Appendix M – Local Environmental Quality Survey of England

The Local Environmental Quality Survey of England (LEQSE) is carried out annually by Keep Britain Tidy on behalf of the Department for Environment, Food and Rural Affairs (Defra).

The survey is not simply a measure of litter, it also includes six other indicators of cleanliness: detritus, weed growth, staining, graffiti, fly-posting and recent leaf and blossom fall. Taken together, these headline indicators provide a means of assigning a quantitative score to the local environmental quality of an area, based solely on the presence or absence of the indicators.

The main aim of the survey is to provide information on the overall cleanliness of the country. This can be used to inform strategy and is therefore crucial to ensure government, local authorities, land managers, businesses, Keep Britain Tidy and others have the information they need in order to improve local environmental quality.

Due to advances in technology and the creation of Lower Super Output Areas (LSOAs - boundary constructs created by the Office of National Statistics) this year's survey sampling methodology was improved to better reflect land uses and allow the survey data to be linked to other data sets.

Historic data has been weighted to fit with the new methodology. This allows a comparison over time but means that data may be different to figures published in previous LEQSE reports.

 Research into previous LEQSE sample sizes showed that a sample size of 7,200 sites across England would give a sufficiently representative picture. The number of sites surveyed within each region varied depending on the number of LSOAs present, and were split proportionately based on the total amount of LSOAs present in each region.

To measure each indicator, a grading system is used. The grading system follows the same principles as the Code of Practice on Litter and Refuse, which identifies four grades of cleanliness: A, B, C and D. This survey uses these four grades, plus an additional three intermediate grades: B+, B- and C-. The order of the seven grades is shown in figure 1 below. The intermediate grades are not individually defined; put simply, if cleansing at any given site is not at an A standard, but is performing better than a B standard, it would be identified as a B+.

Local Environmental Quality (LEQ) grading system

Grade	Description
A	None of the issues present
B +	Not formally defined
B	Predominantly free with some minor instances of the issue
B -	Not formally defined
C	Widespread with some accumulations of the issue
C -	Not formally defined
D	Heavily affected by the issue

Once the data is gathered, it undergoes rigorous quality assurance and then is analysed. To determine the local environmental quality of an area the data is analysed in two ways. The first method looks at the overall standard across the sites surveyed. This is done by converting the grades 'A' to 'D' to numeric equivalents and taking the mean average.

The second method calculates the percentage of sites below an acceptable standard. Sites below an acceptable standard are those classed as below a grade B,

In addition to average grade and percentage of sites below an acceptable standard, the survey also analyses the percentage of sites affected by individual littering issues or environmental crimes.

This analysis is not only done on England as a whole but on sub strata such as regions and land uses, ensuring a thorough picture of England, at all levels, is established.

Analysis is also undertaken, linking the data from the 13/14 survey to that of previous years, looking at trends over time and relationships with other variables. In order to do this a series of weights have been applied to previous years' data, accounting for the new sampling strategy that has been

adopted this year. This means that all the data, both old and new, has a structure that is nationally and regionally representative.

The data has been investigated using statistical testing. Hypotheses test have been carried out to examine differences between groups of sites. A 95% level of confidence (adjusted to account for the series weights) is set as the critical point of statistical significance and where possible a 99% confidence level was used. Relationships between variables were examined using correlation analysis to assess the strength and direction of relationships.

Recreation Areas

This land use is a combination of public open space and watersides. 'Public open space' includes parks, recreation areas, grassed areas, picnic sites, and paved areas, which are not classed as main or other retail and commercial locations. Officially signed and/or marked public footpaths and deconsecrated cemeteries should also be included in this land use category. 'Watersides' includes all publicly accessible areas adjacent to ponds, lakes, reservoirs, canals, rivers and estuaries.