

## **8. Waste regulations (England and Wales)2011 (amended 2012) – Recycling Quality Compliance Assessments**

REPORT OF: MARK FISHER- HEAD OF LEISURE AND SUSTAINABILITY  
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Wards Affected: All  
Key Decision: No  
Report to: Report for Scrutiny Committee for Leisure and Sustainability  
14<sup>th</sup> January 2015.

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### **Purpose of Report**

1. The purpose of the report is to advise Members of the new waste legislation as it affects Mid Sussex District Council as a Waste Collection Authority. The new legislation is targeted at improving the quality of recycling materials collected and processed and these requirements pass into English law in January 2015. The report also outlines the introduction of additional legislation which regulates how Material Recycling Facilities (MRF) operate. Following an initial assessment by the West Sussex Waste Partnership in conjunction with Waste consultants Ricardo AEA, the initial report for Mid Sussex indicated that no change is required at this time.
2. The report sets out how the West Sussex Waste Partnership is working to meet these new challenging requirements. Waste Collection Authorities are required to collect the four key elements of Metal, Plastic, Paper and Glass separately unless they can prove that the separated materials produced by the MRF meet with industry quality standards, supported by a robust compliance assessment.

### **Summary**

3. The report seeks to outline the work undertaken by the West Sussex Waste Partnership to prepare for the compliance assessments. The Waste Partnership is able to evidence that sufficient systems and safeguards are in place to deliver recycling quality to meet industry standards.
4. The legislation will require ongoing assessments to be undertaken, and these maybe triggered by contract procurement, service change, replacement of vehicle fleet, or a significant change in the recycle markets. Future compliance assessments may trigger changes to how recycling is collected and then processed, and this in turn could have a significant impact on other partners in the Waste Partnership and their collection / disposal contracts.

### **Recommendations**

5. **Members are recommended to:**
  - (i) **Note the findings of the West Sussex Waste Partnership Waste Regulation 13 assessment of Mid Sussex District Council's compliance with meeting the new Waste Regulations (England and Wales) 2011 (amended 2012). The assessment concludes that no change is required at this time.**

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## Background

6. In 2004, Mid Sussex District Council joined with West Sussex County Council and the other District and Borough Councils in West Sussex to form the West Sussex Waste Partnership and this was endorsed with a joint Waste Strategy. The Waste Partnership agreed to align its waste collection and disposal arrangements across the county, to enable major long term contracts to be procured for the processing of the waste elements produced, and for the appropriate infrastructure to be constructed or upgraded. One of the most significant issues addressed within the strategy, was the agreement to move to comingled recyclate collections, with separation of those elements made possible by the construction of a new MRF by West Sussex County Council through its contractor, which opened in 2009.
7. From a Mid Sussex perspective, the Council has procured a 21 year contract for waste collection and street cleansing with Serco, on the basis of alternate weekly collections, utilising wheeled bins to undertake comingled dry recycling collections, which commenced on the 1<sup>st</sup> August 2007.
8. In an attempt to provide local authorities with some form of assistance and process to be able to work through the new and existing legislation; a number of local authority waste networks, representative bodies and the Waste and Resources Action Programme (WRAP), published a decision support tool known as the Waste Regulations Route Map in April 2014. This seven step process provides guidance, but cannot be relied upon in law. As the Route Map was developed by experts in the waste industry, the assessment process appears to be robust and has been adopted by most Councils. Mid Sussex District Council held a members training event on the new Waste Regulations and the WRAP Route Map process on the 25<sup>th</sup> September 2014.
9. The Waste Regulations (England and Wales) 2011 (as amended) will from the 1<sup>st</sup> January 2015, place the requirements of the revised EU Waste Framework Directive in relation to recycling services, into English law. Member states shall take measures to set up separate collections of Waste (recycling elements) where Technological, Environmentally and Economically Practicable (TEEP). The new legislation will be regulated by the Environment Agency, and as no case law yet exists; the impact of failure to meet the requirements of the legislation are not yet known.
10. A new MRF Code of Practice with additional requirements concerning the operation of Material Recycling Facilities (MRF), as part of the Environmental Permitting Regulation 2014, places an enhanced burden on MRF operators to sample materials coming through the sorting process to be able to demonstrate quality against locally agreed specifications. In this case by West Sussex County Council as the Waste Disposal Authority and their contractor, undertake high levels of sampling to ensure a high quality product is produced that meet the needs of the markets. Mid Sussex has no direct involvement in the operation of the MRF facility at Ford.
11. There are three main levels of quality control in place for the collection of recyclate; from the initial point of collection there are the inspections by collection contractor staff, with tagging and rejection processes. The second stage is undertaken at the transfer stations when vehicles are unloaded and checked for quality, with loads being partially or totally rejected if contamination is found. Thirdly there are the processes at the MRF for manual and automatic rejection of non-complaint materials. The Waste Partnership is currently targeting a rejection rate of less than 6% at the MRF.

12. The Waste Hierarchy came into force in September 2011, and was set out in the EU revised Waste Framework Directive (WFD) as a method of prioritising the treatment of recycling materials. The priority given to materials within the Waste Hierarchy is also included in the new seven step compliance assessments. Mid Sussex District Council considered the Waste Hierarchy on the 31<sup>st</sup> March 2010, when the Council's Cabinet Member for Leisure and Sustainability adopted a Joint Strategy for Commercial and Industrial Waste. The final decision on waste processing is West Sussex County Council, as the waste disposal authority.
13. The new Waste Regulations (England and Wales) 2011 (amended 2012) are targeted at Waste Collection Authorities, such as Mid Sussex. As Mid Sussex is working within a Waste Partnerships, much of the data to support the quality of recycling is held by the West Sussex County Council as the Waste Disposal Authority and their main contractor for the recycling processed.
16. The West Sussex Waste Partnership which has overseen the delivery of these compliance assessments has two layers of governance with by an agreed Memorandum of Understanding to support the Joint Waste Strategy. A Members lead Inter Authority Waste Group (IAWG) meets to agree waste policy and direction and is formed from Portfolio / Cabinet Members. Operational management of the partnership is undertaken by the Strategic Waste Officer Group (SWOG) which has been tasked by IAWG to deliver the Partnership's compliance assessments.

### **Current compliance assessment process**

17. The Waste Partnership has procured and appointed Waste Consultants Ricardo - AEA to assist the delivery of the initial assessment and to build a model based on the WRAP Route Map process, so as to be able to run future assessments for the Waste Partnership, in the future.
18. Ricardo AEA commenced a data capture process which pulled together financial and operational statistics from each authority and their contractors, to form a bench mark model on which current performance can be assessed and enabled the production of alternative collection models to be considered. The Waste Partnership received a report from Ricardo AEA in mid-December 2014 to outline the current position. A comprehensive and specific report has been produced for each Waste Collection Authority. An extract of the summary report is detailed in Appendix A.
19. If the findings of a future compliance assessment for Mid Sussex indicated that an alternative collection method could deliver an improved quality of recycling but was more expensive, it would not be sufficient to say that the funding prevented the alternative collection being introduced. It is for the Council to consider what it believes to be reasonable if an increase in costs is required to facilitate improvement in quality. One view is that introducing a separate collection should not cause excessive costs, however no case law exists to help define what the threshold should be.
20. The initial assessment report indicates that major / significant costs would be required to either introduce separate collections for one or more recycling of the four statutory elements, and that those additional costs could not be justified. There is no single solution to this new legislative change process, and even within the Waste Partnership, it is possible that one Waste Collection Authority may have to adopt an alternative method of operation in the future.

## **Findings from the initial assessment report**

21. The initial Mid Sussex report has indicated that from a Waste Hierarchy perspective, the analysis of the current recycling position could be improved in the future, with a number of suggestions being made. Those suggestions will be worked through in detail and we will report back to Council in due course if a sustainable solution can be developed. Possible improvement might be found in the following areas:-
- Collection of Plastic Tubs and pots
  - Improved glass collection for re-melt
  - Textile collections at kerbside.
  - Separate collection of Food Waste for composting.
22. In most cases, these suggestions are being actively explored by the Waste Partnership seeking to provide a collaborative solution for all authorities. In one instance however, Mid Sussex has been content to enable textile collections to be made by Charity banks at our “bring” sites, or at the County Council’s Household Waste Recycling sites, and through promotion of the county-wide schools waste education programme “Waste Busters” through their schools textile collections, as an alternative to directly provided kerbside collections.
23. The seven step process required to undertake and sign off the compliance assessment includes a number of processes and tests and Ricardo AEA have concluded that from assessing the Mid Sussex recycling service for the initial “Necessity Test”, it was felt that the secondary “TEEP” tests needed to be applied to each of the four elements (paper, metal, plastic and glass) outlined in the regulations.
24. The “TEEP” (Technical practicable, Environmentally practicable & Economically practicable) tests applied to Mid Sussex recycling, indicated that we would “pass” the Technical and Environmentally practicable tests, but would suffer significant economic pressure to be able to provide the collection services in a different way, the test “failed” on grounds of Economically practicability.
25. The assessment report concludes that we should be able to continue to with the existing co-mingled recycling arrangements. A re-evaluation of the data will be required on an ongoing basis and triggered by key events or circumstances, such as contract renewal, procurement of new vehicle fleets or significant changes in the recycling markets.

## **Policy Context**

26. The report advises of the potential for future change to existing Council waste policies, brought about by legislative change. Whilst at this stage we are not recommending change to the service, we are not able to predict the outcome of future assessments. However, the initial assessment has outlined the potential impact to budgets if change was introduced. The assessment process explored a number of models in terms of revised recycling collection methods, which produced the figures outlined in the report.

## **Other Options Considered**

27. At this stage there are no other guidance documents in place to be able to assess the Council's position with regards to compliance with the new legislation, and although other waste collection authorities are undertaking this process, the majority appear to be using the Route Map process.

## **Financial Implications**

28. The costs of undertaking the current assessment by the Waste Partnership is being met from income generated by the sale of recycling materials by the Waste Partnership.

## **Risk Management Implications**

29. The introduction of this legislation has been considered as a potential emergent strategic risk. Should a change in service be required as a result of the new legislation, significant additional costs for new collection systems may be required. Failure to undertake an assessment may render the Council subject to fines or improvement notices being served by the Environment Agency.
30. By undertaking a robust assessment of the recycling service using the new Route Map tool the Council can as part of the wider Waste Partnership demonstrate its current compliance.
31. A risk analysis has been produced by the West Sussex Waste Partnership for the delivery of the initial assessment, and as the reports have now been delivered for each Waste Collection Authority, the risk is deemed to be low. This is an ongoing piece of work, so the risks of future change will be kept under regular review.
32. The biggest potential risk to Mid Sussex is that a challenge is made on our current approach, and that in the future we could be required to alter the collection methods with the associated capital costs for new equipment and communications campaign, together with the additional revenue costs for a revised collection method.

## **Equality and Customer Service Implications**

33. At this preliminary stage an impact assessment has not been carried out for alternative collection methods as no change is being proposed, but should any future compliance assessment suggest that change maybe required, impact assessments would be produced for future Council reports.

## **Other Material Implications**

34. There are no other the legal, environmental, human rights and community safety implications, at this stage.

## **Background Papers**

**Waste and Resources Action Programme (WRAP) Waste Regulations Route Map 2014.**

[www.wrap.org.uk/content/requirements-waste-regulations](http://www.wrap.org.uk/content/requirements-waste-regulations)

## Appendix A

### Extract from the High Level Summary of Regulation 13 Review and Recommendations report for Mid Sussex District Council.

#### Legal requirement for the assessments

The requirements of the Waste (England and Wales) Regulations 2011 (as amended) [“the Regulations”], Regulation 13 with respect to the separate collection of paper, glass, metal and plastic.

The Regulations transcribe into English law the requirements of the revised Waste Framework Directive 2008(WFD). The objective of this directive is “to protect the environment and human health by preventing or reducing the adverse impacts of the generation and management of waste and by reducing overall impacts of resource use and improving the efficiency of such use.”

The objective of Regulation 13 is understood by Mid Sussex District Council (the Council) officers, based on reading the relevant guidance and discussions with our technical advisors Ricardo-AEA, to be to promote high quality “closed loop” recycling. Closed loop recycling means recycling materials back into similar products e.g. newspaper back into paper and glass bottles back into glass bottles (rather than down-cycling into aggregate for example). Regulation 13 provides the framework to achieve this objective by requiring that waste collection authorities separately collect paper, glass, metal and plastic.

Under Regulation 13 the collection system needs to be changed to provide all householders with separate collections for these materials. However, under the Regulations co-mingled collections may be permitted if:

- The quality and quantity of the material collected is the same or better than could be achieved by a separate collection (i.e. separate collection isn’t necessary to improve or facilitate recovery of the material – the ‘Necessity Test’); or
- Separate collection is not Technically, Environmentally or Economically Practicable (the ‘TEEP Test’).

The decision about whether or not co-mingled collections are permitted to continue in Mid Sussex must be based on the particular circumstances of the Council’s collection system and how this system performs against the Necessity and TEEP Tests.

The Waste Partnership commissioned Ricardo-AEA on the Council’s behalf to undertake a detailed assessment, based on WRAP’s Route Map approach. This report sets out the Council Officers’ and Ricardo-AEA’s understanding and interpretation of the legal requirements based on our technical knowledge and experience. It should be noted that Ricardo-AEA are not lawyers and they have not provided legal advice.

#### Waste Hierarchy

According to WRAP’s Route Map, the first requirement of the assessment is to consider whether the Council could move the recovery (and recycling in particular) of the different materials collected up the waste hierarchy, thus achieving the best overall environmental outcome, reducing each material’s lifecycle impact.

This assessment identified that in most instances, where reasonable, materials collected by the Council were in line with the waste hierarchy. With regards to those materials relevant to Regulation 13 (and collected at the kerbside); paper, metal (cans), plastics (plastic bottles) and glass are currently being recycled and it would not be economically viable and in most

cases technically feasible to move these higher up the hierarchy to preparation for re-use. However, plastic tubs and pots are currently not targeted for recycling by the Waste Partnership and collection of these materials would move them up the hierarchy from other recovery or disposal to recycling. The Waste Partnership will be targeting this material by incorporating it within the co-mingled collection from April 2015.

From a lifecycle impact perspective, the “recycling” level of the hierarchy could be split into two tiers with higher quality closed loop recycling (e.g. glass being sent for re-melt) being preferable to open loop recycling (e.g. glass being sent for use in aggregate). The assessment concluded that currently paper, cans and plastic bottles are sent for closed loop recycling. Coloured plastic bottles and plastic tubs and pots are currently or will be open-loop recycled. The issue here is not the method of collection but the availability of markets; at the present time there are no economic options available for closed loop recycling of mixed plastics.

Glass is currently recovered at the end of the MRF sorting process and some of the material is broken into small pieces which are not suitable for re-melting back into glass bottles. The MRF achieves a 60% re-melt (closed loop recycling) rate for this material. The remaining 40% of the glass is sent to be used as aggregate (open loop recycling). Use as aggregate is better than landfilling the material due to the avoidance of raw materials, but is lower down the value chain than re-melt. In terms of climate change impact, the avoided carbon emissions associated with glass sent for re-melt are -366 kg CO<sub>2</sub>/tonne rather than just -21 kg CO<sub>2</sub>/tonne when used in aggregate. Separate collection of glass is likely to enable close to 100% of the collected material to be sent for re-melt. The assessment identified that separate collection of glass would move the recovery of this material up the waste hierarchy to higher quality recycling.

With regards to other materials covered by Regulation 12; the waste hierarchy assessment concluded that the majority of textiles (collected via the county’s HWRCs) are sent for re-use via textile reclaim. This material is therefore as high up the waste hierarchy as it can be. However, by introducing textile collections at the kerbside, it could be that capture rates of textiles would be increased, thus diverting more material from the residual waste stream, and moving it higher up the waste hierarchy. It may be most appropriate for the Councils to encourage residents to donate textiles for re-use locally. This option should be considered by Mid Sussex.

The assessment also concluded that food waste is currently disposed with the residual waste to landfill or sent for other recovery (energy from waste (EfW) or mechanical biological treatment (MBT)). Separate collection of this material would move this up the waste hierarchy to recycling (through composting). It is not currently economically viable to collect this material separately due to the current contract arrangements for the residual waste stream.

### **Necessity Test**

Following the guidance in WRAP’s Route Map the next step is to decide whether the Council needs to collect the materials cited within the regulations (paper, metal, plastic and glass) separately from one another.

The Necessity test requires the Council to take each material in turn and determine whether separate collection (the default option) is necessary to ensure that waste is recycled and to ‘facilitate or improve recovery’.

This requires examination of the quantity and quality of recycling that can be achieved through the required separate collection of each material compared to using the Council’s current co-mingled system.

Ricardo-AEA has assessed the quantity and quality of recyclate currently being collected by the Council and sent for recycling after treatment at the Ford MRF, and compared this to the performance achieved by separate collection.

### **Is separate collection practicable for Mid Sussex?**

The 'TEEP Test' establishes whether separate collection is technically, environmentally and economically practicable (Regulation 13), and is applied to any material that the Necessity Test says it is or may be necessary to collect separately. If separate collection of a material fails any one of the tests the analysis shows that separate collection is not practicable and therefore, not required.

The outcome of the Necessity Test for Mid Sussex has shown that the TEEP Test needs to be applied to all four materials – paper, metal, plastic and glass.

### **Technical Practicability**

The European Commission guidance on the WFD says that “‘Technically practicable’ means that the separate collection may be implemented through a system which has been technically developed and proven to function in practice.”

Although collecting the four materials separately would provide the Council with operational challenges, similar systems are being run successfully elsewhere in the Country and have been proven to function in practice. Therefore, it is considered that it would be technically practicable to operate separate collections within the local context.

### **Technical practicability outcome - PASS**

### **Environmental Practicability**

The European Commission guidance on the WFD says that “‘Environmentally practicable’ should be understood such that the added value of ecological benefits justify possible negative environmental effects of the separate collection (e.g. additional emissions from transport).”

From the modelling conducted it has been demonstrated that separate collections of the key materials would achieve environmental benefits with respect to the waste hierarchy and climate change impacts. The total net embedded CO<sub>2</sub> emissions associated with the collection options investigated show a net ecological benefit. The assessment therefore concludes that it would be environmentally practicable to operate separate collections within the local context.

### **Environmental practicability outcome - PASS**

### **Economic Practicability**

‘Economically practicable’ refers to a separate collection which does not cause excessive costs in comparison with the treatment [including recycling] of a non-separated [co-mingled or residual] waste stream, considering the added value of recovery and recycling and the principle of proportionality.

From the modelling conducted, if the Council implemented separate collections additional costs (in comparison to current service costs) would be incurred in the form of:

- Additional / replacement vehicles;
- Additional drivers and operatives;
- Upgrades required to the depot to accommodate additional vehicles;
- Bulking facilities requirements; and



- Additional / replacement container costs.

There would also be costs incurred with respect to changing or potentially breaking the current collection contract.

There would be costs to the County Council (WDA) relating to upgrading the transfer station and MRF, which might be passed on to the Council and/or householders. The WDA has requested details of these potential costs and impacts from Viridor: these costs are not yet available and therefore are not currently included in the cost calculations.

There may also be contract change costs to the current Reclaim Contract that also have not been taken into consideration within the cost calculations. There is also a current MOU between the Council and the County Council covering the Reclaim Contract that specifies the types of materials that can be collected and how they can be delivered (i.e. as co-mingled material). The cost calculations include material revenue from separate collections. It is assumed this will provide an increased income to the Council that would help to offset a proportion of the aforementioned costs.

Despite this, the cost calculations show that moving to a kerbside sort separate collection system with all key materials collected separately would incur an additional £1,438,290 per annum (above the current service costs) to implement. This includes the annualised cost of purchasing vehicles and containers, vehicle running costs including fuel, the cost of the required crews and a cost relating to construction and operation of a bulking facility. Land acquisition costs are not included. The additional cost represents 87% of the Council's current waste and recycling budget (excluding the street cleansing elements of the contract) and equates to an additional per £40.64 tonne or £23.97 per household on top of current costs. The assessment therefore concludes that it would NOT be economically practicable to operate separate collections within the local context.

As the separate collection of each of the four materials is not economically practicable an assessment was undertaken to understand whether a separate collection of one of the four materials is practicable. The assessment focussed on paper and glass as it was determined that separate collection of these materials could achieve the greatest improvement in recovery and therefore the best overall environmental outcome. Further it was considered, and backed up by high level modelling, that separate collection of either plastic or metal would incur a higher cost (due to its low density compared to paper and glass resulting in higher collection costs) than either paper or glass. Therefore if the separate collection of glass and paper proved not to be economically practicable then it would follow that plastic and metal would be too.

In considering the separate collection of glass, the assessment found that of the different collection configurations modelled the lowest cost option is an additional £721,598 per annum. This represents 44% of the Council's current waste and recycling budget (excluding the street cleansing elements of the contract) and equates to an additional £20.39 per tonne or £12.03 per household on top of current costs. The assessment therefore also concludes that it would NOT be economically practicable to operate separate collection of glass only within the local context.

For separate paper collection the assessment found that of the different collection configurations modelled the lowest cost option is an additional £626,348 per annum. This represents 38% of the Council's current waste and recycling budget and equates to an additional £17.70 per tonne or £10.44 per household on top of current costs. The assessment therefore also concludes that it would NOT be economically practicable to operate separate collection of paper only within the local context.

## Economic practicability outcome – FAIL

**TEEP TEST CONCLUSION** – Separate collection of the four materials is NOT practicable and therefore separate collection is NOT required.

### Re-evaluation process

The Council needs to have a process in place to re-evaluate the current position to ensure continuing compliance. As the principal factor that has influenced the outcome of the TEEP Test is economic practicability and in particular the additional costs of operating a separate collection system which includes the costs of updating and/or replacing current fleet and containers and the prohibitive cost of exiting or changing the current collection contract and recycling/treatment/disposal contract, the Council may need to undertake a further review/update when any of the following is in prospect:

- The end of your collection contract (due to be retendered in 2028 with a potential break point in 2018). Linked with this is the end of the useful life of the fleet in place at that time;
- If new disposal/treatment/recycling arrangements are put in place that affect the waste the Council are able to deliver to the County Council (WDA); or
- Data gaps highlighted within the technical report have been addressed e.g. costs associated with contract change.

### Recommendation

That approval is given to continue collecting recyclables using the existing co-mingled system.

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