well as commercial waste producers. This definition is not the same as that used to calculate the more commonly cited "household" re-use, recycling and composting rates reported elsewhere.

All local authority collected waste that is sent to landfill from the north London area is sent to sites that recover energy from the waste in the form of landfill gas which is then used to generate electricity.

The amount of local authority collected waste sent to landfill has declined in recent years. 2018/19 has seen a reduction in landfill tonnages since 2017/18 due to restructured services. This has resulted in additional material from the Hendon waste transfer station being transported to the Edmonton EcoPark for energy recovery and the shredding of RRC residual waste and some bulky waste to make it more suitable for the energy recovery facility.

[6] This no longer exists.

Waste that is currently used for energy recovery produces electricity that is sold to the National Grid. Enough electricity to supply some 85,000 homes is generated every year.[7]

Table 22.1: Management of local authority collected residual waste

	2018/19
Local authority collected waste sent for energy recovery by incineration (tonnes)	511,577
Local authority collected waste sent to landfill (tonnes)	64,793
% of total local authority collected waste sent for energy recovery by incineration	63%
% of total local authority collected waste sent to landfill with energy recovery	8%

Figure 22.1: Local authority collected residual waste disposal (tonnes)

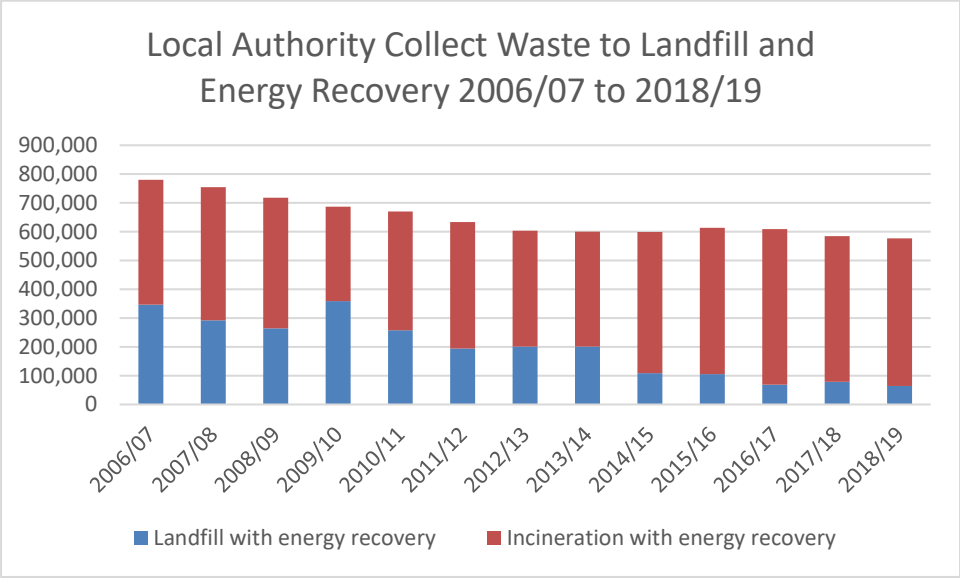


Figure 22.1 shows the total amount of waste in tonnes that is sent for disposal and the breakdown between the amount of waste sent for energy recovery by incineration and the amount sent to landfill with energy recovery.

[7] This assumes the average household's annual electricity consumption as 3.4 MwH (Medium level electricity usage Profile Class 1 credit meters) and is based on an average EcoPark energy centre electricity exported generation figure of 290,000 MwH per annum. Data supplied by the Office of Gas and Electricity Markets (OfGEM). The medium level electricity usage assumes meter readings every half hour for a working family of four.

Photo 22.1: Waste bunkers at the Edmonton energy-from-waste facility

23 Non-household waste

5.F2	The Partner Authorities will take rigorous enforcement action to minimise the amount of unpaid-for commercial and industrial waste entering the municipal waste stream.

The Partner Authorities have several elements in place to prevent commercial and industrial waste entering the waste stream via the Reuse and Recycling Centres. Van procedures are in place at all Reuse and Recycling Centres where users either need to pre-book or apply for a permit before taking a van to one of those centres.

Automatic number plate recognition equipment is also in operation at the majority of Reuse and Recycling Centres and is used to identify traders and commercial outlets attempting to use the Reuse and Recycling Centres to dispose of trade waste illegally.

Additionally, a substantial amount of non-household waste (waste from local businesses) is collected by the Partner Authorities from a variety of commercial and industrial sources.

For the purposes of calculating the re-use, recycling and composting rate in accordance with national definitions, fly-tipped waste is not counted as household waste because it is often of a very different nature. Nevertheless,

Partner Authorities do manage fly-tipped waste and take enforcement action against fly-tippers where possible. Details of tonnages reported as Flytips by the Authority in 2018/19 are set out in table 23.1 below, together with the number of incidents, determined by the Partners.

Table 23.1: Fly tipping in the North London area

	2018/19
Tonnes of “fly-tipped “waste collected	23,399
Number of “fly-tip” incidents reported	78,788

24 Waste disposal service implications

7.B1 The Partner Authorities undertake to develop sufficient materials recycling facilities and in-vessel composting facility capacity to enable north London to meet the collective recycling and composting targets within this strategy.

7.B2 The Partner Authorities undertake to develop sufficient residual waste treatment facilities as are necessary to ensure that the purchase of additional Landfill Allowances is avoided wherever possible, having regard to the proposed North London Joint Development Plan Document and the best option identified within this strategy.

The waste treatment capacity required reflects the increasing amounts of material collected for re-use, recycling, composting and anaerobic digestion. Sufficient capacity to treat all the wastes collected has been sourced by the Partners. Most of the recycling and composting capacity is within London and the Home Counties.

Table 24.1: Recycling and biodegradable waste treatment capacity required.

	2018/19 (tonnes)
Separated dry recyclables bulking capacity (incl. RRCs) required	39,266
Materials recovery facility (MRF) capacity required	133,944

Total dry recycling capacity required	**173,210**
In-vessel composting capacity required	44,907
Open windrow composting capacity required	28,281
Anaerobic digestion capacity required	10,364
Total organic treatment capacity required	**83,552**

The Authority continues to make use of the Edmonton energy-from-waste facility to generate electricity from waste that cannot be recycled or composted. LondonEnergy Ltd exports around 290,000 MwH per year, which is enough electrical power for some 85,000 homes throughout the year[8]. The energy-from-waste facility exports some 85% of the energy it produces with the remaining 15% powering the needs of the recycling, compost and other centres on the LondonEnergy EcoPark.

25 Transport implications

7. C1 The Partner Authorities will support transfer of waste by rail wherever this can be shown to offer Best Value and is in accordance with this strategy.

7. C2 The Partner Authorities will support transfer of waste by water wherever this can be shown to offer Best Value and is in accordance with this strategy.

In 2018/19, 99,300 tonnes of waste from Hendon waste transfer station was transported by rail to Greatmoor energy-from-waste facility and Calvert Landfill site. The remaining 23,873 tonnes of residual material from Hendon waste transfer station was transferred by road to the Edmonton EcoPark for energy recovery.

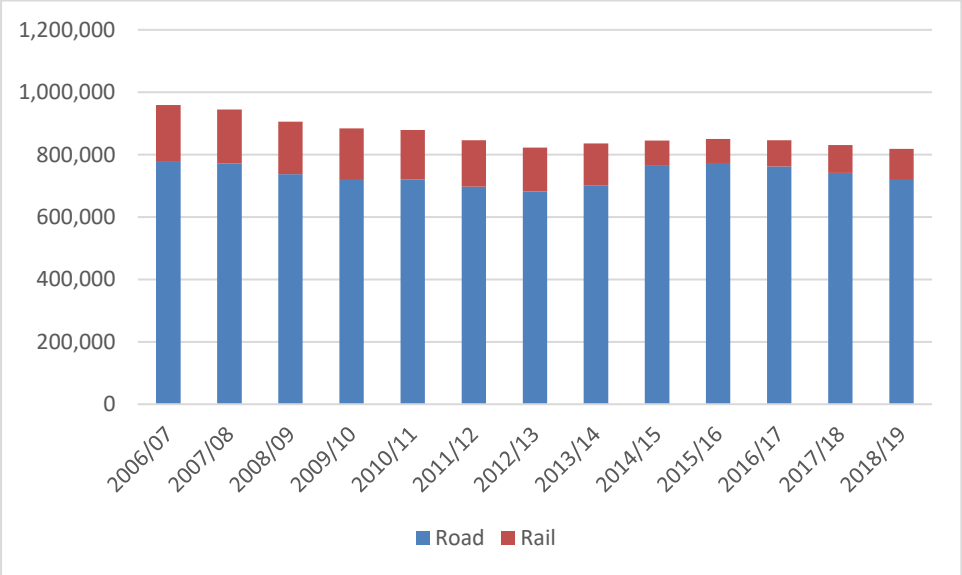
[8] This assumes the average household's annual electricity consumption as 3.4 MwH (Medium level electricity usage Profile Class 1 credit meters) and is based on an average EcoPark energy centre electricity exported generation figure of 290,000 MwH per annum. Data supplied by the Office of Gas and Electricity Markets (OfGEM). The medium level electricity usage assumes meter readings every half hour for a working family of four.

Transporting waste by water in the north London area continues to be an area of interest to the Partners. While waterborne transport is presently not economically viable, the future viability of canal or river transportation will continue to be monitored.

Table 25.1: Transportation of waste

	2018/19
Waste collected – all by road (tonnes)	818,285
Waste then transported by rail (tonnes / %)	99,390 (12%)
Waste then transported by water (tonnes / %)	(0%)
Remaining waste used locally for energy recovery or transported by road (tonnes / %)	718,895 (88%)

Figure 25.1: Transport methods for waste arising in the North London area



26 Commercial and industrial partners

8.C1 The Partner Authorities will provide commercial waste services in accordance with statutory requirements or beyond and will seek external support to establish sustainable commercial recycling and composting services where this offers improved value for money to council taxpayers to work towards London Plan objectives.

8.C2 The Partner Authorities will seek to ensure that sufficient household, commercial and industrial waste management sites are provided in north London through development of the North London Joint Waste Development Plan Document.

The total amount of commercial waste and recycling collected by the Partners has reduced during 2018/19 compared to previous years. It is believed this could be due to the economic downturn.

Table 26.1: Commercial and industrial waste collected

	2018/19 (tonnes)
Total commercial and industrial waste collected	104,573
Commercial and industrial waste re-used, recycled or composted	11,535
Commercial and industrial waste sent for disposal	93,038

27 Strategic Environmental Assessment (SEA) monitoring

The Strategic Environmental Assessment (SEA) of the North London Joint Waste Strategy includes some additional targets that the Partners have agreed to aim for.

In order to measure progress towards these targets the parameters described beneath each objective have been approved as indicators to be included in future NLJWS progress reports.

Some objectives will not be measured until the sites of new facilities are planned so that a baseline can be established, and data compared against this when these facilities are constructed.

Some objectives cannot be measured as they require data to be submitted by contractors that is not required under current contracts. This will be addressed in future contracts so that over time the collection of data becomes more complete. Some objectives are already measured and where possible this data is included in this report.

Objective 1 *To conserve and enhance natural habitats and wildlife especially priority habitats and species*.

In June 1992, the Convention on Biological Diversity was signed by 159 countries including the United Kingdom at the Earth Summit in Rio de Janeiro. It came into force 29 December 1993.

The “biodiversity convention” is a legally binding agreement that requires signatories to conserve, protect and enhance biological diversity. In 1994, the UK Biodiversity Action Plan was published and led to the creation of Local Biodiversity Action Plans. Collectively these action plans identify and seek to protect 391 priority species and 45 priority habitats.

The Biodiversity Action Reporting System is used to report the UK’s Biodiversity Strategies and Action Plans. Reports are available through the website at http://ukbap-reporting.org.uk/our-biodiversity-reporting-system and are regularly updated.

On a very localised level, land owned or controlled by the Authority is appropriately managed in relation to invasive plant species - currently Japanese knotweed, giant hogweed, Himalayan balsam and Russian vine.

Objective 2 *To maximise the health and well-being of the population*

Measures: Number of complaints received by contractors operating municipal waste facilities in north London.

LondonEnergy Ltd reports annually on the number of complaints received regarding the municipal waste facilities operated in north London, as detailed in Table O2 below.

Table O2: Number of complaints recorded by contractors operating municipal waste facilities in north London

	2018/19
Edmonton Energy from Waste facility	0
Edmonton In-vessel composting facility	0
Edmonton Bulky Waste Recycling Facility	0
Hendon Rail Transfer Station	0

Objective 3 *To conserve and enhance soil quality*

Measures: Percentage of north London's compost (product made from north London's local authority collected waste) used within the NLWA area.
Percentage of north London's compost used outside of the north London area.

In 2018, the In-Vessel Compost Plant (IVC) at Edmonton was decommissioned in preparation for the new energy from waste facility. This meant that food and garden waste was processed off site at third party facilities and was unable to be returned due to space restrictions.

See also sections 4, 5 and 13 for additional information about composting in the north London area.

Objective 4 *To improve air quality*

Measures: Lifecycle assessment of air acidification (WRATE output)
Facility emissions as reported for pollution prevention control permits as appropriate
Air quality in terms of NOx, SOx and particulates

The Table below shows the emissions from the Edmonton Energy from Waste facility operated by LondonEnergy Ltd, where the majority of waste that has not been re-used, composted or recycled is sent for energy recovery. These figures are reported to the Environment Agency as a condition of the pollution prevention permit.

Table O4: Emissions from the Edmonton Energy from Waste facility

	2018
NOx tonnes per annum	228,600 kgs
SOx tonnes per annum	16.53
Carbon dioxide tonnes per annum	151,660.7 kgs
Dioxin grams per annum	7 (* this figure is dioxins and furans combined expressed as i-TEQ)

NOx and SOx mean the oxides of nitrogen and sulphur respectively that contribute to air pollution and can cause acid rain. Carbon dioxide is the main greenhouse gas and is considered to be the leading cause of climate change.

Dioxins are complex chemicals that are known to bio accumulate in living organisms and are linked to health problems at high levels of exposure. It should be noted that while most quantities are reported in tonnes, the amounts of dioxins emitted is recorded in grams. One gram is 1/1,000,000 of a tonne (one million times less mass).

Objective 5 *To improve water quality*

Measures **Life cycle assessments of water eutrophication (WRATE output)**
Life cycle assessments of freshwater aquatic ecotoxicity (WRATE output)
Number of notifiable water quality incidents

This monitoring will need to commence at sites that are newly identified for waste management facilities in advance of any contracted operations to ensure that a baseline showing the emissions and air quality before construction is established. This can be used as a comparison with data after construction and during operation.

Objective 6 To achieve the wise management and sustainable use of water resources

Measures **Net water usage for waste facilities**

It is not possible to obtain this data from contractors under the Authority's existing contracts, but this will be incorporated as a contractual requirement into future contracts.

Objective 7 *To address the causes of climate change*

Measures **Life cycle assessment of climate change (WRATE output)**
Percentage of waste transferred by road, rail and water
Tonnes of waste transferred by road, rail and water
Amount of energy used by proposed facilities
Per capita reduction in CO2 emissions (National Indicator 186)

The North London Waste Authority has moved its focus from the outputs of the WRATE model but continues to use the Emission Performance Standards (EPS) as the baseline targets for CO_2 performance:

Table O7: Emission Performance Standards

Target Year	Proposed EPS targets tonnes of CO2e per tonnes of waste managed	Previous EPS targets tonnes of CO2e per tonnes of waste managed
by 2020	-0.069	-0.186
by 2025	-0.084	
By 2030	-0.167	-0.243

While it should be noted that the CO_2 EPS targets set out by the London Mayor are becoming more challenging year by year, initial proprietary works on the modernisation of the Edmonton EcoPark are underway through the North London Heat and Power Project. Once finalised, the project will reduce levels of CO_2 in comparison to the existing facility and supply electricity and heat for up to 127,000 homes.

The amount of waste transported by road, rail and water is reported under 7C1 and 7C2 above (section 25).

In 2018/19 23,873, tonnes of waste were transferred by road from Hendon to the Edmonton EfW for energy recovery. This waste would have otherwise been transported by rail to Buckinghamshire where 8,594 tonnes of it would have been disposed of in landfill.

These climate change related measures are also now incorporated into each borough's reuse and recycling plans.

Objective 8 *To adapt to the unavoidable consequences of climate change*

Measures **Percentage of developments with sustainable urban drainage systems (SUDS)**

It is not possible to obtain this data from contractors under the Authority's existing contracts, but this will be incorporated as a contractual requirement into future contracts at new sites such as the North London Heat and Power Project.

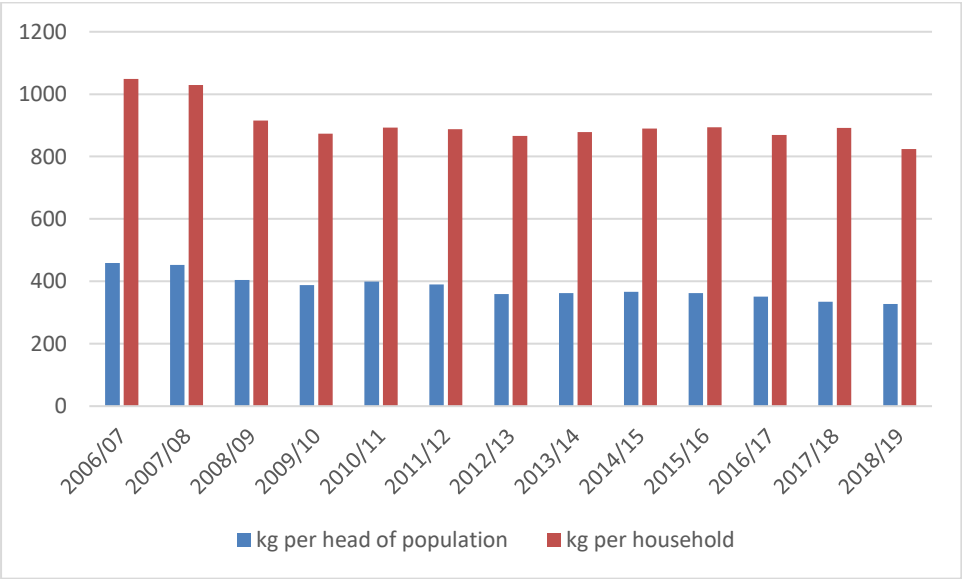
Objective 9 *To minimise the production of waste arising from households and local authority customers*

Measures **kg of household waste collected per head**
kg of household waste per household
Tonnes of commercial and industrial waste collected

Table O9: Household waste collected in the north London area

	2018/19
kilograms of household waste produced **per head** of population	327
kilograms of household waste collected for **recycling and composting** per **household**	244
kilograms of **residual** household waste per household waste collected **per household** (National Indicator 191)	580
kilograms of total household waste **per household**	824

Figure O9: Household waste collected



Since 2006 the amount of residual waste per household has declined significantly. This is likely to be due to the combination of many factors including reductions in the amounts of packaging waste produced, an increase in the amounts of waste that are collected for recycling and composting, the increasing introduction of “take back” schemes for large items by high street retailers, the effects of the economic recession meaning that fewer items are purchased than previously, and the Partners’ waste prevention work.

Table O9.2: Commercial and industrial waste collected

	2018/19
Non-household (commercial and Industrial) waste collected (tonnes)	104,573

It is believed the amount of commercial waste and recycling has increased over the strategy period and remained constant compared with 2017/18.

Objective 10 *To maximise re-use, recycling and recovery rates by viewing waste as a resource.*

Measures

Percentage of household waste sent for re-use, recycling and composting (National Indicator 192)
Percentage of municipal waste sent to landfill (National Indicator 193)
Life cycle assessment of resource depletion (WRATE output)
Number of bring sites per 100,000 people
Number of Re-use and Recycling facilities per 100,000 people
Percentage of households served by recycling and composting collections
Percentage of trade waste customers offered a recycling and/or composting collection service

The percentage of household waste sent for re-use, recycling and composting and the percentage of municipal waste sent to landfill are highlighted in sections 13 and 22 respectively. More information can be found regarding the National Indicators and the different waste streams that are used to calculate these figures here:
https://www.wastedataflow.org/documents/guidancenotes/NationalIndicators/GN31_Handbook_Definitions_1.0.pdf

The percentage of waste that is separately collected for recycling and composting continues to rise, while a decrease in waste to landfill is a consequence of increased recycling and a fall in the amount of household waste generated. The number of bring sites has continued to decrease overtime due to further developments in kerbside collection services as well as an increase in the overall population served.

The number of residents receiving a collection service for recyclable and/or compostable materials has increased annually. Nearly all residents have a kerbside or near entrance collection point for these materials.

The percentage of trade waste customers offered a recycling and/or composting collection service has not yet been calculated due to inadequate data being available to calculate it. It is hoped that this data will be published in the future.

Objective 11 *To minimise the global, social and environmental impact of the consumption of resources*

Measures Life cycle assessment of resource depletion

It is not possible to determine this until sites have been identified and technologies selected.

This will be assessed during the development of the North London Heat and Power Project (NLHPP)

Objective 12 *To enable waste to be disposed in one of the nearest appropriate facilities*

Dry recyclable waste is delivered to one of two Materials Recycling Facilities (MRFs) to be separated for reprocessing. These are in Enfield and Tower Hamlets.

Separately collected food and green waste is taken to off-site composting or anaerobic digestion facilities in London, or in the Home Counties if insufficient local capacity is available.

Residual waste collected by the north London Partners is delivered to one of three sites in the north London area, located in Hendon, Edmonton and Islington. Additionally, there are eight re-use and recycling centres distributed across north London where residents of any borough are allowed to deposit a wide variety of waste materials for re-use, recycling, composting, recovery or disposal.

Objective 13 *To enhance and protect the existing built environment including heritage assets and the wider historic environment*

Measures **Number of waste management facilities that are intrusively visible from historic buildings**
Number of new waste management facilities that have an unreasonably negative impact on heritage assets and the wider historic environment

The Authority is not aware that any of the waste management facilities that are used are intrusively visible from historic buildings or that any have an unreasonably negative impact on heritage assets or the wider historic environment. This consideration was assessed during the planning stage of existing facilities and assessed as part of the Environmental Impact Assessment undertaken as part of the Development Consent Order application for reviewed during the development of the North London Heat and Power Project (NLHPP).

Objective 14 *To ensure new buildings and associated infrastructure are designed and constructed in a sustainable way*

Measures: **Number of new waste management facilities designed and built to meet minimum BREEAM standards**
Percentage of recycled content material used in any new waste facilities that are built
Percentage of new waste infrastructure that is built on previously developed or industrially used land
Tonnage of waste processed per hectare

It is not possible to report against these indicators until sites have been identified and waste facilities specified. It is intended that these indicators will be considered during the development of the North London Heat and Power Project (NLHPP).

Objective 16 *To stimulate redevelopment and urban renaissance that benefits the most deprived areas and communities*

Measures: **Percentage of jobs created in areas of above average deprivation or unemployment**

It is not possible to determine this figure at this time. It is intended that this will be reported in future as the NLHPP is commissioned.

Objective 17 *To encourage a strong, diverse and stable economy*

Measures: Number of direct jobs in waste services

It is intended that this will change in future as the NLHPP is commissioned. The jobs in waste services currently supported by existing NLWA contracts are:

Table O17: Contractors and Numbers of Employees

Contractor	No. of employees
LondonEnergy Ltd	300
Biffa Materials Recycling Facility (MRF), Edmonton, London	400
Bywaters Materials Recycling Facility (MRF), Bromley-by-Bow, London	400

Objective 18 *To improve the resilience of businesses and their environmental, social and economic performance*

Measure: Percentage of organisations delivering waste services with a recognised environmental and quality standard accreditation

All the organisations that deliver recycling, composting and residual waste disposal services to the Partner Authorities are accredited to ISO 9001: 2015 and ISO 14001:2015.

Table O18: Organisations delivering waste services and quality standards

	ISO 9001:2015	ISO 14001:2015
Bywaters	Y	Y
BIFFA	Y	Y
LEL	Y	Y
FCC	Y	Y
Biogen	Y	Y
WISER	Y	Y

Objective 19 *To maximise the accessibility and equality of services*

Measure: **Number of re-use and recycling centres per 100,000 people**
Number of bring sites per 100,000 people
Percentage of households served by recycling and composting collections
Percentage of trade waste customers offered a recycling and/or composting collection service
Percentage of residents using waste services
Percentage of residents satisfied with waste services

The number of re-use and recycling centres per 100,000 people is reported in Section 10.

The number of bring sites per 100,000 people is reported in Section 13.
The percentage of households served by recycling and composting collections is reported in Section 13.

The percentage of trade (business) waste customers offered a recycling and/or composting collection service is discussed in Section 28 and Objective 10, but the data is not currently available.

The percentage of residents using waste services is 100%.

28 Conclusion

In 2018-19, a total of 818,285 tonnes of local authority collected waste was managed by the Partner Authorities from households and businesses in the north London area. The total amount of waste collected decreased by 12,670 tonnes (1.5%) from the previous year.

Of the total waste collected, 241,915 tonnes were sent for re-use, recycling and composting, making an overall recycling and composting rate of 29.6% of the local authority collected waste stream.

511,577 tonnes (62.5%) of local authority collected waste was sent for energy recovery by incineration. This is an increase from the previous year when 505,864 tonnes of residual waste was sent for energy recovery.

The amount of local authority collected waste sent to landfill was 64,793 tonnes (7.9%), a decrease of 14,166 tonnes from the previous year.

During 2018/19, 674,704 tonnes of waste was collected from households. Of this, 199,834 tonnes was sent for re-use, recycling and composting. This represents 30% of the household waste stream which is slightly down from the previous year.

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29 Further information

The Authority publishes its Annual Report every June:
http://www.nlwa.gov.uk/governance-and-accountability/annual-reports.

There is also a report available that sets out the Authority's work on waste prevention, recycling and composting:
http://www.nlwa.gov.uk/about/authority-strategies/

If you would like any further information about the North London Joint Waste Strategy, please contact North London Waste Authority:

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