

Waste Services Review

1. Background

- 1.1 The Council is at a critical stage in the development of its recycling and waste collection and street cleansing services. With significant legislative changes, ambitious commitments to improve quality and performance, and the upcoming expiry of the contract with Veolia, the Council has undertaken an in-depth review of how the services will be delivered in the future and how they will meet the needs of the borough.
- 1.2 Several projects have been delivered as part of the Waste Service Review Programme over the last 24 months. It includes three main elements:
 - (1) **Service Delivery** who will deliver the services (i.e. in-house, outsourced contract, Local Authority Trading Company (LATCo), hybrid approach),
 - (2) **Service Design** how will services be designed to improve performance (i.e. smaller waste containers/frequency of collections etc), and
 - (3) Fleet how will we transition to a Zero Emission (ZE) fleet.
- 1.3 The review recognises the Council's current financial position, and the need to make robust financial decisions, whilst meeting our commitments to Destination 50% and Net Zero. Therefore, a quantitative assessment has been undertaken, using detailed financial modelling alongside recycling performance and carbon implication models.
- 1.4 Alongside the quantitative assessments, the review has considered qualitative implications to understand the risk profile, and other factors such as operational deliverability, alignment with local & national policy, results of engagement with residents and ability to implement the services.
- 1.5 Each element of the review has been undertaken as a separate element; however, all are interdependent. Subsequently, although they are presented separately in this report, additional modelling has been undertaken to provide a whole life cost for each option combination.
- 1.6 The Council commissioned an expert independent consultancy, Eunomia Research and Consulting Ltd. ("Eunomia") to undertake this assessment alongside officers, ensuring that the Council's objectives were met, whilst taking advantage of extensive market insight and knowledge from other authorities.

2. Service Delivery Options

- 2.1 The Service Delivery project assessed 10 different options for how services could be delivered in Haringey from April 2027, as set out in Table 1.
- 2.2 The options looked at 4 key delivery approaches: a further extension with Veolia (for a max of 5 years in line with contract law), in-sourcing, procuring a new contract, and setting up a LATCo.



2.3 A range of hybrid options were also considered, looking at delivering specific services differently, such as bringing street cleansing in-house and procuring a new contract for waste services (option G).

| Option → Service↓ | A(j) | A(ii) | В | С | ₽ | E | F | G | Н | 1 |
|--|-------------------------|--|----------------------|----------------------|-------------------------|-----------------|-----------------|-----------------|----------|----------|
| Waste & recycling collections | Extend Contract | Extend Contract | Extend Contract | Extend Contract | Extend Contract | New Contract | New Contract | New Contract | In-house | LATCO |
| Commercial waste | (current conditions) | (updated conditions) | (updated conditions) | (updated conditions) | (updated conditions) | | | | | |
| Container delivery | | | | | | | | | | |
| Winter maintenance | | | | | | | | | | |
| Street cleansing | | | | | In house | | | In-house | | |
| Flyposting & graffiti removal | | | | In-house | | | In-house | | | |
| Public convenience cleansing | | | | | | | | | | |
| Contact centre & complaints for waste and cleansing services | | | | | | | | | | |
| Communications, education & outreach | | | In-house | | | In-house | | | | In-house |

Table 1: Service Delivery Options

- 2.4 Following the in-sourcing of the ECO team, option A(ii) has been excluded from further analysis and subsequently are not part of the services in option A(i).
- 2.5 Following a legal assessment of the options, option D was excluded from further analysis. It was determined that the changes to the Contract would be too significant, and therefore breach Regulation 72 of Public Contract Regulations 2015 (PCR).
- 2.6 The assessment of the options has been undertaken against Haringey's Enabling Framework, with some additional criteria added, at the suggestion of Eunomia and in agreement with the Council's procurement team, to reflect the specific requirements of such a large and complicated service. Table 2 sets out the criteria against which each option has been evaluated.

| Primary | Criteria | Secondary Criteria | Question | Weighting |
|---------|----------|--------------------------------|---|-----------|
| Finance | | Cost | Is the option affordable? | 25.0% |
| (30%) | | Financial and Commercial Risk | Does the option pose an increased financial risk to the authority? | 5.0% |
| Quality | Service | Service Quality | Does the option improve the quality of service offered to residents? | 10.0% |
| (70%) | | Capacity | Does LB Haringey have the capacity to deliver? | 10.0% |
| | | Capability | Does LB Haringey have the capability to deliver? | 7.5% |
| | | Social Value | Does the option support LB Haringey's social value objectives? | 5.0% |
| | Risk | Operational Risk * | Does the option pose an operational risk of failure to the authority? | 10.0% |
| | | Market Conditions | Are the market conditions supporting this option? | 10.0% |
| | | Control and Ability to Change* | Does the option allow LB Haringey to control and develop services? | 10.0% |
| | | Implementation Risk * | Does the option present implementation risk? | 7.5% |
| | | Timing | What are the timings of the option and can it be delivered? | 5.0% |
| Total | | | · | 100% |

Table 2: Evaluation Criteria

*additional criteria added in by Eunomia, above Enabling Framework

3. Quantitative Assessment



Service Delivery Cost

- 3.1 Eunomia developed a cost model from bottom up, to estimate Veolia's operating costs for 2022/23. This used known details such as the number of staff and vehicles, and associated cost, alongside estimates of other operational and support costs, aiming to replicate Veolia's current cost base. Where actual figures were available this was used, and as needed Eunomia supplied industry standard assumptions.
- 3.2 This was compared against the current service budget, and what Veolia currently charge us for delivering the service to ensure cost estimates were realistic.
- 3.3 Once the cost base was understood, specific changes could be made (for example staff costs, cost of borrowing, profit margin), to determine how the cost may change from the baseline under each option.
- 3.4 Table 3 shows the results of the financial modelling for each of the alternative delivery approaches.
- 3.5 It should be noted that these costs are based on the 2022/23 service cost and represent the cost to deliver the services under different scenarios in that year. There has been no inflationary adjustment.

| Option | Description | 2022/23 Annual Modelled cost | Annual difference from Baseline |
|--------|---|---------------------------------|------------------------------------|
| | Baseline (current service) | £20.6m | - |
| A (j) | Extend contract: current conditions | £20.6m | £0 |
| A (ii) | Extend contract: updated conditions | £20.4 m | - £250,000 |
| В | A (ii) + in-source Education, Communications & Outreach | £20.4m | - £228,000 |
| С | B + in-source Flyposting & Graffiti, Convenience Cleansing and Contact Centre | £21.0m | + £352,000 |
| D | C + in-source Street Cleansing | Not allowed unde | er procurement regulations |
| E | New contract + in-source Education, Communications & Outreach | £20.0m | - £677,000 |
| F | E + in-source Flyposting & Graffiti, Convenience Cleansing and Contact Centre | £20.3m | - £353,000 |
| G | F + in-source Street Cleansing | £22.1m | + £1,489,000 |
| Н | In-source all services | £22.6m | + £2,029,000 |
| 1 | LATCo | £21.7m | + £1,020,000 |

Table 3: Results of financial modelling

- 3.6 The modelling expects that the cheapest option would be E, to retender the services with the ECO team being in-sourced. This delivers a potential saving of £677k per year to the Council.
- 3.7 This reduction in cost is due to the potential of securing a reduction in the margin that the contractor will make. We estimate Veolia's contract margin at 16% during 2022/23, whilst market research indicates bidders are currently adding between 8% and 12% to the service costs. The modelling used an estimate of 12%. It should be noted that Veolia made a loss in the early years of the contract (unquantifiable) and expected to make this up during the later years.
- 3.8 The most expensive modelled cost is option H, to in-source all services. This would potentially cost an additional £2m per year. This additional cost is largely due to an increase in staff costs, including higher salaries and higher pension contributions. There are also significant additional internal overhead costs for HR and IT support.



- 3.9 The hybrid options, generally tend to cost more than the baseline due to the requirement for duplicated management structures in each organisation.
- 3.10 The full evaluation of costs against the Enabling Framework is presented in Table 6, the analysis determines the cheapest cost as receiving full points (25%), with a reduction in points relative to the decrease in cost.

Shared Service Costs

- 3.11 The Council provides support to all service areas through its corporate functions. The costs of these services are charged back to each service area based on a calculated cost per FTE.
- 3.12 Where an option requires significant additional support, such as the need for additional IT & HR staff in the in-house option, the estimated cost of any additional staff required has been included in total costs set out in Table 3.
- 3.13 However, for other corporate services, such as legal and procurement, there is no expectation that the change in service delivery approach would require additional staff. Therefore, the re-charge for these services has been recalculated based on the additional FTE in each option.

| Option | Description | Additional FTE | Shared Service Charge |
|--------|---|------------------|----------------------------|
| | Baseline | 0 | £0 |
| A (j) | Extend contract: current conditions | 0 | £0 |
| A (ii) | Extend contract: updated conditions | - | - |
| В | A (ii) + in-source Education, Communications & Outreach | 3 | £41,547 |
| С | B + in-source Flyposting & Graffiti, Convenience Cleansing and Contact Centre | 20 | £247,173 |
| D | C + in-source Street Cleansing | Not allowed unde | er procurement regulations |
| E | New contract + in-source Education, Communications & Outreach | 3 | £41,547 |
| F | E + in-source Flyposting & Graffiti, Convenience Cleansing and Contact Centre | 20 | £247,173 |
| G | F + in-source Street Cleansing | 206 | £1,339,055 |
| Н | In-source all services | 351 | £1,514,925 |
| 1 | LATCo | 26 | £122,048 |

Table 4: Estimated cost of Shared Service Charge

- 3.14 Taking account of the internal recharges for each FTE within service areas, there is a significant additional cost for both option G and H, where 206 and 351 staff are transferred into Haringey from the contract.
- 3.15 In options B & E there are 3 staff transferred to Haringey, and options C and F, 20 staff are transferred.

4. Qualitative Assessment

4.1 A high-level qualitative assessment of the 4 key delivery approaches is shown in Table 5, which sets out the main strengths and weaknesses of each approach. Full score for each option against the full criteria is shown in Table 7. This sets out the awarded score out of 5 for each criterion and the weighted score.



- 4.2 Largely the qualitative analysis shows that services which are contracted out provide the lowest risk to the Council, whereas in-sourced services provide the Council with more control over the service delivery.
- 4.3 Across the qualitative analysis the highest scoring option is to procure a new contract, with a weighted score of 67.0%, followed closely by extension of the current contract with score of 64.5%.

| Delivery Approach | Strengths | Weakness | Evaluation Score |
|---------------------------|---|--|---------------------|
| Extend with Veolia | Risk: ability to set a fixed budget each year, with the Contractor taking on levels of financial and operational risk. Capability/Capacity: Veolia have demonstrated they have sufficient capability and the capacity to deliver the services. | Control & Change: the existing contract is 14 years old and has limited abilities for significant changes to services. Service Quality: the services <u>performs</u> well, however with old contract terms and outdated performance mechanisms, this is difficult to manage. | 64.5 |
| Procure a new Contract | Risk: ability to set a fixed budget each year, with the Contractor taking on levels of financial and operational risk. Capability/Capacity: outsourced providers have large pools of experts able to support the services. Social Value: contractual commitments will be made by the Contractor and monitored through the Social Value Portal. | Control & Change: changes will be managed through contractual processes; this may take some time to formalise vs an in-house service. Implementation: a new services provider will need to transfer 300 staff and implement <u>changes</u> , Contractors will have experience with this which minimises the risk. | 67.0 |
| In-source services | Service Quality: ability to direct resources to under- performing areas. Control & Change: ability to make changes easily to meet the needs of the borough and legislation. Social Value: ability to ensure the services meets the Council's priorities across the borough. | Risk: exposure to both financial / commercial & operational risk for any issues that may arise. Capability: limited technical capability within the current structure to manage the service, risk that the Council is unable to recruit qualified or experienced staff. | 54.0 |
| Set up a LATCo | Service Quality: ability to direct resources to under- performing areas. Control & Change: ability to make changes easily to meet the needs of the borough and legislation. | Risk: exposure to both financial / commercial & operational risk for any issues that may arise. Capability: limited technical capability within the current structure to manage the service, risk that the Council is unable to recruit qualified or experienced staff. | 52.0 |

Table 5: High-level qualitative assessment

- 4.4 The benefit of procuring a new contract over an extension is the ability to secure a modern contract, which sets the Council's requirements clearly and provides additional provision to exert control over services, introduce new technologies and future proof services compared with the limited options to change the structure of the current contract which will be 16 years old by 2027.
- 4.5 The hybrid options generally score lower due to impact of taking on some risks, but without getting full control of the services. There are several considerations with bringing operational elements of services in, for example the Council does not currently have an O Licence or would need to adjust operational management structures. Issues with a shared workforce depot in terms of pay differences could arise if the service operated from Watermead Way depot. This does not mean that it is not possible but needs further exploration.
- 4.6 In-sourcing provides more control, however, transfers significant financial risk to the Council. In addition, the Council currently has limited capacity and capability to deliver such technical services.

5. Enabling Framework Result

5.1 Through the enabling framework approach, the highest scoring option through both quantitative and qualitative is option E, to procure a new contract whilst in-sourcing the ECO team. Final scores are shown in Table 8.



Table 6: Results of Quantitative Analysis

| | Option A(i) | | Option A(ii) | Optio | on B | Opti | ion C | OptionD | Opt | ion E | Opti | on F | Opti | on G | Opti | on H | Opti | ion I | |
|------|---------------|---------------|-----------------|-----------------------|-----------------|----------------|---------------|-----------------|------------|---------------|-----------------|---------------|-----------------|---------------|-----------------|------------------------|----------------|------------------|----------------|
| | | Extend co | ntract: current | Extend | A (ii) + in-sou | rce Education, | B + in-sour | ce Flyposting & | Not | New contr | act + in-source | E + in-source | ce Flyposting & | F + ii | n-source Street | In-source all services | | rce all services | |
| | | | conditions | contract: | Communicatio | ns & Outreach | Graffit | ti, Convenience | progressed | Education, C | ommunications | Graffit | i, Convenience | | Cleansing | In-source all services | | LA | |
| | | Modelled Cost | Weighted Score | updated conditions | Modelled Cost | Weighted Score | Modelled Cost | Weighted Score | | Modelled Cost | Weighted Score | Modelled Cost | Weighted Score | Modelled Cost | Weighted Score | Modelled Cost | Weighted Score | Modelled Cost | Weighted Score |
| Cost | Affordability | £21,161,941 | 24.2% | £ - | £20,934,044 | 24.5% | £21,514,410 | 23.8% | £ - | £20,755,289 | 25.0% | £21,108,828 | 24.6% | £22,762,991 | 22.6% | £23,055,175 | 22.0% | £22,020,056 | 23.0% |

Table 7: Results of Qualitative Analysis

| | | Option | A(i) | Option A(ii) | Optio | n B | Optio | n C | Option D | Optio | n E | Optio | n F | Optio | n G | Optior | ъH | Optio | n I |
|----------|-------------------------------|----------------|--------------|----------------|---------|-------------|----------------|------------|------------|--------------|-------------|----------------|------------|-----------|-------------|-------------|--------------|---------|----------|
| | | Extend contra | act: current | Extend | A (ii) | + in-source | B + in-source | Flyposting | | New contract | + in-source | E + in-source | Flyposting | F + in-so | urce Street | In course a | ll convicos | | 140 |
| | | | conditions | contract: | | Education, | & Graffiti, Co | onvenience | Not | | Education, | & Graffiti, Co | onvenience | | Cleansing | in-source a | III Services | LA | |
| Primary | Secondary Criteria | Awarded | Weighted | updated | Awarded | Weighted | Awarded | Weighted | progressed | Awarded | Weighted | Awarded | Weighted | Awarded | Weighted | Awarded | Weighted | Awarded | Weighted |
| Criteria | Secondary criteria | Score | Score | conditions | Score | Score | Score | Score | | Score | Score | Score | Score | Score | Score | Score | Score | Score | Score |
| Cash | Affordability | Scored as part | of Quantit | ative Analysis | | | | | | | | | | | | | | | |
| Cost | Financial & Commercial Risk | 4 | 4.0% | 0 | 5 | 5.0% | 2 | 2.0% | 0 | 5 | 5.0% | 3 | 3.0% | 2 | 2.0% | 1 | 1.0% | 1 | 1.0% |
| | Capability | 3 | 6.0% | 0 | 3 | 6.0% | 3 | 6.0% | 0 | 4 | 8.0% | 4 | 8.0% | 3 | 6.0% | 4 | 8.0% | 4 | 8.0% |
| | Capacity | 5 | 10.0% | 0 | 5 | 10.0% | 3 | 6.0% | 0 | 5 | 10.0% | 3 | 6.0% | 3 | 6.0% | 3 | 6.0% | 3 | 6.0% |
| | Market Conditions | 5 | 7.5% | 0 | 5 | 7.5% | 3 | 4.5% | 0 | 5 | 7.5% | 3 | 4.5% | 2 | 3.0% | 2 | 3.0% | 2 | 3.0% |
| | Operational Risk | 3 | 3.0% | 0 | 3 | 3.0% | 3 | 3.0% | 0 | 5 | 5.0% | 5 | 5.0% | 5 | 5.0% | 4 | 4.0% | 4 | 4.0% |
| Quality | Implementation Risk | 4 | 8.0% | 0 | 4 | 8.0% | 4 | 8.0% | 0 | 4 | 8.0% | 4 | 8.0% | 1 | 2.0% | 2 | 4.0% | 2 | 4.0% |
| | Timing | 5 | 10.0% | 0 | 4 | 8.0% | 4 | 8.0% | 0 | 4 | 8.0% | 4 | 8.0% | 5 | 10.0% | 5 | 10.0% | 5 | 10.0% |
| | Social Value | 2 | 4.0% | 0 | 3 | 6.0% | 4 | 8.0% | 0 | 3 | 6.0% | 3 | 6.0% | 4 | 8.0% | 5 | 10.0% | 4 | 8.0% |
| | Service Quality | 5 | 7.5% | 0 | 4 | 6.0% | 4 | 6.0% | 0 | 3 | 4.5% | 3 | 4.5% | 1 | 1.5% | 2 | 3.0% | 2 | 3.0% |
| | Control and Ability to Change | 5 | 5.0% | 0 | 5 | 5.0% | 5 | 5.0% | 0 | 5 | 5.0% | 5 | 5.0% | 5 | 5.0% | 5 | 5.0% | 5 | 5.0% |
| | Total | 41 | 65.0% | i | 41 | 64.5% | 35 | 56.5% | | 43 | 67.0% | 37 | 58.0% | 31 | 48.5% | 33 | 54.0% | 32 | 52.0% |

Table 8: Results of Enabling Framework

| | | Optio | on A(i) | Option A(ii) | Optio | on B | Opti | on C | OptionD | Optic | on E | Opti | on F | Optio | on G | Optio | on H | Opti | on I |
|-------------|---------------|------------|-----------------|--------------|------------------|---------------|-------------|-----------------|------------|---------------|-----------------|--------------|----------------|---------|----------------|---------|------------------|------|-------|
| | | Extend cor | ntract: current | Extend | A (ii) + in-sour | ce Education, | B + in-sour | ce Flyposting & | Not | New contra | ict + in-source | E + in-sourc | e Flyposting & | F + in- | -source Street | In cou | see all convises | | 140 |
| | | | conditions | contract: | Communication | ns & Outreach | Graffit | i, Convenience | progressed | Education, Co | mmunications | Graffit | i, Convenience | | Cleansing | III-SOU | ce all services | | LAC |
| Tatal Cases | Affordability | | 24.2% | | | 24.5% | | 23.8% | | | 25.0% | | 24.6% | | 22.6% | | 22.0% | | 23.0% |
| Total Score | Quality | | 65.0% | | | 64.5% | | 56.5% | | | 67.0% | | 58.0% | | 48.5% | | 54.0% | | 52.0% |
| | Total | | 89.2% | | | 89.0% | | 80.3% | | | 92.0% | | 82.6% | | 71.1% | | 76.0% | | 75.0% |
| | Rank | | 2 | | | 3 | | 5 | | | 1 | | 4 | - | 8 | | 6 | | 7 |



6. Collection Design

6.1 Eunomia conducted a review of the options to improve recycling performance across the borough. The current service provided in Haringey is shown in Table 9 for the three different property types across Haringey.

 Table 9: Current waste collection services

| Service | Kerbside | Estates / Flats | Flats above Shops |
|---------------|------------------------------|------------------------|-----------------------------|
| Recycling | Weekly co- mingled | Weekly co- mingled | Weekly co- mingled |
| Food Waste | Weekly (all properties) | - | Weekly (some properties) |
| Garden Waste | Charged Weekly | - | - |
| General Waste | Fortnightly 240 litre bin | Weekly communal bin | Twice daily sacks |

- 6.2 The changes to services which have been considered are highlighted in Table 10, and have been designed to account of:
 - Government policy changes including Simpler Recycling, Extended Producer Responsibility (EPR) and Emissions Trading Scheme (ETS),
 - Haringey's commitment to drive up recycling performance to meet the Mayor of London's 50% recycling target by 2030 and Haringey's ambitious Destination 50%, and
 - Minimise waste to reduce the cost of the NLWA levy to meet MTFS savings targets in 2027/28 and 2028/29 (£850k and £850k).

| Service | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 | Option 6 | Option 7 | Option 8 |
|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|---------------|---------------|
| Recycling | Weekly co- | Fortnightly co- | Weekly co- | Alt. weekly | Fortnightly co- | Fortnightly | Weekly co- | Alt. weekly |
| | mingled | mingled | mingled | two-stream | mingled | two-stream | mingled | two-stream |
| Food waste | Weekly (all | Weekly (all | Weekly (all |
| | properties) | properties) | properties) | properties) | properties) | properties) | properties) | properties) |
| Garden waste | Charged | Charged | Charged | Charged | Charged | Charged | Charged | Charged |
| | Fortnightly | Fortnightly | Fortnightly | Fortnightly | Fortnightly | Fortnightly | Fortnightly | Fortnightly |
| Non-recyclable | Fortnightly 240 | Fortnightly 240 | Fortnightly 180 | Fortnightly 180 | Fortnightly 180 | Fortnightly 180 | Three weekly | Three weekly |
| waste | litre bin | 240 litre bin | 240 litre bin |

Table 10: Changes to waste collection services

- 6.3 The changes presented are largely to kerbside properties only, due to the operational restrictions at estates and flats above shops. Food waste is introduced across all property types, whilst changes to recycling will not impact on collection frequency, just changing to a two-stream approach. There will be no change to general waste collections for other property types.
- 6.4 Following a consultation during 2024, the Government set a backstop that nonrecyclable waste had to be collected as minimum on a fortnightly basis. Therefore option 7 and 8 are no longer viable options.

7. Performance Modelling

7.1 To assess how proposed service changes would impact our recycling performance, Eunomia undertook a benchmarking exercise to develop assumptions on the impact of each proposed change. The benchmarking was undertaken against similar authorities



who operate the desired service and uses the median of key metrics to create an estimate of the impact.

7.2 Figure 1 to Figure 3 show results of the benchmarking, for changes made to general waste, food waste and recycling. The output of the benchmarking was then used to create 'waste flows', to predict how much waste would be produced per year for each option. The resulting waste flows are shown in Figure 4.



Figure 1: Benchmarking results - general waste.

- 7.3 Figure 1 sets out the average amount of non-recyclable (general) waste set out by each household on a yearly basis, compared with authorities which have a fortnightly collection of a 240l wheeled bin, like Haringey, (140l weekly equivalent) those which collect a 180l wheeled bin fortnightly (90l weekly equivalent), and those who collect a 240l wheeled bin every 3 weeks (80l weekly equivalent).
- 7.4 The median for each group is shown with the yellow line, identifying a reduction in general waste with a smaller weekly equivalent capacity. There are no authorities significantly like Haringey who collect wheeled bins less than fortnightly, and therefore the three weekly results should be taken with caution.

Figure 2: Benchmarking results - dry recycling.

7.5 Figure 2 presents the recycling rate of kerbside properties, compared with the same authorities who offer fortnightly co-mingled recycling service. The median recycling rate for kerbside properties shows an increase in recycling rate when weekly equivalent capacity is reduced.

Figure 3: Benchmarking results - food waste.

- 7.6 Figure 3 presents the amount of food waste which is set out by each household on a yearly basis, compared with the same authorities who offer a weekly food waste service like Haringey. Please note: Haringey currently performs poorly in this area compared with other similar authorities.
- 7.7 The median again shows an increase in food waste capture when weekly equivalent capacity is reduced, with a significant different between Haringey's current performance.

Figure 4: Results of waste flow modelling.

- 7.8 The overall waste flow model in Figure 4 show that introducing a 180l wheeled bin will help Haringey reach 33.8%, whilst a three weekly collection would provide an increase to 37.5%.
- 7.9 None of the proposed changes to the recycling collection have any significant benefit to recycling performance whilst further case studies from other London boroughs clearly and consistently indicate the positive impact of restricting the capacity of non-recyclable (general) waste collections.

8. Financial Modelling

- 8.1 Eunomia used the results of the waste flow modelling and operational details of the current service to estimate the resource that would be required to deliver the proposed changes. The resource modelling calculates the number of staff and vehicles needed to deliver each option based on the additional volume of material, new properties, and changes in collection methodology.
- 8.2 Table 11 shows the difference in costs to deliver the options compared to the current services. The table shows both revenue and capital cost associated with making the service changes.

| Table 11: Mo | delled costs | for each | option |
|--------------|--------------|----------|--------|
|--------------|--------------|----------|--------|

| | Option 1 | Option 2 | Option 3 | Option 4 | Option 5 | Option 6 | Option 7 | Option 8 | | | | | |
|------------------|--------------------------------|-----------|------------|------------|------------|------------|-----------|------------|--|--|--|--|--|
| Impact on Annua | Impact on Annual Revenue Costs | | | | | | | | | | | | |
| Operational | £551,627 | £123,836 | £846,067 | £1,015,465 | £213,698 | £1,195,790 | £693,991 | £818,336 | | | | | |
| NLWA Levy | -£13,407 | -£13,407 | -£116,966 | -£736,302 | -£116,966 | -£736,302 | -£270,018 | -£965,475 | | | | | |
| Total Revenue | £538,220 | £110,429 | £729,102 | £279,163 | £96,732 | £459,488 | £423,974 | -£147,138 | | | | | |
| Impact on Upfror | nt Capital Costs | | | | | | | | | | | | |
| Containers | £38,166 | £38,166 | £1,632,066 | £4,132,923 | £1,632,066 | £4,143,439 | £38,166 | £2,539,023 | | | | | |
| Vehicles | £189,263 | -£425,737 | £989,026 | £1,194,026 | -£220,737 | £2,122,000 | £671,526 | £1,081,526 | | | | | |
| Total Capital | £227,429 | -£387,571 | £2,621,092 | £5,326,949 | £1,411,329 | £6,265,439 | £709,692 | £3,620,549 | | | | | |

- 8.3 The operational revenue costs are largely impacted by additional staff and an increase in fuel costs for vehicles. The bigger impact is where a higher number of additional vehicles are required, for example the twin-stream service which requires an significant number of additional vehicles to collect the additional recycling bin.
- 8.4 The NLWA levy impact is attributed to the lower cost of treating food waste and recycling than disposing of non-recyclable waste. As we move more material into the recycling and food waste bins the NLWA levy decreases further.
- 8.5 The upfront capital costs for containers and vehicles is shown. In all options there is a need to purchase additional containers, this is more so in some cases than others. With option 6 requiring 2 new containers for each kerbside property.
- 8.6 There are changes in the fleet in all options too, however some options require fewer vehicles than others. The upfront capital cost is shown as the additional cost that would be required to purchase a brand-new fleet for the new service compared to purchasing a brand-new fleet for the current service. (i.e. where the new services require less vehicles there is a reduction in this cost).
- 8.7 In all options there is an increased cost to Haringey which is largely due to the procurement of new vehicles and containers, however funding may be available to offset some of these additional costs (see section 9).
- 8.8 The options which move to a twin-steam recycling system provide a significant reduction in the NLWA levy, because where materials are separated by residents it will need less processing through the Material Recover Facility (MRF). However, it is not clear how costs for committed infrastructure may impact the levy should boroughs choose not to use facilities planned.
- 8.9 Options where recycling switches to a fortnightly collection also offset the additional costs required, due to a reduction in vehicles required overall. However, capacity for implications of increased recycling and household growth may not be available in such scenarios.
- 8.10 Vehicles and containers are generally the most significant costs in each option. Introducing a smaller general waste bin incurs a £1.6m capital cost, however this will be offset over the years, as Haringey's current containers are over 10 years old. Furthermore, it is expected that replacement revenue costs would drop significantly following to roll-out of new containers.

9. Future Funding

- 9.1 Under requirements to introduce food waste, capital funding has been provided to all Councils, Haringey has appealed for an additional £1.4m of capital funding which would offset capital costs in all options to introduce food waste collections.
- 9.2 Alongside the capital funding, Defra have confirmed that the government will also be providing revenue funding for food waste collections. No information has been provided for this; however, modelling suggests that this service would cost an additional £350k per year, which again will be offset against any additional revenue costs in all options.
- 9.3 Under Extended Producer Responsibility (EPR), additional funding will be available from Government to support the introduction of new services. However, we won't have details of funding until the November 2024 at the earliest.
- 9.4 We do know that the funding for collecting dry recycling will be calculated based on how 'efficient' and 'effective' our waste collection services are, and we may be required to implement policy and operational changes to improve our performance accordingly, for example no side waste, bin placement policies etc.

10.Preferred Option

10.1 A high-level qualitative analysis of each option is shown in Table 12, setting out the preferred option. The impact and implementation of introducing service change is included, as well as political and public acceptability.

| | Changes to services | Annual Revenue Impact | Upfront Capital Impact | Recyclin g Rate | High-level qualitative assessment |
|---|---|-----------------------------|------------------------------|--------------------|---|
| 1 | Rec: Weekly co-mingled Food: Weekly (all properties) Garden: Charged Fortnightly General: 240l fortnightly | £538,220 | £189,263 | 29.8% | Not Preferred – although this option is the minimum that must be implemented to meet changes to food waste, it offers no improvement to recycling performance, with significant additional cost. |
| 2 | Rec: Fortnightly co-mingled Food: Weekly (all properties) Garden: Charged Fortnightly General: 240l fortnightly | £110,429 | -£425,737 | 29.8% | Not Preferred – the additional cost of introducing food waste is offset by the move to a fortnightly co-mingled recycling collection, however, does not drive any recycling improvements. |
| 3 | Rec: Weekly co-mingled Food: Weekly (all properties) Garden: Charged Fortnightly General: 180l fortnightly | £729,102 | £989,026 | 33.8% | Preferred – introducing a smaller general waste bin drives an improvement in recycling performance and increases the amount of recycling, which is collected each week leading to additional vehicles, which will allow for additional property growth. |
| 4 | Rec: Alt. weekly two-stream Food: Weekly (all properties) Garden: Charged Fortnightly General: 1801 fortnightly | £279,163 | £1,194,026 | 33.8% | Not Preferred – there is no additional improvement in performance from operating a two-stream recycling service, however, requires all residents to have a second container to separate recycling. Many properties do not have sufficient space for a third wheeled bin. |
| 5 | Rec: Fortnightly co-mingled Food: Weekly (all properties) Garden: Charged Fortnightly General: 180I fortnightly | £96,732 | -£220,737 | 33.8% | Not Preferred – the reduction in service to a fortnightly co-mingled offsets the additional cost required to purchase the 1801 bins, however, leads to an overall reduction in the amount of material residents can put in their recycling bin. It may potentially lead to additional fly-tipping and appears counterproductive when aiming to improve recycling rates. |
| 6 | Rec: Fortnightly two-stream Food: Weekly (all properties) Garden: Charged Fortnightly General: 1801 fortnightly | £459,488 | £2,122,000 | 33.8% | Not Preferred – this option will require a larger fleet due to limitation of collecting both recycling containers together on different sides of the vehicle and has the same issue with residents requiring a third wheeled bin. |
| 7 | Rec: Weekly co-mingled Food: Weekly (all properties) Garden: Charged Fortnightly General: 2401 three weekly | £423,974 | £671,526 | 37.5% | Not allowed under simpler recycling |
| 8 | Rec: Alt. weekly two-stream Food: Weekly (all properties) Garden: Charged Fortnightly General: 2401 three weekly | -£147,138 | £1,081,526 | 37.8% | Not allowed under simpler recycling |

Table 12: High-level qualitative analysis of service design options

10.2 The preferred approach has been identified as Option 3, whilst all options included an expansion of the food waste service, and an associated move to fortnightly garden

waste, this introduced a smaller non-recyclable waste bin. This change drives up the recycling rate by 4%.

11.Fleet

- 11.1 Eunomia conducted a review of the existing fleet, using their market knowledge, and emissions assumptions to undertake an assessment of the options for alternative fuels, as well as the options for financing the purchase.
- 11.2 Under the Council's Climate Change Action Plan, the Council has an aim that all Council owned fleet will be Zero Emission (ZE) by 2027, and all outsourced fleet will be reviewed for at the relevant renewal point.
- 11.3 In 2027, no matter which option is selected for the Service Delivery, a large number, if not all, of the waste and street cleansing fleet will require replacement. Therefore, consideration must be given to transition the fleet to ZE.
- 11.4 Three alternative fuels options were considered as being applicable to these services which included Electric, Hydrotreated Vegetable Oil (HVO) and a hybrid approach where smaller vehicles, such as cage tippers and vans, are electric and larger vehicles, such as sweepers and Refuse Collection Vehicles (RCVs), are HVO.
- 11.5 Other options were reviewed and discounted as not being suitable, including Compressed Natural Gas (CNG) and hydrogen. These technologies have not proven suitable for this type of service, compared with HVO and Electric which are well used across other councils already.
- 11.6 HVO is a biofuel, which can be blended with diesel at different ratios depending on need. As a biofuel HVO can be produced from renewable sources, reducing its overall environmental impact, however still produces some carbon emissions and Nitrous Oxide (NOx), Particulate Matter (PM) and Carbon Monoxide (CO). HVO is a 'drop-in' fuel, which means it can be used with standard diesel vehicles without any modifications. The only difference from diesel is an increase in the cost of fuel.
- 11.7 EVs use a battery to power the vehicle, which is charged overnight at the depot. EVs remove most localised emissions of CO2 and NOx. However, there is still some PM generated from tyres and other vehicle wear. EVs require a significant investment in infrastructure to charge the vehicles such as charge points, and sub-stations.
- 11.8 Work was undertaken by surveyors at the Watermead Way depot to assess the impact of installing the vast number of chargers that would be required for a full EV fleet. This included contacting UK Power Networks (UKPN) for an initial quote to upgrade the local infrastructure to supply the additional capacity. Further work is being undertaken alongside Veolia to develop more detailed cost and look at options to reduce the significant cost for a full EV fleet.
- 11.9 The total upfront cost for each option is shown in Table 13. Purchasing a full EV fleet would cost more than double that of a diesel or HVO fleet. However, as smaller EVs are more affordable compared to e-RCV the hybrid option is only £3.3m more than diesel.

Table 13: Total upfront costs

| | Vehicle upfront cost | Infrastructure upfront cost |
|----------------|-------------------------|--------------------------------|
| Diesel | £15,357,300 | £0 |
| HVO | £15,357,300 | £0 |
| Full Electric | £33,962,000 | £12,495,000 |
| Electric & HVO | £18,649,000 | £2,310,000 |

- 11.10Given that the vehicles won't be purchased until 2026 a 5% contingency has been included within the upfront cost to account for any potential increase in costs between the modelling undertaken by Eunomia and the costs when vehicles are purchased.
- 11.11The annual costs of financing the capital, as well as the annual cost to fuel and maintain the vehicles is shown in Table 14. This shows that there is only a small annual difference in the overall fuel and maintenance costs across the options, however EVs are slightly cheaper than diesel vehicles.

Table 14: Annual costs

| | Annual Capital Financing | Annual Fuel & Maintenance | Total Annual Cost |
|----------------|-----------------------------|------------------------------|----------------------|
| Diesel | £2,762,000 | £2,491,000 | £5,253,000 |
| HVO | £2,762,000 | £2,655,000 | £5,417,000 |
| Full Electric | £7,423,000 | £2,342,000 | £9,765,000 |
| Electric & HVO | £3,796,000 | £2,553,000 | £6,349,000 |

- 11.12Given the Council's commitment to reduce its impact on the environment, and commitment to move to a ZE fleet, it is recommended that the Council should introduce some EV into its fleet.
- 11.13However, it is recognised that a full EV fleet comes at a significant additional cost compared to the alternatives, and as such this would not be sustainable in the current financial position.
- 11.14It is therefore recommended that a hybrid fleet is purchased from 2027 for the new Contract, which will ensure that all smaller vehicles are EVs, whilst the large vehicles are fuelled using HVO to reduce some of the emissions associated with these vehicles.
- 11.15A high-level review of fleet purchasing considered three options hire purchase, contractor purchase and authority purchasing.
- 11.16Authority purchase was the cheapest and preferred option, as the Council can get better interest rates, and contractor purchase the most expensive due to the addition of the contractor's margin and less favourable interest rates.
- 11.17 Previously it has been common within waste contracts, for contractors to purchase vehicles as part of the requirements. A benchmarking of recent waste contracts awarded shows the trend has been to move to authority purchase for these reasons.

12.Summary

- 12.1 Although each of these assessments have been undertaken separately, each element of the waste service review must be considered together to understand the full impact on budget with costs inflated in-line with baseline for Year 1 of Contract. For example, the decision to use HVO instead of diesel will impact the cost of the service design, as the additional vehicles will have slightly higher operating costs.
- 12.2 **Error! Reference source not found.** is shown in Exempt Appendix A of this report and sets out a summary of the total cost impact of the preferred approaches as set out above. In summary:
- 12.2.1 Service Delivery: Procure a new outsourced contract.
- 12.2.2 Service Design: Reduce the size of non-recyclable waste bn to 180 litres, alongside the expansion of the food waste service and move to a fortnightly garden waste service.
- 12.2.3 Fleet: The future fleet will use EVs for smaller vehicles and HVO for the larger vehicles such as sweepers and RCVs.
- 12.3 The revenue costs have been inflated to provide an estimate of year 1 of the new Contract compared with to the Eunomia models shown above.
- 12.4 The capital costs have included a 5% contingency and revised borrowing rate compared to the Eunomia models shown above.
- 12.5 These costs are provided as an estimate and will form the basis of the Council's affordability through the procurement process.