

PART 1



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1 INTRODUCTION

1.1 PLAN FRAMEWORK

Under the requirements of the Waste Management Act, 1996, a Waste Management Plan must have regard to the following:

- The prevention, minimisation, collection, recovery and disposal of non-hazardous waste within its functional area and
- The matters specified in relation to hazardous waste so far as they relate to its functional area.



The first Midlands Waste Management Plan, adopted in 2001, was developed based on the Midlands Waste Management Strategy Study, a 15-20 year strategy completed in early 1999 for the Local Authorities in the Region. This strategy based on public consultation presented a broad vision on how to manage waste in the Midlands to the best international standards. That vision is now being realised in the rollout of the Plan since 2001.

The Strategy Study covered technical, environmental and financial aspects as follows: -

- It assessed the current situation within the Region with regard to the quantity and nature of wastes generated in the Region.
- It recommended an integrated waste strategy for the future management of these wastes.
- It recommended the financial means of implementing the recommended strategy.
- It assures that there will be adequate infrastructure to cater for continued investment and employment growth in the Midland Region.

The aim of the Strategy Study was to provide a framework for the management of these wastes in the Midlands Region in accordance with National and EU waste legislation/policy current at that date. A waste model was developed as part of the Strategy Study covering a 15-year period from 1998-2013, which allowed environmental and economic comparisons of future waste management options to be made.

1.2 EUROPEAN CONTEXT

The EU Sixth Environment Action Programme sets out objectives for the shape of Europe's future environment at the start of the 21st century. This vision "Environment 2010: Our Future, Our Choice" seeks the following aims:

- To decouple generation of waste from economic growth by establishing the most sustainable consumption patterns.
- For wastes generated, these should represent very low risks to the environment and our health.
- We should maximise recycling and bring "final disposal to an absolute minimum"
- Waste should be treated as close as possible to where it is generated ("proximity principle")

A number of EU Thematic Strategies were proposed to deal with the environmental challenge of waste. The most advanced of these currently is the Thematic Strategy on the Prevention and Recycling of Waste. Among the many issues discussed were the development of material based recycling targets in articulation with end-of-life products based targets, the use of economic instruments (e.g. plastic bag tax in Ireland) and to ensure that recycling is both easy and clean to maximise the resource value of waste.

In 2000 the EU Lisbon Strategy set out an ambitious agenda of economics and social reforms to create a highly dynamic and competitive knowledge-based economy in the European Union States. In 2001 a broad Strategy for Sustainable Development was founded by the European Council in Gothenburg and in 2002 its external dimension was defined in Barcelona ahead

of the UN's World Summit on Sustainable Development. On 9th February 2005 the EU Commission presented a Communication on the 2005 Review of the EU Sustainable Development Strategy. The Sustainable Development Strategy and the Lisbon Strategy share the same ultimate goal, namely to improve welfare and living conditions in a sustainable way for present and future generations.

Among the issues of relevance to the Regional Waste Management Plans in the 2005 Review of the Sustainable Development Strategy are the following: -

- Managing our natural resources – protecting our water, air and land from threats to our biodiversity.
- Protecting public health and the environment.
- Minimising poverty and social exclusion.
- Tackle priority waste streams setting targets and monitoring performance.
- Identify policies to encourage creation of markets.

Opportunities exist to maximise waste prevention and recycling in partnership with community networks to maximise resource recovery and provide employment thus minimising social exclusion.

To maximise recycling markets at home, the pursuance of “green procurement policies” need to be encouraged in the plan to help create sustainable markets. Civic Amenity Facilities and Resource Recovery Parks to collect household commercial and selective industrial waste (e.g. construction /demolition, electronic, packaging and end of life bulky items) are also needed.

1.3 REGIONAL APPROACH

A key Government Waste Management Policy Statement entitled 'Changing Our Ways' was published in 1998, which encouraged Local Authorities to adopt a regional approach to Waste Management Planning. This was a progressive move from the traditional scenario where waste management was organised by individual Local Authorities independently.

As a result of this policy, a total of ten plans were prepared, including seven Regional

plans where a regional approach was adopted.

Other Government policy documents have been published in the interim, which maintain support for the regional approach to waste management, namely:

- Delivering Change (2002)
- Taking Stock and Moving Forward (2004)

Planning and Development Context

The National Spatial Strategy sets out the overall strategic framework for Ireland's development over the period 2002-2020. Development needs to be co-ordinated at a Regional level, and a series of 'Regional Planning Guidelines' (RPGs) have been prepared during 2003 – 2004. These Guidelines inform and guide regional development including key infrastructural considerations, setting the overall objectives for the Region and helping to shape the County Development Plans of individual Local Authorities.

Map 1 outlines the Midlands Region as set out in the National Spatial Strategy.

Planning considerations in the Midlands Region are determined by counties of Laois, Longford, Offaly, and Westmeath. North Tipperary is included on the map even though it is part of the Mid-West Region for planning issues. It remains part of the Midlands Regional grouping for waste management. The Regional Planning Guidelines for the Midlands Region were published in 2004.






The Midlands Regional Waste Management Plan therefore aims to have regard to the RPG framework.

1.4 LOCAL DEVELOPMENT FRAMEWORK

Local development in Ireland is informed primarily by the County Development Plans of each Local Authority. For the Midlands Region, the following five County Development Plans currently apply:

- Laois County Development Plan 2000 (see www.laois.ie)

LEGEND

-  Gateway
-  Principal Town
-  Key Service Town
-  Urban Service Town
-  Local Service Town

 Northern Development Area

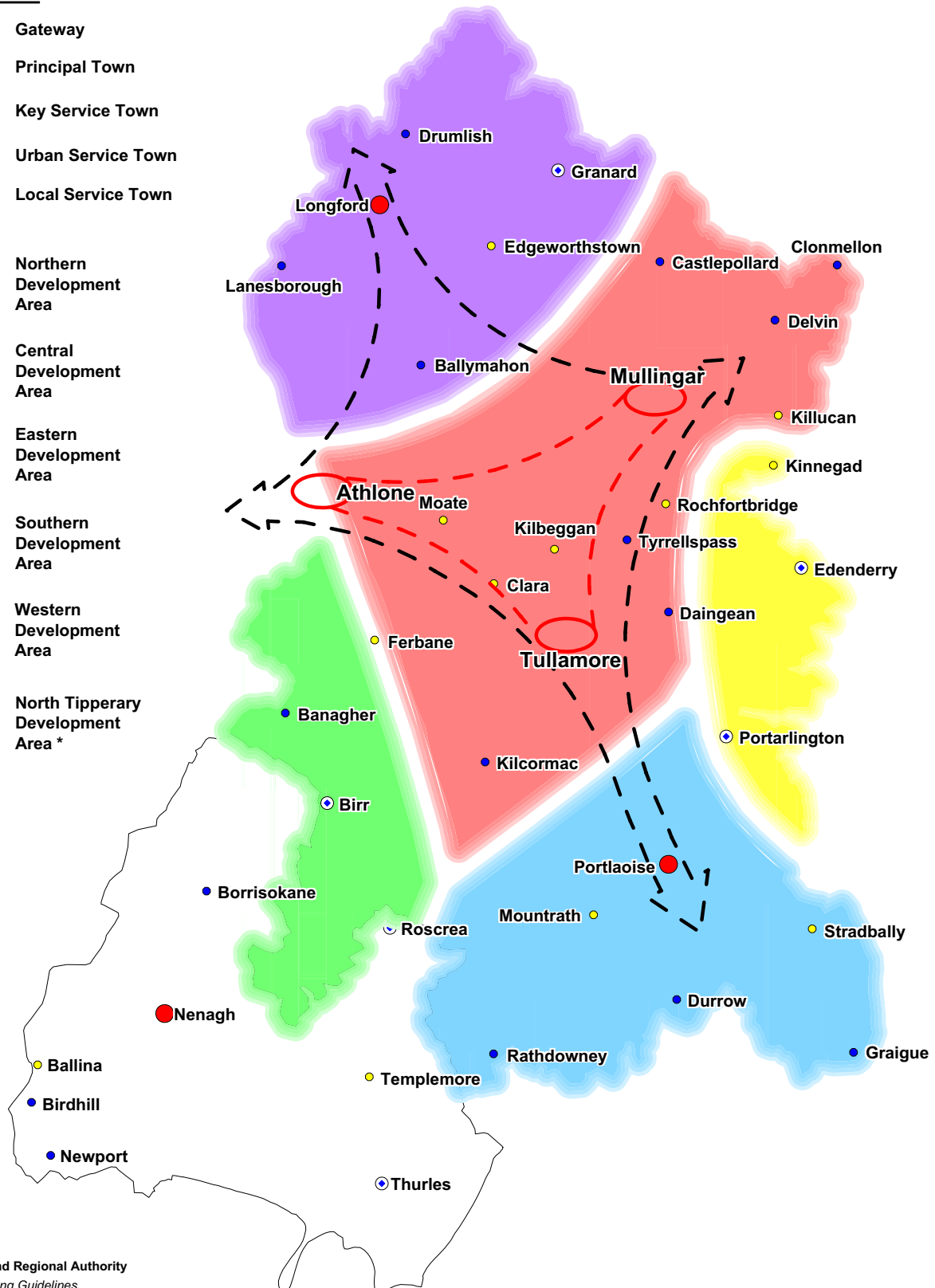
 Central Development Area

 Eastern Development Area

 Southern Development Area

 Western Development Area

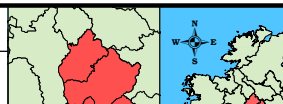

 North Tipperary Development Area *



Source: Midland Regional Authority
Regional Planning Guidelines

* Source: MidWest Regional Authority
Regional Planning Guidelines



Project Midlands Waste Plan		Figure Map 1		Issue Details	
Title Midland Region - Spatial Planning				Drawn: RH/SK	Project No. MDR0316
				Checked: WP	File Ref. MDR0316MI0005D02
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- Longford County Development Plan 2003-2009
(see www.longfordcoco.ie)
- Offaly County Development Plan 2003-2009
(see www.offaly.ie)
- North Tipperary County Development Plan 2004-2010
(see www.tipperarynorth.ie)
- Westmeath County Development Plan 2002-2008
(see www.westmeathcoco.ie)

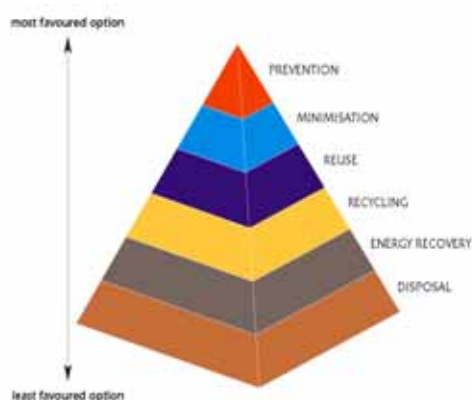
The Waste Management (Amendment) Act, 2001 and the Protection of the Environment Act, 2003 determine that the Waste Management Plan, once made by the Local Authorities, becomes a subset of the County Development Plan and stated policies set out in a Waste Management Plan are, by definition, set out as stated policy in the County Development Plan. In this regard the Waste Management Plan sets out a clear policy framework within which a sustainable and integrated waste management system is planned and developed.

1.5 WASTE MANAGEMENT POLICY AND LEGISLATION

1.5.1 Irish Waste Management Policy

The Government approach to waste management was set out in *'Changing Our Ways'*, 1998. The documents main aims include reducing our national dependence on landfill by encouraging the transition to a modernised integrated waste system, which follows the European Waste Hierarchy shown in Figure 1.1.

Figure 1.1: EU Waste Management Hierarchy



The importance of the regional approach to waste management was emphasised in this document, with support expressed for

increased private sector involvement. Policy targets in this document are summarised in Part Four of this Plan.

National targets were set out in this Policy Statement, to be realised over a period of 15 years from 1998 in order to fulfil the country's obligations under the prevailing EU legislation at the time of publication, the principal directives being:

- Waste Framework Directive (1975 and 1991)
- Hazardous Waste Directive (1991)
- EU Packaging Directive (via Waste Management Act, 1996) - glass, paper, plastics, aluminium, steel packaging.
- EU Landfill Directive (1999) - biodegradable waste and other wastes to be phased out of landfill.

The underlying philosophy behind the Government's policy was, and remains, the EU Waste Management Hierarchy, which sets out that prevention and minimisation of waste should be followed by reuse, recycling and recovery (in that order), with disposal as the least favoured option of all. In addition to National Policy, the EU Landfill Directive imposes very strict legal conditions on what wastes may be landfilled in the future. The provision of alternative facilities for the treatment of biodegradable wastes remains a priority.

In accordance with this policy, the 'polluter pays principle' is prioritised, reinforced by the Pay by Weight/Use system being implemented nationally in 2005. It is considered that levying of use-related charges rather than flat rate charges is the most environmentally effective way to charge for waste management services and will encourage a move away from landfill disposal towards more sustainable waste practices.

'Delivering Change', published in 2002, further emphasised the national need for Regional Waste Management Planning, focusing, in particular, on the areas of prevention and recycling.

The establishment of a grant system was seen as a key initial step in ensuring the delivery of important recycling infrastructure.

'Taking Stock and Moving Forward' (2004), reiterated the commitment to integrated waste management in the Region,

highlighting key actions required to ensure the achievement of national targets.

The establishment of a National Waste Prevention Programme, a Market Development Group to promote/develop markets for recyclables, and a greater emphasis on Producer Responsibility Initiatives were key targets of this policy document.

The above policy documents can be accessed at www.environ.ie

1.5.2 Relevant EU and National Legislation

As a member state of the European Union, Ireland is obliged to transpose EU Directives into national law. Since the original Waste Management Plan for the Midlands was written, a number of new EU Directives and national legislation relevant to waste management have been introduced. Key items include:

EU Directives:

- The Incineration of Waste Directive (2000/76/EC)
- The End of Life Vehicles Directive (2000/53/EC)
- The Waste Electrical and Electronic Equipment Directive (WEEE) (2002/96/EC)
- Animal By-Products Regulations (1774/2002/EC)

National:

- Planning and Development Act, 2000
- Waste Management (Amendment) Act, 2001
- Protection of the Environment Act, 2003

The Waste Management Act, 1996 is an enabling piece of legislation allowing the Minister of the Environment, Heritage and Local Government to introduce policies or measures appropriate to developing circumstances or requirements.

A list of all relevant EU and national legislation is given in Appendix A of this Plan. This Plan recognises and is intended to satisfy all current legal obligations with respect to waste management in the Midlands Region.

1.6 CONSULTATION DURING PREPARATION OF PLAN

As part of the statutory review process, it is a requirement in drafting the plan to give notice to the public by way of local newspapers and allow a two-month period for written submissions to be made.

In preparing this Waste Management Plan, extensive additional consultation has been undertaken in order to establish key issues, which need to be considered in determining policy going forward.

The following consultation methods were undertaken:

- Written submissions were sought from the public in accordance with the obligations imposed by Section 22 of the Waste Management Act
- A briefing was delivered to the Elected Members of each County Council.
- Local consultation forums (one day duration) were held in each of the five Local Authority headquarters.
- Drop in Days were held for industry based in the Region on two separate occasions.
- A regional stakeholder meeting was held with a diverse cross section of groups invited to attend

This Waste Management Plan will be presented to the Elected Members of each Local Authority and will be on public display for the statutory period of two months. Further submissions and comments are invited during this period and any submissions made will be reviewed and incorporated into the final Plan where appropriate.

2 STUDY AREA

2.1 GENERAL DESCRIPTION OF THE AREA

The study area consists of the administrative areas covered by the five Midlands Local Authorities of Laois, Longford, Offaly, North Tipperary and Westmeath as shown in **Map 2**.

The total population of the Region is 286,373 (CSO 2002) and it covers 3,306 square miles. The five counties each have their own administrative centres, Portlaoise, Longford Town, Tullamore, Nenagh and Mullingar. The character of the Region is predominantly rural with agriculture playing an important part in its economy. Recent national economic growth has had a corresponding impact on the Midlands Region particularly in the agri/food, medical and chemical industries. This growth can also be seen in the principal towns in the Region where house prices have risen sharply in recent years.

Due to their proximity to Dublin, several of the regional centres are experiencing pressure for residential, retail and commercial development. The growing population is placing even greater demands on the infrastructure of these towns, e.g. shopping, residential and recreational facilities.

The National Spatial Strategy has also identified Tullamore along with Athlone and Mullingar as an element in a "linked gateway city". This builds on their strategic and central location in both Ireland and the Midlands.

2.2 TOPOGRAPHY

The Midlands has a variable landscape, which ranges from the peatlands covering much of the central area of the Region to a number of glacial landforms such as eskers, kames and drumlins. There are also several waterways of note such as Lough Ree, Lough Ennell, Lough Derg and the Shannon River.

Lying for the most part between the 60m and the 120m contours, the Region is mainly underlain by Carboniferous limestone entirely concealed by a mantle of recent glacial deposits and occasional peat bogs. The main

highland areas are the Silvermine Mountains and Devil's Bit in North Tipperary and the Slieve Bloom Mountains along the Laois-Offaly border. The highest point is Keeper Hill, 694m OD in the Silvermine Mountains.

The Midlands has an average rainfall of 800-1000mm per year, which can rise to 1600mm in the higher mountainous areas. This Region gets approximately 175 days of rainfall and 1400 hours of sunshine annually.

The Midlands Region has Nature Reserves such as the Slieve Bloom Mountains (155,400ha), Timahoe Esker and Mongan Bog. There is one Special Protection Area (SPA); Mongan Bog in Co. Offaly and a number of Wetland Sites, being mostly bogs e.g. Clara Bog. These bogs and wetlands are a haven for a huge variety of native and migrant birds. The corncrake is one of 87 species of bird that can be heard or seen in these areas. The environmentally sensitive callows of the Shannon River offer their own rich environmental heritage, whilst the swathes of cut-away bog, which have provided both fuel and employment at the power generating stations at Lanesborough, Shannonbridge, Rhode and Ferbane offer their own environmental challenges in terms of restoration and reintegration into the landscape.

2.3 POPULATION

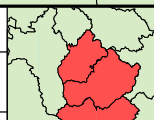
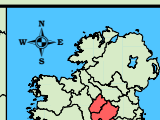


According to the latest national census, the population of the Midlands Region was recorded at 286,373 in 2002, an increase of 8.7% since the previous census in 1996. This figure is broken down as follows:

Table 2.1: Census figures 1996-2002

County	1996	2002	Increase
Laois	52,945	58,774	11.0%
Longford	30,166	31,068	3.0%
Offaly	59,117	63,663	7.7%
N. Tipp	58,021	61,010	5.2%
Westmeath	63,314	71,858	13.5%
Total	263,563	286,373	8.7%

The most recent Census figures (2002) show that population growth in the Midlands is slightly above the National Average of 8%, but below the overall average in Leinster of 9.4%. This provincial average is largely influenced by the increase in population of



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Title Midlands Region - Location Map			 <p>West Pier Business Campus Dun Laoghaire Co. Dublin Ireland Phone: 01 - 2884499 Fax No. 01 - 2835676 rpsmcos@rpsgroup.ie</p>		Drawn: RH		Project No. MDR0316	
					Checked: WP		File Ref.	
					Approved: LOT		MDR0316M10001D01	
					Scale: NTS		Drawing No. Rev.	
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the counties that now contain commuter towns for Dublin, which is reflected in particular by the population growth in Westmeath.

The Midlands Region is essentially rural with just 35.73% of its inhabitants living in areas classified by the C.S.O. as urban.

Map 3 outlines the main population centres in the Region and illustrates the Urban/Rural population distribution in each county in the Region. The largest town in the Region is Mullingar, which has a population of 15,621. Other major towns are Athlone (14,310), Portlaoise (12,127), Tullamore (11,098), Longford (7,557) and Thurles (7,425).

Four towns in the Region have populations of between 3,000 and 6,000 people. Next in size are towns with 1,000 to 3,000 inhabitants (15) and towns with 500 to 1,000 inhabitants (19).

Due to increased employment opportunities in the State an increase in net inward migration and a corresponding increase in population and demand for property has occurred. Due to the increased uptake of jobs in the Dublin Region and the lower cost of property in counties within commuting distance of Dublin, the number of new housing developments in these counties has risen.

Over the coming years it is anticipated that the favourable economic climate currently being experienced will be a contributor to further population growth in the Midlands Region. Furthermore, the effect of the ever-expanding Dublin Metropolitan area cannot be overlooked, particularly as it relates to population trends in counties Westmeath, Offaly and Laois. Similarly, as previously stated, Limerick City's expansion may influence the population of nearby North Tipperary.

2.4 LAND USE

The Midlands Region is dominated by agriculture, which accounts for 79% of land use and mainly consists of pasture with areas of arable land scattered throughout the Region. The main agricultural activities in each county are shown in Table 2.2.

Table 2.2: Agriculture in the Midlands Region

County	Agriculture
Laois	Livestock/Arable
Longford	Grazing
Offaly	Livestock/Arable
North Tipperary	Livestock/Arable/Cattle Rearing
Westmeath	Grazing

Bogs and marshes cover 9% of the landuse and have proven suitable for large-scale commercial turf production.

Forests and semi-natural areas also cover 9% of the Region. Landuse in the Slieve Bloom Mountains along the Laois-Offaly border includes forestry, as does Lough Boora Parklands in Co. Offaly.

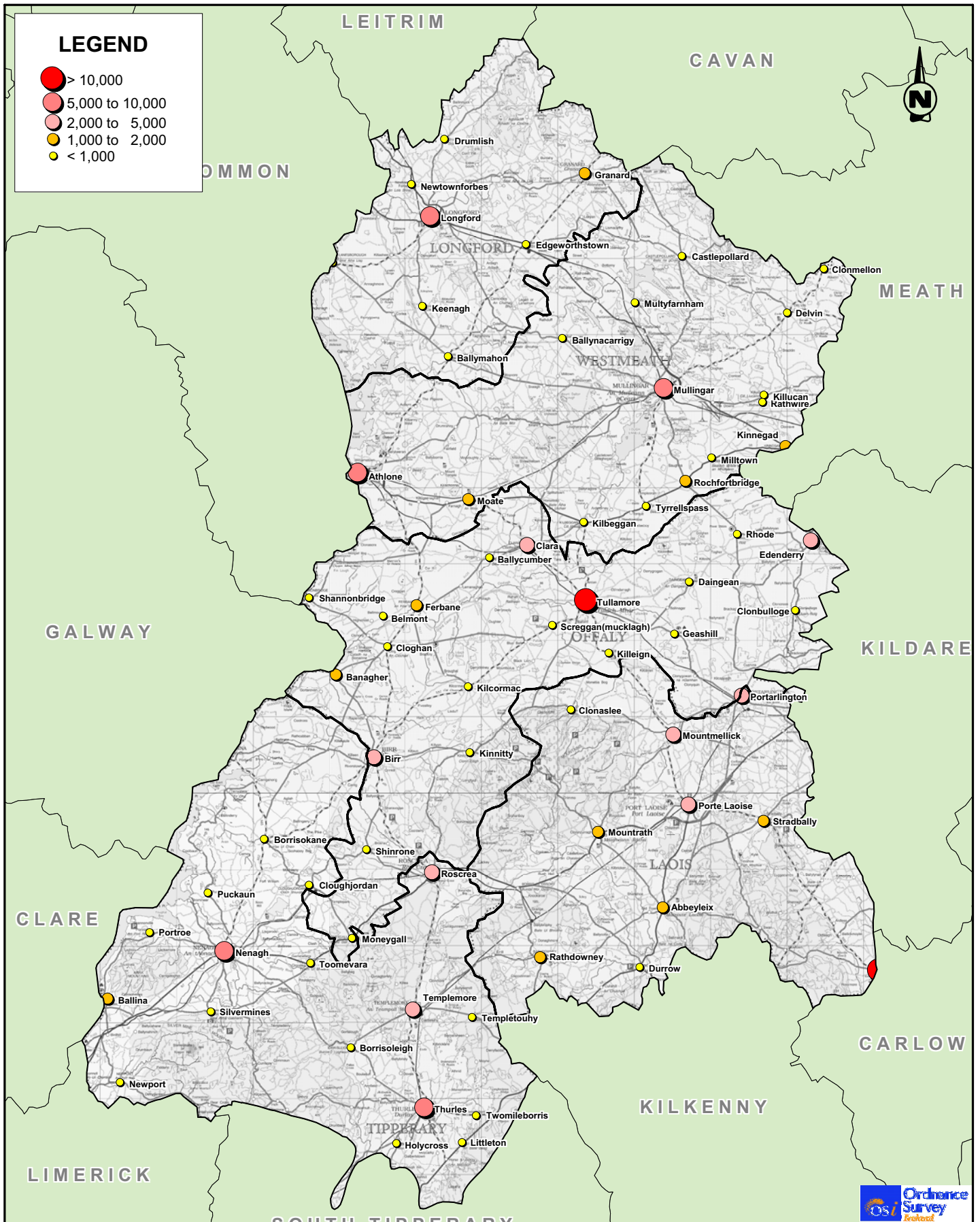


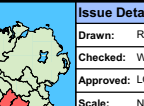


Templemore Woods – North Tipperary

Lakes and rivers cover 2% of the area. The River Shannon and the eastern parts of Lough Ree and Lough Derg form much of the western border of the Midlands Region. Other lakes in the Region include Lough Owel, Lough Derravanagh and Lough Ennell, which are located in Co. Westmeath. The Royal and Grand Canals cross the Midlands Region and connect Dublin with the River Shannon.

Urban areas including Athlone, Mullingar, Tullamore and Portlaoise represent only 1% of the landuse in the Region.

It is the policy of the five Midlands Local Authorities that environmentally sensitive and high amenity areas be protected and this aim is outlined in each of their respective County Development plans. This is usually achieved by imposing planning restrictions in these areas.



Project Midlands Waste Plan		Figure Map 3		Issue Details	
Title Midlands Region - Population Map				Drawn: RH	Project No. MDR0316
				Checked: WP	File Ref.
			Approved: LOT	MDR0316M0002D01	
			Scale: NTS	Drawing No. Rev.	
			Date: 06/12/2004	M0002 D01	
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As well as restriction of development through the county development plans, Dúchas, The Heritage Service has designated some environmentally sensitive areas of Ireland as proposed Natural Heritage Areas (NHAs). These areas are designated under the Wildlife Act, 2000, making it illegal for any work to be carried out on a Proposed Natural Heritage Area that might damage the integrity of the site, without the approval of the Minister for the Environment, Heritage and Local Government.

Map 4 shows the proposed and existing Natural Heritage Areas, Special Protection Areas and Candidate Special Areas of Conservation (cSACs) in the Midlands Region.

2.5 TRANSPORTATION INFRASTRUCTURE

2.5.1 Road Network

The road infrastructure in the Midlands is an extensive network of both minor roads and major corridors. Due to its central location, many of Ireland's major north/south and east/west routes pass through the Region, as shown in **Map 5**. The national road network forms the basis for most of the transportation and distribution within the country. Management and planning of the national road network is undertaken by the National Roads Authority (NRA) and the County Councils in the corresponding counties.

National Primary Routes

The national primary roads offer the highest level of road linkage in terms of capacity and road quality, and will receive priority in terms of future infrastructure development. The Region has varying degrees of access from the National Primary routes.



N4 Upgrade - Edgeworthstown Inner Relief Scheme

There is an east/west strategic road corridor, the N4, which crosses through the Midlands

Region. The corridor divides after Kinnegad towards Galway (N6) and Sligo (N4). At Longford a strategic corridor link (N5) joins the N4, connecting the west of Ireland with the Midlands. The southwest road corridor (M7) also passes through the southern part of the Region, where it divides at Portlaoise to serve the south (M8) and southwest (M7).

During the life of this Plan, the National Roads Authority has plans to expand, upgrade or construct new sections of the national road network, as part of the National Development Plan (2000-2006). Works scheduled for 2005 include continuation of the construction of the N4 - McNeads Bridge to Kinnegad and M4 - Kinnegad to Kilcock schemes and N6 - Kinnegad to Athlone Scheme. Other schemes that have gone through the statutory approval process are the M7 - Portlaoise / Castletown and M8 - Portlaoise / Cullahill schemes.

National Secondary Routes

The secondary road network follows a denser regional pattern, linking the main Midlands towns and providing some localised tourism routes in the Region. The design specification of secondary routes can be variable, but they are predominantly single carriageway with hard shoulder. The lack of primary routes through Offaly means that the role of the secondary routes is crucial to the development of the county as identified in the County Development Plan (2003-2009). The principal North-South Arteries include the N80, the N52, the N55 and the N62.

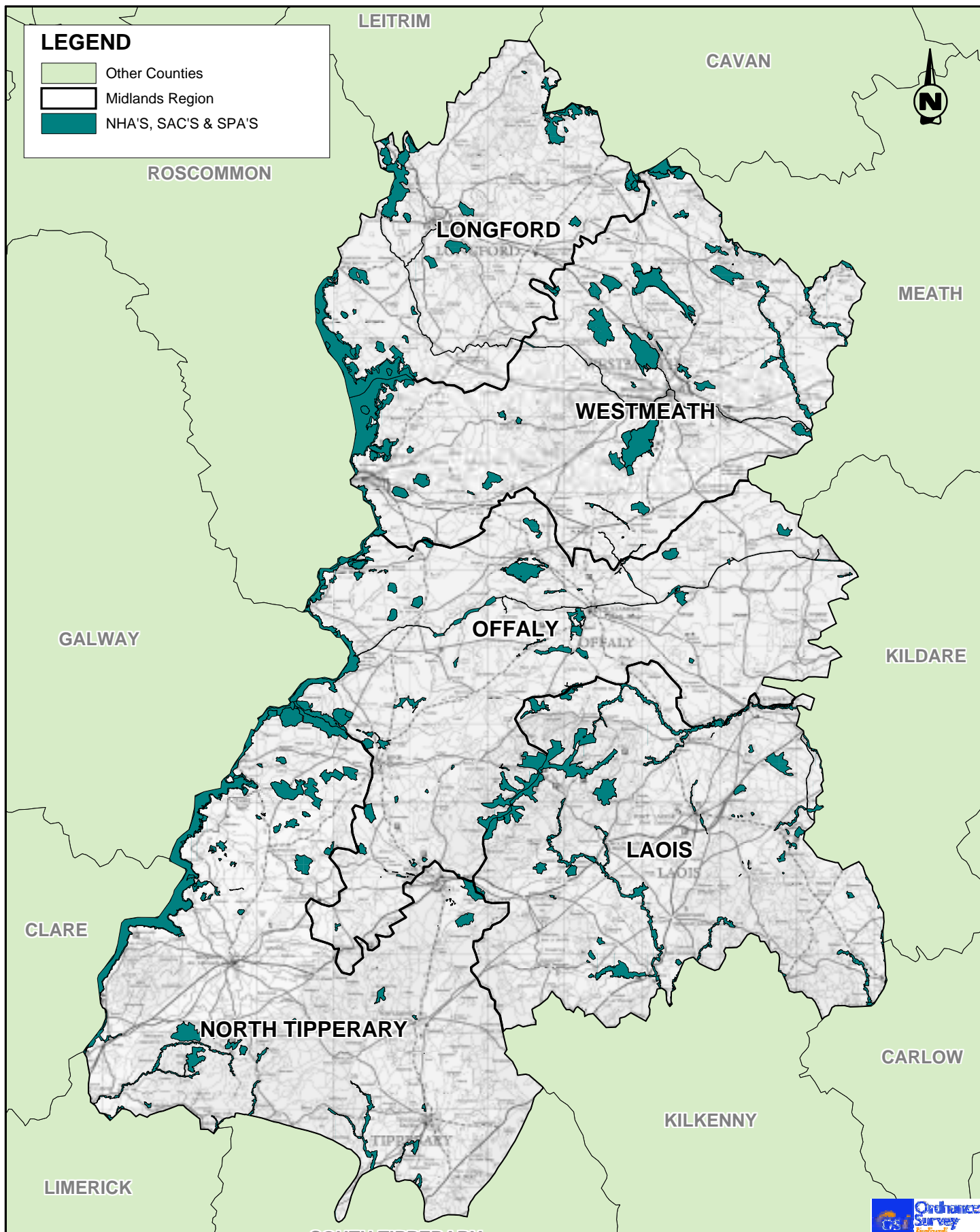
Regional and County Routes

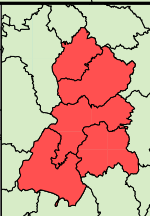
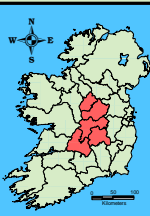


The Midlands has a reasonably high density of public roadways serving the more rural parts of the Region. The roads tend to lead into the local secondary or primary road hub in a radial manner. The regional roads tend to follow the local topography.

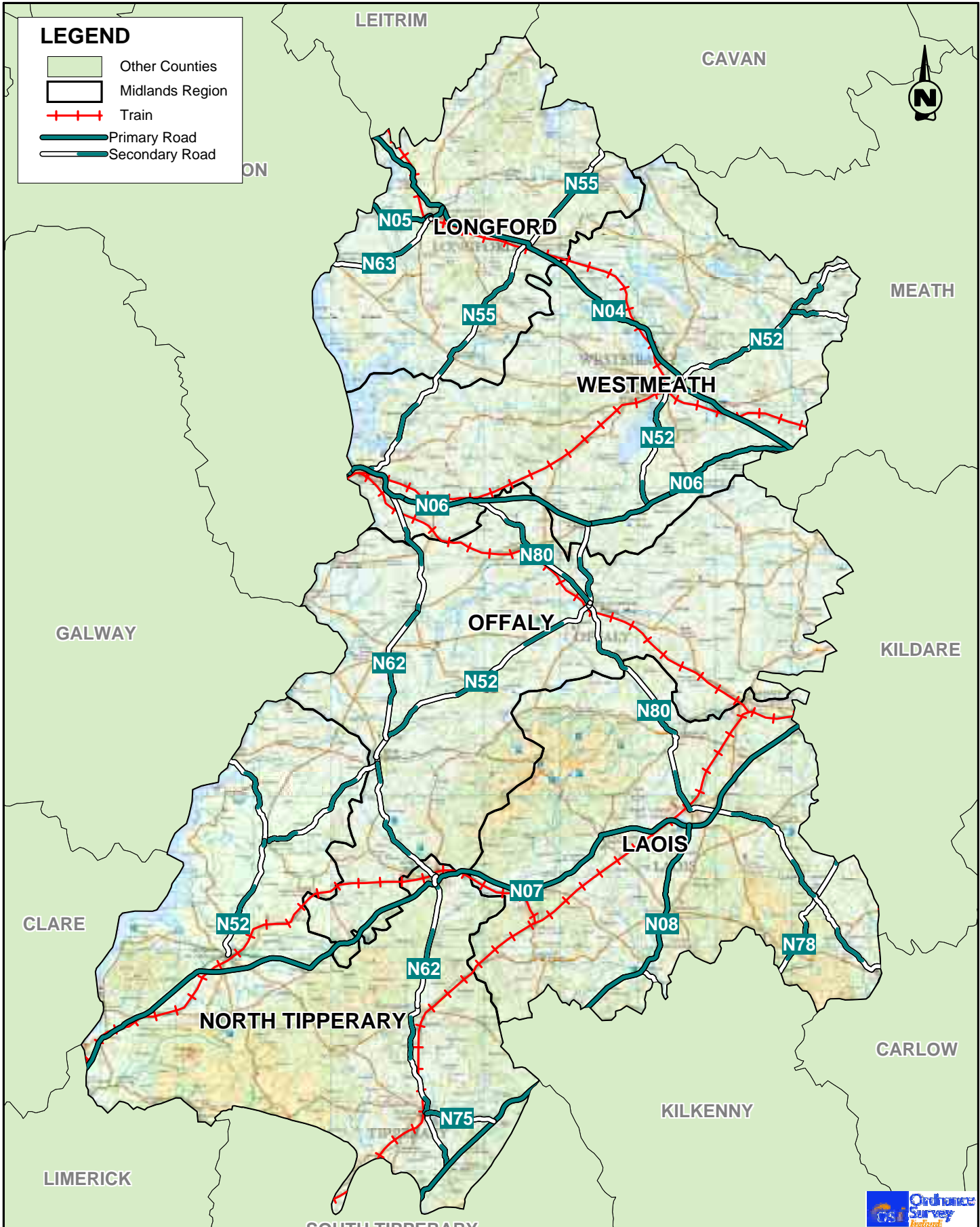
2.5.2 Rail Network

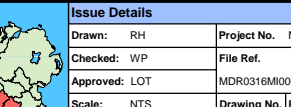


The Midlands Region is relatively well served by rail with a number of mainline routes passing through one or more of the counties. Most of the principal towns in the Region are served by rail links. As with the National Primary roads, the rail network traverses the Midlands generally in an East-West direction.

The towns of Longford and Mullingar are on the Sligo-Dublin rail line. Athlone and Tullamore are served by the Dublin-Galway and Dublin-Westport lines. The Dublin-Cork



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Title Midlands Region - Environmental Map (NHA's, SAC's, SPA's)		Drawn: RH				Project No. MDR0316	
		Checked: WP				File Ref.	
		Approved: LOT				MDR0316MI0003D01	
		Scale: NTS				Drawing No. Rev.	
Date: 06/12/2004		MI0003		D01			
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Title Midlands Region - Transport Network				Drawn: RH	Project No. MDR0316
				Checked: WP	File Ref.
			Approved: LOT	MDR0316MI0004D01	
			Scale: NTS	Drawing No. Rev.	
			Date: 06/12/2004	MI0004 D01	
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and Dublin-Limerick lines service Portlaoise, Portlaoise, Templemore and Thurles while, Nenagh, Ballybrophy and Roscrea are also served by rail.

2.6 GEOLOGY AND HYDROGEOLOGY

2.6.1 Geology

The Geology in the Midlands Region largely comprises Carboniferous limestone with small pockets of sandstones and some older volcanic and metamorphic rocks. There are also significant pockets of lead and zinc mineralization, which are being exploited at Lisheen in Tipperary.

A general investigation of the bedrock geology shows Lower Carboniferous limestone predominates throughout the Region, with a wide range of rock forms present in smaller areas.

Laois is underlain by a mixture of Lower, Middle and Upper Carboniferous limestone, with significant areas of Old Red sandstone, Lower Avonian shale and sandstones and coal measures also present.

Longford is underlain primarily by Lower and some Middle Carboniferous limestone, with its northernmost area characterised by Silurian quartzite and, to a lesser extent, Ordovician rock. Deposits of basalts and other volcanic rock are noted in the northern part of the county also, while there are pockets of coal measures in its centre.

County Westmeath is again dominated by the Carboniferous limestone with large areas of the Middle Carboniferous in the North with Lower Carboniferous to the south, east and west. Sporadic Ordovician deposits are noted through the county, with other comparatively small formations of Upper Avonian shale and sandstones in the north and coal measures and Lower Avonian shale in the south.

Offaly is extensively underlain with Lower Carboniferous limestone, with a deposit of Middle Carboniferous in the east. Areas of Lower Avonian shale and sandstones are recorded in the southeast and north west of the county, with Old Red sandstone and Silurian quartzite in the southeast.

Geology in the North of Tipperary also chiefly comprises of Lower Carboniferous limestone,

although there is a significant area of Silurian quartzite to the south west and west of the county, generally encircled by deposits of Old Red sandstone. Areas of Lower Avonian shale occur throughout the county, but more commonly in the southwest area.

2.6.2 Hydrogeology

The hydrogeology of the Region is a function of the geology, both the bedrock and the Quaternary or Overburden geology. The Midlands Region features both bedrock and quaternary (sand and gravel) aquifers.

The importance of these aquifers will vary with their productivity. Groundwater protection is also an important issue, and the natural protective properties of any overburden material and soil depth must be considered when assessing the aquifers vulnerability to contamination.

The largest areas of water bearing rocks in the Midlands Region are located in counties Offaly, Laois, North Tipperary and Westmeath. In North Tipperary a bedrock aquifer located in the Nenagh area is classed as a regionally or locally important aquifer by the Environmental Protection Agency (EPA) depending upon its productivity. Another smaller aquifer is situated in the east of the county in the Slieveardagh Hills.

County Laois contains two large bedrock aquifer formations. These aquifers are situated between Abbeylax and Castlecomer, in County Kilkenny, and in the west of County Laois at Mountrath running North East to the outskirts of Portlaoise. Laois also has small Sand and Gravel Aquifers near Portlaoise and Abbeylax.

The bedrock aquifer in the West of County Laois runs into County Offaly in the Slieve Bloom Mountain formations while sand and gravel aquifers are also present in this area in particular just north of Roscrea. There is also a large bedrock aquifer running from Banagher to Tullamore with a minor sand and gravel aquifer south west of Banagher.

In Westmeath there are small areas of sand and gravel aquifers near Moate with a bedrock aquifer in the Castletown area. There is also a larger sand and gravel aquifer near Delvin. County Longford has a small bedrock aquifer in the Longford Town area with very small sand and gravel aquifers at Abbeyshrule and at Granard.

Groundwater Protection Schemes are complete for Offaly, Laois and North Tipperary. In Ireland, the majority of groundwater supplies for drinking water are untreated and this increases the importance of groundwater protection.

2.6.3 Groundwater Usage

The definition of a groundwater source for water supply has here been considered to include supply from artesian sources and underground rivers.

Groundwater usage is currently divided into Public and Private Schemes. These are in the main Group Schemes with a number of single owned private wells. Table 2.3 below shows the percentage of groundwater contributing to total water supply in each county of the Region.

Table 2.3: Groundwater Schemes in the Midlands Region

County	% of Total Water Supply
Longford	15
Westmeath	20
Offaly	80
Laois	95
North Tipperary	50

The EU Water Framework Directive sets a framework for management of water resources (inland surface waters, estuarine and coastal waters and groundwater). The objective is to maintain “high status” of waters where it exists, preventing any deterioration in the existing status of waters and achieving at least “good status” in relation to all waters by 2015.

The Private Schemes also include wells serving single premises. There is a possibility that many private wells in this category have not been recorded.

The proportion of groundwater usage is not reflected in the number of schemes but in the proportion of the total water supply. Currently 80% of the current water supply in Offaly comes from Groundwater while this figure falls to 15% in County Longford. The proportion of groundwater abstracted is not a function of the number of wells or schemes within the Region but of the yield from

boreholes. In Longford for example, while there is a large number of private abstractions the percentage of the total water supply derived from groundwater is relatively low.

There are groundwater abstractions in Port Laoise, and Moate, and many other areas in the Region. It is essential that aquifers do not suffer from over abstraction, where pumping rates exceed the recharge rate of the aquifer.

2.7 HYDROLOGICAL FEATURES

2.7.1 Main Hydrology

The Midlands Region contains sections of a number of catchments, such as the Shannon, Inny, Barrow and Boyne. There are a number of rivers and canals travelling through the Region, the primary ones being the Shannon, Barrow, Nore, Suir, Boyne and the Grand and Royal Canals. Loughs Ree and Lough Derg are the two main lakes in the Midlands.



Hydrological Features - River Shannon borders the Region

Both the Royal and Grand Canals cross the Midlands Region from east to west connecting Dublin with the River Shannon.

2.8 NATURE, SCALE & DISTRIBUTION OF COMMERCIAL, INDUSTRIAL AND TOURISM ACTIVITY

2.8.1 Commercial & Industrial Activity

Following the 2002 Census of Ireland, the Central Statistics Office (CSO) has published statistics on the commercial and industrial sector and the corresponding workforce figures for 2002.

Commercial and Industrial activities are typically separated into the following categories:

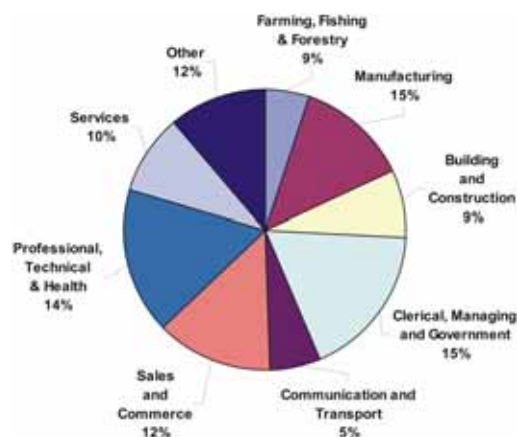
- clerical,
- management & government,
- communication & transport,
- sales & commerce,
- professional,
- technical & health,
- services and other.

The representative percentages of these activities for the Midlands Region are shown in **Figure 2.1**

An employment rate of 67% for the commercial sector was recorded, which is lower than the national average of 74%. This difference can be explained by the nature of the Region, which is sparsely populated with a significant rural spatial coverage.

Figure 2.1 further highlights the rural aspect in the Region, showing 9% of workers are employed in agricultural activities as compared with 5% nationally.

Figure 2.1: Midlands Commercial and Industrial Activities



In industrial terms, Figure 2.1 shows that manufacturing accounts for 15% of employment in the Region, which is below the national average of 19%. **Map 6** shows IPPC Licensed industries located across the Region.

A breakdown of employee numbers in the commercial and industrial sector for the Region was obtained from the Kompass Ireland Directory. Kompass maintains commercial and industrial databases including employee figures. Table 2.4

provides listing and employee numbers for each sector. The table also shows the number of EPA regulated IPPC (formerly IPC) licensed facilities which applies to certain industrial activities in the Region.

Table 2.4: Commercial and Industrial Listings

Commercial*	Number
No. of Businesses	11,977
No. of Employees	85,824
Industry*	
No. of Industries (incl IPPC Industries)	594
No. of Employees	16,751
No. of IPPC Licensed Industries	66

*Source: Kompass Directory Ireland

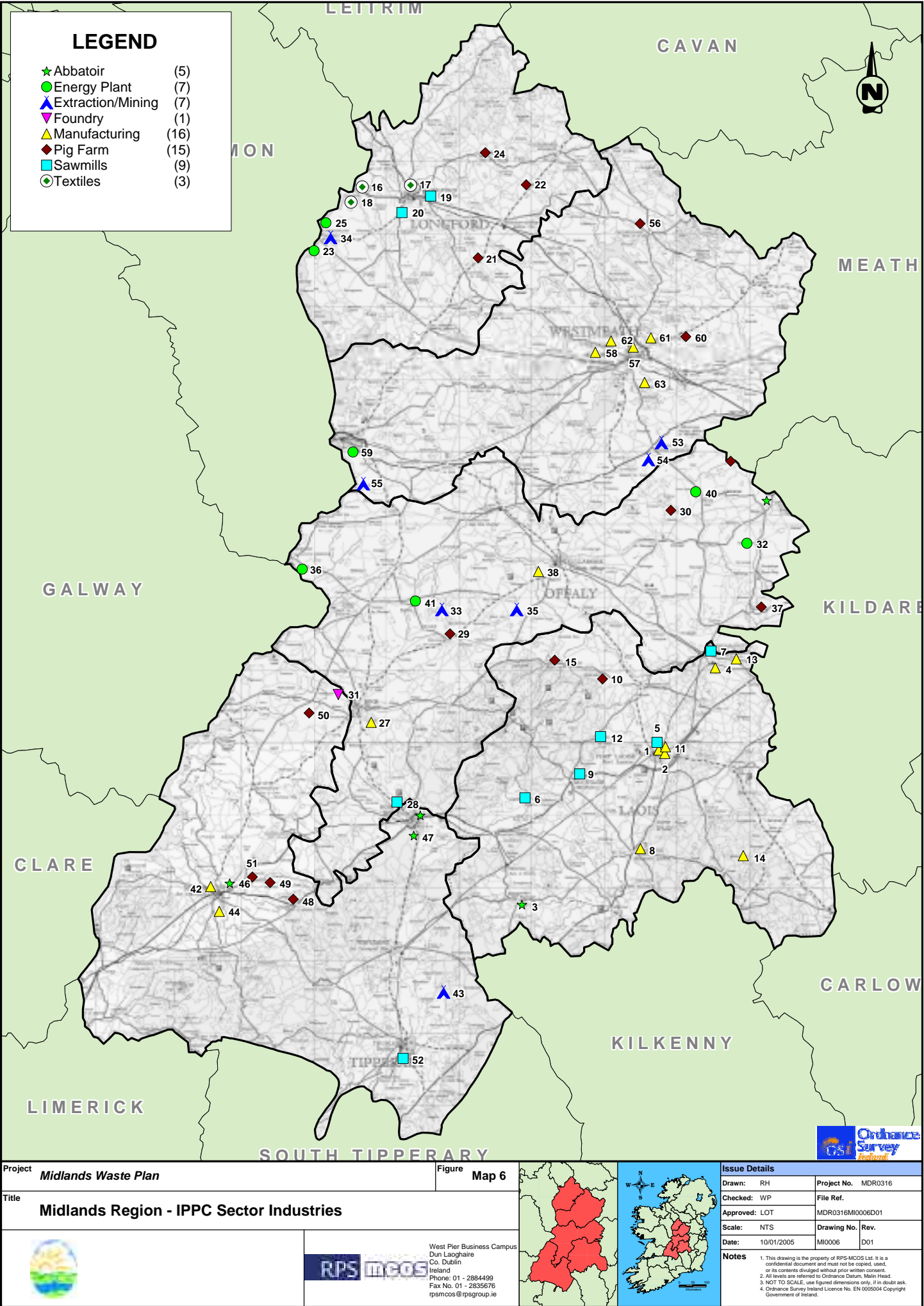
2.8.2 Tourism Activity

Tourism in counties Longford, Westmeath, Laois and North Offaly is co-ordinated by Midlands-East Tourism. This body also oversees tourism development in counties Kildare, Meath and Wicklow. The area of North Tipperary and South Offaly comes under the jurisdiction of the Shannon Development Company.

It is necessary for a waste management plan to take into account tourism in the Region for two reasons. Firstly, the problems of litter and illegal dumping are relevant to the plan since these problems have the potential to undermine the tourism industry in an area. Secondly the waste plan must account for specific types of waste generated by tourism and ensure that measures for waste prevention, minimisation and recycling are included and highlighted in this sector.

The Midlands is rich in both natural and built heritage sites. The River Shannon is a major tourist attraction, bordering Counties Longford, Westmeath, Offaly and North Tipperary. Bogs constitute much of the Midlands landscape and are also one of the Region's more popular features, while Clonmacnoise is a 6th century monastic ruin located on the banks of the Shannon and is one of Ireland's major tourist attractions.

ID	INDUSTRY_NAME	LOCATION	COUNTY	REG_NO	INDUSTRY_TYPE
1	DIS Enbi Seals Ireland Ltd.	Clonminam Industrial Estate Portlaoise	Laois	64	Manufacturing
2	Tretorn Sport Ltd.	Kylekiproe Industrial Estate Portlaoise	Laois	113	Manufacturing
3	Meadow Meats Ltd.	Rathdowney	Laois	183	Abattoir
4	Patrick McCormack	Cooltederry Portarlington	Laois	274	Manufacturing
5	Laois Sawmills Limited	Ballymacken, Portlaoise	Laois	322	Sawmills
6	Coolrain Sawmills Limited	Coolrain, Portlaoise	Laois	323	Sawmills
7	James McMahon Limited	Station Road, Portarlington	Laois	330	Sawmills
8	Randstone Ltd./Stonearch Branch	Abbeyleix	Laois	332	Manufacturing
9	C.J. Sheeran Limited	Mountrath Sawmills, Shannon St. Mountrath	Laois	337	Sawmills
10	Glanbia Farms Limited	Rosenallis	Laois	418	Pig Farm
11	Atlas Oil Labs Limited	Clonminam Industrial Estate Portlaoise	Laois	472	Manufacturing
12	Ballyfin Sawmills Limited	Ballyfin, Portlaoise	Laois	478	Sawmills
13	SIAC Butlers Steel Limited	Portarlington	Laois	518	Manufacturing
14	Dineen Refractories Limited	Wolfhill	Laois	531	Manufacturing
15	Glanbia Farms Limited	Clonaslee, Portlaoise	Laois	560	Pig Farm
16	Alantic Mills Limited	Fisherstown, Clondra	Longford	221	Textiles
17	Barbour Threads Limited	Templemichael, Longford	Longford	226	Textiles
18	Swanpool Limited	Richmond Mills, Clondra	Longford	234	Textiles
19	Glennon Bros. Timber Limited	The Sawmills, Kilnasavogue, Longford	Longford	327	Sawmills
20	Gem Manufacturing Co. Ltd.	Cartrongeearagh, Longford	Longford	351	Sawmills
21	Donal Brady	Ballyglassin, Edgeworthstown	Longford	408	Pig Farm
22	Mr. Padraig Kiernan	Granard Farms, Coolarty, Edgeworthstown	Longford	481	Pig Farm
23	Electricity Supply Board	Lough Ree Power, Lanesborough	Longford	610	Energy Plant
24	Mr. Padraig Kiernan	Ballinalee Pig Farm, Glenoghil, Ballinalee	Longford	613	Pig Farm
25	Electricity Supply Board	Lanesborough Generating Station	Longford	629	Energy Plant
26	Glanbia Fresh Pork Limited	Carrick Road, Edenderry	Offaly	180	Abattoir
27	Grant Engineering Limited	Crinkle, Birr	Offaly	294	Manufacturing
28	T & J Standfish (Roscrea) Limited	The Leap Castle, Roscrea	Offaly	320	Sawmills
29	Gortnamuc Pigs Limited	Gortnamuc, Kilcormac	Offaly	412	Pig Farm
30	Patrick Moore	Old Croghan, Rhode, Tullamore	Offaly	430	Pig Farm
31	Cavanagh Foundry Limited	Birr	Offaly	479	Foundry
32	Edenderry Power Limited	Ballykilleen, Edenderry	Offaly	482	Energy Plant
33	Bord Na Mona Energy Limited	Boora Group, Leabeg, Tullamore	Offaly	500	Extraction/Mining
34	Bord Na Mona Energy Limited	Mountdillon Group, Lanesborough	Longford	504	Extraction/Mining
35	Bord Na Mona Energy Limited	Cuil Na Mona Group, Tullamore	Offaly	507	Extraction/Mining
36	Electricity Supply Board	West Offaly Power, Shannonbridge	Offaly	611	Energy Plant
37	Glanbia Farms Limited	Bracknagh Pig Unit, Ardra, Bracknagh	Offaly	614	Pig Farm
38	GeneMedix plc	Sragh Industrial Estate, Tullamore	Offaly	638	Manufacturing
39	Mr. Kevin Kiernan	Carrick Farms, Carrick, Castlejordan	Offaly	649	Pig Farm
40	Electricity Supply Board	ESB Power Generation, Rhode	Offaly	694	Energy Plant
41	Electricity Supply Board	ESB Power Generation, Cloghan	Offaly	695	Energy Plant
42	Procter & Gamble Ireland	Gortlandroe Industrial Estate, Nenagh	North Tipperary	67	Manufacturing
43	Anglo American Mining Ltd.	Barnalisheen, Moyne, Thurles	North Tipperary	88	Extraction/Mining
44	Godfrey, Gallagher & Cosgrave	Lisbunny Industrial Estate, Nenagh	North Tipperary	118	Manufacturing
45	Glanbia Fresh Pork Limited	Carrig, Roscrea	North Tipperary	181	Abattoir
46	AIBP Limited	Grange, Nenagh	North Tipperary	184	Abattoir
47	Ashbourne Meats	Castleholding, Roscrea	North Tipperary	194	Abattoir
48	Toomevarra Farms Limited	Glenawinna, Toomevarra, Nenagh	North Tipperary	375	Pig Farm
49	James & Nuala Gleeson	Ballymackey, Nenagh	North Tipperary	411	Pig Farm
50	Mr. Michael Monagle	Rathcabban, Roscrea	North Tipperary	437	Pig Farm
51	Woodville Pig Farms Limited	Woodville, Ballymackey, Nenagh	North Tipperary	467	Pig Farm
52	Arthur P. Dinan Limited	Ballycarrane, Thurles	North Tipperary	564	Sawmills
53	Bord Na Mona Allen Peat Limited	Rochfordbridge, Mullingar	Westmeath	503	Extraction/Mining
54	Bord Na Mona Energy Limited	Rochfordbridge, Mullingar	Westmeath	501	Extraction/Mining
55	Bord Na Mona Energy Limited	Shannonbridge, Athlone	Westmeath	502	Extraction/Mining
56	Brian Kiernan	Ballymanus Pig Unit, Castlepollard	Westmeath	433	Pig Farm
57	Data Packaging	Lynn Industrial Estate, Mullingar	Westmeath	139	Manufacturing
58	Devon Lane Limited	Forest Park, Mullingar	Westmeath	609	Manufacturing
59	Electricity Supply Board	Shannonbridge Generating Station, Athlone	Westmeath	626	Energy Plant
60	John Murphy	Clondrisse Pig Farm, Cloghan	Westmeath	383	Pig Farm
61	Penn Racquet Sports Co.	Lynn Road, Mullingar	Westmeath	104	Manufacturing
62	Taconic International Ltd.	Lynn Industrial Park, Mullingar	Westmeath	124	Manufacturing
63	Tarkett (Ireland) Ltd.	Newbrook, Mullingar	Westmeath	123	Manufacturing





Regional Tourism – Sunset at Clonmacnoise

Regional tourist boards and Bord Fáilte each year carry out surveys on tourism in Ireland. The table below compares the combined information on numbers of overseas visitors to the Region and their value to the economy for 1998 and 2003.

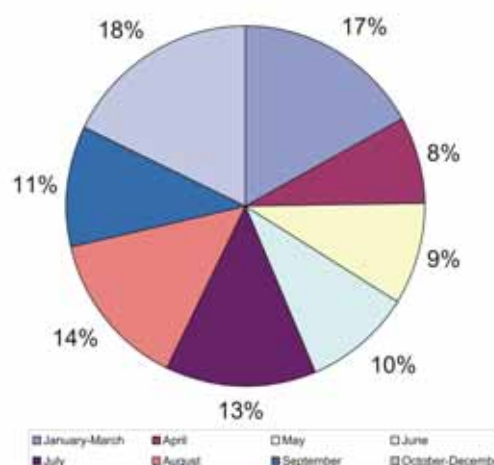
Table 2.5: Number of Overseas Visitors to the Midlands & Revenue Generated

County	No. Visitors (000s)		Revenue Generated (€)	
	1998	2003	1998	2003
Laois	54	36	15.2	9
Longford	36	37	12.7	15
Offaly	56	55	19.1	26
North Tipp	30	34	8.9	20
Westmeath	118	136	29.2	45

Source: Bord Fáilte Tourist Information, Perspectives on Irish Tourism, Shannon Region, Midlands - East Tourism Information.

It can be seen from Table 2.5 that tourism throughout the Region dropped from 1998 to 2003, significantly in some cases. While County Laois saw a significant drop to almost a third less visitors compared with 1998, North Tipperary showed a favourable growth of 13%. Of the overseas travellers that came to the Region 55% came from Great Britain, 23% came from Mainland Europe and 16% came from North America. Fig 2.2 below shows the seasonality of the tourism industry in the Region.

Figure 2.2: Seasonality of Overseas Visitors to the Midlands Region



The figure indicates that tourism activity peaks during the month of August and tails off during the winter (note that off peak months are grouped together), beginning to climb again during May. As most visitors to the Region find accommodation in hotels, guesthouses and bed & breakfasts, most wastes generated from tourism will fall under the category of commercial waste and arise during the period May to September. The development of the waste management infrastructure set out in the Plan shall be done in a manner that while facilitating the tourism industry as far as possible the treatment, collection and disposal of waste arising from tourism does not undermine the potential for tourism in the Midlands.

3 CONSULTATION

3.1 INTRODUCTION

Public consultation forms a fundamental part of the waste planning process and in the Midlands Region extensive consultation was undertaken with stakeholders from across the Region as part of the Review of the Waste Management Plan.

In order to comply with the statutory requirements for the review of the Waste Management Plan, the Midlands Local Authorities must provide an opportunity for all stakeholders in the Region to raise issues.

The statutory periods often result in a limited number of submissions, which usually come from similar sectors/stakeholders. These inputs are valid and must be given due consideration in the review of the Plan. However, to ensure that feedback is more reflective of all sectors within the Midlands Region consultation was proactively sought from all audiences, using a number of methods.

3.2 CONSULTATION PROCESS

People in the Midlands Region have been targeted to get their views on how waste management should be planned and implemented in the Region through a four-phased approach:

- Newspaper advertisement calling for written public submissions
- Consultation days for the waste industry held in Offaly
- Local Consultation Forums in each of the counties
- Regional Stakeholders meeting in Portlaoise

3.2.1 Public Submissions

A newspaper advertisement was placed in the Irish Independent with a deadline of September 1st, 2004. This resulted in 15 submissions, 8 were from organisations (political, community, NGO), 2 were from individuals and 5 were from waste collectors or waste treatment operators. Other written submissions were received after the

deadline, and where possible, have been considered.

3.2.2 Consultation with Waste Industry

The Local Authorities in the Midlands Region recognise the importance of the role played by the private sector in the waste industry. To obtain a clearer understanding of the present and future role all service providers (waste collectors and facility operators) were invited to discuss what questions, issues and concerns they have regarding the Plan. Whilst many of the waste contractors operate on a national basis, the opportunities, barriers and situations vary from region to region.

A total of 17 service providers attended meetings over two days, representing a cross-section of the industry (waste collectors/disposal companies, recycling operators, End of Life Vehicles and transfer stations operators). Separate meetings at a later date were held with the Irish Waste Management Association and REPAK.

3.2.3 Local Consultation Forums

In an attempt to engage the general public, local consultation forums were held in each Local Authority area.



Local Consultation Forum - Laois County Council

The purpose of the forums was to further enhance the role members of the general public have in shaping the review of the Regional Waste Management Plan. The forums were advertised in the local newspapers and on local radio stations, and the Local Authorities sent letters to various groups through their community networks.

The advertisements invited interested parties to attend the Council Buildings in each of the five participating areas where staff from the

Environment Section of each local Authority and the Consultation Team were available to discuss issues relating to the Midlands Waste Management Plan review. The forums were very successful with a total of 122 people attending, representing organisations, business and individuals.

3.2.4 Key Issues Raised

The varied consultation strategy used in the review process allowed individuals, business, community and industry an opportunity to comment on the current Plan and play a role in how the new Plan will be shaped and implemented. The submissions, meetings, open days and regional meeting provided constructive criticism, ideas and comments were considered in the making of the Waste Plan. The issues that were common to all audiences were:

- Planning/Permit System
- Enforcement
- Prevention/Awareness
- Infrastructure/Facilities
- Interregional Movement of waste

The main points concerning each of the above issues can be summarised as follows:

Planning/Permit System

- Lack of consistency in issuing waste permits across the Region.
- Discrepancies are apparent from Local Authorities within the same Region and the information provided on permitting varies from each Local Authority.
- The waste permits need to be streamlined, they are generally too complicated and there are too many conditions relative to the scale of the facility.
- Several service providers are keen to provide infrastructure, but believe the authorisation process (Planning, & Permit or Licence) needs to be streamlined and provide for quicker turn-around times to not increase the cost of the overall project.
- Need for a centralised waste collection permit system to be introduced to assist operators who are collecting waste across all regions.

Enforcement

In general while improvements and achievements were acknowledged, the waste industry still feels far more needs to be done to ensure there is a level playing field and that regulations are properly implemented. Enforcement is a common issue in several areas:

- Lack of enforcement and consistency of enforcement across the Region in all areas - packaging regulations, waste collection permits, illegal dumping etc.
- Enforcement against illegal dumping, in particular around Bring Banks, needs to be increased.
- Waste collectors are operating in the Region without a permit and the Local Authorities are not issuing fines.
- Enforcement at permitted facilities is required to ensure only the permitted materials are accepted.
- Enforcement of the collection permits is required to ensure that only permitted collectors are collecting waste. Otherwise 'cowboy' operators will undermine the bona-fide operators.
- For ELV facilities, the standards are not always upheld and more enforcement needed.

Prevention/Awareness

Engagement with the business, community, commercial and industrial sectors is seen as crucial to developing greater concentration in waste prevention and minimisation. The submissions noted that since the original Plan there has not been enough promotion, education or infrastructure put in place with emphasis higher up the EU hierarchy especially in the areas of prevention/minimisation and reuse.

To date with the exception of the plastic bag levy, waste reduction has remained a voluntary choice where neither penalties nor levies apply for failure to address over consumption, over packaging and wastage. The main suggestions put forward to increase prevention and awareness were:

- A hard-hitting campaign on the reality of the effects of our waste generation should be implemented.

- Waste Collectors should be given funding to carry out awareness and public education.
- The focus of education must change from awareness-raising to the practicalities of implementing the waste management strategies laid out in the Plan.
- Promotion of successful projects and programmes that have been implemented throughout the Region would encourage and motivate the public to get more involved.

Infrastructure/Facilities

Concern was expressed with the lack of infrastructure in the Region, in particular; Bring Banks, Civic Amenity Facilities, WEEE facilities, Composting Centres and/or systems and bulky waste collections. It was also stated that the range of materials accepted at each site needs to be increased and promoted. The submissions also suggest that several of the current sites are not appropriate and have put forward suggestions to reduce this problem:

- Establish more central collection points.
- Civic Amenity Facilities should be more accessible for those on foot and the elderly.
- Need increased maintenance of recycling facilities.
- Bring Banks need to be emptied more regularly to avoid littering and overflow of facilities.
- Care should be taken not to preclude private sector investment.

Inter-Regional Movement of Waste

- There is a need for a Regional framework and the Waste Management Plan will provide opportunity to lay some guidance.
- The interregional issue is being used as a tool to obstruct planning permission.
- There is no problem with a facility serving a region but this should not be used to preclude other regions.

- Scale of new centralised facilities should reflect the capacity needs of the Region.

Biological Treatment Capacity

- Some concerns were expressed about the proposed 3-bin system for households and the frequency of collection. Concerns were also expressed about the possibility of odours from processing facilities as experienced at facilities in other countries.

Waste To Energy

- Potential obstacles/barriers to Waste To Energy (WTE) need to be addressed. There should be no landfill tax on landfilling of bottom ash.
- Green Subsidies need to be confirmed/ guaranteed for electricity produced by WTE, since it is preferable to fossil fuels – more certainty is needed.

Construction & Demolition (C&D) Waste

- On a smaller scale the provision of skips on C&D sites for source separation will not happen until there is an economic advantage in doing so.
- Option to use quarries/former quarries as C&D recycling locations should be explored.

Recycling

- Planning for siting of Bring Banks is too restrictive (i.e. max of 5 individual banks per site) and is hampering recycling opportunities, for the public.
- There needs to be a consistency in the appearance of Bring Banks to increase awareness.

3.3 DRAFT PLAN CONSULTATION

In accordance with statutory requirements the Proposed Replacement Waste Management Plan was available to the public for comment from July 25th to September 30th 2005.

The Plan was available on the Local Authority websites and copies were on display and available for purchase from each of the Local Authority Offices.

A Summary Guide was also produced that outlined the achievements made since the last Plan and the proposals for the next five years. The public could either send in written submissions or fill in the feedback form that was attached to the Summary Guide.

A total of 17 written submissions and 17 feedback forms were received. Whilst many of the issues raised in the pre draft consultation were raised again in these submissions the focus has moved significantly such that the majority of submissions requested that the Plan address the following issues in more detail:

- Awareness and Communication
- Zero Waste
- Packaging
- Hazardous Waste
- Construction and Demolition Waste
- Role of the Private Sector
- Directing Waste
- Waste to Energy

A comprehensive 'Report on Consultation' has been produced which acknowledges the issues raised in the submissions, feedback forms and Local Authority Council Meetings. It responds to those and where appropriate makes recommendations for changes to the Plan. The following provides an overview of the general comments and views expressed.

3.3.1 Awareness and Communication

The submissions suggested several ways in which waste management issues could be communicated to the public, particularly focussing on the local schools. Suggestions included: providing all secondary schools with compost bins, bring centres located in school grounds, additional EAOs employed to focus on schools and the creation of networks for exchanging information, technical advice and materials for reuse etc.

3.3.2 Zero Waste

Submission felt that the principle of Zero Waste should be included in the policy of the Plan as this philosophy promotes an integrated whole-system approach to addressing the problems of society's unsustainable resource flows and it encompasses waste elimination at source through product design and producer responsibility together with waste reduction strategies further down the supply chain.

3.3.3 Packaging

The main issues raised in the submissions with respect to packaging were two-fold, the public requested that the Local Authorities exert pressure on Repak, the packaging industry, manufacturers and retailers to take more responsibility for the packaging that is placed on the market, through take back schemes, displays at supermarkets on the packaging used on products and where packaging can be brought for recycling. Also Repak is concerned that they are deemed responsible for the achievement of national packaging recycling targets yet they are only responsible for 60% of the packaging placed on the market.

3.3.4 Hazardous Waste

Whilst the Plan has stated that Civic Amenity Facilities and mobile hazardous waste collections from households will be provided, the submissions suggest that this should be kept under review in case the services fail to deliver adequate quantities of hazardous waste. It may prove necessary to employ services with a broader reach, such as segregated kerbside collection services to ensure the greatest possible quantity of household hazardous waste is accounted for.

3.3.5 Construction and Demolition Waste

The submissions believe it is essential that the Local Authorities develop the permitting system and C&D management in their areas so that a satisfactory level of enforcement is achieved and adequate and accurate records of waste deposited at permitted sites are maintained. The submissions are encouraged by the proposal that the Local Authorities will implement the waste management planning guidelines for C&D and it is suggested that the Local Authorities will need to request reports from developers and contractors on a periodic basis to cross-check with the data provided in waste permits and waste collection permits.

3.3.6 Role of the Private Sector

Some submissions felt that the Plan could be amended to better reflect the role of the private waste sector in the implementation of the Plan. Areas such as provision of infrastructure and collections, polluter pays, grant aid and regulation and enforcement.

3.3.7 Directing Waste

Several of the submissions from the private waste sector expressed concern over the proposal to direct waste to meet the Plan's objectives. The private waste sector are concerned that this could be open to abuse in an anti-competitive manner if applied inappropriately, creating unfair competition in the market. It is felt that the Plan must be clear on the details of 'directing' waste, considering commercial and competitive realities.

3.3.8 Waste to Energy

There was a significant shift in the views expressed in the Draft Plan submissions compared to the pre- draft submissions. In some cases there is now an acknowledgment or acceptance that Waste to Energy has a role to play in the Regions integrated approach to waste management and some submissions were supportive of Waste to Energy especially if there is a district heating component to any future facility. However others are still concerned with perceived health risks, high capital and operating costs and disposal options for fly and bottom ash.

There were several other issues expressed in the submissions and feedback forms The Midlands Region Waste Management Steering Group has considered all the issues raised in the submissions and feedback forms and amendments have been made to the Draft Replacement Waste Management Plan as a result of this feedback.

3.4 PRESENTATIONS TO THE ELECTED MEMBERS

Following the preparation of the Draft Report on Consultation, presentations were made at the Council meetings of the five Local Authorities and again all comments and issues raised were noted.

The five Local Authorities wish to express their appreciation to those who made submissions, viewed the displays and purchased or downloaded the Draft Replacement Waste Management Plan.

The Waste Management Plan for the Midlands Region 2005-2010 will now be made by the County Managers of each Local Authority.