



**MATERIALS
RECOVERY CODE
2018 UPDATE**

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Summary

SEPA's confidence in the quality of the data reported under the Materials Recovery Code has improved significantly since sampling began in October 2015, particularly related to material quality and the ultimate fate of material. The data is published quarterly on [Scotland's Environment website](#).

More can still be done to improve data reporting, including helping operators understand more clearly how to categorise materials and following up with those destination facilities that have yet to confirm what they do with the material they buy.

All sites are currently assessed as compliant with the Materials Recovery Code requirements.

The overall trend is that input quality is worsening, however output quality remains static. With local authorities in particular, the general trend has been one of declining input quality, with four notable steady declines (West Lothian Council, Falkirk Council, City of Edinburgh Council and City of Glasgow Council).

Materials recovery facilities (MRFs) have adapted operations to meet changes in market demands, such as slowing down sorting speeds and being more selective about the material they target. This has had adverse financial implications which, in general have been passed upstream to suppliers.

Exports of dry recyclables from Scotland have generally improved in quality, although we are still seeing frequent examples of poor quality material destined for export to some new destinations.

Improved compliance with Duty of Care is still needed across the dry recyclables waste management chain.

Introduction

Recirculation of high quality recyclables in a circular economy is a critical part of SEPA's One Planet Prosperity vision. As part of this vision, we have a regulatory role to enforce the requirements of the Materials Recovery Code, specifically around sampling and reporting requirements.

In 2017, we published the first [Summary of the Quality of Recyclables Processed at Materials Recovery Facilities in Scotland](#). This accompanied the release of the first 15 months of sampling data submitted to SEPA from materials recovery facilities (MRFs) in scope of the Materials Recovery Code ('the Code') – a core component of Scottish Government's [Making Things Last: A Circular Economy Strategy for Scotland](#) (Figure 1). The summary provided key findings from the data and other relevant information relating to the quality of recyclables in Scotland.

This update summarises the quality of recyclables coming out of Scotland's in scope MRFs and related work we have been doing in this area since the publication of the initial summary. The report draws on 30 months of sampling data, relating to 10 quarterly data submissions, up to 31 March 2018. Data is also published on [Scotland's Environment website](#) and should be considered along with this report. SEPA has now undertaken 60 site visits, up to September 2018, which includes material sampling by SEPA to verify operator data.

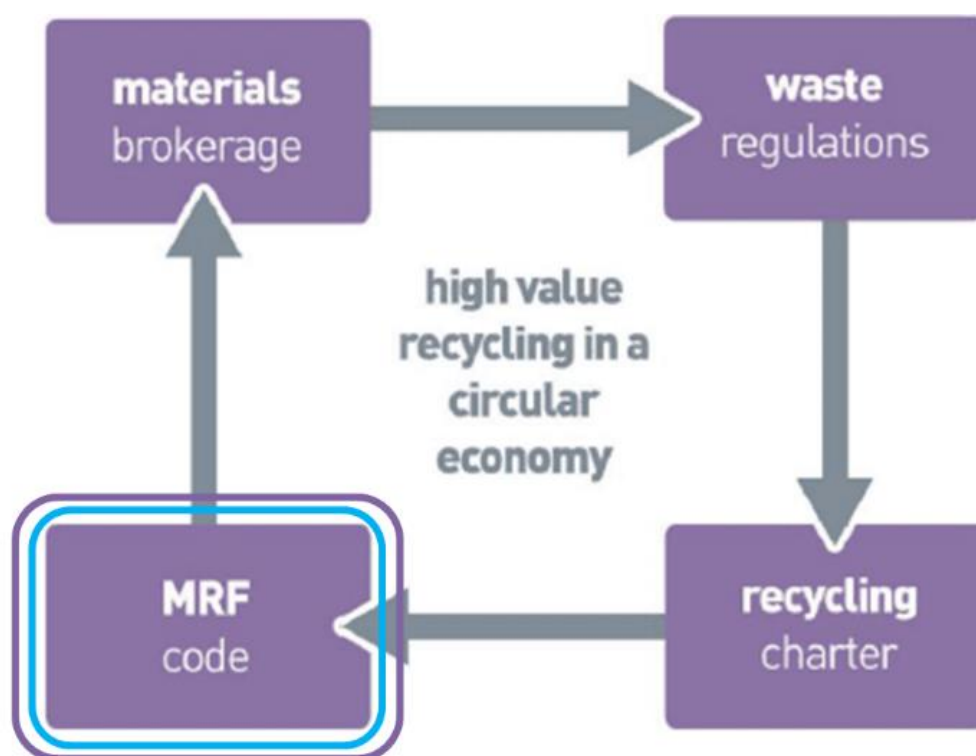


Figure 1: The MRF Code of Practice is one of four initiatives in the Scottish Government's framework for improving recycling in Scotland, set out in the [Making Things Last: A Circular Economy Strategy for Scotland](#) (page 24)

In scope facilities

The list of in scope MRFs changes each year, as operator business practices change, or as 'freeriders' are identified. There are currently 13 MRFs in scope. Sampling data for one of these (Levenseat Ltd) is excluded from this report, as it has not yet been published.

'In scope' MRFs

- Biffa Waste Services Limited, Broxburn (WML-E-0020002)
- Biffa Waste Services Limited, Glasgow (WML-W-0000026)
- Falkirk Council Recycling Centre, Bonnybridge (WML-E-0020112)
- Glasgow City Council, Blochairn Road, Glasgow (WML-W-0020181)
- Green Circle Polymers, Grangemouth (WML-E-0120034)
- J & M Murdoch & Sons Limited, Darnley (WML-W-0022002)
- Levenseat Limited, Forth (PPC-E-0020001)
- Saica Natur UM Limited, Croy (WML-W-0020257)
- Suez UK Limited, Altens (WML-L-1137739)
- Viridor Enviroscot Limited, Bargeddie (WML-L-1028820)
- Viridor Enviroscot Limited, Bargeddie (WML-W-0020118)
- Viridor Waste Management Limited, Newhouse (WML-L-1117120)
- William Tracey Limited, Linwood (WML-W-0020110)

The report does feature historical data from the following sites, which are no longer in scope:

- Binn Skips, Glenfarg (WML-E-0220286);
- Suez UK Limited, Glenfarg (WML-L-1106191);
- William Munro Construction Ltd (WML-N-0220249).

Compliance results

In 2017, all in scope MRFs were assessed as compliant with the Code, with three exceptions, shown in Table 1.

Table 1: 2017 operators assessed as non-compliant with the Materials Recovery Code

Operator & licence number	Reason for non-compliance
Viridor Enviroscot Ltd (WML-L-1028820)	Data reporting issues, including omission of non-target material sampling data & not attributing suppliers to rejected loads
William Tracey Ltd (WML-W-0020110)	Under-sampling of input and output materials
William Munro Construction Ltd (WML-N-0220249)	Inadequate sampling practices

William Munro Construction Ltd are no longer in scope, and the issues with Viridor Enviroscoot Ltd and William Tracey Ltd have been addressed. Therefore, at the time of publication of this report, all sites have been assessed as compliant with the Code.

SEPA sampling results

SEPA sampling at most sites have been generally as expected, based on the results reported by the operator, with some exceptions, shown in Table 2.

Table 2: Sites with discrepancies between operator and SEPA sampling results

Operator and licence number	Detail of sampling discrepancy
Biffa Waste Services Limited WML-E-0020002	SEPA mixed plastic bottle sampling results were not in line with operator data. This has been addressed by the operator, who identified an issue with the way samples of this material were being taken, and this will be reflected in the next round of published sampling results (Q2 2018).
Biffa Waste Services Limited WML-W-0000026	Issues with an input load SEPA sampled, which the operator advised may have been incorrectly accepted as 'DMR' instead of 'residual'. Resolved at the most recent audit.
Glasgow City Council WML-W-0020181	Confusion over material categorisation has led to discrepancies between SEPA and operator results. The most recent audit indicate this is resolved.
William Tracey Limited WML-W-0020110	SEPA mixed plastic bottle sampling results were not in line with operator data. This has been addressed by the operator, who identified an issue with the way samples were being analysed, and this will be reflected in the next round of published sampling results (Q2 2018).

Operator sampling data

Data limitations

Data published is taken directly from operator returns, with some minor consolidation carried out to allow for more efficient analysis. As set out in last year's report, there continues to be a wide range of variables impacting the data operators' report, so readers should use the data with caution.

A continuing issue is operator inconsistency in the usage of the terms target, non-target and non-recyclable. While our Frequently Asked Questions guidance provides some clarification, many operators vary their specifications from one contract to another, and keeping sampling staff up to date on these changes has proved challenging. This is an area we are working to address now. This generally affects the reporting of target and non-target materials more than the reporting of non-recyclables.

We were aware that last year some waste collected under a dry recyclable waste contract in Scotland was being routinely diverted to secondary sort or residual waste facilities due to heavy

contamination. This has been addressed and dry mixed recyclables (DMR) input sampling results reported by operators in 2018 should more accurately reflect the general scale of input contamination.

Overall, SEPA confidence in the quality of the data supplied since sampling began has significantly improved. But more can still be done to improve this, including helping operators understand more clearly how to categorise materials and following up with those destination facilities that have yet to confirm what they do with the material they buy.



Figure 2: SEPA officers analyse a sample of mixed plastics

Data summary

The recyclate quality tool provides national summaries on the tonnage and quality of material flowing through in scope MRFs. The volume of waste treated has remained relatively steady each quarter since reporting began in October 2015, as shown in Figure 3 below.

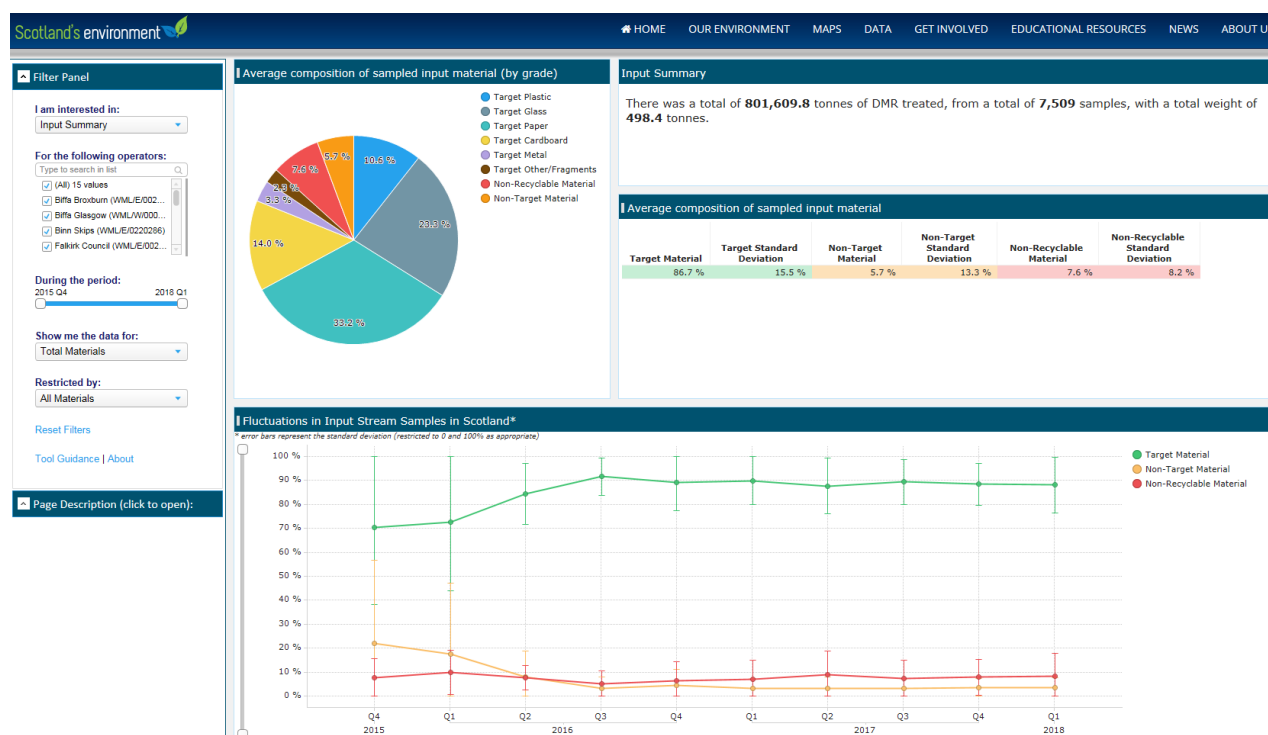


Figure 3: Overview of the recyclate quality tool input summary page

The data shows national contamination rates have decreased since reporting began. However, given the relatively short term dataset, it would be prudent to avoid drawing any long-term conclusions about national contamination trends. For example, the initial trends could be impacted by operator improvements in reporting and may not as accurately represent contamination levels as newer data. Indeed since Q3 2016, the general trend has reportedly been that of slightly decreasing quality.

Local authorities continue to be the main suppliers of DMR to in scope MRFs, predominantly from household sources. Overall, local authority input quality appears to be declining. Below, Figure 4 shows quality trends for Scottish local authority DMR inputs at in scope MRFs across Scotland and England. The most significant, consistent reductions in quality have been reported from:

- City of Edinburgh Council: 88% target (Q3 2016) – 70% target (Q1 2018);
- City of Glasgow Council (Scotland – primary MRF): 83% target (Q2 2016) - 77% target (Q1 2018);
- Falkirk Council: 82% target (Q2 2016) - 60% target (Q1 2018);
- West Lothian Council: 87% target (Q2 2016) - 67% target (Q1 2018).

In contrast, relatively consistent improvements in quality have been reported from East Lothian Council: 80% target (Q4 2015) – 95% target (Q1 2018). Figure 4 suggests City of Glasgow Council has steadily improved its input quality to the MRF in England. However the dataset here is significantly smaller than that of the council's primary Scottish MRF (24 samples vs 305 over the same 18 month period).

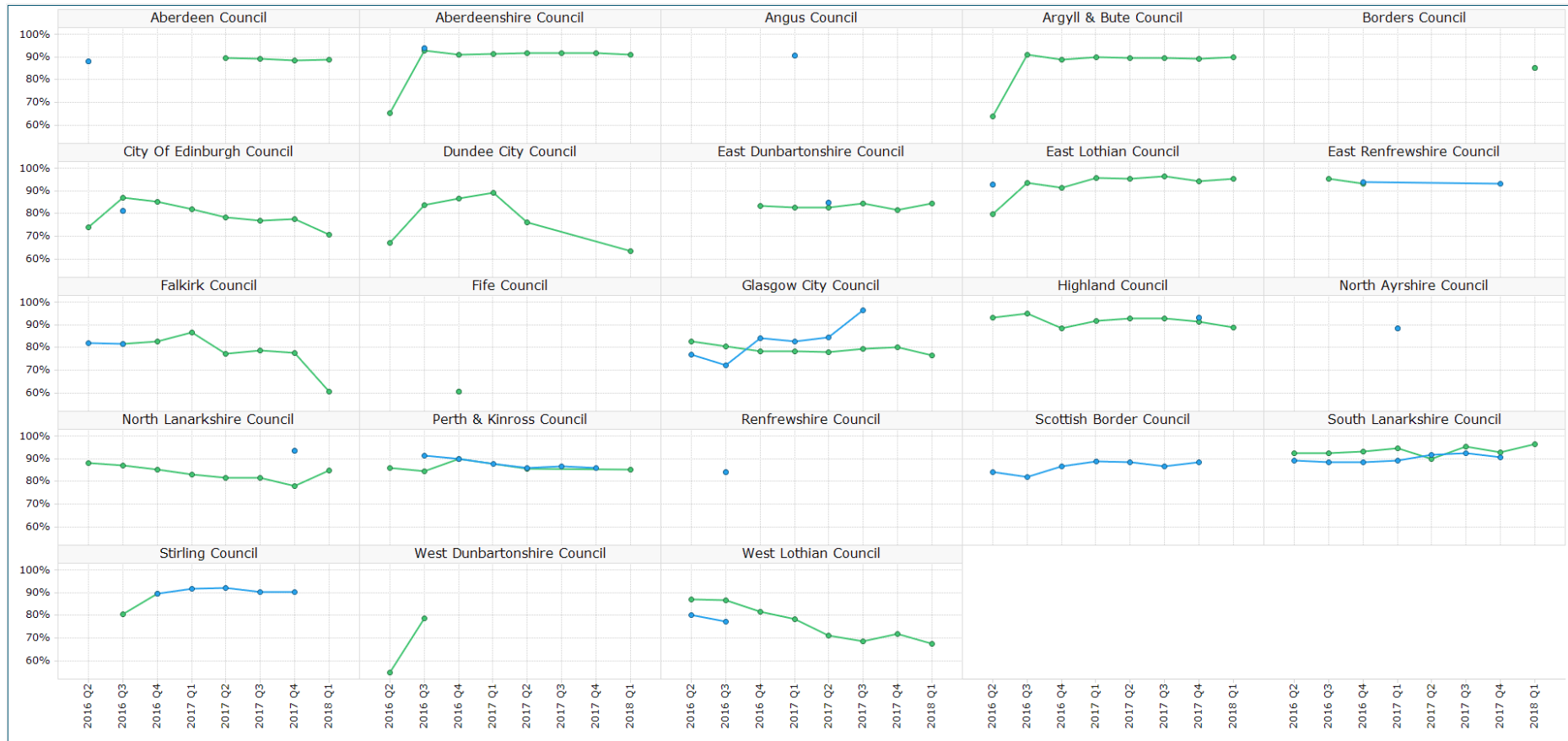


Figure 4: Fluctuations in input DMR quality of Scottish Local authorities sending material to in-scope MRFs in Scotland (green) and England (blue). Data from England is for 2016 and 2017 only and is the weighted average. 2016 Q1 is not shown given reporting issues for some suppliers in Scotland. England data source: [Wrap Materials Facility Reporting Portal](#)

In the context of the rest of the UK, between 2016 Q2 (all Scottish operators reporting correctly) and 2018 Q1, Scotland had an overall lower rate of contamination (11.2 %) when compared to England (14.0 %) and Wales (11.9 %). However this is only marginal and has varied between quarters (Figure 5).

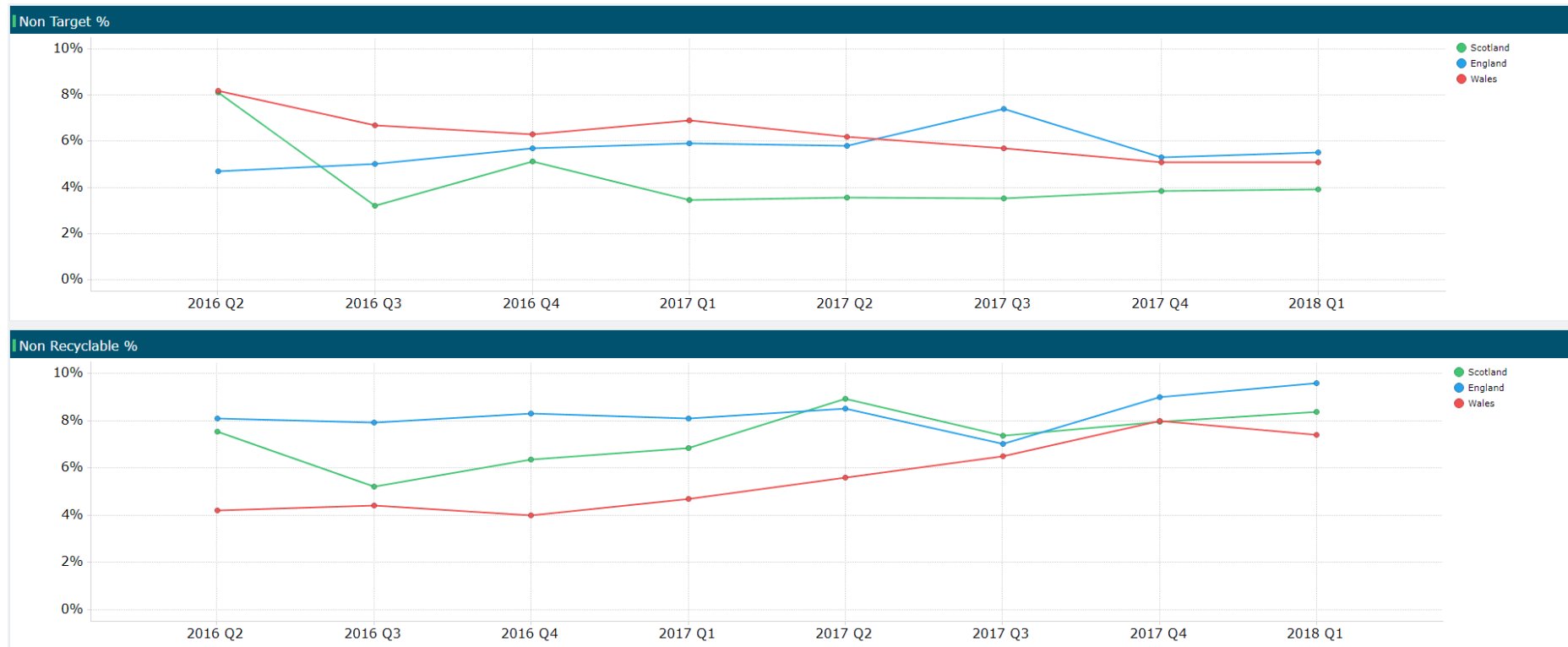


Figure 5: Fluctuations in input stream samples for non-target and non-recyclable material in Scotland, England and Wales (England and Wales data source: [Wrap Materials Facility Reporting Portal](#)).

Material quality progress and next steps

Since last year's report was published, there have been some notable changes to Scotland's recycling landscape. International demand for recyclable materials has reduced, a consultation on implementation of a [deposit return scheme](#) to increase capture rates of recyclable materials in Scotland has been undertaken, and the UK government has been reviewing the producer responsibility regime, with a view to improving the resilience of domestic recycling infrastructure.

In response to international market changes, MRFs in Scotland have generally adapted to try to improve the quality of their material outputs. The impact of this has been an increase in the volume of material rejected and increased costs passed up the chain to suppliers. We have seen evidence of many suppliers stepping up to improve the quality of material they are providing to MRFs. But in other cases, this has led to contractual breakdowns and material being diverted to other facilities who claim to be able to manage material at a more affordable price. SEPA continues its programme of targeted inspections of commercial premises, to tackle contamination, and MRF sampling data has been a key intelligence source for this work. We are also keen to engage more closely with local authorities experiencing ongoing quality issues.

While in general, the quality of material being exported appears to have improved in 2018, we have stopped dozens of containers of contaminated material headed for new destinations. 'Green list' exports to countries other than China or the EU continue to be a target for SEPA inspections.

These issues show the importance of Duty of Care as a tool for improving the quality of exported waste. SEPA continues to work with the other UK environment agencies and governments to scope out the requirements of a mandatory UK-wide electronic waste tracking system to effectively track waste material. This includes consideration of the tracking of green list wastes.

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