Keep Scotland Beautiful is the charity that campaigns, acts and educates on a range of local, national and global environmental issues to change behaviour and improve the quality of people’s lives and the places they care for. We are committed to making Scotland clean, green and more sustainable.

Acknowledgement

Keep Scotland Beautiful wishes to thank Scottish local authorities, their elected members and employees for their co-operation and hard work in this fourteenth year of LEAMS as a performance indicator.

Local Environment Quality Network
Keep Scotland Beautiful
T: 01786 471333  F: 01786 464611
E: leq@ksbscotland.org.uk
www.keepscotlandbeautiful.org
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**Appendix 1: Definition of Terms**
Foreword

This report sets out the findings of the Keep Scotland Beautiful (KSB) 2016/2017 Local Environmental Audit and Management System (LEAMS) for Scotland. It is the fourteenth such audit to collect data on local environment quality and cleanliness across Scotland, establishing important trend data. It is important to measure trends to help us to find ways to respond to concerns. It involved 93 surveys of 13,936 randomly selected sites across Scotland, using a combination of self and independent monitoring.

The audit established that all local authorities are achieving at least minimum standards, indeed many are exceeding them. It is encouraging that much of Scotland is free of major litter issues. However, low levels of litter are widespread and many sites still have unacceptable levels of litter indicating declining standards across the country.

2016/17 has been a year of many developments in Scotland, the UK and Europe with the potential to affect local environmental quality in Scotland.

The debate around packaging waste and deposit return schemes for drinks containers has intensified, culminating in an announcement by the Scottish Government in its programme for government of its intention to develop a deposit return scheme for drinks containers for roll-out across Scotland and to establish an advisory group to consider fiscal and other measures to reduce waste and boost the circular economy – for example, a possible levy on single use coffee cups.

The government in Westminster continues, through the Environmental Audit Committee enquiry, to investigate possible fiscal measures to reduce waste and litter.

And, the official legal text still has to be rubber-stamped, but it seems EU legislators have agreed significant measures to boost litter prevention across Europe.

Continued participation in the annual LEAMS audit is an excellent example of the Scottish local authorities working together to monitor the litter on our streets. Such collaboration is vital if we are to capture and share best practice and realise our vision of a clean, green, sustainable Scotland.

Derek A Robertson
Chief Executive
Keep Scotland Beautiful
Local Environmental Audit and Management System (LEAMS)
National Benchmarking Report 2016-2017

Executive Summary

Background

Scotland spends in excess of £50 million of public money cleaning up litter each year.1 The presence of litter also has an indirect cost for communities and society, devaluing neighbourhoods as places to live and work. The Environmental Protection Act 1990 and the associated Code of Practice on Litter and Refuse (Scotland) 2006 require local authorities and others to keep specified land and public roads clean and litter-free. To help local authorities meet these targets while achieving Best Value, KSB has worked with partners to develop the Local Environmental Audit and Management System (LEAMS). This system audits both sources and types of commonly littered items, from fast food packaging and cigarette butts to dog fouling and flytipped items.

LEAMS audit results are used to detect trends in litter deposits, helping local authorities to be more efficient in their cleansing activities and to inform future policies and campaigns. The results also allow local authorities to monitor their continuous improvement, with KSB providing independent validation of their results.

The Audit

LEAMS audits are conducted jointly by KSB and each of Scotland’s local authorities.2 Every authority audits a sample of its own streets with KSB conducting an annual validation audit to ensure consistency between authorities.

During the 2016/17 financial year, 93 cleanliness audits were conducted. Each audit sampled 5% of streets chosen by random selection in every local authority area. In total, 13,936 individual sites were assessed for litter presence and the quality of the local environment.

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2 In 2016/17 The Moray Council failed to submit a full set of data. The incomplete results have not been included in this year’s overall findings.
2016/17 Findings

• The majority of sites in Scotland have litter present. Most were found to have only a small number of items which is to the credit of local authority street cleansing teams but highlights the widespread nature of the issue.
• Almost half of local authorities have seen an increase in significantly littered sites since last year.
• Greatest volumes of litter were recorded in high footfall areas and alongside high traffic roads, reflecting KSB’s concerns about roadside litter.3
• The public continue to be the main source of litter in Scotland with other sources, such as businesses or commercial waste, making less of a contribution.
• Dog fouling continues to be a common problem within neighbourhoods, particularly residential areas.
• Weed growth and detritus continue to affect a high proportion of sites and tend to be on the increase. Currently, these observations are not significantly impacting overall on a widespread scale. However, any reduction in sweeping and maintenance programmes will undoubtedly have a considerable detrimental impact on the cleanliness of streets.
• There is good provision of litter bins in high traffic areas. However, while the majority are well serviced, the LEAMS results suggest that a significant proportion were overflowing which heightens the chance of litter entering the environment.

Recommendations

• While local authority street cleansing teams will need to focus on reactive cleansing strategies, investing in prevention programmes in line with the National Litter Strategy may provide the tools to maintain or even improve standards in light of reducing resources.
• Continue to benchmark with other local authorities. The results show that within benchmarking club groups a high variation in LEQ indicators suggests that good practice sharing can still achieve improvements. The Improvement Service continues to facilitate benchmarking meetings.
• Take opportunities to participate in free or low-cost campaigns and initiatives available nationally including the KSB Roadside Anti-Litter campaign and the ZWS suite of materials.
• Review litter bin provision and rationalise to maximise the impact of this resource.

Local Environmental Audit and Management System (LEAMS)
National Benchmarking Report 2016-2017

Section 1

Introduction

Litter in Scotland
Clean and safe local environments are a vital element of improving the health and wellbeing of Scotland’s communities. The Carnegie UK Trust found that issues such as vandalism, graffiti, litter, dog fouling and discarded rubbish have a serious and long-lasting impact on people’s quality of life. Moreover, those most affected are most likely to live in the UK’s most deprived neighbourhoods where high litter levels directly contribute to increased health inequalities.

At a time when public spending is being considerably reduced, areas affected by high levels of litter may be increasingly neglected. It is against this backdrop that LEAMS is able to provide a clear picture of the state of Scotland’s streets and identify the actions needed to address local environmental quality.

Common sources and types of litter
The majority of litter in Scotland is discarded by members of the public, with business and commercial waste each accounting for less than 5% of total litter presence. Cigarette litter is the most prevalent type of litter affecting Scottish streets. In 2016/17, more than half of sites audited had cigarette litter present, particularly widespread in areas of high footfall such as town centres and high density residential sites.

Though recorded less frequently than cigarette litter, food and drink packaging forms the most noticeable type of litter due to the size of individual items. Roadsides and town centre areas are particularly affected, but there are opportunities to collaborate with local businesses and manufacturers on clean up initiatives.

The level of dog fouling is also recorded through LEAMS audits, as this is one of the key public concerns on local environmental quality with almost one third considering animal nuisance an issue for their neighbourhood. The results over the last three years show that communities are regularly affected by dog faeces left on the footpaths and verges.

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About LEAMS
For the past fourteen years, LEAMS has been used by KSB to collect data on local environmental quality and cleanliness from the Shetland Islands to the Scottish Borders, providing an important national picture of Scotland’s streets. LEAMS has been the national performance indicator for street cleanliness since 2003/4. It was originally developed to help local authorities meet their obligations under Best Value by:

- Establishing baseline information.
- Establishing a self-monitoring system to assess continuous improvement.
- Providing independent audits of the monitoring process by local authorities.
- Providing an annual validation by an independent body.
- Making information on cleansing standards in each local authority publicly available.
- Comparing results across local authorities.
- Sharing good practice across local authorities.

KSB provides LEAMS training to all local authorities addressing relevant legislation, survey methodology and techniques for processing data and evaluating results. Following this training, each local authority is fully competent to carry out LEAMS surveys in their area. KSB provides a full report to each local authority based on the data collected.

An annual validation survey is undertaken every year by KSB to provide an independent verification of local authorities’ results.

LEAMS partners are also invited to attend an annual national seminar. Speakers are invited to present on current and new ideas in monitoring local environmental quality and initiatives that have shown to be effective in generating improvement. The event also acts as a networking opportunity and a vehicle for sharing good practice.
Methodology

LEAMS relies on a combination of monitoring carried out by local authorities and KSB. All local authorities conduct two LEAMS audits each financial year in their boundaries, with KSB carrying out a third audit to act as an independent verification. Each audit assesses a randomly selected 5% sample of streets in a local authority.

Data is recorded along transects at each pedestrianised audit site, as illustrated, covering the pavement, roadside gutter, and including any areas of grass between pavement and gutter. Transects are assessed on both sides of a street to give a representative view of the audit area and to account for any anomalies.

Auditors record information on the presence, types and sources of litter, local environmental quality, servicing and coverage of litter bins.

A subjective perception rating for litter presence is also recorded for each site, including nearby open spaces where present. This provides a rounded set of litter standard results for each site audited.

What counts as litter?

The following types of litter are recorded:

- **Dog fouling**: including those that have been bagged but not binned,
- **Smoking-related**: including cigarette ends, matches, matchboxes, cigarette packaging,
- **Drinks-related**: including cans, bottles, cups, straws and lids,
- **Confectionery**: including sweet wrappers, chewing gum wrappers and crisp packets,
- **Fast food-related**: including fish & chip wrappers, polystyrene cartons, burger wrappers, plastic cutlery,
- **Royal Mail elastic bands**,
- **Other**: any litter not covered by the above, such as newspaper, plastic fragments and chewing gum.

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7 Data for sources of litter and litter bins are collected during the KSB validation audits only.
Sources of litter are recorded as follows:

- **Pedestrian waste**: including drinks cans, confectionary wrappers, fast food packaging, cigarette butts.
- **Business waste**: any waste that has come directly from a business.
- **Domestic waste**: for example household packaging, spillage from refuse collection.
- **Construction waste**: such as sand bags, builders’ rubble.
- **Animal faeces**: this covers any type of animal faeces.

**Measuring other local environmental quality**
Litter can be symptomatic of the general quality of the local environment. The following indicators are assessed at each site.

**Sweeping Indicators:**
- **Weeds**: the presence of weeds may indicate poor/infrequent street sweeping and can trap litter.
- **Detritus**: debris from natural sources such as twigs, leaves, grass and sand which can trap other items of litter.

**Anti-social behaviour indicators:**
- **Vandalism**: defined as wilful and senseless damage of property which adversely affects the quality of life and the environment, for example smashed bus shelter windows, broken or damaged street furniture.
- **Graffiti**: defined as unauthorised drawing or writing on surrounding buildings or street furniture such as benches, lamp posts and litter bins.
- **Fly-posting**: defined as stickers or posters placed in unauthorised places such as buildings, bus shelters and fence posts within the site.
- **Flytipping**: defined as illegally dumped waste.

**Pavement condition indicators:**
- **Staining**: defined as a substance or material that has marked or changed the surface, not easily removed, including graffiti.

**Litter bins**
At each audited site, a count of litter bins available for the public to use is recorded. Each litter bin is assessed for servicing, whether the bin is overflowing or not. An overflowing bin is deemed to be over three quarters full.
Grading
Each transect is graded for litter according to the standards outlined in the Code of Practice on Litter and Refuse (Scotland) 2006. This grading system is based on research into standards of cleanliness which most people regard as being ‘acceptable’ or ‘unacceptable’. The percentage of sites that meet this ‘acceptable’ criteria forms the Performance Indicator.

Litter types, sources and local environmental quality are graded similarly to the Code of Practice definitions, using a four classification system based on presence.

See Appendix 1 for more details about grading.

Poor business waste presentation resulting in a litter problem.
Section 2

Results: National Picture

Type of site audited
The following represent the range of different land types local authorities have a direct cleansing responsibility for.

Most sites in Scotland are defined as zone\(^3\) (predominately low density residential) which is why these areas contribute over half of the overall statistics outlined in LEAMS results. Just over a quarter of zones were in town centres and high-density residential areas, which are generally given high priority within a cleansing service (zones 1 and 2). Around one in ten sites were generally non-pedestrian (zones 4, 6 and 7), with zone 7 (B and C class and unclassified roads) more prominent. A small number of sites were not zoned and were treated as mixed (NCA).

Types of local authorities
The distribution of sites varied across local authority benchmarking clubs\(^9\), with more rural and mixed rural and urban clubs (1, 2 and 3) having a higher percentage of zone 4, 6 and 7 sites.

<table>
<thead>
<tr>
<th>Local Authority Benchmarking Clubs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Club 1</td>
<td>Eilean Siar, Argyll and Bute, Shetland Islands, The Highland, Orkney Islands, Scottish Borders, Dumfries and Galloway, Aberdeenshire</td>
</tr>
<tr>
<td>Club 2</td>
<td>Perth and Kinross, Stirling, Moray, South Ayrshire, East Ayrshire, East Lothian, North Ayshire, Fife</td>
</tr>
<tr>
<td>Club 3</td>
<td>Angus, Clackmannanshire, Midlothian, South Lanarkshire, Inverclyde, Renfrewshire, West Lothian, East Renfrewshire</td>
</tr>
<tr>
<td>Club 4</td>
<td>North Lanarkshire, Falkirk, East Dunbartonshire, Aberdeen City, City of Edinburgh, West Dunbartonshire, Dundee City, Glasgow City</td>
</tr>
</tbody>
</table>

\(\text{\^{3}}\) For explanation of ‘zones’ see appendix 1. Zone 5 is beaches and is not included in this survey.  
\(\text{\^{9}}\) Improvement Service term used to describe grouping by population dispersion.
Performance Indicators
The National Benchmarking Overview Report published by the Improvement Service\textsuperscript{10} presents information on how much local authorities spend on services, performance of the service and how satisfied people are with the service provided. LEAMS has been adopted as the measure for street cleansing performance. The three indicators for street cleansing are:

- Street Cleanliness Score (% streets at an acceptable A or B grade standard from LEAMS assessments)
- Net cost of street cleaning per 1,000 population (£)
- Percentage of adults satisfied with waste collection and street cleaning

The Street Cleanliness Score is the percentage of streets audited (footpaths and channels) achieving an acceptable standard for litter presence.


\begin{table}[h]
\centering
\begin{tabular}{|l|c|c|c|c|}
\hline
Local Authority & Audit 1 & Audit 2 & Audit 3 & Overall \\
\hline
Aberdeen City & 84.8 & 85.6 & 93.4 & 88.0 \\
Aberdeenshire & 97.2 & 98.3 & 94.4 & 96.6 \\
Angus & 95.7 & 91.9 & 95.5 & 94.4 \\
Argyll and Bute & 94.7 & 96.5 & 93.8 & 95.2 \\
City of Edinburgh & 95.0 & 96.6 & 77.6 & 92.4 \\
Clackmannanshire & 91.4 & 95.8 & 97.0 & 94.7 \\
Comhairle nan Eilean Siar & 100.0 & 95.3 & 87.8 & 94.9 \\
Dumfries and Galloway & 96.5 & 95.2 & 96.6 & 96.1 \\
Dundee City & 89.8 & 92.1 & 95.2 & 92.3 \\
East Ayshire & 97.2 & 95.3 & 95.3 & 95.9 \\
East Dunbartonshire & 89.5 & 96.2 & 91.3 & 92.3 \\
East Lothian & 92.2 & 96.5 & 81.3 & 91.1 \\
East Renfrewshire & 91.7 & 98.6 & 94.4 & 94.9 \\
Falkirk & 94.2 & 94.1 & 95.2 & 94.5 \\
Fife & 94.0 & 96.3 & 97.9 & 96.1 \\
Glasgow City & 80.5 & 96.5 & 97.8 & 90.7 \\
Highland & 98.1 & 93.0 & 92.5 & 94.8 \\
Inverclyde & 91.2 & 97.1 & 94.7 & 94.3 \\
Midlothian & 97.5 & 98.5 & 100.0 & 98.7 \\
North Ayshire & 92.6 & 90.4 & 88.8 & 90.6 \\
North Lanarkshire & 93.9 & 90.9 & 94.8 & 93.2 \\
Orkney Islands & 98.2 & 100.0 & 100.0 & 99.4 \\
Perth and Kinross & 97.2 & 98.0 & 99.3 & 98.2 \\
Renfrewshire & 79.8 & 91.3 & 95.7 & 91.3 \\
Scottish Borders & 88.7 & 99.1 & 82.9 & 90.3 \\
Shetland Islands & 97.4 & 97.6 & 93.8 & 96.3 \\
South Ayshire & 93.8 & 97.9 & 93.3 & 95.0 \\
South Lanarkshire & 97.5 & 98.6 & 93.1 & 96.3 \\
Stirling & 96.7 & 95.9 & 94.4 & 95.7 \\
West Dunbartonshire & 92.1 & 96.1 & 90.9 & 93.0 \\
West Lothian & 95.4 & 89.4 & 89.8 & 91.5 \\
\hline
\end{tabular}
\caption{Performance Scores per local authority [bold denotes KSB validation audit].}
\end{table}

Overall, figures for self-audits compared to independent audits show no significant difference (0.5 percentage point difference, 93.6% compared to 94.1%) however, some variations did occur during the year. There are many factors that can contribute to changing litter levels in the year. For example, changing priorities, weather conditions, the random nature of sampling and consistency in application of

\textsuperscript{10}www.improvementservice.org.uk
grading with high auditor numbers. This is why only the **overall figure** for the year is used for performance reporting.

Another major contributor will be the reduction in budgets available for local authorities to deliver their duty to keep land free from litter and refuse as far as is practicable. Whereas over the last six years, a process of efficiency savings has been largely undertaken to keep frontline services able to comply with the duty, further scheduled cuts will provide significant challenges to maintain the standards that authorities have been able to achieve over the years.

Figure 4: Change in Statutory Performance Indicator per local authority since last year

<table>
<thead>
<tr>
<th>Local Authority</th>
<th>14/15</th>
<th>15/16</th>
<th>16/17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aberdeen City</td>
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<td>-0.8</td>
<td>7.0</td>
</tr>
<tr>
<td>Aberdeenshire</td>
<td>-1.4</td>
<td>-3.9</td>
<td>2.3</td>
</tr>
<tr>
<td>Angus</td>
<td>-0.3</td>
<td>0.5</td>
<td>-1.1</td>
</tr>
<tr>
<td>Argyll and Bute</td>
<td>-3.3</td>
<td>-6.2</td>
<td>6.9</td>
</tr>
<tr>
<td>City of Edinburgh</td>
<td>-1.4</td>
<td>1.4</td>
<td>2.3</td>
</tr>
<tr>
<td>Clackmannishire</td>
<td>1.1</td>
<td>0.5</td>
<td>-1.9</td>
</tr>
<tr>
<td>Comhairle nan Eilean Siar</td>
<td>-4.0</td>
<td>1.0</td>
<td>-2.1</td>
</tr>
<tr>
<td>Dumfries and Galloway</td>
<td>-7.5</td>
<td>6.7</td>
<td>-1.0</td>
</tr>
<tr>
<td>Dundee City</td>
<td>-2.2</td>
<td>0.5</td>
<td>-4.1</td>
</tr>
<tr>
<td>East Ayrshire</td>
<td>-5.8</td>
<td>3.9</td>
<td>0.7</td>
</tr>
<tr>
<td>East Dunbartonshire</td>
<td>-6.9</td>
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</tr>
<tr>
<td>East Lothian</td>
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<td>-1.4</td>
<td>5.3</td>
</tr>
<tr>
<td>East Renfrewshire</td>
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<td>-2.8</td>
<td>3.3</td>
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<tr>
<td>Falkirk</td>
<td>-0.5</td>
<td>0.6</td>
<td>-0.7</td>
</tr>
<tr>
<td>Fife</td>
<td>0.8</td>
<td>-0.6</td>
<td>-1.8</td>
</tr>
<tr>
<td>Glasgow City</td>
<td>-1.6</td>
<td>-4.6</td>
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</tr>
<tr>
<td>Highland</td>
<td>-2.1</td>
<td>0.7</td>
<td>-0.1</td>
</tr>
<tr>
<td>Inverclyde</td>
<td>1.2</td>
<td>2.6</td>
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<tr>
<td>Midlothian</td>
<td>1.2</td>
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<tr>
<td>North Ayrshire</td>
<td>-4.6</td>
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<td>North Lanarkshire</td>
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<td>Orkney Islands</td>
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<td>Perth and Kinross</td>
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<td>South Lanarkshire</td>
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<td>-1.6</td>
</tr>
<tr>
<td>Stirling</td>
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<td>1.2</td>
<td>1.7</td>
</tr>
<tr>
<td>West Dunbartonshire</td>
<td>-4.3</td>
<td>-1.1</td>
<td>0.6</td>
</tr>
<tr>
<td>West Lothian</td>
<td>-4.2</td>
<td>-0.7</td>
<td>-1.6</td>
</tr>
</tbody>
</table>

Thirteen authorities in Scotland in 2016/17 reflected an increase in significantly littered sites compared to the previous year, with four of these showing a marked change (more than two percentage points). For five of these authorities, this represents the second year in succession that litter levels have increased.

Of the remaining eighteen authorities, ten showed either no change in significantly littered sites or a modest improvement (less than two percentage points). Only one authority has posted successive improvements for each of the last three years, five authorities have posted consecutive improvements over the previous two years.
Despite some of the limitations on snapshot auditing, the overall results do provide a good indication of the frequency of significant litter residents are likely to witness on footpaths in their authority areas.

It is important to acknowledge that these figures do not take into account the privately owned areas or open spaces that can also impact on perception of litter within a site, areas generally not in direct maintenance control of street cleansing departments.

**Litter Cleanliness**

**Hard surface and verge**

Despite only a relatively small proportion of sites nationally recording a significant presence of litter on footpaths, channels and adjacent verges (6.1%), three in every four sites visited recorded a presence of litter (74.9%). This increases slightly to 76.1% when taking into account open spaces and general perception of litter at the site. These headline figures show that litter is a significant issue in Scotland despite the efforts of local authorities regularly cleansing these areas.
It is not unexpected that in more urban authority areas, where footfall numbers tend to be highest, the presence of significantly littered sites is more pronounced, 8% compared to the national 6.1%. It is also clear that littering problems occur more frequently in areas in which the public tend to;

- congregate, 9.4% (zone 1),
- live in higher density, 11.3% (zone 2) and,
- travel in high numbers on road networks, 8.1% (zone 6).

Figure 6: Littering statistics since 2007/8

Figure 6 shows that there has been very little change in proportion of significantly littered sites in high priority areas after a sharp increase observed in 2014/15.

Open Spaces
Of the 4,479 open spaces audited, 223 (5%) were found to be significantly littered. Encouragingly, 45% recorded no visible litter and half a small presence which did not impact greatly on the appearance of the area. These figures represent a marginal decline since last year, with a slightly higher proportion of significantly littered areas (increase of 0.4 percentage points) and a drop in proportion of litter free areas (decrease of 0.7 percentage points).

Figure 7: Acceptable open space observations plotted against acceptable footpath observations

Figure 7 shows the range of open space sites by local authority affected by significant littering compared to hard standing areas. For many authorities, these do not correlate closely which can either be a result of the random nature of the sampling within this methodology or a suggestion that cleansing is split for these areas between departments resulting in different levels of resources or varying cleansing schedules.
Section 3

Litter and Causes

Who creates litter?
The results over the years suggest that the main area of concern is public behaviour, where litter is deposited into the environment by the general public unlawfully. Of sites that recorded a presence of litter, 99.4% recorded the general public as a contributor.

This is not to say that the public are the only source of litter. Infrastructure, such as the provision and maintenance of bins and business waste management, are also contributors to the problem. Business waste accounted for 5% of littered sites, however this is mainly Royal Mail elastic bands rather than uncontained commercial waste. Domestic waste resulting in a litter issue affected 1.4% sites (1.7% in residential locations).

Figure 8: Litter source statistics since 2007/8

Figure 8 shows that over the last ten years business derived litter in town centre locations (zone 1) and domestic litter in residential areas (zones 2 and 3) have not been a major widespread issue. However, presentation of business waste issues are generally more common outwith public footpaths and will not be detected with this monitoring methodology. Domestic waste spillage is also challenging to interpret unless witnessed and therefore a proportion of litter from domestic containers spilling into the environment may be interpreted by auditors as littering by the public. Therefore, these results are likely lower than reality.
What are the most common litter types

Cigarette litter, whilst not the most noticeable issue, is by far the most commonly deposited and frequently occurring litter item in Scotland. Over half the sites audited recorded a presence skewed significantly to high footfall zone 1 and 2 areas; 77.3% and 66.8% of sites respectively. While most observations were found to be minor, 7% of zone 1 areas recorded either consistent or accumulating cigarette litter, 4.9% in zone 2 areas.

When comparing benchmarking clubs, there is a significant difference between percentage of sites affected for rural authorities (41.6%) and urban authorities (63.8%) overall. However, this is in part due to a higher proportion of rural authorities auditing roadside verges where smoking litter is either less of an issue or harder to identify in vegetation. In high priority areas, the reality is that smoking litter is endemic across Scotland (75% for rural zone 1 areas, 81.4 % urban).

Items that are generally more visible, but less widespread, include food and drink packaging. These items, on average, were observed on more than one in three sites visited in Scotland (drinks 38.4%, confectionery 37.2%). As expected, in higher footfall areas the presence is more common, drinks (44.2% and 51.2%) and confectionery (44.8% and 53.7%) zones 1 and 2 respectively.
Where the issue is most invasive, and has been the case for many years, is along roadside verges, particularly busy road networks such as motorway and A class roads. In 2016/17, around three of four zone 6 roadside verges had drinks items (73.7%) and over half confectionery related items (55.3%).

Branded fast food related items were also an issue, affecting 8.9% of sites audited. Again, more prevalent in zone 1 (14.9%), zone 2 (15.5%) and zone 6 (28.9%) locations.

Figure 10 highlights that the three main litter types in Scotland are all on the increase from last year (smoking, drinks and confectionery related litter). However, in high pressure areas (zones 1 and 6), these litter items have remained either similar to last year or have improved.
Dog Fouling

Is regularly the highest rated local environmental quality concern of residents in Scotland. Around one in thirteen sites on average are affected by dog fouling, suggesting a relatively commonly observed issue.

As with most other local environmental quality concerns, this issue is more apparent in high footfall zone 1 and 2 areas, 8.4% and 12.2% respectively. There is also a clear difference between more rural authorities, where 6.1% of sites have dog fouling and urban, 9.5%, although this gap has narrowed since last year. In zone 1 areas, the differences are just as significant, 4.9% in rural authorities compared to 12% in urban authorities. In high density residential areas, the proportion of affected sites is similar amongst all benchmarking clubs except club 3 (mixed urban and rural) which returns a significantly lower frequency of observations within this land type.

While the indications in 2015/16 showed that the issue of dog fouling was improving, the current year shows that this trend hasn’t continued, with dog fouling, in general on the increase. With public tolerance for this issue low, these figures represent a major concern in communities across Scotland. Despite overall figures increasing, for some authorities the problem has decreased over the years. In the current year, six authorities were found to have, overall, more than one in ten sites affected by dog fouling, a noticeable problem for the public, a reduction from nine authorities last year.
The frequency of anti-social issues in Scotland has tended to be low, consistently below 4% overall over the last ten years of LEAMS auditing. These issues are generally very localised and mostly affect urban centres.

To highlight this, graffiti overall affects 3.4% of sites audited but 7.6% of zone 1 areas. This increases to 13% of urban authority zone 1 areas, a much more noticeable problem. In most cases, graffiti is tags on utility boxes and street furniture, only a small proportion of observations are more widespread on the site.

Figure 13 also highlights that graffiti in comparison to other indicators of local environmental decline (vandalism, flyposting) is more of an issue. However, flyposting in town centre areas has been on the increase over the last three audit years, currently observed on 4.3% of zone 1 sites (7.3% urban authorities).
Sweeping

Figure 14: Significant weed growth statistics by local authority in 2016/17

Overall, more than one in three sites nationally recorded a presence of weed growth (38.4%), with the majority having a low impact on the street scene. Only 7.1% of sites were significantly impacted. Discounting roadside areas, weed growth is a common issue on footpaths in high density residential areas, with 45.3% of sites affected, and 8.9% of greater significance. This is followed by low density residential with 40.1% of affected sites, 7.2% significantly. In high priority town centre locations, where mechanical sweeping is more frequent, weed growth is less of an issue, 32.1% affected sites with 5.1% significantly.

Figure 15 shows that there are a substantial number of sites affected by weed growth across local authorities in Scotland. Affected sites ranged from 8% to 67% for overall presence and from 1% to 20% for significant observations. A significant spread of results is also observed between the benchmarking club groups showing that the differences are not only due to differing land type characteristics between authorities.
Similar to weed growth, there is a significant range of scores for detritus between authorities overall, ranging from less than 23% to 74% of sites affected. For most authorities, significant observations are below 15%, with only three authorities above this. Overall in Scotland, 47.3% of sites recorded detritus, with 9.1% deemed to be on a significant scale.

The impact of detritus was more pronounced in residential areas, with half of sites audited impacted and one in ten on a significant scale. At this level, detritus in these areas will be clearly affecting the quality of the local environment and have the potential to exacerbate local flooding issues. As with weed growth, maintaining resources in high priority zone 1 areas has resulted in keeping on top of the issue, with a third of sites recording a presence and only 5.1% significantly impacting the local environmental quality.
Due to restrictions in weed spraying chemicals in recent years, managing weed growth has become more of a challenge for local authorities. In 2014/15, a clear increase in sites affected by both weeds and detritus was observed, in overall presence and those sites with significant spread. While the more invasive issues with these indicators has remained similar over the following two years, frequency of sites with a low level of weed growth is continuing to increase. These low impact observations can quickly degrade local environmental quality if resources fall further.

**Staining**

Most issues of staining relate to chewing gum that has adhered to the hard standing areas. In Scotland, 6.8% of sites recorded a presence of footpath staining, with most found to have only a small impact on the quality of the local area. However, in town centre locations, as expected, gum was more commonly observed, on 18.9% of sites. Again, only a small proportion were found to be on a significant scale (2.7%).

Going against the general trend of higher impact in urban authority areas, staining was less of an issue for this benchmarking group in zone 1 locations, 16.7% of sites, compared to the other benchmarking groups that averaged around 20% of affected sites.

The overall results for staining nationally and within the family groups has remined similar to last year, not significantly changing in frequency of observations.
**Litter Bins**

In Scotland, litter bins are generally readily available for the public to use in high footfall areas. In town centre locations 28.6% of sites were found to have a litter bin available for the public to use.

Importantly, of the litter bins that are available for the public, the majority were found to be well serviced. However, the results suggest improvements could be made in servicing, with almost one in ten bins in zone 2 and 3 locations deemed to be either at capacity or overflowing.

Overflowing litter bin increasing likelihood of littering in the environment
Section 5

Conclusions

Over the last six years, local authority street cleansing teams have faced annual budget cuts increasing the challenge to continue to keep the local environmental quality of Scotland’s street at a high standard. While the results from LEAMS in 2016/17 suggest that the majority of streets are at an acceptable standard, minor litter and other adverse indicators of environmental degradation were still present in most areas.

Herein lies the biggest challenge for local authorities; in the face of continuing budget reductions, maintaining these sites to the current standards when littering and other anti-social behaviours leading to poor environmental quality are widespread. The data also confirms that weed growth and detritus are commonplace and reduced sweeping programmes can only lead to reduced cleanliness of footpaths.

With the national litter strategy for Scotland focusing on prevention, for local authorities, in some cases, this can be helped by looking at infrastructure to prevent spillage from overflowing public use bins and domestic and commercial waste activities. It is clear however, that to have the largest impact, public attitudes to littering need to change as the vast majority of litter present in the environment is directly deposited by the public.

The LEAMS results continue to show that the main concerns for the environment are plastic packaging items and cigarette ends which have long lasting implications. On the rise is fast food items on our roadside verges, areas that are costly and hazardous to clean. These areas are also usually the first to be seen by visitors to this country and reflect poorly on our care of our environment.

The data shows that local authorities are continuing to service those areas within their direct control. However, this is not just a local authority issue and requires others to take ownership of the problem. Effective partnership working will help alleviate the burden on local authorities to keep areas clean.
Section 6

Recommendations

For Keep Scotland Beautiful

▪ Support local authorities to develop targeted monitoring strategies to fit individual management information requirements.
▪ Consider how the lower scoring authorities might improve and how partner authorities might be supported to help them achieve that.
▪ Develop an efficient platform for sharing LEAMS information between local authorities.
▪ Continue to provide networking opportunities through seminars and steering group.
▪ Continue to develop and deliver appropriate training to support cleansing and enforcement officers in the local authorities.
▪ Provide campaign opportunities and materials to support local authorities to focus on litter prevention activities.
▪ Support communities to take action locally to improve local environmental quality for example, through Clean Up Scotland.

For local authorities

▪ Commit to a support network which assists in good practice sharing to halt the decline across Scotland.
▪ Examine individual scores to identify where improvements might be achievable.
▪ Invest in road sweeping to remove detritus and weeds to reduce litter being trapped and improve overall local environmental quality.

For the Scottish Government

▪ Continue to prioritise the national litter strategy: Towards a Litter Free Scotland, and its prevention focus. Given the decline in standards in recent years it will be important to monitor the effectiveness of the strategy over the coming months and years.
▪ Consider partnering with Keep Scotland Beautiful to work directly with local authorities on litter prevention interventions and national campaigning.
▪ Invest in longer term actions which will sustain behaviour change.
▪ Consider a review of legislation particularly in relation to littering from vehicles.

For all stakeholders

▪ Increased awareness of personal responsibility is vital to increasing cleanliness standards overall. The Scottish Government and other stakeholders should support the Clean Up Scotland campaign as an effective method of convincing people to preserve the cleanliness and the quality of the environment.
Keep Scotland Beautiful: Key Stats

Our activities are estimated to make a difference to

1:5 people living in Scotland

1,000+ affiliated community groups in Scotland

100+ global and national partners

5,800 tonnes of litter collected through Clean Up Scotland

£9.6 million distributed to 130 groups across Scotland

1,500 groups supported to help improve their local places

12,000 People inspired to enjoy a One Planet Picnic

98% of schools involved in the Eco-Schools programme

350 members working within our Sustainable Scotland Network

We are leading the way on improving Scotland’s environment, tackling a spectrum of environmental issues from reducing the amount of litter on our street to cutting the carbon emissions that threaten our planet.

Appendix 1: Definition of Terms

*Transect:*  
A path along which one counts and records occurrences of the phenomena of study (e.g. litter).

*Site:*  
Location within the selected street/road where transect(s) are assessed.

*Grades of cleanliness*  
Each area of study (site) was graded according to the standards outlined in the Code of Practice on Litter and Refuse (Scotland) 2006, which relates to Part IV of the Environmental Protection Act (EPA) 1990. An additional grade not defined within the code (B+) has been included for reporting quality.

There are five grades of cleanliness, which are defined as:

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<thead>
<tr>
<th>Grade</th>
<th>Description</th>
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<tr>
<td>A</td>
<td>No litter or refuse</td>
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<tr>
<td>B+</td>
<td>Predominantly free of litter and refuse – up to three small items</td>
</tr>
<tr>
<td>B</td>
<td>Predominantly free of litter and refuse</td>
</tr>
<tr>
<td>C</td>
<td>Widespread distribution of litter and refuse with minor accumulations</td>
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<tr>
<td>D</td>
<td>Heavily littered with significant accumulations</td>
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This grading system is based on research into standards of cleanliness which most people regard as being acceptable or unacceptable. Under this system, grades C and D are unacceptable and must be cleaned (in most cases to grade A condition) within a specified time (see below). Grade A is the standard which a thorough conventional sweeping/litter-picking should achieve. The overall aim, however, should be to operate a management system where acceptable standards of cleanliness (grades A, B+ and B) are maintained at all relevant times.
Zones:
For a full explanation of zone types see Code of Practice on Litter and Refuse (Scotland) 2006 available in the KSB library at www.keepscotlandbeautiful.org.

LEAMS assesses sites in:

Zone 1: town centre
Zone 2: high-density residential
Zone 3: low-density residential
Zone 4: roads not falling into zones 1-3
Zone 6: motorways and strategic routes
Zone 7: rural roads

Cleanliness standards
The Code of Practice on Litter and Refuse (Scotland) 2006, issued under the Environmental Protection Act 1990, defines maximum response times when a litter problem is reported within or to a local authority. For example, when a grade D in Zone 1 is reported to the relevant officer in a local authority, that local authority has one hour to respond and to return the grade D to a grade A.

<table>
<thead>
<tr>
<th>Category Zone</th>
<th>Town Centres</th>
<th>High Density Residential</th>
<th>Low Density Residential</th>
<th>Roads Not Falling into Zones 1-3</th>
<th>Motorways &amp; Strategic Routes</th>
<th>Local Roads</th>
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<td>2 weeks</td>
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These maximum response times only ensure minimum standards as defined by The Code of Practice on Litter and Refuse (Scotland) 2006.