

# NATIONAL LITTER POLLUTION MONITORING SYSTEM

## LOCAL AUTHORITY INFORMATION UPDATE #3

### TABLE OF CONTENTS

<b>INTRODUCTION</b>	<b>1</b>
Aims	1
Structure	1
<b>ACTIVITIES UNDERTAKEN</b>	<b>2</b>
Questionnaire return	2
GIS Training	2
Meetings and Presentations	2
Litter Monitoring Body website	3
<b>LITTER MONITORING MANUAL /GIS SOFTWARE</b>	<b>3</b>
<b>BEST PRACTICE</b>	<b>4</b>
Inter Town and Inter Village League	4
Litter Freephone	5
Name and Shame	5
Individual Litter Plans	6
<b>IMPLEMENTATION OF THE NATIONAL LITTER MONITORING SYSTEM</b>	<b>5</b>
Regional Meetings and GIS training for Urban District Council's	8
Regional Meetings - all Local Authorities	8
Carlow County Council	8
Waterford County Council	9

1. Provide a summary of the key activities undertaken in the preceding quarter;
2. Describe the progress of implementation of the National Litter Pollution Monitoring System;
3. Address any issues which arise during the System's implementation;
4. Facilitate information dissemination between local authorities via a series of case studies or success stories from around the country, and
5. Provide additional information and request feedback as required.

### Structure

This newsletter provides a short overview of the main activities undertaken since September 2000.

It also addresses best practice of litter control in Ireland and examines a sample number of best practice litter prevention measures around the country.

Finally, Waterford County Council and Carlow County Council, have prepared an overview of the implementation of the Litter Monitoring System within their functional areas, including details of the problems encountered and how they were overcome. This should be of assistance to local authorities generally in relation to implementation of the system.

### 1. INTRODUCTION

This newsletter, the third in the series, describes the activities which have been progressed by the local authorities since the circulation of the last issue in September 2000.

#### Aims

As stated in the two previous publications these Updates aim to:

*Litter Monitoring Body*



## 2. ACTIVITIES UNDERTAKEN SINCE SEPTEMBER 2000

The following provides a short synopsis of the activities carried out by the Litter Monitoring Body since the publication of the last Information Update.

### Questionnaire return

The Information Update #2, sent to all local authorities, was accompanied by two questionnaires. The aim of the aforementioned questionnaires was to ascertain the implementation status of the National Litter Pollution Monitoring System. As response was slow they were re-issued on the 13<sup>th</sup> of November 2000 with a more satisfactory result. The implementation status as communicated are visually displayed on the LGCSB's website at <http://www.lgcsb.ie>.

Local authority responses are essential to enable the Litter Monitoring Body to measure progress with the implementation of the national monitoring system nationwide. Based on local authority responses received to date, over 40 local authorities are proceeding with system implementation.

Accordingly, to speed up the monitoring process, the Litter Monitoring Body is, during May 2001, conducting a telephone survey of all local authorities to assess the current position. As the regional meetings to provide local authority training on the Monitoring Manual and the Litter GIS software package should be completed by end June 2001, it is envisaged that local authorities would be in the position to begin the litter quantification and pollution surveys during the Summer months.

### GIS Training

Training in Phase One of the GIS software took place in the Local Government Computer Services Board between September and November 2000. This was

primarily aimed at County Councils and County Borough Corporations.

The training for Phase One took place in a series of half day events and was suitable for anyone with basic 'Windows' familiarity. This allowed staff from any section within a local authority to map the Potential Litter Generators onto GIS maps and should facilitate implementation of the Monitoring System.

### Meetings and Presentations

The Litter Monitoring Body was also asked to give a presentation to the Association of Town Clerks of Ireland. This was duly delivered in Monaghan on the 13<sup>th</sup> of October 2000. The main point raised during the meeting was that litter is predominantly an urban problem. As a result, it was recommended that a Urban District Council representative should be considered for the Litter Monitoring System's Steering Group. Following this Mr. Brian White, Town Clerk of Dungarvan Urban District Council has been nominated to the Steering Group.

The delegates asked that a sample Urban District Council be surveyed and maps generated so the time and resource requirements be demonstrated. Liaison is currently in progress between the LGCSB, the Litter Monitoring Body and relevant Urban District Councils. A case study will be outlined in detail and sent to all Urban District Councils by end May 2001. In the interim local authorities are requested to take all practical measures to commence implementation of the system in their areas if they have not already done so (see phase 1, set up phase of the system, on page 6 of this update).

Following the Steering Group's recommendation, the Litter Monitoring Body presented the Litter Monitoring System to the City and County Managers' Association, Environment and Planning Committee on Wednesday the 15<sup>th</sup> of November 2000. The response from the Committee was extremely favourable and the National Litter Pollution Monitoring

System praised as a effective proactive management tool in controlling litter.

### Litter Monitoring Body Website

TES Consulting Engineers (The Litter Monitoring Body ) have recently set up a website <http://www.tesltd.ie/>. One section is devoted to the Litter Monitoring System and contains the following information:

- ◆ the background and role of the Litter Monitoring Body;
- ◆ past information updates;
- ◆ best practice database; and
- ◆ the Monitoring Manual.

A variety of links to relevant sites are available including; local authority websites, Department of the Environment and Local Government and the Local Government Computer Services Board. The Local Government Computer Services Board website contains information on the Litter Monitoring System's GIS software, including the GIS Manual, and is presently being updated.

The formal launch of the TES website took place on the 20<sup>th</sup> of March by the Minister of State Mr. Dan Wallace, T.D.



### 3. THE LITTER MONITORING MANUAL AND LITTER MONITORING-GIS SOFTWARE

Section One of the Monitoring Manual (dealing with the identification of Potential Litter Generators) and Phase One of the Litter Monitoring GIS were issued to the local authorities on the 28<sup>th</sup> June 2000.

Section Two of the Monitoring Manual and Phase Two of the Litter Monitoring GIS software were then issued to all local authorities on 27<sup>th</sup> March 2001.

This package contains the methodology for:

- ◆ the *mapping* of Potential Litter Generators;
- ◆ the completion of *Litter Quantification Surveys*; and also
- ◆ Phase Two of the GIS Software package which will enable local authorities to produce litter potential generation maps. This will then complete the GIS requirements for the Litter Monitoring System.

The final section of the Monitoring Manual, Section Three, will deal with the methodology for the completion of *Litter Pollution Surveys* and the *reporting and documentation* requirements for such surveys. It is envisaged that Section Three will issue by end May 2001. Following this local authorities will then have the complete manual and software necessary to fully implement the National Litter Pollution Monitoring System.

## 4. BEST PRACTICE

An important aspect of the Litter Monitoring Body's role is to obtain information on litter management best practice. From consulting with local authorities, reviewing media reports and undertaking internet searches, we have collated information relating to best practice, in Ireland. This database is accessible at <http://www.tesltd.ie/>

Local authorities are requested to review the information in the database relevant to them (if any) to check currency and accuracy and to notify any change to the Litter Monitoring Body at the contact given below.

The information contained in this database is an overview of best practice and does not detail every anti litter measure being undertaken across the country. At present the database contains examples from 31 local authorities. Therefore, the Litter Monitoring Body would like to hear about other examples of successful best practice known to the local authorities. These could then be included in the database allowing all other local authorities to access the information.

Anyone with relevant examples or corrections should contact **Laura Scanlan** or **Caoimhe Muldoon** at the Litter Monitoring Body, TES Consulting Engineers, Unit 4B/5 Blanchardstown Corporate Park, Dublin 15; tel: 01 660 6471 or e-mail at [lmb@tesltd.ie](mailto:lmb@tesltd.ie). If any difficulty is experienced using email the information can be sent to the above address on a clearly labelled 3½ floppy disk.

When communicating the information, please include a brief description of the activity with contact details under the following headings:

- ◆ Local Authority;
- ◆ Description of anti litter initiative, including start date and whether it's a once of or ongoing activity;

- ◆ Impact Area, and
- ◆ Further Information (Contact name, number etc).

A contact name and number will facilitate communication between local authority personnel engaged in anti-litter activities.

Some sample best practice activities are outlined below:

### Inter Town and Inter Village League

**Local Authority** : Cork County Council

#### Description:

Organised and sponsored by Cork County Council for the past four years, this competition has been highly successful. Originally a pilot scheme with eight participating towns, it now judges sixteen towns and sixty-four villages.

The competition is divided into two sections, towns and villages. The village section is further divided by region: North Cork, South Cork and West Cork. The winners of each village section then compete against each other for the finals of the Inter Village Litter Challenge.

Cash prizes are awarded in the following manner;

- ◆ **Towns**  
Winner £1,500
- ◆ **Villages**  
Winner £1,200

Various other prizes are awarded for high scoring towns. Every town or village that enters the competition receives a minimum of £150.

The competition is run annually and takes place between June and July.

#### Further information

The Cork Inter Town and Inter Village League was also covered in Information Update #1 which can be downloaded from <http://www.tesltd.ie/>.

Further information may also be obtained from

Ms. Eileen Fitzgerald, Cork County Council, Carrigrohane, Cork.  
Tel 021 – 4285311.

## Litter Freephone

**Local Authorities :** Carlow local authorities, Clare County Council and Dublin Corporation.

**Description:** A freephone line has been set up in the three local authority areas for the public to report incidents of littering. As these lines are confidential, members of the public feel they can report incidents without being identified by the perpetrators.

Various methods to advertise the freephone line have led to an increase in its use. For instance Carlow County Council have erected “Enviro Watch” signs displaying the freephone number on all approach roads to towns and villages. Clare County Council found that a period of time advertising the line on shopping market receipts proved extremely beneficial. Dublin Corporation have the freephone number displayed on the side of their cleaning vans and on publications they distribute to the public.

All above mentioned local authorities will keep the freephone line and have found it useful in combating illegal dumping.

Further information may be obtained from

Ms. Bernie O’Brien Carlow County Council, County Offices, Athy Road, Carlow.  
Tel: 0503 31126;

Ms. Tina Knox-Flemming, Clare County Council, New Road, Ennis County Clare.  
Tel: 065 21616; and

Mr. Kevin O’Sullivan, Dublin Corporation, Civic Offices, Wood Quay, Dublin 8.  
Tel: 01 6722222.

## Name and Shame

**Local Authority:** Carlow County Council, Clare County Council and Dublin Corporation.

**Description:** Carlow local authorities have adopted the “Name and Shame” campaign to supplement their anti-litter activities. Successful prosecutions are given media coverage to highlight the penalties connected with littering.

Clare County Council have also been running a “Name and Shame” campaign since June 2000. Again after a successful prosecution a press release is issued to local papers giving the names of those who have offended. Clare County Council also provides the information to the local radio stations for added publicity.

Dublin Corporation began the “Name and Shame” campaign in April 2000. Offenders names, when convicted, are printed in various local and national papers. The campaign has been judged to be highly successful in raising the awareness of the penalties resulting from littering.

All local authorities mentioned feel that the campaign has increased public awareness to the illegality of littering. The campaigns will be ongoing with no plans to cease the activity.

**Further information** may be obtained from:

Ms. Bernie O’Brien Carlow County Council, County Offices, Athy Road, Carlow.  
Tel: 0503 31126;  
Ms. Tina Knox Flemming, Clare County Council, New Road, Ennis County Clare.  
Tel: 065 21616; and

Mr. Kevin O’Sullivan, Dublin Corporation, Civic Offices, Wood Quay, Dublin 8.  
Tel: 01 6722222.

## Individual Litter Plans

**Local Authority:** Carlow County Council

**Description:** Carlow County Council has produced its official Litter Management Plan as required under the Litter Pollution Act, 1997. However the council believes the Plan has become more relevant to local communities by inviting them to write plans for their own town or village. Twenty-two Tidy Town/Community Development groups participated in this scheme which commenced in 1999.

A facilitator was appointed by the County Council to liaise and assist each group in the formulation of their plans. Public meetings were held and problems, suggestions and recommendations presented by the public were taken on board and included in the plans. The individual plans also focused on three litter issues which were of particular relevance to that area. The plans are presently being reviewed and evaluated.

The County Council believes that this project enables local communities to take ownership of the litter problem in their area and has been successful in raising public awareness of the litter problem encountered throughout the county.

Further information may be obtained from:

Ms Bernie O'Brien, Carlow County Council, Athy Road, Carlow.  
Tel: 0503 31126



## 5. IMPLEMENTATION OF THE NATIONAL LITTER MONITORING SYSTEM

Local authorities should now be proceeding with the implementation of Phase I of the National Monitoring System.

### PHASE ONE: SET-UP PHASE

<u>Step</u>	<u>Description</u>
1.	Identify and classify all Potential Litter Generators. <sup>1</sup>
2.	Log x,y co-ordinates of Generators onto basic digital maps. <sup>2</sup>
3.	Produce the Litter Generation Potential Maps using the Litter Monitoring GIS Software. <sup>3</sup>

Section 1 of the Monitoring Manual and Phase 1 of the Litter GIS software to enable local authorities carry out steps 1.) and 2.) above were issued to all local authorities in June 2000.

<sup>1</sup> This can be accomplished by visual surveys, existing lists, an Address Database or a combination of the above (see the Monitoring Manual-Part Two).

<sup>2</sup> This was covered in Phase 1 training of the Litter Monitoring GIS Software and further information can be accessed in the Litter Monitoring GIS Phase 1 (User Manual), issued to all local authorities by the LGCSB in May 2000.

<sup>3</sup> Training is currently ongoing in the LGCSB for this Phase of the Software. Further information can be accessed in the Litter Monitoring GIS Phase 2 (User Manual), issued to all local authorities in March 2001.

Section 2 of the Monitoring Manual and Phase 2 of the Litter GIS Software, which issued to all local authorities on 27<sup>th</sup> March, 2001, will enable local authorities to complete Step 3.) of Phase 1 above and proceed with the litter quantification surveys.

Section 3 of the Monitoring Manual, covering Litter Pollution Surveys will issue to local authorities by mid May 2001.

Section 3 of the Monitoring Manual will outline the methodology for carrying out the litter pollution surveys and the requirements for submitting the quantification and pollution survey results to TES.

Steps 1 to 11 across provide a complete description of the national monitoring system and should be implemented by the end of the year. Steps 4 to 11 will be repeated next year and subsequent years and the survey results obtained compared back to the Benchmark survey results to measure the progress made.



**PHASE TWO: BENCHMARK PHASE**

<u>Step</u>	<u>Description</u>
4.	Consult tables provided in Monitoring Manual to identify the number of surveys required.
5.	Identify (from the Litter Generation Potential Maps) suitable <b>High-Risk Survey Areas</b> <sup>4</sup> .
6.	Identify (using the GIS Application and the Litter Generation Potential Maps) a number of <b>Random Survey Areas</b> <sup>5</sup> .
7.	Choose a number of locations which are deemed to merit detailed observation (e.g. known problem areas).
8.	Carry out between four and 12 Benchmark Litter Quantification Surveys.
9.	Carry out a pre-set number of Benchmark Litter Pollution Surveys over the summer/autumn months.
10.	Enter Litter Survey Results into Microsoft Excel Spreadsheet <sup>6</sup> .
11.	Return the results to the Litter Monitoring Body for central analysis and the production of national litter survey reports.

<sup>4</sup> These locations, which represent the areas which are most likely to be littered, are assessed during the Litter Pollution Surveys.

<sup>5</sup> These locations are surveyed during the Litter Pollution Surveys to ensure that representative coverage of each authority's area is obtained.

<sup>6</sup> This has been circulated to the authorities by the Monitoring Body as part of the Monitoring Manual.

### Regional Meetings and GIS training for Urban District Council's

Two regional meetings have been held in Longford and Thurles on 23<sup>rd</sup> of April and 30<sup>th</sup> of April respectively for Urban District Councils in relation to Phase 1 (i.e. Steps 1 to 3 in Section 5) of the system. The meetings also included introduction sessions provided by the LGCSB on Phase I of the Litter Monitoring GIS software package. Full training sessions in Phase One of the GIS software can be arranged on request using the contact name and number across the page

As a result of these regional meetings, Urban District Council's have now received the same level of information/instruction on the system as the other local authorities. The next phase of regional meetings can then commence.

### Regional Meetings - all Local Authorities

A series of 10 further regional meetings will be held during May and June 2001 at various locations in relation to Sections 2 and 3 of the monitoring manual.

The Litter Monitoring Body issue a circular will issue to all local authorities by early May, 2001 with details of the arrangements for the regional meetings.

Training sessions for Phase two of the GIS software have been organised. These are taking place in the LGCSB Offices, 27 Conyngham Road, Dublin 8 and are running to the end of May 2001 as follows;

Date	Training Room
16th May	TR2
23rd May	TR2
30th May	TR2

Local authorities are urged to take up these training sessions as they are important for the implementation of Phase Two of the GIS software.

Each session will run for the morning of each designated day.

Please contact Ms. Noleen Cox (tel: 01 6097000) for further details.

The regional meetings together with the GIS training sessions being organised by the LGCSB should all be completed by end-June 2001. Local authorities will now have received the necessary briefing/training on the principles and key aspects of the national monitoring system. The next step is for local authorities to carry out the necessary litter quantification and pollution surveys in their areas; this will be the main focus of the system over the summer months.

### CARLOW COUNTY COUNCIL - IMPLEMENTATION OF SYSTEM TO DATE

Statistics <sup>7</sup>	
Area(hectares)	89,655
Population <i>of which</i>	41,616
Carlow County Council	29,895
Urban District Councils <i>of which</i>	Carlow
Population	11,721
Miles of road covered (approximately)	1,600 <sup>8</sup>

It was agreed by the County Manager that the Administrative Officer in the Environment section would take responsibility for implementation of the system for both Carlow County Council and Carlow Urban District Council.

A technician in the Drawing Office was subsequently assigned the task of identifying potential litter generators and mapping of these in the GIS software. This task was in addition to the officer's

<sup>7</sup> Obtained from: Census 96, Volume 1, Central Statistics Office

<sup>8</sup> Approximate figure obtained from Carlow County Council.

other duties. The officer carried out visual surveys in each D.E.D. in the county (including the Urban District Council area) over a three month period. The area was covered by a combination of driving in rural areas and walking more urban areas. Approximately 1,600 miles of road were covered during the visual survey.

All generators were then mapped by hand over a six week period on hard copies of OS Sheets and detail filled in on Potential Litter Generator Identification Forms. An example of this form is reproduced as Appendix One to this newsletter. The officer was paid the normal rate of travelling whilst carrying out this work. The hard copies of the OS sheets will serve as a reference when analysing the litter generators on GIS.

The identifying of Potential Litter Generators for Carlow County Council required one person working full time for 15 days with an additional week for Carlow Urban District Council's functional area. The total cost of implementing this section of the Litter Pollution System was £5,000. Approximately 700 Potential Litter Generators were identified in Carlow County Council and Carlow Urban District Council.

In May 2000 TES Consulting Engineers carried out trial litter surveys with the two Litter Wardens – one from Carlow County Council and one from Carlow Urban District Council, when proposed methodology and requirements in relation to Litter Quantification Surveys and Litter Pollution Surveys were tested. These surveys were beneficial as it gave the Wardens the opportunity to contribute towards the designing of the finished methodology. It also gave the Wardens time to clarify all questions and express concerns/reservations which they had in relation to the surveys. These concerns related mainly to the time required to carryout the surveys in addition to their normal workload.

Due to changes in technical personnel, it was necessary to assign another technician

in the Environment section to carry out the GIS mapping in September, 2000. Initially there were problems with the Litter GIS software supplied by the LGCSB. However in January 2001, personnel from the Board visited the Council and carried out the necessary amendments.

Work commenced on entering the Potential Litter Generators to the litter GIS Database in mid-January 2001. This involved one person working for four weeks and cost approximately £1,500. All Potential Litter Generators have now been entered and Carlow County Council are ready for the second phase of the Litter Monitoring System.

**WATERFORD COUNTY COUNCIL - IMPLEMENTATION OF SYSTEM TO DATE**

<b>Statistics <sup>9</sup></b>	
Area (hectares)	181,556
Population	52,140
<i>of which</i>	
Waterford County Council	44,965
Urban District Councils	Dungarvan
<i>of which</i>	
Population	7,175
Miles of road covered (approximately)	2,700 <sup>10</sup>

**Phase 1 (Survey and Database creation)**

Phase 1 of the National Litter Pollution Monitoring System was the creation of the Potential Litter Generator database. In order to do this each Potential Litter Generator was located, classified and categorised according to the classification methodology set out in the Litter Monitoring Manual (see Part Two of the Monitoring Manual). Each generator was placed in one of three classifications and

<sup>9</sup> Obtained from: Census 96, Volume 1, Central Statistics Office

<sup>10</sup> Approximate figure obtained from Waterford County Council.

categorised within its classification. Waterford County Council did not experience any difficulties with this stage in the system's implementation. The process is outlined in more detail below.

Waterford County Council began creating this database in December 1999. The survey was conducted by Mr. David Whelan B.E. (Waterford County Council's GIS Officer), John Horgan (GIS technician) and two FAS technicians.

To collect the information required, two paired teams were set-up in order to make a visual identification of every potential litter generator in the county. These teams then covered every road in the county to collect the information.

In rural areas the litter generators were simply marked on six-inch maps with the same code used on the questionnaire (as reproduced in Appendix One). The questionnaire was then filled in noting the details of the generator site and its classification and category according to the National Litter Pollution Monitoring System. In the larger urban areas such as Dungarvan, Portlawn and Tramore, OS 1:1,000 mapping was used. The teams conducted the survey on foot, completing the area, street by street.

Once the information on generator locations was collected, it was entered into the GIS software package provided by the LGCSB. Different tables were created for each of the generator classes and the details from the questionnaire were connected to these points.

The Visual Survey was completed in 21 working days and approximately 2700 miles of road were surveyed. There were 867 Potential Litter Generators identified. The cost of the survey to Waterford County Council was almost £5500. The data inputting process took twenty person/days after the survey was completed, at a cost of approximately £1000.

**7. APPENDICES**

**Appendix One – Potential Litter Generator Identification Form.**

<b>POTENTIAL LITTER GENERATOR IDENTIFICATION FORM</b>	
DED Name: <a href="#">North City DED</a>	Date: <a href="#">14<sup>th</sup> June 2000</a>
Survey Area: <a href="#">O'Connell Street</a>	Surveyors: <a href="#">DJ and PR</a>
<hr/>	
Generator Reference Number: <a href="#">NC053</a>	
Class: <a href="#">1</a>	Category: <a href="#">18</a> Multiple (y/n) <a href="#">n</a>
Generator Type (Building or Site): <a href="#">Building</a>	
Generator Description: <a href="#">Large fast-food outlet</a>	
<hr/>	
Generator Name: <a href="#">McDonald's Restaurant</a>	
Generator Address: <a href="#">62 O'Connell Street Upper, Dublin 1</a>	
Surveyor Comments: <a href="#">N/A</a>	

