



NATIONAL LITTER POLLUTION MONITORING SYSTEM

Litter Survey Summary Document for Local Authorities

Prepared for:

The Department of the Environment, Heritage
and Local Government,
Custom House,
Dublin 1

Prepared by:

The Litter Monitoring Body,
TES Consulting Engineers
Unit 4B/5
Blanchardstown Corporate Park
Dublin 15



INTRODUCTION

This Summary Document has been produced by the Litter Monitoring Body to enable local authorities to refresh themselves annually in undertaking their Litter Pollution and Litter Quantification Surveys.

This document sets out the three main phases involved in the implementation of the National Litter Pollution Monitoring System by the local authorities, with particular emphasis on phase three.

1. Set Up Phase

This is a once off phase which includes:

- Identification of Potential Litter Generators;
- Mapping locations of the above ; and
- Production of Litter Generation Potential Maps using specially designed GIS software.

2. Benchmark Phase

The first Litter Pollution and Litter Quantification Surveys will be the benchmark surveys for each local authority.

3. Survey Phase

Litter Pollution and Litter Quantification Surveys will be undertaken annually and will be compared to the benchmark years survey results.

1. Set Up Phase

- Identify locations of potentially-polluting premises and sites - termed “*Potential Litter Generators*”, using:
 - Address Databases and/or
 - Visual Surveys.

Two types of Generator: ‘Buildings’ & ‘Sites’.

It is a Non-exhaustive list (= prompt).

- Assign to ‘Class’ and ‘Category’.

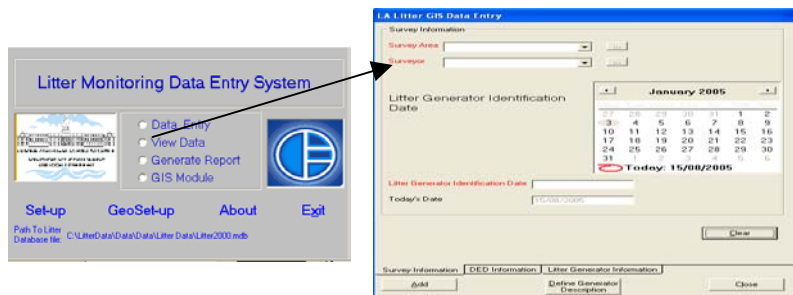
Three types:

Class 1: Severe pollution (e.g. Takeaway)

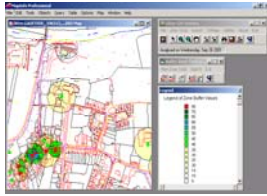
Class 2: Moderate pollution (e.g. Pub)

Class 3: Sporadic or temporary (e.g. Construction Site)

For a list of Categories see Part Two pages 4-8 on Manual.



- Map Generators onto digital maps (using the Litter Monitoring GIS software).



- Analyse maps to identify hotspots and random areas in local authority areas (Litter Generation Potential Maps).

1.1. Visual Survey Protocol:

1. Assess existing records and data;
2. Purchase listings or Address Database;
3. Assess mapping resources;
4. Identify surveyor teams;
5. Choose survey routes;
6. Determine transport requirements; and
7. Undertake visual surveys.

See “GIS Summary Document” for the GIS component of the System.

2. Benchmark Phase

2.1. Litter Quantification Surveys

Local authorities carry out **litter quantification surveys** (or item counts) to determine the composition of litter in their areas.

Litter Quantification Surveys:

- Quantify the litter present.
- Involves the visual inspection and counting of litter items.
- Statistics will show what the components of litter pollution are.
- Annual statistics may be used to observe trends in litter composition

2.1.1.Litter Quantification Survey Location

- Choose an area with the **largest sample size possible**.
- This may be an area located within a hot spot or may be chosen at the discretion of the local authority.
- This survey should be conducted **as long after the last sweep** as possible.
- All **survey types** should be surveyed e.g. urban centre, beach, national route etc.

2.1.2.Litter Quantification Survey Methodology

- Locate survey area;
- Measure out 50m using trundle wheel or similar devise;
- The survey area is the footpath or 1m of verge closet to the road as well as the gulley (see Figure 1 overleaf);

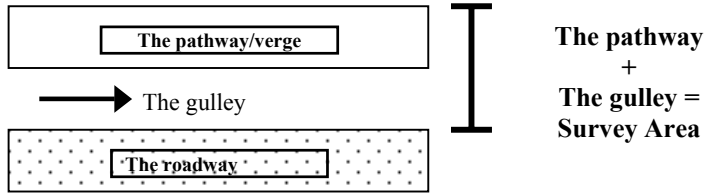
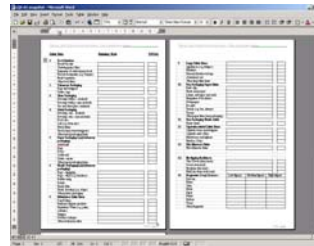


Figure 1 Survey Area

- All litter visible within 1m of the survey area should be counted;
- Private property should not be entered however if litter may be counted easily it should be assessed;
- The surveyor should count every piece of litter within the survey area.
- The “Running Total” box allows the surveyor to record the items identified in each sub section;
- The total is calculated at the end of the survey;
- Two exceptions to the rule exist:



- **Chewing gum, cigarette ends and matches** are only counted for 10m. The running total is multiplied by 5 to estimate the amount in the entire survey area.
- Fly tipping or dumping is graded from ‘mild to very severe’.

2.1.3.Litter Quantification Survey Results

- The results are transferred to an **Excel Database** which is sent out by the LMB in May each year.
- The spreadsheet should be copied to the users/surveyors hard drive.
- Spreadsheets should not be copied and pasted. The LMB will supply extra copies if necessary.
- The results of the surveys should be emailed to the Litter Monitoring Body by October each year.

The Number of Litter Quantification Surveys has increased; see revised Appendix Five on www.litter.ie

2.2. Litter Pollution Surveys

Local authorities carry out **litter pollution surveys** (or item counts) to determine the extent and severity of any litter pollution observed.

Litter Pollution Surveys:

- Details the amount and distribution of litter pollution nation-wide.
- Monitoring tool to determine extent and severity of litter pollution.
- Track changes in pollution levels arising from altered litter management practices.
- Identifies litter blackspots.

2.2.1.Litter Pollution Survey Location

- 40% High Risk Areas – hot spot;
- 40% Random Locations; and
- 20% points chosen by local authority

2.2.2.Litter Pollution Survey Methodology

Litter Pollution Index indicates the severity of litter pollution.

- 1 Unpolluted**
- 2 Slightly Polluted**
- 3 Moderately Polluted**
- 4 Significantly Polluted**
- 5 Grossly Polluted**

See Area Cleanliness Ratings on www.litter.ie

- Copies of the Litter Pollution Survey Questionnaire should be made;
- The survey areas should be identified using the GIS component of the system and the survey area marked on the Litter Generation Potential Maps;
- A copy of the map with details of survey area should be given to the surveyor;
- Once at the survey location a 50m stretch should be marked out;
- A photograph of the survey area should be taken. The reference number should be noted.

The image shows a portion of a survey form. Section 1, 'INDICATOR ITEMS', contains a table with columns for 'Indicator Item', 'Visible on Close Inspection', 'Visible', 'Obvious', and 'Extremely Obvious'. Below this is section 2, 'SURVEY AREA CLEANLINESS RATING', which includes a scale from 1 to 5 and a box for the surveyor's rating.

Indicator Items

- **Visible on Close Inspection;** only seen in very close proximity;
- **Visible;** Present however not very obvious from outside survey area;

- **Obvious;** Obvious with and at a distance of approximately 10m outside survey area; and
- **Extremely Obvious;** Very visually intrusive, visible from distance greater than 10m.

Area Cleanliness Rating

- The surveyor grades the survey area according to criteria described by the Area Cleanliness Photos, which are available on www.litter.ie.

Causative Factors

- Tick the boxes which you believe to be contributing to litter pollution in the survey area.

2.2.3.Litter Pollution Survey Results

- The results of the LPS are transferred to the **Access Database** specifically designed for the storage of this information.
- The results database is returned to the LMB in October of each year.
- Original paper copies must be kept for a possible Audit.
- The labelled photographs are kept with these records. There should be at least one photo corresponding to each survey form.

The Number of Litter Pollution Survey Results has been increased, see Appendix Six.

3. Survey Phase

Litter Pollution Surveys and Litter Quantification Surveys will be carried out each year using locations chosen from the Litter Generation Potential Maps. The results of these surveys will then be compared with the results obtained in Phase two; Benchmark Survey.