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Dear Sir/Madam

Ref: the London Assembly investigation into food waste management in London

Please find below the response from the North London Waste Authority to the London Assembly investigation into food waste management in London.

Yours sincerely


PP- Andrew Lappage MCIWM CEnv
Head of Operations

Response to the London Assembly investigation into food waste management in London

1. Introduction

1.1 The NLWA is the second largest waste disposal authority in the UK in terms of the tonnage of waste managed and the Authority provides a service for approaching 1.9 million people in the capital. NLWA covers the London boroughs of Barnet, Camden, Enfield, Hackney, Haringey, Islington and Waltham Forest. Further information is contained in the Authority's Annual Monitoring Report of progress against the targets included in the jointly agreed (with the seven boroughs) 'North London Joint Waste Strategy' (NLJWS) which is available on our website <http://www.nlwa.gov.uk/governance-and-accountability/annual-monitoring-reports>.

1.2 This NLWA welcomes the London Assembly's investigation into this important waste stream.

Increased tonnages of organic waste

1.3 All the north London boroughs collect food waste separately at the kerbside although in some cases the food waste is mixed on the collection truck with green garden waste. Tables 9 and 10 of the Annual Monitoring Report show the increase in numbers of households served with a food and/or garden waste service in the past three years (to 2012/13) against a baseline year of 2006/07 and additionally the tonnage of household waste collected at the kerbside for composting and anaerobic digestion (this is both food and garden waste). See: <http://www.nlwa.gov.uk/governance-and-accountability/annual-monitoring-reports>. In overall terms, the tonnage of material collected for composting and anaerobic digestion increased by 10.5% between 2010/11 and 2011/12 and by 2.7% between 2011/12 and 2012/13. During the same period, the total tonnage of household waste collected at the kerbside increased by 0.8% between 2010/11 and 2011/2 and declined by 0.3% between 2011/12 and 2012/13. An increase is expected for 2013/14, but final figures are not yet available.

Challenges to service provision

1.4 In common with other parts of London, the NLWA is facing a number of challenges which affect wastes management, notably on-going pressures on local authority finances and unprecedented levels of population growth (see Table 2 of the Annual Monitoring Report). The area is also seeing an increase in the demand for housing and a change in the housing mix (more multiple occupancy housing). As a consequence of these factors there may be an increased demand for the collection, treatment and disposal of household

waste, and possibly for commercial waste too. Within this context it will be important to provide easy-to-use collection and recycling services and to encourage the use of the services in order to maximise participation.

- 1.5 Between 2006/07 (the baseline year for the NLJWS) and 2012/13, the population of the NLWA's area has increased by 11.5% and population density from 57 people per hectare to 64 people per hectare. Whilst this increase in population has not translated into an increase in past annual waste arising figures, we note that tonnages started to increase mid-2013/14 and we anticipate that as the economy improves and as further housing and population growth continues that the amount of waste that requires management in north London may increase in the future. The NLWA is in the process of updating its waste forecasts.

2. Call for evidence questions

Part I – Establishing the baseline

- 2.1 Does your organisation collect domestic food waste? If so, how often (e.g. weekly or fortnightly)? And through what mechanism (e.g. from homes or a central collection point)

- 2.1.1 The NLWA is the waste disposal authority for north London so does not collect food waste, but rather arranges the processing of the material collected by six of the seven north London boroughs. Figures 1 and 2 at the end of this response show the amount of material collected over the last seven years. Note that the 2013/14 figure includes some projected numbers based upon three quarters of completed data.
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- 2.2. What progress has the Mayor made with his food waste-related programmes?
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- 2.3. How has food waste management changed in London over the past 5-10 years? How much has the industry grown?

- 2.3.1 From a north London perspective the key changes are as follows:

- Levels of information have improved and the amounts of activity and promotion to residents about food waste prevention, particularly based upon WRAP's 'Love Food, Hate Waste' programme, have increased. The amount of information that WRAP has been able to provide about the costs of food waste for individual households has particularly assisted in delivering positive messages about the benefits of food waste prevention which it has been possible to use at a local level.

- National level changes to food waste production arising largely from the national economic situation and knock on impact on awareness have probably had the biggest effect - WRAP estimates that arisings of food waste have declined by 21% between 2007 and 2012.
- Rising levels of general media coverage about the impact of food waste have been positive in terms of raising 'background' levels of awareness about the issue.
- Extending food waste collection services, particularly to multiple occupancy premises, has resulted in increasing demand for processing capacity for north London. See Table 26 of the Annual Monitoring Report.
- In addition borough councils can promote home composting to those households with gardens and to some estates through community composting schemes. See sections seven and eight of the Authority's Annual Monitoring Report.

2.3.2 However, NLWA also considers that some aspects of food waste management have not changed considerably in the last 5 – 10 years:

- We are still lacking clear national metrics for measuring the impact of food waste prevention activity.
- There is still uncertainty regarding the impact of providing compostable caddy liners on food waste collection services participation.
- More data is needed on the service specific barriers faced by different segments of the population and their motivations, including better data looking below borough wide or even round level tonnages and socio-demographic indicators.

2.4. How is your organisation, or any other organisation that you are aware of, promoting food waste reduction, and what has been achieved so far?

2.4.1 Food waste is one of the three priority waste streams included in the North London Waste Prevention Plan April 2014 – March 16 and it was a priority waste stream for the previous plan April 2012 – March 2014. As a result, a good proportion of NLWA's waste prevention budget is dedicated to food waste prevention work - £170,000 out of a total waste prevention budget of £465,300 in 2014/15 and £178,400 out of a total waste prevention budget of £450,200 for 2015/16.

2.4.2 The NLWA is promoting food waste reduction in a number of ways, which are detailed in the attached Waste Prevention Activity 2013/14 summary report and in the 2014-16 Waste Prevention Plan. The impact of the Authority's food waste prevention activity is detailed in the Waste Prevention Activity 2013/14 summary report which is attached to this response.

Impact of food waste prevention in north London

2.4.3 The Authority estimates that it will be able to divert 7,000 tonnes of food waste from recycling and disposal over the two years 1 April 2014 – 31 March 2016 as a result of its planned food waste prevention activities. This has to be estimated through metrics rather than via direct tonnage weighing.

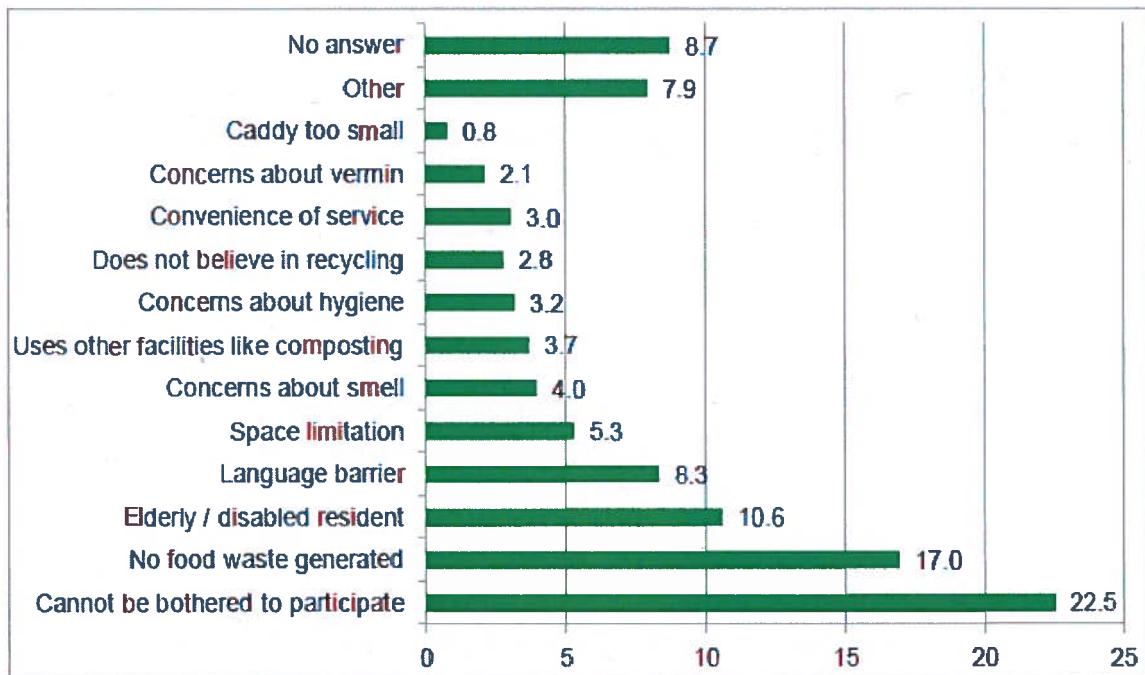
Part II – Extending and improving food waste collection

2.5. What are the current barriers to managing domestic food waste effectively in London, particular with regard to blocks of flats on estates?

2.5.1 The barriers include:

- A relatively poor financial case for making the additional communications and service commitments (e.g. with the provision of free caddy liners), to encourage further public participation.
- Anecdotal evidence (at national level), that there are negative perceptions about food waste collections which may prevent active participation in the service. NLWA is hoping to work with the University of Westminster psychology department this year to further explore some of these barriers and the motivations that might best be harnessed to encourage different population segments to use food waste services.
- In 2013, food waste focused door-knocking activity on estates properties in Hackney, one of the NLWA boroughs, highlighted the following barriers to recycling food waste (reasons residents stated for not intending to use the new service):

Figure 2: Main barriers to participating in the new food waste collection service (%)



- Also, NLWA's principal composting contractor has raised concerns about the possible contamination of food waste with plastic carrier bags, as residents may be tempted to use these rather than compostable liners.
- The difficulty of communicating the benefits of food waste collection services to residents in order to encourage greater participation. This barrier is similar to that experienced for dry waste recycling services – high population turnover, different services in different boroughs which makes standardised messages more difficult and the difficulty of communicating about the beneficial uses that the waste can be put to, when it is converted to compost or digestate. One of the aspects NLWA and the seven constituent Boroughs in north London are considering for further research is the role of housing operatives such as caretakers in the promotion of recycling services. There is potential for this work to be applicable for food waste collection services on estates too.
- A further issue in relation to the effective management of food waste in the capital is that the focus on tonnage targets ignores the carbon and nutrient value of food waste recycling. A change in the metrics by which the introduction of food waste services and their success were measured could go some way to improving the case for investment in these services.
- Finally, it is crucial that new buildings are designed with the appropriate facilities for storing domestic waste, including food waste, both inside the flats or houses as well as in the adjacent areas.

2.6. How do you plan or hope to introduce, extend or improve domestic food waste recycling? What specific barriers have you identified? What support (e.g. financial or technical) would you require to overcome these?

2.6.1 Paragraphs 2.4.1-2 provide some detail about NLWA's plans for further work in this area and paragraph 2.9 provides more detail about what types of support might assist in further developing domestic food waste recycling.

2.6.2 In 2012, when the Department for Communities and Local Government (DCLG) established a £250 million fund to support weekly collections of residual waste all seven north London boroughs were successful in bidding to this fund. Six out of the seven boroughs received funding for the introduction or extension of weekly organic/food waste collections. As noted elsewhere in this response (paragraph 2.14.1) by the end of 2014/15 it is anticipated that almost all of north London households will have access to a food waste collection service. Provisional figures for 2013/14 also suggest that provision had increased from 73% of north London residents with access to a service by the end of 2012/13 to 84% by the end of financial year on 31 March 2014.

2.6.3 However, funding for collection services will need to be sustained in order to maintain the level of services and associated support, such as communications to maximise continued participation even if new policy drivers are introduced to encourage more food waste recycling.

2.6.4 As of April 2014, DEFRA announced that it would be 'stepping back' in areas of waste management, significantly reducing the funding available for WRAP; the Authority therefore thinks it appears unlikely that new funding will be made available at a national level for improving food waste recycling. Best practice documents and online tools on food waste prevention are available on WRAP's website; however, in line with London Councils' comments, the Authority considers that funding restrictions at WRAP are likely to reduce the support that they are able provide in the future.

2.6.5 One opportunity for overcoming any funding barriers, which has been noted by London Councils, would be to consider devolving the landfill tax to London in a similar way to the new Scottish landfill tax. London Councils estimates that such devolution could provide in the order of £60m per year¹ to help fund much needed investment in London's waste infrastructure.

2.7. Following LWARB's flats recycling programme, how can those managing estates and large blocks of flat continue to introduce and improve food waste recycling? What other funding and guidance is still available now and how can boroughs and others access it?

¹ <https://www.gov.uk/government/publications/local-authority-revenue-expenditure-and-financingengland-2012-to-2013-individual-local-authority-data-outturn>

- 2.7.1 Food waste recycling can be improved by encouraging residents to use the service by ensuring that the bins are clean and the availability of compostable liners is promoted whether the free provision of liners from the council or to be bought from supermarkets. The above survey results from Hackney indicate clearly what the barriers are and therefore where the solutions must be found (assuming their survey results to be typical of other densely populated areas in London).
- 2.7.2 Due to the transient population in many parts of London it is also important to carry out regular food waste communications and engagement such as door-knocking and community events.
- 2.7.3 One of the aspects NLWA and the seven constituent boroughs in north London are considering for further research is the role of caretakers and other housing operatives in the promotion of recycling services. The NLWA will shortly commission some research to assess whether housing providers and managing agents and their caretakers would consider it useful if NLWA was to produce some support materials for caretakers to assist them in promoting recycling on estates. These materials might take the form of some training for caretakers, videos or other information about what happens to the recycling, how and where best to position containers on estates etc. Some of the north London housing providers have already provided written support for this piece of work, but it is not yet commissioned. Food waste collection services are not specifically excluded from this research brief so it may be useful to include food waste within the scope when the research is commissioned.
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2.8. Are there any national or international examples of good practice for managing domestic food waste in densely-built, urban environments from which London could draw lessons?

2.8.1 There is a considerable weight of research and guidance in support of food waste minimisation and collection activities, so we know what best practice looks like. Some of this research and guidance is listed below:

- <http://www.wrap.org.uk/content/food-waste-messages-maximum-impact-uk>
- <http://www.wrap.org.uk/sites/files/wrap/West%20London%20Food%20Waste%20Campaign%20Evaluation%20Report.pdf>
- <http://www.wrap.org.uk/sites/files/wrap/Barriers to Recycling at Home Technical Report.pdf>
- <http://www.wrap.org.uk/sites/files/wrap/Impact of collection on prevention FINAL v2 17 8 11.33a4f2d0.11159.pdf>

2.8.2 Much can be achieved by applying food waste management best practice from elsewhere to the London context. In Haringey for example where fortnightly collections of residual waste were paired with weekly collections of dry recyclables and organic waste, dry recycling rates have increased from

19% (April to June 2011) to 27% in the same quarter in 2013. The collection of organic waste has increased from 5,103 tonnes during the year 1 April 2011 to 31 March 2012 to 5,325 tonnes in the first three quarters of the year 1 April 2013 to 31 March 2014. This approach is in line with best practice experiences from other parts of the country. Removal of food waste from the residual stream not only makes residual fortnightly collections more acceptable (as what remains is less odorous), but it additionally provides residents with the opportunity to see how much food waste they were previously consigning to disposal and may still be 'throwing away' albeit for recycling.

2.9. How can the Mayor and local authorities use their investment and planning powers to promote better collection and handling of food waste?

- 2.9.1 London Waste and Recycling Board (LWARB) funding can continue to be used to fund new food waste processing facilities *inter-alia* so that the cost of food processing becomes sufficiently attractive for local authorities that it makes more economic sense to incur the costs of separate food waste collections for recycling than not to do so. It is recognised however that achieving this in a free market environment presents a number of obstacles and limitations.
- 2.9.2 There may be opportunities for the Mayor to link the use of food waste services to local energy production and/or local use of soil conditioner to encourage better collection and handling of food waste (see paragraphs 2.10.1-2 below). Such investment could benefit both household and commercial food waste processing and would not in NLWA's view divert edible food from sale or use by those in need, toward energy production as some have suggested.
- 2.9.3 Although it is unproven it may also be the case that the local use of food waste products will help to overcome barriers to participation something which the NLWA's work with the University of Westminster could tease out, although such approaches to more localised use would need to be balanced with odour impacts.
- 2.9.4 It may also be the case that food waste prevention is going to be the least expensive option and offer the greatest return for any investment e.g. through a pan-London food waste prevention campaign. It is estimated that in London 60% of the food waste generated each year is avoidable.²
- 2.9.4 A useful piece of research would be to investigate the carbon and nutrient value of food waste recycling in London. A life cycle assessment of food waste recycling in London and a comparison of the nutrient and carbon value of for example compost and digestate would also assist in helping strategic decision making about this important waste stream.

² The impact of Love Food Hate Waste in West London case study, WRAP

- 2.9.5 It may also be helpful if research could be commissioned into the possibility of how local planning, trading standards and any other regulatory regimes might be brought together, particularly in relation to commercial and industrial food wastes, to identify how these might be reduced or better managed.
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Part III – Processing food waste

- 2.10. What happens to the domestic food waste that you collect?
- o Name of the company that treats the food waste
 - o Location of treatment facility (within, near or outside London)
 - o Type of facility (e.g. composting plant, anaerobic digestion plant etc)

Edmonton EcoPark in-vessel composting plant

- 2.10.1 Six out of the seven north London boroughs³ consign their food waste to the NLWA for management. In turn NLWA has a contract with LondonWaste Ltd to process the material into compost. LondonWaste's in-vessel composting plant is located at the Edmonton EcoPark in north London and is capable of processing some 35,000 tonnes of material each year. This is a mix of garden waste and food waste which is made into PAS 100 certified product, some of which is sold in a number of the north London HWRCs. Further detail about the compost facility is available on LondonWaste's website <http://www.londonwaste.co.uk/community/ecopark-compost/> and further detail about the sale of compost at north London reuse and recycling centres is available on a separate webpage: <http://www.londonwaste.co.uk/ecopark-compost-for-sale/>
- 2.10.2 Compost is also used by local farmers and horticulturalists, or is provided to local community and allotment groups. In 2012/13, 45% of the compost made in north London from local authority collected garden and kitchen waste was returned for use by residents and boroughs in the NLWA area. Table 34 and figure 26 of the Annual Monitoring report provide further detail.

TEG in-vessel composting plant and AD facility

- 2.10.3 In addition to the EcoPark facility, during periods of high volumes any over-supply of material is sent by LondonWaste to TEG in Barking (<http://theteggroup.plc.uk/about/overview/>) a facility that was assisted by LWaRB.
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- 2.11 What are the benefits and difficulties of different ways of processing food waste, for example composting or anaerobic digestion, in an urban environment?

³ The London Borough of Enfield makes its own arrangements for food waste processing. Currently the material is bulked at Biffa in Edmonton and then sent outside of the capital for treatment.

2.11.1 In common with all waste facilities, whether in London or elsewhere food waste processing facilities can face difficulties during the planning process, and in particular residents are likely to express concerns about odour, noise, traffic and dust/pollution. In the relatively urban London environment residents are more likely to live closer to any proposed facility. An effective communications and engagement strategy can help to overcome resident concerns, coupled with a comprehensive management and operational plan which provides residents with the confidence that the facility will be operated within the regulatory parameters set by the Environment Agency. However, the location of waste processing operations is rarely welcomed as a new neighbour.

2.11.2 During the operational phase the difficulties of processing food waste in an urban environment tend to be no different to those encountered when operating a plant elsewhere. The exception again is the proximity of neighbours and the imperative to keep neighbours abreast of any changes to operational activities perhaps more than would be the case in a more rural environment where the neighbours are less 'on the doorstep' than they are in the city. As an example a change in traffic routing or delivery patterns of material might have considerably more impact in an urban environment than in a more rural setting.

2.11.3 A further consideration of operating a food waste processing facility in an urban environment is that the commercial users of any end product (digestate or compost) may be some distance away from the plant, thereby increasing transport costs 'to market'. There is however a strong domestic demand for much of the compost currently produced in north London, where the split of local users of compost compared to out-of-north-London users is 45:55.

2.11.4 However, the benefits of processing food waste in an urban environment can include proximity to the waste producers thereby minimising transport distances of material into the facility.

2.12. In what ways is recycling food waste beneficial to London's environment?

2.12.1 Recycling food waste provides a number of benefits to London's environment:

- Food waste recycling helps to reduce CO₂ emissions. WRAP has estimated that in London alone, 890,000 tonnes of food is thrown away per year, of which 540,000 tonnes is avoidable. The cost to London boroughs of reprocessing/disposing of this food waste is estimated at over £50 million per annum. It costs consumers £1.4 billion per year to purchase the food and drink thrown away in London, and generates the equivalent of 2.1 million tonnes of CO₂e⁴.
- If food waste is recycled in London, it reduces the distance that organic waste has to travel to remote reprocessing or landfill and therefore

⁴ <http://www.wrap.org.uk/content/west-london-food-waste-campaign>

avoids the environmental impacts of further transportation and any associated traffic congestion.

- It produces either digestate or compost which can be put to beneficial use within the capital, thereby providing both a nutrient and carbon benefit to the city, although this may be more difficult with digestate, whereas good quality compost is more in demand.
- AD (anaerobic digestion) provides renewable energy and may provide heat of a suitable customer is nearby.
- The introduction of food waste recycling services also means that residents have to separate their food waste from the remainder of their rubbish and potentially see for the first time how much food they are throwing away. There is the potential for this then to have an awareness raising impact which is in turn beneficial to the promotion of food waste prevention, which again has a carbon benefit both from the product of the food waste prevention.

2.13. What opportunities do you see for the waste management industry to expand or optimise its activities in London? What are the key factors involved (e.g. minimum amount of feedstock for processing)?

2.13.1 One opportunity for the wider waste management industry may be to build facilities for taking commercial food waste, e.g. from restaurants and hotels etc, whether these facilities be for composting or AD. If it was a regulatory requirement for businesses producing over a certain amount of food waste in an urban area, like London, to present this waste separately for collection this could have both a beneficial environmental effect as well as creating opportunities for business and pushing overall costs down.

2.13.2 In Scotland for example it has been reported⁵ that the amount of food waste treated at Scottish anaerobic digestion plants may have increased by as much 15,000 tonnes in the period since November 2013. The surge in tonnages, estimated to be between an increase of between 10-20% on that collected during the same period 12 months previously, has coincided with the roll out of the Waste (Scotland) Regulations, which came into effect on January 1 this year.

2.13.3 Under the legislation, Scottish businesses are expected to take 'all reasonable steps' to ensure separate collection of all dry recyclables, while those in urban areas producing over 50kg of food waste must also present it for collection.

2.13.4 Overall, a total of 91,500 tonnes of food waste is estimated to have been processed at Scotland's AD facilities since November. However, Zero Waste Scotland – the government-funded organisation that has played a key role in

⁵ LetsRecycle.com "Scotland sees surge in food waste treatment", 04/06/14

developing and implementing the legislation – has said that the figure does not include AD plants that have opened in recent months, so the total figure may in fact be higher. Anecdotally, it also reports in-vessel composters in Scotland have seen a similar increase in the amount of waste received for processing.

2.13.5 The other opportunity (although the water industry has shown little interest in supporting it) is for investment in 'in sink macerators' which allow residents to put their food waste down the sink for maceration from where it goes into the sewerage system. As many more new properties are built in London it may be the case that new properties are built with in-sink-macerators installed, thereby bypassing the 'above ground' food waste collection service completely. It is possible however that further investment in the sewage network may be necessary, so this would have to be investigated in partnership with Thames Water.

2.13.6 Thinking more strategically, it may be possible for the GLA family to boost demand for food waste recycling if it is able to influence the use of waste-derived (PAS100) compost on land it controls or other public land, or if it is able to procure renewable energy or fuel in a way that might stimulate the anaerobic digestion (or other energy recovery) of food waste.

2.14. How do savings in landfill tax relate to possible investment into recycling and composting? What is the role of gate fees in this respect?

2.14.1 The NLWA and its constituent boroughs have a strong imperative (financial and policy related) to reduce waste and increase recycling/composting rates. Food waste comprises around 20-30% of the domestic waste stream and food waste collection services are currently subject to much lower participation rates than dry recycling services, so they provide an opportunity for improving performance. Waste composition analysis indicates that food waste is the largest single component of the residual waste stream in north London and by the end of 2014/15 almost all North London residents will have access to a food waste collection service in one form or another. Accordingly the Authority sees this as an important area in which to improve services.

Figure 1. Dry Recyclables and Organics from Household Kerbside Recycling

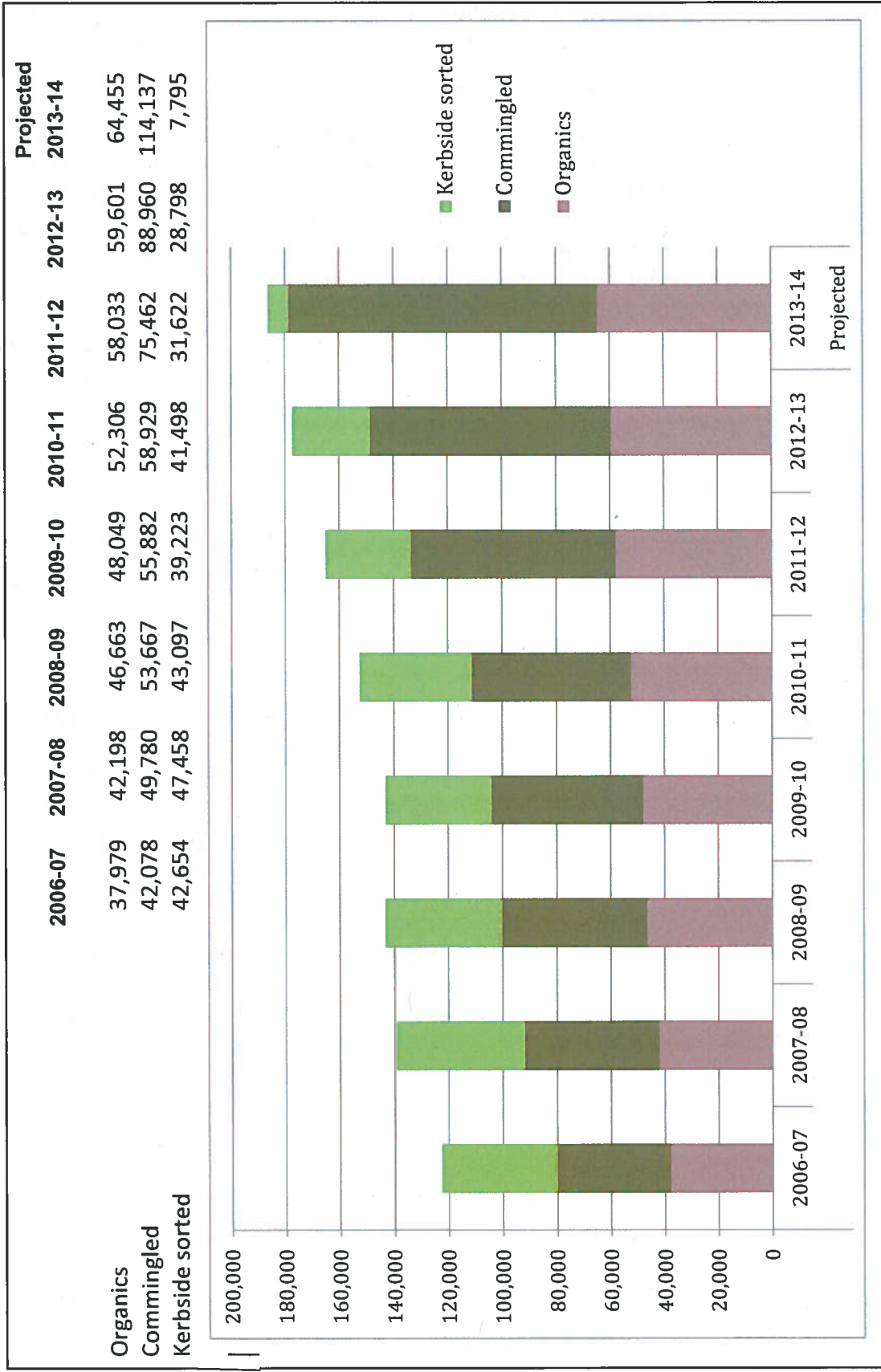


Figure 2. Breakdown of Organics from Household Kerbside Recycling

