

## **Cabinet – 12 December 2018**

### **Contract for the treatment and recycling of ‘Dry Mixed Recycling Waste’**

**Portfolio:** Councillor Louise Harrison – Clean and Green

**Related portfolios:** None

**Service:** Clean and Green Services

**Wards:** All

**Key decision:** Yes

**Forward plan:** Yes

#### **1. Summary**

- 1.1 In July of this year, Cabinet were informed of the need to re tender the Council's contract for the treatment and recycling of Dry Mixed Recycling waste.
- 1.2 Cabinet were advised that the market for recyclable waste is volatile, with commodity prices being unpredictable and subject to fluctuation. The budgets to cover the recyclable waste contract are included within Clean & Green mainstream revenue budgets and there was a risk that if tendered prices returned were higher than the existing budgets a revenue pressure may arise that will need to be managed.
- 1.3 This report informs members of the outcome of the current procurement process and should be read in conjunction with the private report about the outcome.
- 1.4 A new contract is required to ensure that the Council has in place appropriate waste disposal arrangements for the dry mixed recycling waste collected.
- 1.5 The existing contract commenced on 1 April 2016 and expired on 31 March 2018, however, an option to extend for a further 12 months (until 31 March 2019) was exercised. The initial cost of the contract was circa £260,000 per annum.
- 1.6 The tendering process has shown that the markets for recyclable materials are indeed volatile. Previously materials have commanded a relatively high commodity price but due to recent changes in the market, including material saturation and increased quality standards for the recovered materials, end users are now unwilling to purchase low quality materials and as a result such materials have lost their previous value.
- 1.7 When this service was tendered in 2010 (for the 2011/12 financial year), the Council received an income of circa £546,000 per annum (£27/tonne income) for the recyclable materials.

- 1.8 When this service was tendered in 2015 (for the 2016/17 financial year), the Council incurred a cost of circa £260,000 per annum (£10/ tonne cost)
- 1.9 In 2018/19 the estimated cost to the Council of the existing service is £340,000 per annum (£15/tonne cost).
- 1.10 Over the last 8 years, the cost for disposal of dry mixed recycling material has increased by approximately £886,000 per annum (£42/tonne).
- 1.11 Tenders have been submitted and evaluated in accordance with the published Invitation to Tender, Financial Regulations and Contract Rules, under which the contract award would be to the most economically advantageous tender ('MEAT') based on the quality (40%) of the submission and price (60%).
- 1.12 The financial impact of awarding the new contract to the MEAT bidder will be a substantial increase of circa £1 000 000 in the Council's costs as set out in the private report. These costs are still subject to a number of variable factors, such as commodity values, contamination levels and increases/decreases in tonnages of recyclable waste presented for collection.
- 1.13 Due to the additional cost of disposal for the dry mixed recycling materials if the Council awards the contract to the MEAT bidder, a further procurement exercise is an alternative option, but could create further issues and risks if negotiating an extension of the existing contract, or re tendering with an alternative specification and officers anticipate that overall the service provision will be more expensive than in previous years.
- 1.14 This is a key decision because the cost of either awarding a new contract pursuant to the current procurement exercise, or negotiation alternative provisions, exceeds the threshold for significant expenditure and it will have an affect across all Council wards.

## **2. Recommendations**

2.1 That following consideration of this cabinet report and the "Contract for the treatment and recycling of 'Dry Mixed Recycling Waste' Private Session Agenda Cabinet Report, Cabinet approve one of the options identified below.

### **2.2 Option 1 – Award Contract**

- 2.2.1 That Cabinet approve the award of contract for the provision of treatment and recycling of Dry Mixed Recyclable waste to the most economically advantageous tender, details of which are in the private report, for an initial term of 3 years, to commence 1<sup>st</sup> of April 2019 with an option to extend for up to 2 years.
- 2.2.2 That Cabinet delegate authority to the Executive Director of Economy and Environment, in conjunction with the Portfolio Holder (Clean and Green) to enter into a contract with the successful bidder by using the most appropriate procedures and, to subsequently authorise the sealing of deeds and/or signing of contracts and any other related documents for the provision of such services.

2.2.3 That Cabinet delegates authority to the Executive Director of Economy and Environment, in consultation with the Portfolio Holder (Clean and Green), to agree future contract extensions in accordance with contract terms and conditions.

2.2.4 That Cabinet approve an increase in Clean and Green budgets as set out in the accompanying private report to reflect the increase in contract costs.

### **2.3 Option 2 – Re Tender Contract**

2.3.1 That Cabinet do not approve the award of a contract for the provision of the treatment and recycling of Dry Mixed Recyclable waste and accept the procurement process has failed due to the significant increase in estimated costs and affordability to the Council.

2.3.2 That Cabinet approve Officers to re-tender the contract for the treatment and recycling of Dry Mixed Recycling Waste. Re-tendering would be via a Negotiated Procedure without prior publication under Regulation 32 of the Public Contracts Regulations 2015, with a selection of contractors who have expressed an interest during this current tendering exercise.

2.3.3 That Cabinet approve Officers to negotiate an extension to the existing contractual arrangements for the recycling of dry mixed recycling waste in accordance with Regulation 72 of the Public Contracts Regulations 2015. This would be for a period of 6 months from 31 March 2019 or to a maximum value of £750,000, whichever is the sooner and allow Officers the opportunity to re-tender the contract

2.3.4 That Cabinet delegate authority to the Executive Director, Economy and Environment, in conjunction with the Portfolio Holder, Clean and Green, to enter into a contract extension using the most appropriate procedures and to subsequently authorise the sealing of deeds and/or signing of contracts and any other related documents for the provision of such services.

## **3. Report detail**

### **3.1 Option 1 - Award Contract**

3.1.1 A contract notice was placed by the Council's Procurement team in the Official Journal of the European Union (OJEU) on the 24<sup>th</sup> of September 2018 with a return date of the 25<sup>th</sup> of October.

3.1.2 Fifteen organisations expressed an interest for the contract opportunity through the Council's Electronic Tendering Portal (INTEND), and downloaded the invitation to tender.

3.1.3 Tenders were opened on the 25<sup>th</sup> of October 2018 by the Head of Clean and Green and an interim Procurement Officer, using a formal opening ceremony on the INTEND e-tendering portal.

3.1.4 Two organisations submitted bids.

3.1.5 The bids were evaluated using a three-stage evaluation methodology and criteria, as published in the Invitation to Tender and as set out below:

- Stage 1      Conformity Evaluation (Essential pass/fail criteria)
- Stage 2      Due Diligence (Evaluation of minimum standards)
- Stage 3      Quality and financial evaluation which were scored and weighted as follows:
  - Quality 40%
  - Price 60%

The quality evaluation criteria and weighting were as follows;

Criteria	Weighting
Social Value	5%
Treatment and Processing	10%
Material Quality Monitoring	5%
Quality of Recycling	5%
Delivery Point and Transport	5%
Contractor Personnel	5%
Health and Safety	5%

3.1.6 Tender quality evaluations were initially scored individually by the Clean and Green Services' project team, comprising of five officers. The outcome of the Quality Evaluation is detailed in the accompanying private report.

3.1.7 Tender finance evaluations were carried out by the Procurement Services Team. The outcome of the Finance Evaluation is detailed in the accompanying private report

3.1.8 A moderation meeting for quality evaluation and finance was held on the 12th of November 2018 and the outcome is detailed in the accompanying private report.

3.1.9 Bidder No. 1 was the highest scoring supplier, and therefore is the winning bidder for this contract if Option 1 - Award Contract is chosen and the contract is awarded.

## **3.2 Option 2 - Re Tender Contract**

- 3.2.1 Should the re tendering of the service be approved, the appropriate process to follow will be a Negotiated Procedure without prior publication in accordance with Regulation 32 of the Public Contracts Regulations 2015, with a selection of contractors who have expressed an interest during this current tendering exercise.
- 3.2.2 Negotiations would take place with the two bidders from the recent tender process plus at least one additional bidder involved in the recent process who did not submit a bid, subject to advice from Corporate Procurement.
- 3.2.3 Negotiations would revolve around areas of benefit to potential contractors that could reduce the cost to the Council but may involve additional risk. The areas for negotiation would include, but not limited to:
- Length of contract;
  - % of risk with the contractor / Council;
  - Removal of index linking of prices for recyclable materials;
- 3.2.4 It is anticipated that a minimum three-month negotiation period would be required. This would necessitate an estimated six-month extension to the existing contract, the anticipated time line is detailed below:

January 2019	Prepare for Negotiations
February – April 2019	Negotiate with potential contractors
May 2019	Evaluate options
July 2019	Cabinet Approval of preferred option
August – September	Mobilisation of new contract
October 2019	Commencement of new contract

- 3.2.5 There is no guarantee that by negotiating a new contract the cost to the Council will reduce.
- 3.2.6 It is possible that if no agreement with potential contractors can be achieved by the negotiated procedure, the contract specification may have to be revised and a further tendering exercise would be required.
- 3.2.7 There is no guarantee that the incumbent contractor will be willing to extend the existing arrangement, or may only be willing to do so at an increased cost

## **4. Council Corporate Plan priorities**

- 4.1 Procuring these services will contribute to delivering the following priority as stated within the Corporate Plan 2018-21:
- *Internal focus – All Council services are efficient and effective, with the processing of dry mixed recycling waste being the most economically advantageous to the Council and providing value for money.*

- 4.2 Using a formal procurement process will ensure that the Council enters into a contract that provides 'Best Value'.

## **5. Risk management**

- 5.1 The markets for recyclable waste materials are subject to fluctuations in demand for the recyclate and the commodity prices that can be achieved. Currently waste streams such as plastic and paper are a cause for concern internationally, and the value of these materials will remain as a significant risk factor for the life of any future contract, with the potential for falls in demand.
- 5.2 The quality of materials sent for treatment/recycling can also pose a significant risk to the Council. Contamination levels are difficult to control, and residents frequently dispose of waste incorrectly. Each tonne of contaminated waste sent, incurs charges for transportation, processing and final disposal. An increase in contamination levels will create budget pressures.
- 5.3 The terms of the contract used in the procurement process provides some mitigation against the risks by requiring the contractor to share the risk of commodity price reductions on an equal basis with the Council, but it can be seen from the results of the tender process costs are continuing to increase based mainly on the resale value of recyclable materials.
- 5.4 A new negotiated contract may reduce the financial impact on the Council in the short term but there is no guarantee. Future commodity prices are unknown and the financial risk to the Council may increase in the medium to long term if prices are low.
- 5.5 Clean and Green will continue to educate residents and businesses and enforce where appropriate to do so to minimise the contamination risk.

## **6. Financial implications**

- 6.1 The financial impact if the contract is awarded (Option 1) is to substantially increase the Council's annual costs. There is no allocation in the draft revenue budget and Capital Programme 2018/19 – 2021/22 presented to Cabinet on 24 October 2018 therefore approval of this budget will require alternative savings to be identified to meet these additional costs.
- 6.2 If Option 2 is approved, it is not possible to determine the financial impact at this stage and a further report would be brought to Cabinet before the Council awards the contract.
- 6.3 All costs are estimates based on forecast tonnages, processing fees, transport costs, commodity prices and contamination.

## **7. Legal implications**

- 7.1 As a Unitary Authority, the Council has responsibility for both waste collection and waste disposal. As a Waste Collection Authority (WCA) and Waste Disposal Authority (WDA), the Council has a number of statutory obligations. These include:
- A duty under Section 45 of the Environmental Protection Act 1990 (EPA 1990) to collect household waste and, if requested, commercial waste within Walsall.
  - Responsibility under Section 48 of the EPA 1990 to arrange and provide places for the disposal of waste collected by the Council within its function as a WDA.
- 7.2 The Council is required to comply with the EU Waste Framework Directive, the (England and Wales) Regulations 2011 and the amendment to these regulations in 2012. From the 1st January 2015 this legislation requires waste collection authorities to collect paper, metal, plastic and glass separately unless it is not 'technically, environmentally and/or economically practicable (TEEP) to do so. Any change to the service, or re-procurement of a contract triggers a 'TEEP' review to assess if separate collections of these materials could be implemented.
- 7.3 A TEEP review of the recycling waste collection service, taking into account the outcome of the DMR tendering process has been conducted by Clean and Green Services. The TEEP statement concludes that it is technically, and environmentally practicable to carry out single stream collections, but not at present due to the current infrastructure (vehicles, transfer station and containers) in place. It is not currently economically practicable due to the implementation costs of alternative collection methods. The TEEP statement is attached at **Appendix A**, and will be reviewed when other service changes are proposed.
- 7.4 The service is also subject to the following:
- The Controlled Waste Regulations 2012
  - GDPR 2018
- 7.5 Should Cabinet approve Option 1 - Award Contract, Officers will work with Legal Services to ensure that the new service provision will be evidenced by a written contract in a form agreed by the Head of Legal and Democratic Services and executed in accordance with the Council's Contract Rules.
- 7.6 Should Cabinet approve Option 2 – Re-tender Contract in accordance with Regulation 32 of the Public Contracts Regulations 2015 legal advice will be required to ensure the negotiated outcome includes suitable terms and conditions and is recorded in a suitable written form.
- 7.7 Negotiations of a contract extension with the incumbent contractor will be in accordance with Regulation 72 of the Public Contracts Regulations 2015. The option to extend the existing contract has been exhausted and there is no requirement for the current contractor to enter into a further extended period. If they are willing to do so it may be at an increased price. Advice and support will be required from Legal Services to ensure that any agreed further provision is recorded in a suitable written form.

## **8. Procurement implications/Social Value**

- 8.1 The current procurement process for the treatment and recycling of Dry Mixed Recycling Waste has been undertaken with support and advice of the Legal and Procurement Teams.
- 8.2 The procurement process (and award process, if Option 1 – Award Contract is approved) are in accordance with the Council's Contract Rules.
- 8.3 The anticipated value of the service provision was above the current EU procurement thresholds, and as such it was tendered in accordance with Public Contract Regulations 2015.
- 8.4 Should Option 1 be approved, the MEAT bidder has pledged to provide Social Value by the following:
- Employment of a local haulier to transport some of the waste;
  - Offered Apprenticeships and College / University work experience / placements.
- 8.5 Should Option 2 be approved, Officers will seek further support and advice from the Legal and Procurement Teams to ensure that the process complies with the requirements of the Public Contracts Regulations 2015.

## **9. Property implications**

- 9.1 None

## **10. Health and wellbeing implications**

- 10.1 There are no direct health and wellbeing implications arising from this report. The service is considered to make a positive impact on general health and wellbeing by improving the quality of the environment within which our residents live.

## **11. Staffing implications**

- 11.1 There are no staffing implications associated with this report.

## **12. Reducing inequalities**

- 12.1 Through liaison with the Consultation and Equalities team, it is considered that an Equalities Impact Assessment is not required.

## **13. Consultation**

- 13.1 Consultation took place in June 2018 with potential bidders and feedback was used where appropriate to prepare the original tender documents.



- 13.2 Additional consultation with potential bidders is proposed if Cabinet approve Option 2, re tender via the Negotiated Procedure.
- 13.3 Benchmarking with other local authorities has proven difficult as collection materials are varied and gate fees are considered commercially sensitive.

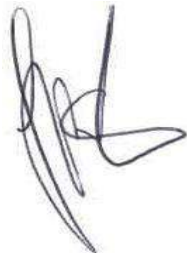
### **Background papers**

Contract for the treatment and recycling of 'Dry Mixed Recycling Waste' Cabinet Report  
July 2018

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Simon Neilson  
Executive Director

4 December 2018

Councillor Harrison  
Clean and Green Portfolio holder

4 December 2018

## **Walsall Council Statement of Compliance with Waste Framework Directive, Waste (England and Wales) Regulations 2011 and TEEP Requirements - November 2018**

The Council is required to meet the requirements of the European Commission's Waste Framework Directive (WFD) and the Waste (England and Wales) Regulations 2011 in relation to recycling collections and material streams. The WFD includes a target that separate kerbside collections of paper, glass, cans and plastic should have been implemented by January 2015. The UK's interpretation is that co-mingled recycling collections comply with the WFD providing it can be evidenced that separate collections of the four materials are not technically, environmentally and economically practicable (TEEP) and a high quality recyclate can still be achieved.

In addition, the WFD sets a target for the UK to recycle 50% of household waste by 2020.

This statement aims to test if it is 'technically, environmentally and economically practicable' (TEEP) for Walsall Council to collect dry recycling from households as separate materials.

### **Current Arrangements for Recycling**

Walsall Council operates a co-mingled kerbside collection of dry recyclable materials (paper, glass, cans and plastic) from households in the borough. The current contract for reprocessing the materials expires on 31 March 2019. To ensure continuing compliance with the regulations the procurement of a new contract requires a re-evaluation of whether it is technically, environmentally and economically practicable' (TEEP) to collect dry recycling as separate materials.

The standard co-mingled collection service uses a 240 litre wheeled bin per household for plastics, glass, cans, paper and card, with 360 litre bins available for larger families. The bins are collected on a fortnightly basis using a conventional refuse collection vehicle (RCV). The RCVs deliver the material they collect to the transfer station in Fryers Road from where it is transported in bulk to a Materials Recovery Facility (MRF).

The standard residual waste collection service uses a 140 litre wheeled bin per household, with 240 litre or 360 litre bins available for larger families. The bins are collected on a fortnightly basis using a conventional RCV. The RCVs deliver the material they collect to the transfer station in Fryers Road from where it is transported in bulk to an Energy from Waste facility or landfill.

Garden waste was collected on a three weekly basis in 2018/19 but will be collected fortnightly in 2019/20 in a 240 litre wheeled bin. This waste does not go through the transfer station, instead the collection vehicles deliver it directly to local reprocessors for open windrow composting.

Walsall Council's current recycling rate is in excess of 40%, including garden waste, but the authority is unlikely achieve the statutory target of 50% by 2020.

## **TEEP Evaluation**

TEEP consists of three elements which must be assessed individually in order to evidence compliance with WFD as set out below.

### **Technical Evaluation**

#### **Single Stream Collections of Recyclable Materials**

Technically separate collections of paper, glass, cans and plastic are possible but require a different configuration of refuse collection vehicles and container types to co-mingled collections.

The typical method of carrying out separate collections utilises refuse collection vehicles with 'split bodies' i.e. individual compartments for separate materials and more, smaller bins, boxes or bags.

There are several different split bodied and / or compartmented vehicles available but generally they have a smaller load carrying capacity (3.5 – 7 tonnes, depending on the design of the vehicle) than a conventional RCV (8 tonnes when collecting co-mingled recycling) meaning more vehicles are required. Their effectiveness depends on the load capacity of the compartments being correct. If the capacity of the compartments is not correctly configured it means that some bays will fill whilst space remains in others. How quickly the first compartment fills determines how often the vehicle needs to be emptied.

The number and type of bins, boxes or bags used for dry recycling collections must also be correct. Using a wheeled bin per material is simple and the bins can be emptied using hydraulic lifts on the vehicles. There are options to collect materials in boxes or bags. Bags and boxes can either be used for a single material or one container may be used for more than one material and sorted manually at the kerbside. This increases the manual lifting and handling required, means operatives may come into contact with broken glass or sharp edges on cans etc. and slows down the collection process. In addition residents may struggle with space to store multiple containers.

A waste transfer facility large enough to store the materials collected in separate bays for bulk transport to reprocessors is required. The existing facility in Fryers Road does not have the capacity to do this.

#### **Co-mingled Collection Process**

Collecting materials co-mingled enables the use of a conventional RCV and enables all materials to be collected until the collection hopper is full or maximum gross vehicle weight is reached.

The collection of co-mingled materials in a closed plastic wheeled bin reduces the risk of injury for collection crews from materials with potentially sharp edges e.g. glass and cans and manual handling injuries from lifting full containers.

Co-mingled materials require a single bay at the waste transfer station.

## Technical Evaluation Summary

Technical Evaluation Summary	
Option	
<p>Single material streams (plastics, glass, metal and paper) collected via kerbsider or twin bodied vehicle using multiple bins / boxes</p>	<p>Currently this option is not technically practicable because the existing infrastructure is designed for co-mingled collections but it would be technically achievable to implement as similar schemes are operated by other authorities. To do so would require investment and have lead in times before the scheme could be operational.</p> <ul style="list-style-type: none"> <li>• New vehicles to collect single stream recycling would have to be specified and procured, with a lead in time of 18 - 24 months.</li> <li>• Additional bins / containers would have to be purchased and distributed, with a lead in time of 18 - 24 months.</li> <li>• The existing transfer station is too small to accommodate the separate bays required for single stream recycling. A new facility has already been proposed following fire damage at the existing transfer station. This has a lead in time of 3 – 4 years.</li> <li>• Outlets and reprocessors for the materials are available. Contracts for single stream materials would have to be procured to coincide with the expiry of the co-mingled contract. Timescales would depend upon the preferred option determined by Cabinet.</li> <li>• Recovered materials are of the required quality</li> </ul>
<p>Co-mingled dry recycling collected with conventional RVC in 240 L/ 360L wheeled bins.</p>	<p>This option is technically achievable:</p> <ul style="list-style-type: none"> <li>• The vehicle fleet required for the collections is in place</li> <li>• The 240L / 360L wheeled bins required are in place.</li> <li>• The transfer station is able to handle the volume of co-mingled dry recycling collected in the single indoor bay available.</li> <li>• An outlet for the materials collected is available</li> <li>• Recovered materials are of the required quality</li> <li>• There is no lead in time required for this option</li> </ul>

## Environmental Evaluation

Separate kerbside collection of paper, glass, cans and plastic may reduce the range of materials, for example some plastics may not be acceptable. This would reduce our recycling rate and divert waste back into the residual waste stream.

The current co-mingled recycling service requires the equivalent of circa eight collection vehicles. It is estimated that a separate kerbside collection of paper, glass, cans and plastic would require at least fourteen vehicles. The current fleet are conventional vehicles, using diesel as fuel. An extra six vehicles would have increased vehicle emissions and add to traffic congestion.

Replacing a single lidded bin with open boxes for the separated materials may result in more windblown litter being generated.

<b>Environmental Evaluation Summary</b>	
<b>Option</b>	
Single material streams (plastics, glass, metal and paper) collected via kerbsider or twin bodied vehicle using multiple bins / boxes	<p>This option is environmentally practicable</p> <ul style="list-style-type: none"> <li>• Environmentally single stream materials should be a superior option as it is a better recovery method.</li> <li>• The required quality of material is achieved.</li> <li>• Reduced material processing is required</li> </ul> <p>However</p> <ul style="list-style-type: none"> <li>• Single stream collections may reduce the range of material recovered, diverting waste back into the residual stream.</li> <li>• Single stream collections are potentially a slower and less efficient collection methodology, meaning more vehicles may be required, increasing traffic congestion, vehicle emissions and the carbon footprint for collections.</li> <li>• Depending on the containers used there may be increased windblown litter from single stream collections.</li> </ul>
Co-mingled dry recycling collected with conventional RVC in 240 L/ 360L wheeled bins.	<p>This option is environmentally practicable</p> <ul style="list-style-type: none"> <li>• Modern material recovery technology used in MRF's ensures the required quality of material is achieved.</li> <li>• MRF's can recover a wider range of materials including Tetrapak and plastic film.</li> <li>• Less vehicles are required to collect co-mingled material at an acceptable frequency, reducing vehicle emissions and the carbon footprint.</li> </ul>

## **Economic Evaluation**

The economic evaluation has been split into five components

- a) Vehicles and crews
- b) Refuse containers
- c) Transfer station
- d) Reprocessing
- e) Income achievable

### **Vehicles**

Walsall Council operates a total fleet of 25 conventional RCV's which are able to collect dry recycling, garden waste or general waste. This means vehicles can be interchangeable depending on service needs. The equivalent of eight RCV's are currently used to collect co-mingled dry recycling.

Implementing separate collections of paper, glass cans & plastic would require the vehicle fleet to be changed and increased to approximately fourteen vehicles dedicated to collecting recycling.

Split bodied vehicles (2 compartments or more) cost circa £140k - £198k each depending on design, whilst conventional RCV's cost circa £160k. Collecting single stream materials in split bodied vehicles means the eight vehicles used for recycling collections would have to be replaced and six new vehicles purchased with an increased capital cost of between £1million and £1.5million. Additional collections crews would be required for the extra vehicles costing circa £600k per annum.

The vehicles are leased or financed over seven years meaning the cost would be spread over this period. The oldest vehicles on the fleet are not due to be replaced until 2020 but are owned rather than leased.

Extra vehicles also incur additional running costs for fuel, repairs and maintenance. In total, with leasing costs, fuel, maintenance and other associated running costs, an RCV costs circa £55k per annum to operate. The eight vehicles currently used cost £440k per annum. Changing and increasing the recycling collection fleet to fourteen would cost £770k per annum, an increase of £330k per annum.

The lead-in time required to procure new vehicles, particularly split bodied vehicles, would be 12 - 24 months and implementation of a re-designed service, including public consultation, would take 18 – 24 months.

## **Refuse Containers**

To implement single stream collections residents would require additional containers for the segregation of the four materials. Several types of containers are available including bins, boxes, cadies and bags. Appropriate containers would have to be identified, procured and delivered to households. The estimated cost of this could be up to £3 million depending on the containers utilised and if the 240L green wheeled bin could be retained for one of the materials. Funding would likely be via prudential borrowing within the capital programme.

## **Transfer Station**

Separately collected materials must be kept segregated before being sent for re-processing. The Transfer Station at Fryers Road does not have the capacity for the indoor storage bays required for the four materials and is not designed to handle separately collected materials.

One option would be to source an alternative transfer station facility. Following a fire at the Fryers Road Waste Transfer Station the feasibility of a new facility this is be considered. A new facility is likely to cost £1.955 million excluding land acquisition costs.

## **Reprocessing**

Outlets are available for recyclable materials collected either single stream or co-mingled. Separately collected materials should be of a higher value, contain less contamination than co-mingled materials and require less processing and sorting after collection. A processing fee is payable for co-mingled materials sent to a MRF but no, or a reduced fee, is payable for single stream materials.

Potentially single stream collections would divert the waste that is contamination in co-mingled collections to the residual waste stream. This could result in an additional 2,260 tonnes of material being collected as residual waste.

### **Income from material sales**

Separately collected materials are likely to have a higher commodity value than co-mingled materials because they are less contaminated and require less sorting and processing.

Co-mingled recycling sent to a MRF has to be processed to recover the individual material streams for which a processing fee is payable. Any income achieved must be offset against the processing fee and disposal costs of any residual waste / contamination.

The outcome of the procurement process undertaken during October 2018 would result in an annual increase of circa £1m, with a total cost of circa £1.343m per annum

### Economic Evaluation Summary

Option		Additional Costs per annum (£ 000)
<p>Single material streams (plastics, glass, metal and paper) collected via kerbsider or twin bodied vehicle using multiple bins / boxes</p>	<p>This option is potentially economically practicable</p> <ul style="list-style-type: none"> <li>• The existing fleet of eight vehicles used for collecting recycling would require replacement and six additional vehicles would be required., giving a total of fourteen vehicles</li> <li>• There would be additional staffing costs for crews for the six additional vehicles.</li> <li>• Additional containers would be required for the additional materials. This would be a combination of bins, boxes and bags depending on an agreed configuration. Capital cost of circa £3m via prudential borrowing converted to revenue spend over 7 years.</li> <li>• The existing transfer station is too small to accommodate the separate bays required for single stream recycling. A new facility has already been proposed following fire damage at the existing transfer station.</li> <li>• Outlets and reprocessors for the materials are available. An income for the materials can be achieved.</li> <li>• Single stream collections may reduce the range of material recovered, diverting waste back into the residual stream (assume 5% reduction of 22,600 tonnes)</li> <li>• Single stream collections may divert waste regarded as contamination in co-mingled collections back into the residual stream (assume 5% reduction of 22,600 tonnes)</li> <li>• Contingency to cover additional residual collections, additional fleet maintenance etc. (5% of £1.7m)</li> </ul> <p>Total Net Annual Additional Cost</p> <p>Additional one off cost for new Transfer Station required New transfer station to be provided regardless of TEEP Review.</p> <p>Note – All costs are estimates</p>	<p>8 existing vehicles at £5k per annum plus 6 additional vehicles at £60k per annum = £400k</p> <p>£600k per annum</p> <p>£475k per annum</p> <p>Capital Cost £1.955m excluding land acquisition costs</p> <p>(£750k income) per annum (Excluding transport costs)</p> <p>£113k</p> <p>£113k</p> <p>£85k</p> <p>£1.036m</p>



Option		Additional Costs per annum (£ 000)
<p>Co-mingled dry recycling collected with conventional RVC in 240 L/ 360L wheeled bins.</p>	<p>Potentially this option is no longer economically practicable</p> <ul style="list-style-type: none"> <li>• The vehicle fleet and collection crews required for the collections are in place. The oldest vehicles on the fleet will require replacement in 2020.</li> <li>• The 240L / 360L wheeled bins required are in place, no additional containers are required.</li> <li>• The transfer station is able to handle the volume of co-mingled dry recycling collected in the single indoor bay available. Following fire damage a replacement transfer station facility is required.</li> <li>• Outlets and reprocessors for the materials are available. An income for the materials can be achieved which must be offset against the costs of the processing fee payable and disposal of any residual waste./ contamination.</li> </ul> <p>Total Net Annual Additional Cost</p> <p>Additional one off cost for new Transfer Station required New transfer station to be provided regardless of TEEP Review.</p> <p>Note – All costs are estimates</p>	<p>0</p> <p>0</p> <p>1.955 excluding land acquisition costs</p> <p>£1.343 million per annum – result of recent tender (Excluding transport costs)</p> <p>£1.343m</p>

## Quality of materials recovered

To comply with WFD co-mingled collections must produce a high quality recyclate. The successful bidder for the contract for processing dry mixed recyclables has suitable methods and markets for all materials. How the materials are recovered is listed below;

<b>Material Stream:</b>	<b>Comprising of:</b>	<b>Recycling Process:</b>	<b>End Product:</b>
Mixed Papers	Office white, envelopes, wrapping paper, phone directories, junk mail & drinks cartons (tetra-packs)	Closed Loop	Paper packaging
Newspapers & Magazines	Newspapers & Magazines	Closed Loop	Newspapers
Cardboard/OCC	Corrugated boxes, brown card, coloured card	Closed Loop	Cardboard/Brown Paper Packaging
Glass	Mixed coloured drink bottles, drink glass & glass food containers	Closed Loop	Re-melt for new glass products
Aluminium	Cans, aerosols & aluminium foil	Closed Loop	Aluminium Ingots
Steel	Drink cans, food tins,	Closed Loop	General steel products
PET Bottles	Clear plastic bottles	Majority recovered for Closed Loop	Plastics pellets for new PET bottles, small % used for cleaning products.
HDPE Bottles	Milk Bottles	Split % Closed Loop	New HDPE Bottles, small % used for plastic film.
LDPE/Mixed Jazz Films	Low density polyethylene/mixed colour plastic bags	Split % Closed Loop	Plastic Film. Small % used as oils and fuel.
Mixed Plastics	Plastics pots, trays and coloured bottles of PVC, PP and PS grades	Split % Closed Loop	Variety of plastic products including film. Small % used for insulation materials and cleaning products.

This evidences that although single stream collections could be introduced separate kerbside collections of paper, glass, cans and plastic are not necessary to ensure the appropriate quality of material for its intended end use. This can be achieved by the recycling re-processor using modern material recovery technology to ensure recovered materials are of the required quality.

### **Outcome of TEEP Evaluation**

Based on the findings of the evaluation carried out, Walsall Council will continue with co-mingled collections of paper, glass, cans and plastic because;

The recycle achieved is of the required quality.

Co-mingled collections are technically practicable and the infrastructure currently in place supports this collection method. Single stream collections are not currently technically practicable because implementation would have a lead in time of circa three years and would require initial investment in containers and extra vehicles.

Environmentally both single stream and co-mingled collections are practicable.

Potentially co-mingled collections are no longer the most economically practicable and, with investment in vehicles, containers and waste transfer facilities, single stream collections may be more economically practicable in the medium to longer term due to the timescales for procuring vehicles and containers and implementing an alternative collection service.

A review of this evaluation will be required if any changes to waste collection or disposal arrangements are planned.