Wiltshire Council

CABINET MEMBER FOR STRATEGIC PLANNING, PROPERTY, WASTE AND STRATEGIC HOUSING – COUNCILLOR TOBY STURGIS

WASTE MANAGEMENT SERVICES

OFFICER CONTACT: Tracy Carter, Waste and Environment, 01225 713258, tracy.carter@wiltshire.gov.uk

REFERENCE: SDSPW-05-15

WILTSHIRE COUNCIL'S RECYCLING COLLECTION SERVICE

COMPLIANCE WITH THE WASTE REGULATIONS

Purpose of Report

To:

- Advise on the council's assessment of recycling collection systems to demonstrate compliance with the requirements of the Waste (England and Wales) Regulations 2011 as amended by the Waste (England and Wales) (Amendment) Regulations 2012.
- (ii) Seek decisions in accordance with the proposals.

Consultation

At the Cabinet meeting held on 21 July 2015 members considered a report which set out the process to be followed to achieve compliance with the Waste Regulations. This described testing whether it is necessary to collect paper, glass, metal and plastic separately to increase the quantity of high quality material collected for recycling. It then set out the application of tests to establish if it is technically, environmentally and economically practicable (TEEP) to collect these materials separately. These tests were applied to the most economically advantageous tenders submitted for Lot 1 (provision of a materials recovery facility for managing dry recyclable material collected under Lot 5 and the design and build of two household recycling centres), and Lot 5 (waste and recycling collection services).

Further work has now been undertaken on the application of these tests and a further report was considered by Cabinet on 10 November. At the meeting Cabinet members resolved:

- (i) To note the results of the application of the necessity and TEEP tests carried out to date on the tendered collection services, note that it is not environmentally or economically practicable to collect the four materials separately, and agree that further work should be done on the environmental practicability test to take account of air quality and the impact of the reprocessing of the recyclable materials.
- (ii) To agree that the Cabinet Member for Strategic Planning (Strategic and Development Management), Property, Waste and Strategic Housing will sign off the final report in accordance with the protocol for Cabinet Member delegated decision making, subject to the work carried out in accordance with the proposal above confirming that the system for collection of dry recyclables should be comingled using the blue lidded bin for all materials excluding glass which should be collected from the black box, and subject to there being no material objections raised.

(iii) To agree that the system for collection of dry recyclables should be co-mingled using the blue lidded bin for all materials excluding glass, which should be collected from the black box.



Reason for Decision

- (i) To enable the council to determine the collection system for dry recyclable materials to be implemented from August 2017
- To demonstrate compliance with the requirements of the Waste (England and Wales) Regulations 2011 as amended by the Waste (England and Wales) (Amendment) Regulations 2012
- (iii) To provide a robust audit trail of the application of the necessity test and technical, environmental and economic practicability tests to support the decision making process.

The following supporting documents are attached:

Appendix 1 - assessment of recycling collection systems to demonstrate compliance with the requirements of the Waste (England and Wales) Regulations 2011 as amended by the Waste (England and Wales) (Amendment) Regulations 2012

The following supporting documents are available from the officer named above:

Date22 December 2015.....

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Cllr Toby Sturgis Cabinet Member for Strategic Planning, Property, Waste and Strategic Housing

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Relevance to the Council's Business Plan

- 2. The following business plan outcomes, principles, and actions are relevant to this report:
 - (i) Outcome 3: Everyone in Wiltshire lives in a high quality environment
 - (ii) Principles:
 - (a) We will be a community leader and not just a service provider
 - (b) We are efficient and provide good value for money for our residents
 - (c) Our services work well, are joined up and easy to access
 - (iii) Actions:
 - (a) We will increase recycling and reduce our carbon footprint
 - (b) We will encourage waste prevention and reuse

Main Considerations for the Council

Legislation

- 3. The EU revised Waste Framework Directive and The Waste (England and Wales) Regulations 2011 as amended by The Waste (England and Wales) (Amendment) Regulations 2012 include a requirement by 2015 to maintain separate collections of at least the following materials from the household waste stream: paper, metal, plastic and glass where doing so is:
 - Necessary to ensure that waste undergoes recovery operations in accordance with Articles 4 and 13 of the Waste Framework Directive and to facilitate or improve recovery (the necessity test); and

- (ii) Technically, environmentally and economically practicable (the TEEP test).
- 4. Whether recycling is collected comingled (from a wheeled bin), separately (from a box and sorted at the kerbside) or using a mixture of both can have a significant impact on the quality and quantity of materials collected. The intention of the legislation is to ensure that waste collected for recycling is suitable to produce high quality recycled materials.
- 5. In addition, the Waste Regulations (England and Wales) 2011, as amended in 2012, also require local authorities to manage all wastes within the principles of the waste hierarchy and identify measures for continuous improvement. Departure from the hierarchy is permissible when the measures that would be required would not be reasonable in the circumstances or when departure will achieve the best overall environmental outcome.
- 6. The waste hierarchy ranks waste management options according to what is best for the environment. It gives top priority to preventing waste in the first place. When waste is created, it gives higher priority to preparing it for re-use, then recycling, then recovery of energy, and last of all disposal (i.e. landfill).

Process

- 7. No formal guidance has been issued by Defra on how local authorities should test their collection systems for compliance. However, local authority waste networks worked to develop a waste regulations route map document. This sets out a method which would enable a council to demonstrate it had applied a robust process in assessing its collection system.
- 8. The council has completed the assessment following the steps outlined within the route map and is based on the current service and the options for delivering services in Wiltshire from 1 August 2017..

Step 1 - A review of what materials are collected and how

- 9. Step 1 of the process aimed to review what materials the council currently collects and how they are collected. The existing collection service is broadly compliant except for two areas.
 - (i) The council currently collects plastic bottles at the kerbside with all plastics except black plastic and plastic film accepted at the household recycling centres.
 - (ii) The council provides a commercial waste collection service in accordance with a statutory duty to do so when requested. Apart from a commercial cardboard collection in the south of the county and a collection of paper, metal, glass and textiles in the east of the county, the council does not offer a commercial collection of paper, metal, plastic and glass.
 - (iii) The new service which will commence on 1 August 2017 includes a collection of all plastic from households at the kerbside and the offer of a commercial waste recycling collection where this service is requested.
- 10. The council carried out a compositional analysis of the residual waste stream to identify the quantity of recyclable materials which are currently not being separated, or collected

for recycling. The results showed that in 2013-14 the council captured just over 60% of available recyclable material through its kerbside recycling collections.

Step 2 - appraisal of how collected materials are currently managed

11. Step two of the process is an appraisal of how collected materials are currently managed. This step lists all the materials within Wiltshire Council's collected municipal waste stream for 2013/14 and clearly shows the amount of each material that was reused, recycled, has energy recovered from it or was landfilled.

Step 3 - Waste Hierarchy Test

- 12. Step 3 requires a detailed assessment of how individual materials are managed and what the potential is to manage these further up the waste hierarchy (reduce, re-use, recycle, recover energy, dispose). The practicalities of achieving this for each material were also considered. For example it should be possible to increase the capture rate of cans at the kerbside, however, introducing a service to collect and recycle disposable nappies could be prohibitively expensive given the requirement for additional specialist collection vehicles and the difficulty in predicting how many households would separate nappies for collection.
- 13. The assessment shows that, where possible, the council is managing waste within the principles of the waste hierarchy and identifies actions that will be introduced to keep moving waste up the hierarchy. The actions highlighted within section 5 of **Appendix 1** will be assessed and implemented both in the coming year if practicable or addressed within the implementation of new services from 1 August 2017, where applicable and practicable. In addition, the council has built into the specifications for the new contracts that providers should manage all waste in accordance with the waste hierarchy. Where recycling is the best environmental option, contractors are asked to ensure that the material is recycled into a similar product, for example that collected glass bottles and jars are recycled into new glass bottles and jars. This is referred to as 'closed loop recycling'.
- 14. A closed loop recycling system is where materials are reprocessed into the same product rather than into a different product. This is environmentally preferable as it prevents virgin resources being used for manufacturing.

Step 4 - Is separate collection of the four materials required?

Necessity Test

- 15. The aim of the necessity test is to ascertain whether separate collections are required to facilitate or improve the quantity and quality of recycling collected.
- 16. The necessity test was applied to the collection and recycling of glass, paper, metal and plastic and results calculated for the following collection systems:
 - (i) Kerbside sort collections (black recycling boxes for all recycling)
 - (ii) Co-mingled excluding glass (blue lidded bin for recycling, with glass in the black box)

- (iii) Fully co-mingled (blue lidded bin for all recycling including glass)
- 17. The route map suggests that once completed the necessity test should provide evidence which details for each collection system: the amount of materials collected for recycling and disposal; the quality of materials collected and reprocessed; and the end destinations of the material collected which demonstrates whether high quality, closed loop, recycling has been achieved.
- 18. The assessment has determined that it is necessary to collect paper and glass separately in order to facilitate or improve the quantity and quality of recycling collected. For these materials, based on the modelling of data supplied by tenderers, kerbside sort collections would deliver a higher amount of high quality closed loop recycling than a comingled collection service.
- 19. The assessment has also shown that is it not necessary to collect plastic or metal separately in order to facilitate or improve the quantity and quality of recycling collected. For these materials, based on the modelled tendered data, kerbside sort collections would deliver less high quality closed loop recycling than a comingled collection service.
- 20. The regulations are clear that separate collection is only required where it is technically, environmentally and economically practicable (TEEP) to do so. If a material fails any one of these three tests, co-mingled collection of the materials is permissible.
- 21. A further assessment to determine whether separate collection is TEEP is therefore required in order to assess whether kerbside sort collections are required under the regulations.

Technical, Environmental and Economic Practicability Tests

Technical Practicability

- 22. The technical practicability test should determine whether collecting the dry recyclable materials separately (kerbside sort from a box) would be possible from a technical perspective. The assessment undertaken shows that it is technically practicable to operate a kerbside sort collection service in Wiltshire as the council currently collects paper, glass and metal separately using up to two kerbside recycling boxes. In addition 28% of local authorities in England collect recyclable materials separately.
- 23. Based on a fortnightly collection cycle, however, many households would have to accommodate a larger number of boxes and possibly bags in order to separately store the full range of materials including plastic and cardboard. This may in turn impact negatively on public satisfaction and participation rates.

Environmental Practicability

- 24. The environmental practicability test should determine the relative environmental performance of kerbside sort (from a box) collections, co-mingled (from a wheeled bin) excluding glass (from a box) collections and co-mingled including glass (all from a wheeled bin) collections. Separate collection (kerbside sort from a box) will be environmentally practicable if the benefits from increased or improved recycling outweigh any negative environmental impacts from the additional vehicles. Which would be required.
- 25. The council has assessed environmental practicability by analysing both the total carbon emission impact for each collection system and the impacts of each system on

Wiltshire's air quality. The assessment shows that it is not environmentally practicable to collect recyclable materials separately using a kerbside sort (from a box) system. The carbon assessment suggests that a comingled (wheeled bin) excluding glass (from a box) system is most practicable whereas the air quality assessment shows that a comingled including glass (all from the wheeled bin) system is most practicable.

Economic Practicability

- 26. The economic test is based on comparing the total costs of the different systems for managing dry recyclables. This is calculated by adding together the cost of the most economically advantageous tender for Lot 1 (management of dry recyclables) and Lot 5 (collection services). This shows that the co-mingled (wheeled bin) collection system excluding glass (box) is the most economically practicable collection service. A financial risk profile was established for the tendered solutions and when the total costs are considered including the costs associated with any risks the co-mingled collection system is based on collecting dry recyclable materials from a wheeled bin except for glass which is collected from a box. If the projected income from the sale of recyclable materials is also factored in, accepting the risk associated with the variation in value of these materials, the co-mingled system excluding glass is again the most economically practicable option.
- 27. Cuts in council funding from central government and changing demographics coupled with inflationary pressures mean that the council has to find significant savings year on year. Any increase in costs associated with waste collection and waste management could therefore be deemed unaffordable.

Conclusions

- 28. The waste hierarchy assessment shows that where practicable the council is managing waste within the principles of the waste hierarchy and has identified actions that will be introduced to keep moving waste up the hierarchy.
- 29. The necessity test suggests that it is necessary to collect glass and paper separately but not necessary to collect plastics and metals separately in order to facilitate and improve recovery.
- 30. The results of the TEEP tests show that it is technically practicable to collect the four materials separately, but not environmentally and economically practicable.

Background

- 31. In July 2013 Cabinet resolved to seek tenders for the delivery of waste collection and waste management services from 2016, when existing contracts with both Hills Waste Solutions, and FCC Environment were due to terminate. Cabinet further resolved to:
 - (i) invite tenders in distinct contract lots
 - (ii) invite tenders for both a kerbside sort collection of dry recyclable materials, and a co-mingled collection of dry recyclables, with a separate collection of glass
 - (iii) include provision for the council to receive a percentage share of income received by future contractors from the sale of recyclable materials.

- 32. In September 2013 a Contract Notice was placed in the Official Journal of the European Union advising of the council's intention to invite tenders for five contract lots for a minimum term of eight years from 1 August 2016. This notice was accompanied by a Pre-qualification Questionnaire (PQQ) and Information Note.
- 33. In July 2015, in a Part 2 report, Cabinet:
 - (i) Authorised award of contracts for:
 - a) Lot 1 (materials recovery facility for dry recyclable materials)
 - b) Lot 3 (garden waste composting) and
 - c) Lot 4 (landfill or landfill diversion)
 - (ii) Noted that revised tenders had been invited for Lot 2 (Household Recycling Centres) based on the reduced opening hours for these facilities which were implemented from 13 July 2015, and that variant tenders had been invited for Lot 5 based on a fully co-mingled collection of dry recyclable materials including glass
 - (iii) Requested a further report to Cabinet on 10 November 2015 on the outcome of the evaluation of any revised and confirmed tenders for Lot 2 and any variant tenders for Lot 5 submitted in accordance with (ii) above.
- 34. On 10 November 2015, in a Part 2 report, Cabinet noted the results of necessity and TEEP tests carried out to date on the tendered collection services and agreed that further work should be undertaken on the environmental practicability test to take account of air quality and the impact of the reprocessing of the recyclable materials. In addition, Cabinet also resolved, subject to no objections being raised, to agree that the system for collection of dry recyclables should be co-mingled using the blue lidded bin for all materials excluding glass which should be collected from the black box.

Overview and Scrutiny Engagement

- 35. The Environment Select Committee has been appointed by Overview and Scrutiny Committee to review the work of Waste and Environment.
- 36. The Environment Select Committee chair has been engaged throughout the procurement process and was briefed on the cabinet report which was considered by Cabinet on 10 November 2015. This report presented the council's application of the necessity and TEEP tests and provided members with a confidential draft of the council's report demonstrating compliance with the waste regulations.
- 37. In addition to engagement with Environment Select Committee, the chair of the Financial Planning Task Group was also briefed in advance of the Cabinet meeting on 10 November.

Safeguarding Considerations

38. There are no safeguarding implications arising from this report.

Public Health Implications

- 39. Air pollution has a range of effects on public health. The council has a duty to monitor air quality within Wiltshire and has produced an Air Quality Strategy which informs policy and direction across a range of council services with the aim of improving air quality.
- 40. The council has eight air quality management areas where the the prescribed Air Quality Objectives are not likely to be met by or at any point beyond the relevant deadline. In Wiltshire, road traffic burning petrol and diesel has been identified as the primary source of nitrogen dioxide therefore the main area of improvement within the Air Quality Strategy focuses on road transport.
- 41. The air quality assessment has considered the pollutants identified within the strategy and has focused on calculating the concentrations of nitrogen oxides (NOx), particulate matter (PM) and nitrogen dioxide (NO2) produced by the vehicles used to deliver the modelled collection services.
- 42. The calculated air quality impacts have shown that a separate collection system would result in higher NOx, PM and NO2 pollutants within the atmosphere. This is due to the net increase in vehicles which would be required to deliver this service.
- 43. A comingled collection including glass system (all materials in the wheeled bin) would result in the lowest NOx, PM and NO2 emitted, due to the significant net reduction in the number of vehicles required to deliver this service compared to a separate collection (from a box) service.

Procurement Implications

44. The procurement process has been carried out in accordance with EU and UK procurement legislation, and has been fully supported by the corporate procurement team and legal services.

Equalities Impact of the Proposal

- 45. Should all materials be collected separately using a kerbside sort system it is likely that residents would need to have up to six separate recycling boxes or containers. Although this collection system is technically practicable in theory, many households in Wiltshire would struggle to store and handle such a large number of containers, which in turn may affect many residents' ability to access the services. Elderly or disabled residents may find it difficult to fully participate in such a scheme, given the number and weight of the containers that would need to be presented. The need to keep materials separate may be considered by many residents as being overly complex, leading to reduced participation.
- 46. Operating a comingled excluding glass collection service would mean a simplification of the service as residents would place all their recycling in the blue lidded bin and just glass into the black recycling box. This may make the service more accessible to a wider range of residents, and lead to increased participation.
- 47. The council will continue to operate an assisted collection service for any residents who find it difficult to present the recycling containers at the kerbside.

Environmental and Climate Change Considerations

- 48. Last year the council's core carbon emissions totalled 51,900 tCO2. The council has an aspiration to reduce its carbon footprint by 50% by 2020.
- 49. As set out in the ECO Strategy, the council has set a target to make a saving of 11,823 tCO2 by 2016/2017. In line with the Council Business Plan (Outcome 3), the council is committed to reducing carbon emissions in households, businesses and public services.
- 50. The regulations are clear that the relative, end to end, environmental performance of the whole system from collection through to reprocessing recyclable materials should be assessed. They state that separate collection will be environmentally practicable if the environmental benefits from increased or improved recycling outweigh any negative environmental impacts.
- 51. In order to assess the environmental performance of the modelled collection systems both the carbon and air quality impacts have been calculated. The results show that it is not environmentally practicable to collect recyclable materials separately (from a box) as both the carbon and air quality assessments show that comingled collections (from a wheeled bin) would result in lower environmental impacts. The carbon assessment suggests that a comingled excluding glass system is most environmentally practicable overall whereas the air quality assessment shows that a comingled including glass system (all from a wheeled bin) has the lowest impact.
- 52. The council would therefore reduce its carbon and air quality impacts by delivering a comingled collection service due to the net reduction in the number of vehicles required to deliver this service, compared with kerbside sort collections. This would contribute to meeting targets set in both the council's ECO strategy and the council's Air Quality Strategy.

Risk Assessment

- 53. There is a risk that the council is subject to challenge on the proposal to change the system for the collection of dry recyclable materials. The Environment Agency acts as the regulatory body responsible for monitoring and enforcing compliance with the regulations associated with this proposal. In a briefing note supplied to local authorities in December 2014, the Environment Agency briefly outlined how it was planning to assess compliance with the regulations. Putting the responsibility wholly onto local authorities, the Environment Agency stated that local authorities should rigorously apply the necessity test and the tests for technical, environmental and economic practicability to ensure compliance.
- 54. The Environment Agency highlights that collectors of waste who have concluded that it is not necessary or not technically, environmentally and economically practicable to operate separate collection of paper, metal, plastic and glass should provide an audit trail of decision making, demonstrating compliance, for inspection.
- 55. **Appendix 1** sets out the audit trail of the process undertaken by Wiltshire Council to assess compliance with The Waste (England and Wales) Regulations 2011, as amended by The Waste (England and Wales) (Amendment) 2012.

Financial Implications

- 56. The regulations state that economic practicability of the collection services should be assessed. However economic practicability does not necessarily mean the cheapest system as separate collections will be economically practicable so long as the cost is not excessive, or disproportionate to the benefits of achieving high quality, closed loop recycling at each material's final destination. The complete costs of each system from collection through to reprocessing need to be modelled and the relative costs compared in order to demonstrate if it is economically practicable to collect the materials separately through a kerbside sort (box) collection system.
- 57. The economic practicability assessment uses tendered financial data supplied by both the council's Lot 1 contractor for management of dry recyclable materials and the contractors who submitted the most economically advantageous tenders for Lot 5 collection services. This enabled an assessment to be made of the likely end to end costs of delivering each of the modelled collection services. In addition, a further assessment of the financial risk profile of the most economically advantageous tenders for Lot 5 was undertaken. Finally, the assessment also incorporated the projected income from the sale of recyclable materials, accepting the risk associated with the volatility of the markets and therefore the fluctuation in value of these materials.
- 58. This economic practicability assessment, including risk profiled costs and income, shows that over the eight year contract term, the cost of operating a separate collection (from a box) system is 16% higher than the cost of operating a comingled (wheeled bin) excluding glass (from a box) service, and 14% higher than a fully comingled including glass (all from a wheeled bin) service. It is therefore not considered economically practicable to collect the materials separately (from a box and sorted at the kerbside).
- 59. The proposal to select a system of collecting co-mingled dry recyclable materials excluding glass therefore enables the council to introduce the most cost effective system for collecting and sorting dry recyclable materials.
- 60. Cuts in council funding from central government and changing demographics coupled with inflationary pressures mean that the council has to find significant savings year on year. Any increase in cost could therefore be deemed unaffordable.

Legal Implications

- 61. The Waste (England and Wales) Regulations 2011 as amended by the Waste (England and Wales) (Amendment) Regulations 2012 transpose the EU Waste Framework Directive (revised 2008) into UK law. The council must demonstrate compliance with the regulations.
- 62. The Environment Agency (EA) acts as the regulatory body to monitor and enforce compliance with the regulations. In a briefing note to local authorities, the EA outlined how they would assess compliance with the regulations stating that they would take appropriate action against any authority which has not demonstrated compliance.
- 63. A robust and auditable process has been undertaken to enable the council to select a collection system which demonstrates compliance with the requirements of the Waste

(England and Wales) Regulations 2011 as amended by the Waste (England and Wales) (Amendment) Regulations 2012. The report attached at **Appendix 1** provides an audit trail for this decision making process.

Options Considered

64. The Council has sought tenders for the following collection systems:

- (i) Kerbside sort collections (black boxes for the collection of all recyclable materials)
- (ii) Co-mingled excluding glass (blue lidded bin for metal, plastic, paper, cardboard and textiles, with glass in the black box)
- (iii) Fully co-mingled (blue lidded bin for all recycling)
- 65. The necessity test and technical, environmental and economic practicability tests were applied to these collection systems. The results of applying these tests show that it is necessary to collect paper and glass separately, it is technically practicable to collect paper, plastic, metal and glass separately but it is not environmentally or economically practicable to collect these materials separately.

Reason for Proposal

- 66. To enable the council to
 - (i) maintain and improve service delivery for residents,
 - (ii) comply with its statutory duties to collect and dispose of waste

(iii) demonstrate compliance with the requirements of the Waste (England and Wales) Regulations 2011 as amended by the Waste (England and Wales) (Amendment) Regulations 2012

(iv) provide a robust audit trail for the decision making process.

<u>Proposal</u>

67. To

(i) note the process undertaken to assess compliance with the requirements of the Waste (England and Wales) Regulations 2011 as amended by the Waste (England and Wales) (Amendment) Regulations 2012 (attached in Appendix 1).

(ii) note the application of the necessity and TEEP tests completed on the tendered collection services and note that the results show:

(a) It is necessary to collect paper and glass separately in order to facilitate or improve recovery.

(b) It is technically practicable to collect paper, glass, metals and plastics separately.

(c) It is not environmentally or economically practicable to collect paper, glass, metals and plastics separately.

(d) Of the modelled services, based on local circumstances, collection of comingled recyclable materials from a wheeled bin with collection of glass stored separately in a box should result in recovery of the largest quantity of high quality recycling and is the most environmentally and economically practicable service to deliver in Wiltshire.

(iii) agree that from 1 August 2017 the system for collection of dry recyclables should be comingled using the blue lidded bin for all materials excluding glass which should be collected from the black box.

The following unpublished documents have been relied on in the preparation of this Report:

None