



Comhshaol, Oidhreacht agus Rialtas Áitiúil
Environment, Heritage and Local Government



THE NATIONAL LITTER POLLUTION MONITORING SYSTEM

LITTER MONITORING BODY

AUDIT REPORT

March 2011

Prepared for:

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



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DOCUMENT AMENDMENT RECORD

Client:	Department of the Environment, Heritage and Local Government
Project:	National Litter Pollution Monitoring System
Title:	Audit Report 2011

Project Rp: 6105		Document Ref: 6105-01			
001	Draft Issue for Approval	ML	CW	MH	11-03-2011
Revision	Purpose / Description	Originated	Checked	Authorised	Date
TOBIN Consulting Engineers					

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1. Introduction

The National Litter Pollution Monitoring System enables local authorities to monitor changes in the nature and extent of litter pollution in their functional areas over time and to use this data to provide more effective litter management planning at a local level.

As a self-assessment mechanism, it is essential that local authorities properly implement the System and that their performance is audited by the Litter Monitoring Body (LMB) to ensure that the System is working as designed and to identify any problems with its key elements.

In March 2011, the LMB audited three local authorities:

1. Ballinasloe Town Council;
2. Galway County Council; and
3. Galway City Council.

The LMB also carried out a number of spot-check audits on local authorities, which included reviewing of survey forms and photographs.

The purpose of these audits is to determine how each local authority implements and operates the Litter Monitoring System. Galway County Council assists in the implementation of the System for Ballinasloe Town Council.

During each audit, the key elements of the System are assessed, including:

- the identification and mapping of Potential Litter Generators;
- the production of Potential Litter Generation Maps;
- the carrying out of Litter Quantification and Litter Pollution Surveys including the location and timing of surveys and the number of litter surveys completed ; and
- the collation/inputting of survey data into the relevant database for submission to the LMB.

Each of the above key elements were examined to ensure that each component of the System is working as designed and is being properly implemented by each local authority.

During the course of the audit, the LMB reviewed all documentation, verified photographs and interviewed local authority staff to identify problems encountered during System implementation and operation. The LMB also reviewed the circulation of information regarding the System in each of the three audited local authorities. The purpose of this was to ensure that System's information issued by the LMB (i.e. manuals, Systems reports, including the Systems survey results etc.) over time has been circulated to all the relevant staff to ensure the proper implementation and operation of the System.

The audit allows the LMB to consult with those who are on the ground undertaking the litter surveys. This ensures that the LMB recognises if amendments are required to the System for the following years' surveys. This is discussed in more detail in Section 3 of this Report.

2. Findings

The LMB found that the three local authorities audited and those local authorities spot-checked were, for the most part, operating the System's methodologies correctly in accordance with the Monitoring Manual. However, the audits identified a small number of areas where remedial action was required to ensure that the System operates as designed. Details of these incidents are provided below.

2.1 Litter Pollution Surveys Methodology

- There is a need to ensure that the personnel carrying out the surveys are familiar with the area cleanliness rating photographs provided in the manual. The majority of the local authorities audited assigned the correct area cleanliness ratings to the litter surveys, however a number of surveys were not assigned the correct area cleanliness rating, specifically in assigning an area as "unpolluted or litter free" (LPI 1) that should be considered "slightly polluted" (LPI 2). "Unpolluted or litter free" (LPI 1) means that there is no litter present within the survey stretch. It is suggested that the area cleanliness rating photographs should be circulated to all Litter Monitoring Officers before the commencement of this years surveying. This set of photographs illustrates examples of area cleanliness ratings and is available on www.litter.ie. In addition the LMB suggest for future years surveys, that local authorities submit photographs with the Litter Pollution Surveys, to allow the LMB to continually audit the System. At least one photograph is required of each survey location. It is recommended that digital cameras be provided for the surveyors when undertaking the surveys.
- It should be noted that there are two values for the Litter Pollution Index a) the presence or absence of Litter Indicator Items and b) the Area Cleanliness Rating; the combination of both derive the Litter Pollution Index (LPI). Therefore an incorrect judgement on the visibility of key litter indicator items will result in a modified Litter Pollution Index rating. It is important that local authority's judgement on the visibility of key litter indicator items is accurate;

Note the Following:

Indicator items require an assessment of the presence or absence of a number of key litter indicator items. The surveyor is asked to judge 'how visible' these are within the survey stretch. The levels are graded from Visible on Close Inspection to Extremely Obvious.

The following criteria should be used:

Visible on Close Inspection - Objects should be assigned this rating if they are present within the survey stretch, but can be seen only when the surveyor is in very close proximity to the item of litter. In other words, if one can only distinguish the item of litter within one metre of it.

Visible - The indicator item, if present, should be assigned to this category if the litter items are visible within the survey stretch, however are not very obvious if outside the survey stretch.

Obvious - The indicator items should be assigned to this category if they are obviously visible within and from a distance of approximately 10 metres outside the survey stretch.

Extremely Obvious - This category should be marked if there are items of the particular litter indicator item present within the survey stretch and these are very visually intrusive from both within the survey stretch and at a considerable distance away from the survey stretch, approximately 10 metres or greater.

- During the audits the LMB highlighted the importance of filling out the Conclusion/Comment section comprehensively to those involved in litter surveying. This option is useful as it enables surveyors to provide feedback regarding possible solutions to the litter problem in the surveyed areas.

2.2 Litter Quantification Surveys Methodology

- The most important item to note in relation to the litter quantification survey forms is that the method of counting **chewing gum** is correct – only newly deposited chewing gum should be included in the survey.

2.3 System Documentation

- From the audit it was clear that much of the System's documentation is not disseminated to all of the relevant staff, in particular litter wardens who are carrying out the litter pollution and litter quantification surveys. This has improved slightly with a number of local authorities disseminating the report to all those involved in the Systems implementation;
- It is important that all those involved in litter monitoring in the local authority have access to www.litter.ie. This website contains all relevant documentation relating to the System's implementation.

2.4 Staff Undertaking Surveys

- It is important that all surveyors should be properly trained in the System. It is recommended that a set number of litter wardens are assigned the task of completing litter surveys in a local authority to avoid confusion and ensure accuracy in completing litter surveys. The LMB is available to provide onsite and ongoing technical support to local authorities. Refer to www.litter.ie for the LMB contact details; and
- The audit allowed the LMB to assess the adequacy of the current minimum number of annual litter pollution and litter quantification surveys carried out by the local authorities. It is suggested that the number of surveys currently being completed by local authorities on an annual basis is appropriate; therefore there will be no increase in the number of surveys to be completed for the 2011 surveys.

2.5 Litter GIS

Two of the local authorities audited, utilise the GIS system to produce Potential Litter Generator maps in order to determine survey locations.

It is suggested that those local authorities that do not have the resources to support the GIS system should implement the 40:40:20 rule to provide the most objective or balanced picture of the extent of litter pollution in their local authority area. Survey locations are chosen based on the following:

- 40% of survey locations should be chosen in litter blackspot areas i.e. “high risk” locations in towns or city centres where the concentration of potential litter sources is greatest;
- 40% of survey locations should be chosen in random potential litter generating areas. It may be useful to use a map of the local authority’s functional area and randomly select survey locations. It may also be useful to allow personnel not working in the litter department to select these random locations; and
- 20% of survey locations should be chosen by litter wardens, based on local knowledge of litter pollution.

3. Recommendations

The following are the key recommendations from the Audits:

1. It is recommended that local authorities continue to use the **Litter Monitoring Folder**, which is prepared for each of the surveyors before commencement of each year's litter surveys. This ensures that surveys are completed at the correct times and in an accurate manner.
2. It is recommended to undertake **Internal Audits** both before results are forwarded to the LMB and throughout the surveying period. The importance of internal audits was revealed this year as a number of surveys were not assigned the correct area cleanliness rating, specifically in assigning an area as "unpolluted or litter free" (LPI 1) that should be considered "slightly polluted" (LPI 2). It is suggested that the area cleanliness rating photographs should be circulated to all Litter Monitoring Officers before the commencement of this year's surveying. It is considered for future years surveys, that local authorities should submit photographs with the Litter Pollution Surveys (LPS); this will allow the LMB to continually audit the System.
3. It is recommended that the Litter Monitoring Officer (LMO) should ensure that **only newly deposited pieces of chewing gum** are counted in the litter quantification surveys and that the photograph identification/photographs are linked to each survey form.
4. It is essential to ensure that each section of the survey form is completed in full; the **Conclusion/Comment** sections are particularly relevant. This option is valuable as it enables the LMB to determine causative factors and provides surveyors with a platform to provide feedback.
5. Where resources are available, local authorities should use the litter GIS system, to determine the survey locations for the annual round of litter pollution surveys. The survey locations generated by the **GIS System**, using the 40:40:20 rule, are considered to give the most objective or balanced picture of the extent of litter pollution in each local authority area. While deviation from the above percentages will still provide local authorities with

valid data, nevertheless local authorities are required to adhere to those percentages as far as practicable to obtain the most accurate picture of litter pollution in their areas. However, where this is not practical, survey locations should be chosen as detailed in Section 2.5 above.

6. Note the LMB intends to distribute a memorandum to all local authorities outlining the most important points of the National Litter Pollution Monitoring System. This will include the following:

Litter Quantification Surveys:

- Surveys to be completed as long as possible after the last cleansing sweep;
- Surveys should be completed at different times of the day, on different days of the week and in different months of the year;
- Only newly deposited chewing gum should be included in the survey; and
- Fill out all sections of the survey form comprehensively.

Litter Pollution Surveys:

- Ensure the correct area cleanliness rating is assigned to a survey location, especially when assigning an area as “unpolluted or litter free” (LPI 1). “Unpolluted or litter free” (LPI 1) means that there is no litter present within the survey stretch. In addition the LMB suggest for future years surveys, that local authorities submit photographs with the Litter Pollution Surveys, to allow the LMB to continually audit the System. At least one photograph is required of each survey location.

This memorandum will also be available on www.litter.ie.

4. Conclusions

The LMB found that the three local authorities audited and those local authorities spot-checked were for the most part implementing the key elements of the National Litter Pollution Monitoring System correctly. Furthermore, the local authorities concerned are committed to undertaking the necessary actions to resolve the operational issues identified in this report as soon as possible. Overall, the three local authorities audited and those local authorities spot-checked are good models of the System's implementation. Their experiences, together with the recommendations in this report, can assist other local authorities to implement the System properly within their functional areas.

During the audit the LMB discussed the main points local authorities should keep in mind when surveying. A detailed report on the audit was also forwarded to all local authorities audited; this should ensure that any non-compliance with implementation of the System is rectified for future surveys.

This report should ensure that all local authorities will benefit from the findings of the System Audits carried out to date, as it is not possible to audit system implementation/operation in every local authority.

5. Acknowledgements

The LMB wish to thank the staff of Ballinasloe Town Council, Galway County Council, Galway City Council and all of the spot-checked local authorities for their help and co-operation during the course of these audits.