



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



# **THE NATIONAL LITTER POLLUTION MONITORING SYSTEM**

## **LITTER MONITORING BODY**

### **AUDIT REPORT**

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**Prepared for:**

The Department of the Environment, Heritage  
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Custom House,  
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Prepared by:  
**The Litter Monitoring Body,**  
TOBIN Consulting Engineers  
Block 10-4  
Blanchardstown Corporate Park  
Dublin 15

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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 to ensure that the System is working as designed and to identify any problems with its key elements.

In April 2010, the Litter Monitoring Body audited three local authorities:

1. Dungarvan Town Council;
2. Waterford County Council; and
3. Dún Laoghaire Rathdown County Council.

The purpose of these audits is to determine how each local authority implements and operates the Litter Monitoring System. Waterford County Council assists in the implementation of the System for Dungarvan 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; and
- the collation/inputting of survey data into the relevant database for submission to the Litter Monitoring Body.

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 Litter Monitoring Body reviewed all documentation, verified photographs and interviewed local authority staff to identify problems encountered during System implementation and operation. The

Litter Monitoring Body 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 Litter Monitoring Body (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 Litter Monitoring Body to consult with those who are on the ground undertaking the litter surveys. This ensures that the Litter Monitoring Body recognises if amendments are required to the System for the following years' surveys. This is discussed in more detail in Section 3.

## 2. Findings

The Litter Monitoring Body found that the three local authorities audited 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 on the part of the audited local authorities to ensure that the System operates as designed. Details of these incidents are set out 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. 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 photos illustrates examples of area cleanliness ratings and is available on [www.litter.ie](http://www.litter.ie);
- In all of the local authorities audited, the judgement on the visibility of key **'Litter Indicator Items'** was not accurate. 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. This was also apparent in the 2008 and 2009 audits. 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.

- In all of the local authorities audited, the Conclusion/Comment section of the survey form was not completed in a number of cases. This option is useful as it enables surveyors to provide feedback regarding possible solutions to the litter problem in the surveyed areas. During the audits the Litter Monitoring Body highlighted the importance of filling out the Conclusion/Comment section comprehensively to those involved in litter surveying;
- The Major Sources of Litter section of the survey form was not completed in a number of cases. This is an important section as it allows specific takeaways, newsagents, schools etc to be identified as sources of litter pollution. During the audits the Litter Monitoring Body highlighted the importance of filling out this section; and
- At least one photograph is required of each survey location. In most cases photographs were available to be examined. Some local authorities use a digital camera; this is acceptable if the photo identification is cross-

referenced on the litter pollution survey forms. It is important that the photographs are downloaded frequently to ensure that they do not get misplaced or deleted by other local authority staff using the digital camera. The digital photographs also allow the auditor to assess the photographs in detail. One of the local authorities audited did not provide litter pollution survey photographs and it was therefore very difficult to verify the area cleanliness ratings during the audit. It is recommended that digital cameras be provided for the surveyors when undertaking the surveys.

## 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. The Litter Monitoring Body noted that during the audit one local authority was counting old pieces of chewing gum in a number of cases; and
- In all of the local authorities audited, the litter quantification survey form was not fully completed in a number of cases. During the audits the Litter Monitoring Body highlighted the importance of filling out all of the sections of the survey form comprehensively.

## 2.3 Survey Timescale

- It was noted during the audit that some local authorities completed surveys on the same day of the week or month of the year e.g. all surveys are completed on a Monday. This is not an accurate representation of the annual level of litter pollution in a local authority's functional area. Each local authority is asked to alter the time of the surveys to give a true representation of litter pollution variance with time i.e. surveys should be completed at different times of the day, on different days of the week and in different months of the year.

## 2.4 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;

- In the 2008 and 2009 audits it was apparent that a number of personnel who carry out the litter surveys each year, do not receive a copy of the System's Survey Report. This was also highlighted in the 2010 audits. It is important to ensure those involved in the System read the System's Survey Report. This approach ensures that the relevant staff both understand and continue to support the National Litter Pollution Monitoring System; and
- It is important that all those involved in litter monitoring in the local authority have access to [www.litter.ie](http://www.litter.ie). This website contains all relevant documentation relating to the System's implementation.

## 2.5 Staff Undertaking Surveys

- It is important that all surveyors should be properly trained in the System. It was noted during the audit that some local authorities had litter wardens undertaking the surveys, some of whom had never undertaken training in the National Litter Pollution Monitoring System. This led to disparities in the manner in which the surveys were undertaken. It is recommended that all surveyors should be properly trained to ensure discrepancies do not occur. In addition 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; and
- The audit allowed the Litter Monitoring Body 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 2010 surveys.

## 2.6 Litter GIS

Two of the local authorities audited, utilises the GIS system, which has been developed by the Local Government Computer Services Board (LGCSB) to identify litter pollution survey locations.

However, one of the local authorities audited do not currently utilise the GIS system. One of the local authorities mentioned that they require ongoing/further support from the LGCSB in order to ensure that the Litter GIS system is working in an efficient manner. It was considered that additional GIS training is required in one of the local authorities audited.

### 3. Recommendations

The following are the key recommendations from the Audits:

1. **Litter Survey Plan:** this was designed by the Litter Monitoring Body to ensure that litter surveys are completed at different times of the day, days of the week, months of the year and in the necessary range of locations. It is recommended that all local authorities use this plan to ensure consistency. This is available to download at [www.litter.ie](http://www.litter.ie).
2. 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.
3. It is recommended to undertake **Internal Audits** both before results are forwarded to the Litter Monitoring Body and throughout the surveying period. The importance of internal audits was revealed this year as the incorrect value for 'Litter Indicator Items' was assigned to a number of surveys in the local authorities audited, and this modified the Litter Pollution Index. In addition, 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 Litter Monitoring Body to determine causative factors and provides surveyors with a platform to provide feedback.
5. 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.

## 4. Conclusions

The Litter Monitoring Body found that the three audited local authorities 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 audited local authorities 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 Litter Monitoring Body 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 are 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 Litter Monitoring Body wish to thank the staff of Dungarvan Town Council, Waterford County Council and Dún Laoghaire Rathdown County Council for their help and co-operation during the course of these audits.