

CABINET

29 SEPTEMBER 2015

TECHNICALLY, ENVIRONMENTALLY AND ECONOMICALLY PRACTICABLE ASSESSMENT OF RECYCLING SERVICES

Portfolio Holder: Councillor Phil Filmer, Front Line Services

Report from: Richard Hicks, Director of Regeneration, Community and Culture

Author: Johanna Dickson, Waste Development Manager and Sarah Dagwell, Head of Waste Services.

Summary

From 1 January 2015, Regulation 13 of the Waste (England and Wales) Regulations 2011 (as amended) requires all waste collectors in England and Wales to separately collect glass, metal, paper, and plastic where it:

- (a) is necessary, in effect, to ensure high-quality waste recovery; and
- (b) is Technically, Environmentally and Economically Practicable (TEEP).

The conclusion of the assessment for Medway Council was that separate collection is not currently required as it fails the economic practicability test.

The assessment was reviewed by a specialist environmental law barrister who confirmed the document was fit for purpose.

1. Budget and Policy Framework

- 1.1 The recommendations proposed in this report are within the Policy Framework of the Council, meeting the strategic priority of a safe, clean and green environment, the core value of giving value for money and within the Council Plan commitment to increase recycling and reduce waste going to landfill sites.

2. Background

- 2.1 From 1 January 2015, Regulation 13 of the Waste (England and Wales) Regulations 2011 (as amended) (the Regulations) requires all waste collectors in England and Wales to separately collect glass, metal, paper, and plastic where it:
 - (a) is necessary, in effect, to ensure high-quality waste recovery (Necessity assessment); and

(b) is Technically, Environmentally and Economically Practicable (TEEP assessment).

- 2.2 In England, separate collections are required where they are technically, environmentally and economically practicable (TEEP) and necessary to ensure high quality recovery according to the standards for the relevant recycling sectors. Local Authorities are required to conduct a Necessity and TEEP Assessment to determine the route they take for waste collections arrangements.
- 2.3 Although there is no official Defra guidance on the Regulations, the Waste Resources and Action Programme published the Waste Regulations Route Map in 2014 to help Councils understand their legal obligations. The Route Map is a step-by-step process to aid in self-assessing whether current waste collection services are compliant with the requirement to collect material separately.

Waste Regulation Route Map:

Step 1: Determine what waste is collected and how

Step 2: Check how collected materials are treated and recycled

Step 3: Apply the Waste Hierarchy

Step 4: Decide whether separate collection of the four materials is required

Step 5: Obtain sign-off

Step 6: Retain Evidence

Step 7: Re-evaluation process

- 2.4 The Council has thoroughly reviewed the current collection methods of the four materials (paper, plastic, metal and glass) to assess if separate collection is necessary and practicable to achieve high-quality waste recovery. The assessment process has drawn on information from national data sets, the Regulations, Route Map and the Environment Agency (EA) briefing note, as the EA has legal responsibility for enforcing the Regulations.
- 2.5 Separate collection fails the economic practicability test because the additional costs within the current contract would be in the range £3.2-£13.2 million as this would be a fundamental change of service, therefore separate collection is not currently required. As the Council's overall budget for kerbside collection of dry recyclables is £2.3 million per annum, it is considered that the additional costs of separate collection would be disproportionate.
- 2.6 The Necessity and TEEP assessment was independently reviewed and confirmed to be "fit for purpose" by a specialist environmental law barrister from Landmark Chambers, London.
- 2.7 The Necessity and TEEP assessment was submitted to Regeneration, Community and Culture DMT in earlier in 2015 which recommended Members be made aware of the assessment and its importance at the next procurement round.

- 2.8 Another Necessity and TEEP assessment will need to be completed as part of the procurement process for the next Waste and Recycling Collection Contract in 2019.
- 2.9 When new contracts are tendered, the opportunity arises for the introduction of new services on a more cost efficient basis, because there will be an opportunity to source a new fleet and associated containers that can be amortised over the life of the contract. The aim of the Regulations is to ensure high quality recycling, which will be proven via the Necessity and TEEP assessment, whatever collection methodology is in place, be it comingled or source separated.
- 2.10 The Necessity and TEEP Assessment is set out in Appendix 1.
- 2.11 Questions frequently asked about the Regulations are listed at Appendix 2.

3. Options

- 3.1 Despite the Regulations coming into force part way through the current contract period, there is a requirement to show we are fully compliant with the Regulations.

4. Advice and analysis

- 4.1 Medway Council has thoroughly reviewed the current collection methods of the four materials (paper, plastic, metal and glass) to assess if separate collection is necessary and practicable to achieve higher quality recycling. The assessment process has drawn on information from national data sets, the Regulations, the Waste Framework Directive, the Route Map and the Environment Agency briefing note.
- 4.2 Separate collection fails the economic practicability test and is unclear for the technical and environmental practicability tests for Medway Council, therefore separate collection is not currently required.

5. Risk management

Risk	Initial rating	Mitigation	Revised rating
Current contract and collection scheme is non-compliant	Med	Any mid-contract change to the current collection scheme (affecting vehicles and containers) would not be economically practicable. Medway already collects paper separately.	Low
Prosecution (Legal challenge of non compliance with the Regulations, proved by applying the Necessity & TEEP test)	Low	Independent review of the Necessity and TEEP test by a specialist environmental law barrister from Landmark Chambers, London.	Low

6. Consultation

6.1 No consultation was required at this time.

7. Financial and legal implications

7.1 There are legal implications involved with the Necessity and TEEP test, which have been addressed by an independent legal review of the assessment document.

7.2 There would have been significant financial implications if the Necessity and TEEP test concluded a service change was required mid-contract. However, as no service changes have been required at this time, the financial implications have been negated.

8. Recommendations

8.1 The Cabinet is asked to note the outcome of the Necessity and TEEP Assessment of the Council's recycling services.

8.2 The Cabinet is asked to agree that due consideration should be given to the Necessity and TEEP test in preparation for the procurement of the next collection contract.

8.3 The Cabinet is asked to agree that a watching brief be kept on relevant developments in law, policy and guidance, including as follows:

- The Environment Agency, as regulator, will require collectors to submit information on collection methods and the Necessity and Practicability (TEEP) tests;
- Relevant legislative announcements by the EU and the UK Government will be monitored;
- WRAP will be monitored for updates to the Route Map.

9. Suggested reasons for decision

9.1 To ensure that Members have been formally notified of the outcome of the recent Necessity and TEEP assessment and to ensure that the Council can continue to deliver a high quality recycling service in the future.

Lead officer contact

Sarah Dagwell
Head of Waste Services
01634 331597
sarah.dagwell@medway.gov.uk

Johanna Dickson
Waste Development Manager
01634 333165
johanna.dickson@medway.gov.uk

Appendices:

Appendix 1: Medway Council TEEP Assessment February 2015

Appendix 2: Frequently Asked Questions about Necessity & TEEP test

Background papers:

None

Medway Council

TEEP Assessment

February 2015

CONTENTS

CONTENTS.....	2
EXECUTIVE SUMMARY	3
INTRODUCTION.....	4
Relevant legislation	4
Legislative timeline and future procurement.....	4
USING THE WRAP ROUTE MAP	6
Step 1: Review what materials are collected.....	6
Step 2: Appraise how collected materials are managed and recycled.....	7
Step 3: Apply the waste hierarchy	8
Step 4: Are separate collections required?	8
The Necessity Test	8
The Practicability (TEEP)Test.....	10
Step 5 & 6: Obtain sign off & Retain Evidence.....	11
Step 6: Re-evaluation process	11
CONCLUSION	12
REFERENCES.....	13

List of Tables

- Table 1: Comparison kerbside recycling and residual materials (2013/14) with national compositional data
Table 2: Necessity Test: Medway Council kerbside recycling and residual materials (2013/14)
Table 3: Introduction of separate collection cost comparison (from April 2015 – October 2019)
Table 4: Practicability (TEEP) Test: Medway Council kerbside recycling and residual materials (2013/14)

List of Figures

- Figure 1: The Route Map Overview (Page 5, Waste Regulations Route Map, WRAP, 2014)

List of Annexes

- Annex 1: Medway Procurement Timeline (against Regulation 13 Timeline)
Annex 2: DCLG offer letter to Medway Council
Annex 3: Southwark Materials Recycling Facility
Annex 4: Comparison of Local Authority Recycling and Residual Collection
Annex 5: Medway Waste Arisings, Step 1-3 Route Map data
Annex 6: Necessity Test: Medway Council kerbside recycling and residual materials (2013/14)
Annex 7: Additional cost to introduce separate collection, no change to refuse or organic service
Annex 8: Practicability (TEEP) Test: Medway Council kerbside recycling and residual materials (2013/14)
Annex 9: Accommodation type by household spaces

EXECUTIVE SUMMARY

- 1.1 From 1 January 2015, Regulation 13 of the Waste (England and Wales) Regulations 2011 (as amended) requires all waste collectors in England and Wales to separately collect glass, metal, paper, and plastic where it:
 - (a) is necessary, in effect, to ensure high-quality waste recovery; and
 - (b) is Technically, Environmentally and Economically Practicable (TEEP).
- 1.2 Regulation 12, which came into force in 2011, places an ongoing requirement on authorities to apply the waste hierarchy.
- 1.3 Medway Council currently operates a two stream collection, with collection of paper and card separate for the collection of glass, plastic and metal. Three of the four materials (glass, plastic and metal) are therefore collected co-mingled which means that the Council must consider whether separate collection is necessary and practicable.
- 1.4 There is no process set in law or guidance for authorities to follow in carrying out the necessity or practicality (TEEP) tests. The tests are value judgements. To assist local authorities with ensuring they are operating within the Regulations, the Waste Resources and Action Programme published the Waste Regulations Route Map.
- 1.5 Medway Council has thoroughly reviewed the current collection methods of the four materials (paper, plastic, metal and glass) to assess if separate collection is necessary and practicable to achieve high-quality waste recovery. The assessment process has drawn on information from national data sets, the Regulations, Route Map, guidance from the Welsh Government and the Environment Agency briefing note.
- 1.6 Separate collection fails the economic practicability test for Medway Council, therefore separate collection is not required.
- 1.7 A watching brief will be kept on legislative developments and separate collection of the four materials will be considered as an integral part of the procurement process for the next collection contract (2019).
- 1.8 This report will be independently reviewed by a specialist environmental law barrister, Gwion Lewis from Landmark Chambers, London, before being submitted for approval by Medway Council Directorate Management Team (DMT) in March 2015.

INTRODUCTION

Relevant legislation

- 2.1 The Waste (England and Wales) Regulations 2011 (as amended) ('the Regulations') transposed The Revised Waste Framework Directive 2008/98/EC (WFD) into English and Welsh law. From 1 January 2015, Regulation 13 requires all waste collectors in England and Wales to separately collect "the four materials" (glass, metal, paper, and plastic) where it:
- (a) is necessary, in effect, to ensure high-quality waste recovery, and
 - (b) is Technically, Environmentally and Economically Practicable (TEEP).
- 2.2 The WFD makes it clear that the reason for separate collection is to 'promote high quality recycling'. High quality recycling is not defined, however Article 11(1) of the Directive states that collections are to '*... meet the necessary standards for the relevant recycling sectors*'.
- 2.3 In order to decide whether separate collection is required, the Necessity and Practicability (TEEP) Test must be applied based on each waste collector's particular circumstances. Paragraph 4.4 of the European Commission's guidance defines "practicable":
- 'Technically practicable' means that the separate collection may be implemented through a system which has been technically developed and proven to function in practice.
 - 'Environmentally practicable' means the added value of ecological benefits justifies possible negative environmental effects of the separate collection (e.g. additional emissions from transport).
 - 'Economically practicable' refers to a separate collection which does not cause excessive costs in comparison with the treatment of a non-separated waste stream, considering the added value of recovery and recycling and the principle of proportionality.
- 2.4 There is no process set out in law nor is there statutory guidance for authorities to follow when carrying out the Necessity and Practicability (TEEP) Test. The Waste Resources and Action Programme (WRAP) published the Waste Regulations Route Map (WRAP, 2014) to assist local authorities in self-assessing whether current waste collection services are compliant with the Regulations.
- 2.5 The enforcement authority in England, the Environment Agency, published a briefing note "Separate Collections of Recyclables" outlining a regulatory risk-based regime (Environment Agency, 2014). The briefing note states that from Jan-Mar 2015 collectors will be instructed to provide information on their collection methods, however the mechanism for this has not been specified.
- 2.6 The Environment Agency will monitor sources of information such as WasteDataFlow, the WRAP website Materials Recycling Facility Code of Practice reports. This information will indicate whether a collector is complying with the requirements.

Legislative timeline and future procurement

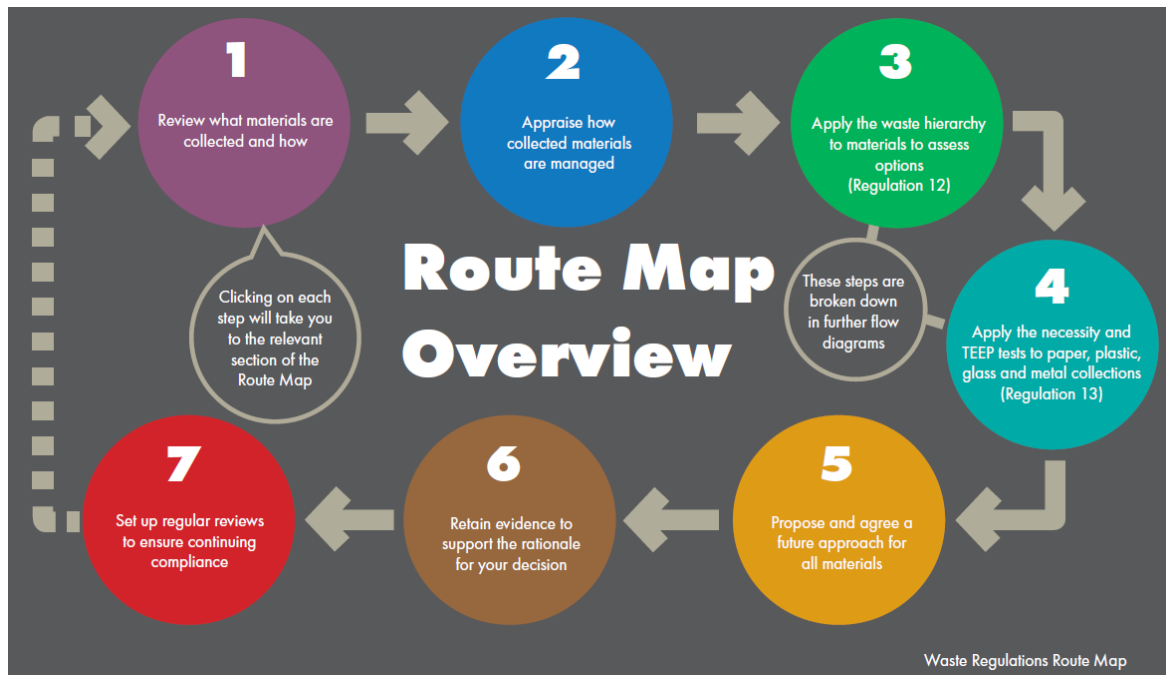
- 2.7 The current collection contract in Medway commenced in 2010, which pre-dated Regulation 13 coming into force (illustrated in Annex 1).
- 2.8 In August 2012, Medway and its incumbent collection contractor, Veolia, submitted a successful partnership bid to the Dept. for Communities and Local Government's 'Weekly Collection Support Scheme' (WCSS) whereby the frequency of recycling and organics collections were to be altered within the legal parameters of the original contract procurement.
- 2.9 As a condition of the funding, Medway gave an undertaking to the DCLG to retain the key elements of the proposed service enhancements detailed in the bid – weekly collection of refuse, recycling and organics - for at least five years from their launch (outlined in the offer letter, Annex 2).

- 2.10 Weekly refuse, recycling and organic collections, fully funded by the grant, commenced in October 2013. Medway is contractually obligated to collect all waste streams every week until October 2019 when the current contract with Veolia expires.
- 2.11 In late April 2014, WRAP published the Waste Regulations Route Map. A briefing paper to Directorate Management Team (DMT) in September 2015 requested council officers to conduct a TEEP assessment on glass, metal paper and plastic for recycling using the Route Map to be reviewed by legal Counsel prior to tabling at DMT in March 2015.
- 2.12 The collection contract (which includes the MRF processing) runs until the end of September 2019. The Council will monitor the legislative developments around high quality recycling to ensure future procurement is best value environmentally and economically.

USING THE WRAP ROUTE MAP

3.1 The Waste Regulations Route Map (WRAP, 2014) is intended to bring consistency and clarity to the way the Regulations are interpreted. The key stages of the Route Map are summarised in Figure 1 below.

Figure 1 – The Route Map Overview (Page 5, Waste Regulations Route Map, WRAP, 2014)



Step 1: Review what materials are collected

3.2 Medway's kerbside collection system is designed to maximise capture of recyclable materials at an affordable cost. Medway was ranked 43rd unitary local authority in England in 2013/14 (the latest league table available at the time of writing) with an overall recycling rate for that year of 41.2%. Recycling and residual waste are collected weekly:

- Residual waste is collected, unlimited, in black sacks. Flats are serviced using 1100-litre wheeled bins;
- Food and garden waste is collected in a 240-litre brown wheeled bin. There is also a number of terraced properties that use a 23-litre food bin (limited access);
- Separate paper and cardboard is collected in a reusable blue bag;
- Co-mingled glass, metal and household plastic packaging (DMR) is collected in a reusable white bag or clear sack;
- Flats with bulk bins have 1100-litre communal bins for co-mingled glass, metal, household plastic packaging, paper and cardboard. The council plans to switch all flats with bulk bins to twin-stream recycling by 2016-17 (mirroring kerbside collections); and
- 50 recycling bring sites and three Household Waste Recycling Centres (HWRC).

3.3 Medway Council collects the four required materials (glass, metal, paper and plastic) for recycling:

- Paper – collected separately at kerbside;
- Glass, metal and plastic – collected as a co-mingled waste stream at kerbside; and
- Bring sites have separate containers for all four materials.

3.4 The Route Map recommends that waste compositional data is used to make reasonable estimates of the Medway waste arising profile. Resource limitations and the tight timeframe of the service review has prevented the council from commissioning local compositional analysis at this time therefore national

data sets have been used to evaluate Medway capture. The national data set was produced by Resource Futures on behalf of Defra combining district-level compositional data with WasteDataFlow returns and extrapolating from sample to national evidence with data from 2010/11 (Resource Futures, 2013).

- 3.5 Table 1 compares potential materials available at kerbside (recycling and residual national data set) with the actual tonnage (yield) of material collected at kerbside in Medway. Of the four materials, Medway's kerbside recycling collections are most efficient with paper and card recycling (61% efficient) and least effective with plastic and metal (12% and 14% respectively).

Table 1 – comparison kerbside recycling and residual materials collected (2013/14) with national compositional data

Kerbside material	Tonnage captured in Medway (2013/14)	Theoretical Capture rate (national data set)	Medway Capture rate	Capture efficiency
Food and garden	19,564	40.38%	21.21%	53%
Paper & Card	12,495	22.15%	13.55%	61%
Glass	2,410	7.13%	2.61%	37%
Metal	419	3.17%	0.45%	14%
Plastic	1,258	11.43%	1.36%	12%
Non Recyclable	56,072	15.74%	60.80%	*386%
TOTAL	92,218	100 %	100 %	

* Based on the national data set only 16% of residual waste is non-recyclable. Medway operates an unrestricted kerbside residual waste collection making this an unrealistic target. The top recycling council in 2013/14 was South Oxfordshire District Council which achieved a 34.29% capture rate of (restricted) residual waste (218% capture efficiency) (Annex 4).

Step 2: Appraise how collected materials are managed and recycled

- 3.6 Medway Council is a Unitary Authority (UA) that collects its dry recyclables and other waste through a service contract with Veolia. Dry mixed recyclables (DMR) are collected at kerbside and delivered to a Waste Transfer Station (WTS), which is owned by Veolia, at Rochester City Estate, Medway, The DMR are then bulked up for onward haulage to a Material Recovery Facility (MRF) operated by the processing contractor, Veolia, at Southwark, London. The MRF process at Southwark is illustrated in Annex 3. Haulage of bulked-up materials from the depot at Rochester City Estate is carried out by Veolia's sub-contractor (Waste Away) and, hence, this depot also acts as a waste transfer station for dry mixed recyclables.
- 3.7 As a UA, Medway Council is responsible for disposal of all waste and recycling materials. The contract with Veolia includes processing the kerbside-collected materials at their MRF prior to them being sent for recycling. The ownership of the materials passes to Veolia once it is collected from the kerbside and they are responsible for the marketing and sale of the sorted recyclables.
- 3.8 Medway Council does not receive any direct income for the DMR. However, a discount on the contract price was applied at the time of tender for the separate collection of paper. There is no gate fee applied to the paper/card materials collected separately from other recyclables.
- 3.9 Medway pays a flat gate fee (subject to annual RPIX uplifts) for the DMR materials collected. This has provided Medway Council with a degree of certainty with respect to their waste management budget in the face of possible fluctuating recyclable material prices and related gate fee variations. However, this does also mean that if an income is derived for the materials, then Medway Council will not realise this income benefit.
- 3.10 A full breakdown of all Medway Council waste arisings (2013/14) are detailed in Annex 5 by reference to recycling/disposal method, tonnage and waste management option.

3.11 Black sack residual household waste is sent to an Energy from Waste facility whereupon energy is recovered from this waste stream. All other residual waste, such as bulky items, are sent to landfill.

Step 3: Apply the waste hierarchy

3.12 Step 3 relates to the waste hierarchy. Article 4(2) of the WFD provides that, when applying the waste hierarchy, Member States shall “take measures to encourage the options that deliver the best overall environmental outcome”. This approach has been applied throughout the decision-making process regarding the selection of reuse, recycling and disposal methodology. Annex 4 includes details of the stage of waste hierarchy achieved for each waste stream.

3.13 Medway Council promotes waste prevention in a number of different schemes.

- Over 11,500 compost bins have been sold since 2005 through the scheme promoted by Medway Council. This estimates to a diversion of 1,700 tonnes per annum.
- Waste Services work in partnership with Public Health and Economic Development to promote the Love Food Hate Waste campaign, teaching our residents about proper portion control, how best to store food, and inventive recipes for leftover meals. Due to the success of this, Medway has produced its own recipe books.
- Medway Council is one of few authorities in the South East promoting the real nappy scheme with an incentive of up to £30 in High Street vouchers. 415 households have used this incentive since 2006, diverting an estimated 225 tonnes of disposable nappy waste.
- Whilst promoting via road shows / events, one of the most popular enquiries is the prevention of junk mail. Medway promotes the Mail Preference Scheme at these events as well as online.

3.14 Medway works in partnership with different agencies in relation to preparing of reuse, for example:

- FCC run Medway’s three HWRC on behalf of the Council with each site having a container for reuse items. Each week these items are collected by a local charity (Abacus), with any items remaining auctioned off once a month.
- Medway run another scheme in partnership with FCC, Abacus and Rochester Prison called “Re-love a bike”. Bicycles taken to the HWRC are stored separately, then collected by Abacus, restored in a prison workshop, before being sold back to the public. It is expected to save up to 2,600 bikes from landfill per annum.
- Charities Abacus and Neighbourhood Furniture Store are promoted on council leaflets and online webpages as an alternative to booking a bulky waste collection. A targeted HMO communication campaign in 2015 will see 10,000 residents receive direct promotion of these charities.
- If a resident calls the Council to book a bulky waste collection, the call taker is prompted to ask if the items are suitable for reuse and then to provide charity contact details to the resident.

Step 4: Are separate collections required?

3.15 Regulation 13 imposes a duty to separately collect the four materials (glass, metal, paper and plastic), unless doing so would not meet the Necessity and Practicability (TEEP) tests.

3.16 The Regulations do not prohibit the use of co-mingled collections of the four materials. Rather they establish separate collection as the default position, and set out the conditions under which the relevant establishments can deviate from that default position.

3.17 Co-mingling is only permissible if separate collection is either not necessary or not practicable. If Local Authorities wish to consider co-mingled collections of any of the four materials, they will need to compare this approach with the default option of separate collection.

The Necessity Test

3.18 Regulation 13 requires an assessment of whether separate collection is necessary to ensure waste undergoes recovery operations in accordance with the WFD and to facilitate or improve recovery. The Route Map suggests that the questions in table 2 be asked to ascertain if separate collection is necessary to increase quality or quantity of recycling captured. A full analysis of the four materials is included in Annex 6 with the results summarised in table 2 below.

Table 2 – Necessity Test: Medway Council kerbside recycling and residual materials (2013/14)

	Paper	Glass	Metal	Plastic
Is separate collection in place?	Yes	No	No	No
Would separate collection increase recycling capture quantity or quality?	N/a	Unclear	Unclear	Unclear
Does separate collection facilitate or improve recovery (high quality recycling)?	N/a	Yes – quality only Unclear – on quantity	Yes – quality only Unclear – on quantity	Unclear – on quantity and quality <i>Further plastic sorting required with separate collections</i>

3.19 Technological developments in the waste management industry over the past decade have led to greater resource efficiency and recycling, improving quality or recycling yield. Examples include:

- The Closed Loop Recycling Facility (Dagenham, Essex) opened in 2008 using state of the art technology to sort, wash and super-clean discarded drinks bottles made from polyethylene terephthalate (PET) and milk bottles made from high density polyethylene (HDPE). The facility produces 65,000 tonnes of food-grade recycled PET and HDPE annual.
- Redesigning food packaging to reduce its weight resulted in 520,000 tonnes of packaging being avoided across the UK between 2005 and 2009 (WRAP, 2009a). Coca-Cola Enterprises used 119.8g/litre of product in 2013, 3% less than in 2012, through projects such as reducing the weight of 500ml PET bottles from 24.7g to 21.7g and continuing to reduce the weight of aluminum cans (lightest now 10g) (Coca-Cola Enterprises, 2015).

3.20 Research on recycling collection systems, analysing tonnage data from WasteDataFlow, points towards greatest yield (quantity) of recycling in co-mingling systems (Page 15, WYG group, 3013). This trend can be observed in Medway when the yield of paper from promoted separated collections is compared with that from the co-mingled collections. In Medway in 2013/14, yield was greater from the co-mingled collection (6,393 tonnes) compared to the promoted separate collection (6,102 tonnes) (Annex 6).

3.21 In a letter reported by letsrecycle.com (2014), WRAP Chief Executive, Dr Goodwin, wrote:
“WRAP does not favour one type of collection scheme over another. I know that co-mingling is the best option in many circumstances and it is important that each local authority considers its local constraints and circumstances when deciding what route to go down.”.

3.22 Industry debate has not yet concluded if “High Quality Recycling” can be achieved with co-mingled collections:

- Opponents of co-mingled collection argue that separate collections allow closed loop recycling (minimise contamination and maximise resource quality).
- Advocates of co-mingled collection counter that separate collections reduce yield of materials collected, citing the top 10 recycling performers in 2013/14 as operating co-mingled collections (Annex 4).

Therefore it is unclear if separate collections would increase quality and quantity/yield of recyclables.

3.23 The Necessity Test outcome is that separate collection may not be necessary to increase the quality or quantity of recycling captured, however the Route Map recommends applying the Practicability (TEEP) Test for additional assurance.

The Practicability (TEEP) Test

- 3.24 The Regulations state that the four materials should be collected separately if it is technically, environmentally and economically practicable (TEEP). The Route Map states:
“If separate collection of a material fails any one of the tests, your analysis shows it does not meet the Practicability (TEEP) Test. You have therefore decided that separate collection is not required (Route Map, 2014).”
- 3.25 Evaluation of technical practicability considered the profile of Medway home types and considered if similar authorities operated separate collections (CIPFA nearest neighbours and Unitary Authorities with a household size +/- 20,000 of Medway UA).
- 57% of Medway housing stock is terraced, flat, maisonette or apartment, or mobile/temporary accommodation (Annex 9) making it more challenging to introduce separate collections (lack of storage space, narrow streets, limited bin store space).
 - None of the similar authorities operate fully separate collections (Annex 4); there is an element of co-mingling in each one (WRAP, 2015). Each tailors the recycling service to suit local infrastructure (collection fleet, MRF capabilities and housing stock).
- 3.26 The environmental elements could be argued either in favour or against co-mingled collections, for example the carbon footprint of re-melt glass processed in South America versus glass aggregate used within 25 miles of point of collection. WasteDataFlow considers glass recycling to include glass aggregate and glass remelt. Many councils have engaged specialists to review legal compliance who employ standardized models to evaluate environmental characteristics based on their data sets. Having always operated a commingled collection of multiple materials, the impact of separate collection on yield of recyclables/residual waste is unknown.
- 3.27 Evaluation of economic practicability (until October 2019 when a new contract is procured) is based on known contract costs and the “High Level Options Review for Medway Council” (WRAP, 2012). Eight options were prepared to calculate the economic cost of introducing separate collections from April 2016 considering the following factors:
- Vehicle fleet requirements and collection costs
 - Containment in homes and flats
 - Sale of recyclate (contractual compensation and income)
 - Collection frequency and obligation of weekly collections
- A full breakdown of costs is detailed in Annex 7 with key elements summarised in table 3. The most conservative forecast estimates the additional cost of separate collection at £3,293,697 with the greatest at £13,188,901.

Table 3 – Introduction of separate collection cost comparison (from April 2016 – October 2019)

Option 1	Weekly collection, Include material sale, No DCLG payback	£ 8,450,470
Option 2	Weekly collection, Exclude material sale, No DCLG payback	£ 8,945,640
Option 3	Fortnightly recycling collection, Include material sale, Full DCLG payback	£ 12,693,731
Option 4	Fortnightly recycling collection, Include material sale, 3 years DCLG payback	£ 9,887,751
Option 5	Fortnightly recycling collection, Include material sale, 33% DCLG payback (1 service)	£ 3,293,697
Option 6	Fortnightly recycling collection, Exclude material sale Full DCLG payback	£ 13,188,901
Option 7	Fortnightly recycling collection, Exclude material sale, 3 years DCLG payback	£ 10,382,921
Option 8	Fortnightly recycling collection, Exclude material sale, 33% DCLG payback (1 service)	£ 3,788,867

- 3.28 The results of the technical, environmental and economical practicability (TEEP) test (fully detailed in Annex 8, summarised in table 4) shows that separate collection fails the economic practicability test therefore separate collection is not required. The additional costs would be in the range £3.2-£13.2 million (April 2016 – October 2019). As the Council's overall budget for kerbside collection of dry recyclables is £2.3 million per annum, it is considered that the additional costs of separate collection would be disproportionate.
- 3.29 Evaluation of technical and environmental practicability is subjective. In the absence of guidance or standardized data, Medway Council has made value judgments that separate collections could be technically and environmentally practicable (Annex 8).

Table 4 – Practicability (TEEP) Test: Medway Council kerbside recycling and residual materials (2013/14)

	Paper	Glass	Metal	Plastic
Technically Practicable?				
Have you previously collected the material separately?	n/a	No	No	No
Is separate collection used by any authority with similar relevant characteristics? (see Annex 4)	n/a	No	No	No
Does your area have unusual characteristics that make separate collection impracticable? 57 % of housing stock is terraced/flats (Annex 9)	n/a	Partial	Partial	Partial
Environmentally Practicable?				
Does an alternative collection approach yield a better environmental outcome? CO2 emissions, air pollution, water pollution, noise etc. (Annex 8)	n/a	Unclear	Unclear	Unclear
Economically Practicable?				
Would separate collection result in excessive costs in comparison with alternatives? (Annex 7)	n/a	Yes	Yes	Yes
Are any extra costs proportionate to the environmental benefits? (Annex 8)	n/a	No	No	No

Step 5 & 6: Obtain sign off & Retain Evidence

- 3.30 The Route Map recommends sign off from senior officers which Medway Council has conducted in the following stages
- A briefing paper to DMT in September 2015 asked council officers to conduct a TEEP assessment on glass, metal paper and plastic for recycling using the Route Map to be reviewed by legal Counsel prior to tabling at DMT in March 2015.
 - Medway Council legal services recommended that a specialist barrister was engaged to review the Waste Regulations report who would be familiar with the legislation to ensure that we are compliant.
 - This report will be reviewed by Gwion Lewis, a barrister at Landmark Chambers, London.
 - This report and the comments from Gwion Lewis will be submitted to DMT in March 2015 for their sign off.

Step 6: Re-evaluation process

- 3.31 Separate collection of the four materials will be considered as an integral part of the procurement process of the next collection contract.

CONCLUSION

- 4.1 Medway Council has thoroughly reviewed the current collection methods of the four materials (paper, plastic, metal and glass) to assess if separate collection is necessary and practicable to achieve higher quality recycling. The assessment process has drawn on information from national data sets, the Regulations, WFD, Route Map, guidance from the Welsh Government and the Environment Agency briefing note.
- 4.2 Separate collection fails the economic practicability test and is unclear for the technical and environmental practicability tests for Medway Council therefore separate collection is not required.
- 4.3 A watching brief will be kept on relevant developments in law, policy and guidance, including as follows:
 - The Environment Agency, as regulator, will require collectors to submit information on collection methods and the Necessity and Practicability (TEEP) tests (date unknown);
 - Relevant legislative announcements by the EU and the UK Government will be monitored;
 - WRAP will be monitored for updates to the Route Map.
- 4.4 Separate collection of the four materials will be considered as an integral part of the procurement process of the next collection contract.

REFERENCES

Environment Agency, 2014. *Briefing Note, Separate Collection of Recyclables.* [pdf] London: Environment Agency. Available at:< http://www.esauk.org/EA_Separate_Collection_Briefing_Note_22-Dec-2014.pdf [Accessed 16 February 2015]

Closed Loop Recycling, 2015. *About Us.* [online] Available at:< <http://www.closedlooprecycling.co.uk> [Accessed 16 February 2015]

Coca-Cola Enterprises, 2015. *Recycling for the future: Lightweighting.* [online] Available at:< <http://www.cokecce.com/corporate-responsibility-sustainability/sustainable-packaging-and-recycling> [Accessed 16 February 2015]

Letsrecycle.com, 2013. WRAP changes stance on commingling, 2018. Letsrecycle.com, [online] Available at:< <http://www.letsrecycle.com/news/latest-news/wrap-changes-stance-on-commingling/> [Accessed 20 February 2015]

Resource Futures, 2013. *Defra EV0801 National compositional estimates for local authority collected waste and recycling in England, 2010/11.* London: Defra.

Waste (England and Wales) Regulations 2011 (As amended). London: HMSO.

WRAP, 2008. *Lightweight wine bottles: less is more.* [pdf] London: Waste Resources Action Program. Available at:< <http://www.wrap.org.uk/sites/files/wrap/GlassRight%20Wine%20lightweighting%20-%20web%20version.pdf> paper-metal-plastic-and-glass/?lang=en [Accessed 16 February 2015]

WRAP, 2009a. *Courtauld Commitment 1.* [online] Available at:<<http://www.wrap.org.uk/content/courtauld-commitment-1> [Accessed 16 February 2015]

WRAP, 2009b. *Choosing the right recycling collection system.* [pdf] London: Waste Resources Action Program. Available at:< <http://www.wrap.org.uk/sites/files/wrap/Choosing%20the%20right%20recycling%20collection%20system.pdf> [Accessed 23 February 2015]

WRAP, 2012. *High Level Options Review for Medway Council.* [pdf] London: Waste Resources Action Program.

WRAP, 2014. *Waste Regulations Route Map.* [pdf] London: Waste Resources Action Program. Available at:< <http://www.wrap.org.uk/sites/files/wrap/Route%20Map%20Revised%20Dec%202014.pdf> [Accessed 16 February 2015]

WRAP, 2015. *Local Authority Waste and Recycling Information Portal.* Available at:< <http://laportal.wrap.org.uk/> [Accessed 24 February 2015]

Welsh Government, 2014. *Statutory Guidance on the Separate Collection of Waste Paper, Metal, Plastic and Glass.* [pdf] Cardiff: Welsh Government. Available at:< http://wales.gov.uk/topics/environmentcountryside/epq/waste_recycling/publication/guidance-on-the-separate-collection-of-waste-paper-metal-plastic-and-glass/?lang=en [Accessed 16 February 2015]

WYG Group, 2013. *Review of Kerbside Recycling Collection Schemes in the UK in 2011/12.* [pdf] Hampshire: WYG Group (sponsored by Biffa, Kier, Serco Direct Services and Plastics Europe). Available at:< <http://www.wyg.com/uploads/files/pdfs/Kerbside-Recycling-Report-2011-12.pdf> [Accessed 16 February 2015]

Appendix 2

Frequently asked questions about Necessity & TEEP test

Q.	What if residents don't want a separate collection?
A.	<p><i>Waste Regulations Route Map, April 2014</i></p> <p>“The preference of householders or businesses for different collection systems is not a factor that fits readily within the considerations that the Practicability Test takes into account.”</p>
Q.	Will co-mingled recycling be prohibited after 1st January 2015?
A.	<p><i>Environment Agency Briefing Note, June 2014</i></p> <p>“Co-mingling will only be permissible after 2015 where it provides high quality recyclables or where separate collection is not practicable.”</p>
Q.	What is high quality recycling?
A.	<p><i>Environment Agency Briefing Note, September 2014 (not for wider circulation)</i></p> <p>“The Necessity Test needs to consider the quality of the recycling, not just how much is recycled. Waste collectors are advised to...consider the quality requirements of their reprocessing customer.”</p> <p><i>Waste Regulations Route Map, April 2014</i></p> <p>“A hallmark of high quality on this approach is that material can be reprocessed back into a product similar quality to what it was originally – what is know as ‘closed loop’ recycling.”</p> <p>“Reject rates are not directly related to the quality of recycling... a more relevant consideration is the uses to which the outputs from the MRF are put”</p>
Q.	Should Glass be collected separately?
A.	<p><i>Environment Agency Briefing Note, June 2014</i></p> <p>“Glass should be collected separately wherever it is practicable to do so ... keeping a good audit trail of the evidence and analysis behind any decision to co-mingle”</p> <p><i>Lord de Mauley Letter, October 2013</i></p> <p>“At present many of our existing MRFs struggle to keep glass shards out of the paper stream. In addition many MRFs produce low quality mixed glass which needs further sorting and can be uneconomic to re-smelt.”</p>
Q.	Does Medway need to offer a separate collection for each material?
A.	This question can only be answered once the Necessity and TEEP test have been completed.