Environmental Protection Agency

Oral Hearing of Objections Against the Proposed Decision by the Environmental Protection Agency to Grant a Waste Licence to Fingal County Council for a Large-Scale Landfill at Tooman and Nevitt

EPA Waste Licence Application Register Number

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STATEMENT OF EVIDENCI by Mr. Jack O'Sullivan, B.Sc., M.	
on behalf of the Nevitt Lusk Actio	on Group



Environmental Management Services

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Environmental Management Services

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ENVIRONMENTAL PROTECTION AGENCY

Oral Hearing of Objections Against the Proposed Decision by the Environmental Protection Agency to Grant a Waste Licence to Fingal County Council for a Large-Scale Landfill at Tooman and Nevitt

EPA Waste Licence Application Register Number 1999 100 231-0

Oral Hearing, Balbriggan, 11 March 2008

STATEMENT OF EVIDENCE by Mr. Jack O'Sullivan, B.Sc., M.I.Biol., on behalf of the Nevitt Lusk Action Group

1. Qualifications and Experience

I graduated in 1964 from University College Cork in Zoology and Biochemistry, and I was initially employed a Sea Fishery Officer, Biologist and Pollution Control Officer in North West England and Wales where I was responsible for coastal pollution control and fisheries management on 720 km of highly varied coastline. I returned to Ireland in 1975 to fulfil a contract as a Science Policy Analyst with the National Science Council where (as an Irish delegate to the EU) I participated in negotiations between Government departments, the European Commission, environmental NGOs and other organisations.

Since 1977 I have operated as an independent environmental consultant specialising in aquatic pollution, fisheries, aquaculture, hazardous and toxic wastes, municipal solid wastes, oil and chemical spillages, natural resources management and planning, and in the environmental impact assessment of industrial, infrastructural and other projects.

In 1981 I established Environmental Management Services (**EMS**), and have worked on a wide range of assignments in Ireland, Britain, Central and Eastern Europe, Middle East, Far East and Africa, and a significant amount of my work has been connected with waste and natural resources management policy and with issues relating to existing and proposed industrial sites and infrastructural projects. In addition to planning appeals and High Court cases relating to existing and proposed waste disposal operations in Ireland, our assignments have included the preparation, for the European Commission, of the first national environmental strategy for Lithuania, and terms of reference for two waste management studies in the Russian Federation.

I have had more than 30 years experience as an environmental professional, including 28 years as an independent consultant. Clients in Ireland and abroad have included:

Advisory Committee on Oil Pollution of	Eolas the Irish Science and
the Sea	Technology Agency
An Taisce the National Trust for Ireland	Grangemockler and Hardbog
Aran Energy Limited	Environmental Group
Aughinish Alumina Limited	Gweebarra Fishermen's Association
Ballyboden Stone Quarry Limited	Irish Marine Emergency Service
Bantry Mussel Growers	Irish Marine Farmers Association
Bord Fáilte Éireann	Irish National Petroleum Corporation
Bord lascaigh Mhara	Irish Offshore Technical Services Ltd.
Brady Shipman and Martin	Irish Shell Ltd.
British Gas Corporation	Jacobs International
Burren Action Group	McCarthy and Partners
Cement Roadstone Holdings (CRH)	Ministry of Environmental Protection,
Chesterton Industries BV	Lithuania
Clonmel Corporation	Mouchel McCullough and Partners,
Comhdháil na nOileán	p ⁱ to [®] Dublin
Comhar Caomhan Teoranta, Inis Oirr	Nigerian National Petroleum Corporation
	Overseas Technical Services, Lagos
Communities: DG XI, DG V, RHARE	Pan Ocean Oil Corporation, Nigeria
and TACIS Conroy Petroleum and Natural Not Resources	Project Management Group
Conroy Petroleum and Natural	Radio Telefís Éireann
	Roscommon County Council
Cork County Council	Shannon Free Airport Development
Craig Gardner Management Consultants	Company (SFADCo)
Cremer and Warner, London	Shannon Foynes Port Authority
Cromarty Petroleum Company Ltd.	Showerings Ireland Ltd
A.T. Cross, Ballinasloe	Silvermines Environmental Action Group
Cross River Ferries, Cork.	Smurfit Paper Mills
Dáil Commitee on Public Expenditure	South Tipperary Anti-Incineration Campaign (STAIC)
David Davies Memorial Institute of	SRS Aviation, Shannon, Co Clare
International Studies	Tara Mines Limited
Department of the Environment / EPA (Ireland)	Technica Ltd., London and Aberdeen.
Department of the Marine (Ireland)	Údarás na Gaeltachta
Digital Equipment Corporation	Wicklow County Council
Dow Chemical Company	World Wide Fund for Nature
Dublin Institute of Technology	World Maritime University
ESRI, Dublin	Xilinx Ireland Ltd.

I have represented environmental NGOs on the Advisory Committee of the Environmental Protection Agency, and I am a member of the Council of An Taisce (Ireland's longest established environmental NGO), and vice chair of An Taisce's Natural Environment Committee, and Honorary Secretary and Vice-Chair of the Westmeath Association of An Taisce. I am a founder member of Zero Waste Alliance Ireland (ZWAI), a federation of local citizens' groups throughout Ireland, who are campaigning against unsuitable or inappropriately sited landfills and incinerators. Zero Waste Alliance Ireland is also actively promoting the practical concept of "Zero Waste", a whole-system approach to addressing the problem of society's currently unsustainable generation and disposal of wastes.

2. Introduction

2.1 The Nevitt Lusk Action Group

The **Nevitt Lusk Action Group** (NLAG), is a locally based association of residents, landowners and business enterprises, representative of a wide range of interests in and around the townlands of Nevitt, Tooman and adjoining areas.

The NLAG was established in response to local residents' concerns about the identification of the area as a candidate site for a municipal landfill facility, according to a report prepared for Fingal County Council, Dublin City Council, South Dublin County Council and Dun Laoghaire-Rathdown County Council. These four Local Authorities had commissioned a Regional Waste Management Strategy Study as long ago as December 1996, and the alleged need for a new landfill to serve the Dublin Region in the long-term was identified in 1997 as part of the preparation of the Dublin Waste Management Strategy Study and the Waste Management Plan for the Dublin Region (the latter was adopted by Dublin City Council on 7th December 1998).

A report issued in March 1998 identified 16 potential sites for the proposed north Dublin landfill, and this number was reduced to a shortlist of 3 preferred sites in June 1998. Additional potential sites in South Dublin and in Dun Laoghaire-Rathdown were also under consideration in a separate study, and both studies were amalgamated in November 1999, to give a combined shortlist of 8 sites. A site in South Dublin (at Corrageen) was excluded after a report recommended that no development should occur along streams feeding into the Glenasmole Reservoirs.

During 2001 to 2004, additional work reduced the number of sites to three for further investigation at the Phase 3 stage, and the site at Nevitt (incorrectly described as Tooman and Nevitt) was one of these three sites. In 2004-05, the site at Nevitt was considered the most suitable of the sites for the proposed development of the landfill as it appeared to satisfy the applicant's key criteria including:

1. The site was suitable for landfill with minimum environmental impact in accordance with national and international guidelines;

- 2. There was a low population density within close proximity to the proposed disposal area;
- 3. The site was in close proximity to the M1, which allows for moderate transit times and the potential to provide access directly to the M1, which removes HGVs from the local road network thereby minimising traffic impact;
- 4. The existence of significantly deep natural low-permeability overburden to protect groundwater; and,
- 5. The site was well positioned in close proximity to the main centre of waste generation.

When the site at Nevitt was identified as the preferred site, the Nevitt-Lusk Action Group began to examine in depth the data on which the selection and final choice of site were made. The result of this analysis showed major gaps and inconsistencies in the data, especially the absence of information on the extensive and highly productive aquifer underlying the preferred site. As we have already heard at this oral hearing, the preferred site fails to meet with the criterion number 4 above, and the Environmental Impact Assessment process must also be considered defective, for reasons which have already become clear at this oral hearing.

A primary objective of the NLAG has been to bring to the notice of the applicant and the relevant decision making agencies the information which the group had obtained about the aquifer, its importance to the local community as a source of potable water, its importance to horticultural industry, and its importance nationally as a major groundwater resource. These issues have been well aired during this oral hearing, and the concerns of the Nevitt-Lusk Action Group have been fully confirmed by independent witnesses, but there are a number of remaining issues which I now propose to address on behalf of the Group.

2.2 Principal Issues in this Statement of Evidence

Turning now to these remaining issues, and to our grounds for urging the EPA to refuse a waste licence, I wish to address the following matters:

- 1. The necessity for such a facility has not been fully demonstrated, especially in the context of planning permissions and waste licences granted for other large-scale waste disposal facilities in Leinster;
- 2. The availability and scale of the proposed landfill would discourage the achievement of the recycling targets which form part of the current national policy on waste management;
- 3. The proposed development is in conflict with recent and current Government and European Union policies on waste management; and with best international practice;
- 4. The proposed development would increase the difficulty of Ireland's becoming or remaining in compliance with the EU Waste Framework Directive and the Landfill Directive;

- 5. The site selection and decision-making process fails to meet the basic requirements of the EU Directive on Environmental Impact Assessment; and,
- 6. The proposed landfill development on the selected site would be in conflict with the Precautionary Principle and the Polluter Pays Principle.

3. The Need for the Proposed Landfill Facility, in the Context of EU and Irish Government Policy on Waste Management

Section 1.8 of the applicant's EIS examined the current landfill capacity in the Greater Dublin Area (GDA), and concluded that there was only 0.15 million tonnes per annum available in 2008. However, as we shall show later, this figure excludes the possibility of much more efficient use of existing and planned landfills in the greater Dublin area, and transfer to other adjacent waste management regions.

Furthermore, the predicted requirement for landfilling assumes only a modest decrease in the current reliance of approximately 74 % of municipal waste going to landfill. This is an extraordinary high proportion by any standards, and the expected reduction mentioned in Section 1.9.1 is not quantified in any detailed way and does not appear to take fully into account the effects of the EU and National Policies which I will discuss later.

On the whole, the projections in the EIS portray a bleak and out-dated picture of increasing waste quantities requiring disposal by landfilling. In our opinion, these predictions are based on out-dated information, and they take no account of several key factors which significantly reduce the quantities of waste available for landfilling, and which would reduce or eliminate the need for a landfill of the size proposed in the planning application under consideration in this second oral hearing.

3.1 Impact of the EU Council Directive 1999/31/EC of 26 April 1999 on the Landfill of Waste

The EU Landfill Directive adopted in 1999 (Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste; Official Journal L 182, 16/07/1999 pp. 0001 - 0019) is intended to have a very significant impact on the quantities of waste allowed to be deposited in landfills. This Directive entered into force on the date of its publication in the Official Journal of the European Communities, and Member States are required to effectively transpose it into their laws, regulations and administrative provisions not later than two years after that date, i.e., by 16 July 2001 (Article 18 (1)). Thus the Directive is already a component of Irish domestic legislation.

The preamble to the Directive states, *inter alia*, that:

- only safe and controlled landfill activities should be carried out
- throughout the Community (paragraph (2));

- the prevention, recycling and recovery of waste should be encouraged (paragraph (3));
- both the quantity and hazardous nature of waste intended for landfill should be reduced where appropriate (paragraph (8));
- the establishment of an adequate, integrated network of disposal plants based on a high level of environmental protection (paragraph (9));
- it is therefore necessary to lay down technical standards for the landfill of waste at Community level in order to protect, preserve and improve the quality of the environment (paragraph (11));
- it is necessary to indicate clearly the requirements with which landfill sites must comply as regards location, conditioning, management, control, closure and preventive and protective measures to be taken against any threat to the environment in the short as well as in the longterm perspective ... (paragraph (12));
- measures should be taken to reduce the production of methane gas from landfills, inter alia, in order to reduce global warming, through the reduction of the landfill of biodegradable waste ... (paragraph (16)).

Article 1 of the Directive sets out the overall objective as follows:

"With a view to meeting the requirements of Directive 75/442/EEC, and in particular Articles 3 and 4 thereof, the aim of this Directive is, by way of stringent operational and technical requirements on the waste and landfills, to provide for measures, procedures and guidance to prevent or reduce as far as possible negative effects on the environment, in particular the pollution of surface water, groundwater, soil and air, and on the global environment, including the greenhouse effect, as well as any resulting risk to human health, from landfilling of waste, during the whole life-cycle of the landfill?

3.2 Obligation to Reduce the Amounts of Biodegradable Municipal Waste being Landfilled

Article 5 of the EU Landfill Directive requires Member States to set up a national strategy for the implementation of the reduction of biodegradable waste going to landfills, not later than two years after the date laid down in Article 18(1) and to notify the Commission of this strategy.

It should be clear from the foregoing that the Directive does not specifically require a Member State to reduce the number of operational landfills. Member States are required to reduce the overall quantities of waste going to landfill, and particularly to reduce the amounts of biodegradable waste (our emphasis) because, as it undergoes the process of decay, this waste will generate methane and carbon dioxide which are greenhouses gases which contribute to global warming. The Directive also particularly emphasises that landfills should

be located in appropriate areas, and that they should be licensed and managed so that the minimum amount of environmental harm is caused.

Therefore, in addition to strongly encouraging waste reduction, minimisation, reuse, recycling and composting, the Directive places limits on the disposal to landfill of municipal biodegradable wastes, so that no later than five years after the date laid down in Article 18 (1), i.e., by the year 2006, the quantity of biodegradable wastes sent to landfill for disposal must be reduced to 75 % of the total amount (by weight) of biodegradable municipal waste produced in 1995.

Similarly, no later than eight years after the date laid down in Article 18 (1), i.e., by 2009, the quantity of biodegradable municipal waste going to landfill must be reduced to 50 % of the total amount (by weight) of biodegradable municipal waste produced in 1995; and no later than 15 years after the date laid down in Article 18 (1), i.e., by 2016, the amounts of biodegradable municipal waste going to landfills must be reduced to 35 % of the total amount (by weight) of biodegradable municipal waste going to landfills must be reduced in 1995 (Article 5 (2)).

3.3 Derogation Granted to Ireland from the EU Landfill Directive

Article 5 of the European Council Directive 1999/31/EC of 26 April 1999 on the Landfill of Waste addresses the issue of what types of waste are not acceptable in landfills, and lays down the following rules for the reduction of biodegradable waste in landfills:

- In landfills:
 Member States shalls set up a national strategy for the implementation of the reduction of biodegradable waste going to landfills one later than two years after the date laid down in Article 18 (1) and notify the Commission of this strategy. This strategy should include measures to achieve the targets set out in paragraph 2 by means of in particular, recycling, composting, biogas production or materials / energy recovery. Within 30 months of the date laid down in Article 18(1) the Commission shall provide the European Parliament and the Council with a report drawing together the national strategies.
- 2. This strategy shall ensure that:
 - (a) not later than five years after the date laid down in Article 18(1), biodegradable municipal waste going to landfills must be reduced to 75 % of the total amount (by weight) of biodegradable municipal waste produced in 1995 or the latest year before 1995 for which standardised Eurostat data is available;
 - (b) not later than eight years after the date laid down in Article 18(1), biodegradable municipal waste going to landfills must be reduced to 50 % of the total amount (by weight) of biodegradable municipal waste

produced in 1995 or the latest year before 1995 for which standardised Eurostat data is available;

(c) not later than 15 years after the date laid down in Article 18(1), biodegradable municipal waste going to landfills must be reduced to 35 % of the total amount (by weight) of biodegradable municipal waste produced in 1995 or the latest year before 1995 for which standardised Eurostat data is available.

Two years before the date referred to in paragraph (c) the Council shall re-examine the above target, on the basis of a report from the Commission on the practical experience gained by Member States in the pursuance of the targets laid down in paragraphs (a) and (b) accompanied, if appropriate, by a proposal with a view to confirming or amending this target in order to ensure a high level of environmental protection.

Member States which in 1995 or the latest year before 1995 for which standardised EUROSTAT data is available put more than 80 % of their collected municipal waste to landfill may postpone the attainment of the targets set out in paragraphs (a), (b), or (c) by a period not exceeding four years. Member States intending to make use of this provision shall inform in advance the Commission of their decision. The Commission shall inform other Member States and the European Parliament of these decisions.

The implementation of the provisions set out in the preceding subparagraph may in no circumstances lead to the attainment of the target set out in paragraph (c) at a date later than four years after the date set out in paragraph (c)".

The "derogation" to which I have referred is in fact a special provision available to Member States which were disposing of more than 80 % of their municipal wastes to landfill in 1995. Ireland was, at that time, disposing of more than 90 % of municipal wastes to landfill, and could therefore take advantage of this provision, i.e., Ireland could take an additional four years to comply with Article 5 (2).

Nevertheless, Ireland must reduce the amount of biodegradable municipal waste being landfilled to 75 % of the total amount of biodegradable municipal waste produced in 1995, and by taking advantage of the above provision in Article 5, this reduction need only be achieved within nine years of the Directive coming into force, i.e., by 2008. Similarly, Ireland must reduce the amount of biodegradable municipal waste being landfilled to 50 % of the total amount of biodegradable municipal waste produced in 1995, and this reduction must be achieved within 12 years of the Directive coming into force, i.e., by 2011; and must reduce the amount of biodegradable municipal waste produced municipal waste being landfilled to 35 % before the year 2018.

3.4 Targets Published in "Waste Management – Taking Stock and Moving Forward", 2004

The Government Publication "*Waste Management – Taking Stock and Moving Forward*", published in April 2004 by the Department of the Environment, Heritage and Local Government, gives the following targets on page 31:

	Landfill Directive Targets					
Year Target						
2006	Landfill no more than 75 % of biodegradable municipal waste generated in 1995					
2009	50 %					
2016	35 %					

The target dates differ from those calculated above by applying the permitted 4year postponement; but this is not a significant issue. What is much more significant is the requirement to reduce the amounts biodegradable municipal waste being sent to landfill, and I will refer again to this requirement below.

3.5 Targets Published in the National Waste Report, 2005

The National Waste Report 2005, prepared under the auspices of the National Waste Prevention Programme and published by the EPA, presents national statistics on waste for the calendar year 2005. The report contains an update on municipal waste collection, and management in Ireland, with particular reference to biodegradable municipal waste (BMW), packaging waste, construction and demolition waste and the export of waste.

Section 7 of The Nation Waste Report 2005 addresses the issue of BMW, as follows:

"Approximately 72% of household and commercial waste managed in Ireland in 2005 is biodegradable. The largest fraction of biodegradable municipal waste is paper and cardboard (44%), followed by organic waste (food and garden waste) at 37%. As shown in Table 16, an estimated 2,007,859 tonnes of biodegradable municipal waste was generated in Ireland in 2005, of which 65% was landfilled and the remaining 35% recycled.

Material	Quantity managed (tonnes)	Quantity landfilled (tonnes)	National Iandfill rate (%)	Quantity recovered (tonnes)	National recovery rate (%)
Wood	213,926	13,939	6.5	199,987	93.5
Paper and cardboard	891,264	449,957	50.5	441,307	49.5
Textiles	157,984	146,790	92.9	11,194	7.1
Organics	744,685	696,883	93.6	47,802	6.4
Total	2,007,859	1,307,570	65.1	700,289	34.9

Table 3.4Biodegradable municipal waste generation and
management, 2005 (from National Waste Report 2005)

Baseline	Quantity generated (tonnes)
1995	1,289,911

Table 3.5Biodegradable municipal waste diversion-from-landfill
targets (from National Waste Report 2005)

Targets

Target year	Landfill Directive target	Maximum quantity allowed to be landfilled (tonnes)
2010	75 % of quantity generated in	967,433
2013	50 % of guantity generated in	644,956
2016	35 % of quantity generated in 1995	451,469

Current position

	Quantity landfilled (tonnes)
2004	1,304,426
2005	1,307,570

Table 3.5 contd.Biodegradable municipal waste diversion-from-
landfill targets (from National Waste Report 2005)

Progressive targets have been set out in the Landfill Directive to reduce the proportion of biodegradable municipal waste landfilled. The primary goal is to reduce dependence on landfill in favour of more environmentally sound alternatives. By 2006, Member States are restricted to landfilling a maximum of 75% of the total weight of biodegradable municipal waste generated in 1995, the baseline year. This target is further reduced to 50% of the 1995 baseline by 2009 and 35% by 2016. Ireland has opted to avail of a four-year derogation, or postponement, of these target dates - illustrated in Table 17. In reality, the trend for disposal of biodegradable municipal waste in landfill is increasing. In 2005, the amount of biodegradable municipal waste landfilled was 101.4% of the 1995 baseline, so **there is a long way to go to reverse this trend and meet these targets**" [our emphasis].

According to the Annual Report of the Comptroller and Auditor General for the Year 2005; published in September 2006, pursuant to Section 3 (11) of the Comptroller and Auditor General (Amendment) Act, 1993, although progress is evident in recycling some items of municipal waste such as glass and ferrous metals there is not the same success with biodegradable municipal waste (BMW), and a high proportion of organic materials and textiles is still being sent to landfill. Therefore the Report of the Comptroller and Auditor General presents a similar view of the challenge facing this country to eliminate the disposal to landfill of biodegradable municipal waste and other biodegradable materials.

3.6 Targets Published in the National Strategy on Biodegradable Waste, 2006

The National Strategy on Biodegradable Waste sets out a range of measures to meet the above diversion targets for biodegradable waste. The strategy focuses primarily on Biodegradable Municipal Waste (BMW), of which the principal 'biodegradable' components are paper and cardboard, food wastes and garden wastes.

Data provided in section 2 of the strategy (pages 17 and 18) indicate a steady improvement in the amount of waste that is recovered by the recycling industry in the last 5 years. Greater volumes of packaging – including cardboard, paper and wood – are being recycled, particularly in the commercial sector. But the report states that "the improvement in recycling, while impressive, has not been adequate to substantially reduce the reliance on waste disposal, due to waste growth since 1995 – although the quantity of biodegradable municipal waste (BMW) being landfilled has now stabilised and has begun to decline since 2002" [our emphasis].

The targets published in the Strategy (section 3.1, pages 27 and 28) are the same as those given in Table 17 of the *National Waste Report 2005*, and the Strategy observes that "*the biodegradable municipal waste diversion target from landfill for 2013 is estimated at some 72.8% of BMW generation in that year – accordingly, the revised target remains more ambitious than the 65% target for diversion established for 2013 in Changing Our Ways".*

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3.7 Implementation – Attaining The Targets, and Recommending Mechanisms to Drive the Strategy Forward

The reports quoted above show clearly that the diversion of BMW from landfills is a challenging goal, that further efforts have to be made to achieve the national targets which reflect those in the EU Landfill Directive, but that the amounts of BMW being landfilled appear to have declined in recent years.

Ways or measures to reduce the amounts of BMW being deposited in landfills include:

- Waste elimination and reduction: •
- Re-use and recycling;
- Composting;
- Anaerobic digestion
- Mechanical biological treatment; and, •
- Thermal treatment (incineration).

The National Strategy on Biodegradable Waste describes some of these measures, and suggests that:

"Waste prevention and minimisation are the preferred management options in the waste hierarchy and are an essential way to reduce the quantity of BMW consigned to landfill" (section 6, page 49). ction pu

Nevertheless,

heless, getter the targets set out in the Waste Management Plans, a several-fold increase in recycling capacity and biological treatment capacity is required. In addition, no thermal treatment capacity has yet been delivered. Furthermore, the extent of landfilling of wasterremains greater than projections in the original suite of Plans. There is therefore an urgent need to procure the necessary alternative waste treatment capacity which will facilitate diversion of biodegradable municipal waste away from landfill" (section 2.2.7 Summary, page 25).

In section 3.3 on page 30 the Strategy states that:

"In 2004, c. 630,000 tonnes of BMW were diverted from landfill (mainly in favour of recycling and recovery). This must increase to approximately 1.41 million tonnes in 2010, rising to about 1.73 million tonnes in 2013 and an estimated 1.82 million tonnes by 2016. This represents a huge challenge to the Irish waste industry".

Fundamental strategic principles developed to reach these waste diversion targets in Ireland are listed in section 5.2 of the National Strategy on Biodegradable Waste as:

- "employing a combination of instruments to promote waste reduction – including awareness measures, economic incentives, and regulatory measures;
- continuing to develop an integrated waste system building on proposals and policies in regional waste management plans and strengthening these where necessary;
- emphasis on source separation of biodegradable wastes by the producer, followed by separate collections by the collector, enabling high quality recyclables to be recovered;
- striving to maximise the recovery of materials firstly, and energy secondly as a sustainable means of treating waste, rather than diverting from landfill to other forms of disposal; and
- developing partnerships with other sectors (industry, agriculture, fisheries etc.) enabling cost effective treatment systems to be established suited to Irish conditions".

The quantities of BMW which require to be disposed of by landfilling must be reduced to a maximum of the tonnages given in Table 17 in section 3.4 above (see Table 5.1 on pages 43 and 44 of the Strategy). The Strategy also addresses the equally challenging issue of how do deal with residual waste.

Section 9.1 of the Strategy states (on page 87) that.

"Despite reaching high levels of recycling and biological treatment, significant quantities of residual waste will continue to be generated. A large proportion of this material will be biodegradable and will need to be diverted from landfill in order to meet the landfill diversion targets, partly due to the level of waste growth since the base year 1995. Policy in relation to this residual waste is critical in meeting Landfill Directive targets. Diverting residual BMW from landfill provides a 'safety net' to ensure Ireland does not breach the mandatory landfilling limits."

Section 5.4 of the Strategy states (on page 46) that:

- "In order to meet the targets for diversion of BMW from landfill, treatment of residual waste will be needed to supplement the quantities of BMW which have been recycled / biologically treated following source segregated collection. This sets a requirement for residual BMW treatment capacity, without which the Landfill Directive targets will not be achieved, as follows:
- an estimated 308,904 tonnes of residual waste treatment will be necessary in 2010;
- an estimated 438,190 tonnes of residual waste treatment will be necessary in 2013; and,

 an estimated 499,762 tonnes of residual waste treatment will be necessary in 2016.

These are the estimated tonnages of residual BMW which will be generated **and which must still be diverted from landfill**, even if the very ambitious performance targets for prevention, material recycling and biological treatment being set out in this Strategy are achieved" [our emphasis].

Figure 5.2 (from page 47 of the National Strategy on Biodegradable Waste) shows very clearly the very large reduction in landfill capacity which has to be implemented in Ireland, in order to achieve the national and EU targets.

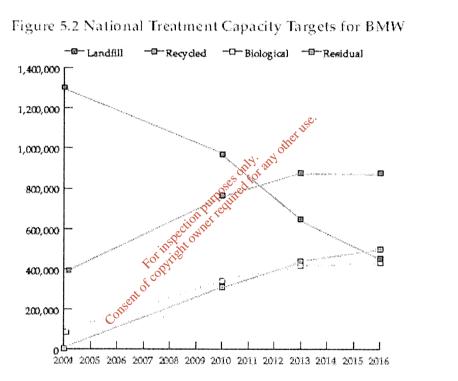


Figure 5.2 above is taken from the National Strategy on Biodegradable Waste.

If this reduction in capacity cannot be achieved, there is a very serious danger that the excess capacity with make the attainment of the national and European targets much more difficult. This should be obvious, as it is easier (and cheaper) to consign waste to landfill than to construct and successfully operate composting, anaerobic digestion, mechanical biological treatment or thermal treatment facilities. I would suggest that the waste industry is no different from any other industry in that it attempts as far as possible to maximise its return on capital by investing in landfills in preference to more problematic and challenging recycling, composting, mechanical-biological treatment or thermal treatment facilities. In addition to encouraging waste elimination and reduction, re-use, recycling, composting, anaerobic digestion, mechanical biological treatment and thermal treatment (incineration), national and EU policy also envisages and includes restrictions on landfill use (National Strategy on Biodegradable Waste, section 10.2, page 96). To facilitate rapid expansion in recycling, biological treatment and residual treatment capacity, the Strategy recommends restricting disposal outlets by the continued use of the landfill tax, and by the introduction of new regulations preventing collection of mixed waste for target materials.

The Strategy recommends that the landfill levy (currently €15 per tonne) will continue to be used to make biodegradable municipal waste (BMW) diversion more financially attractive. The level of levy will be reviewed on a regular basis to help maintain a gap in the gate fees between more sustainable options (e.g. composting) and landfills (section 12.2.1, page 105). The National Strategy on Biodegradable Waste also recommends a ban on the disposal of biodegradable waste to landfill (following the example of certain categories of packaging waste, including paper, cardboard and wood, which are already banned from disposal to landfill); with enforcement measures being operated by the local authorities.

In concluding our analysis of the above policy documents, it is clear that none of them advocate an increase in landfill capacity, or even the replacement of landfill capacity which may be lost as a result of existing landfills closing at the end of their working lives. Instead, a major reduction in landfill capacity is intended and sought, as a matter of national policy.

3.8 "Changing our Ways" and "Delivering Change"

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Even if we examine earlier reports on waste policy, for example the frequently quoted "*Changing our Ways*" and "*Delivering Change*", we find similar policies, though with less ambitious targets for diversion from landfill.

The Government policy statement on waste management "*Changing our Ways*" (Waste Management -- Changing our Ways; Policy Statement published by the Department of the Environment and Local Government, September 1998, 20 pp.) sets out EU and Irish policies on waste in the context of sustainable development, environmental protection, integrated waste management, redefinition of the traditional role of local authorities in relation to waste management, and public participation in the waste management process.

"Changing our Ways" states that:

"Reducing this reliance on landfill is the most fundamental issue to be addressed in the waste management area, and should be the core objective of the current local planning process" (section 3, page 3).

"reliance on landfill cannot continue to be the basis of modern waste infrastructure" (section 3.5, page 4).

"Strategic planning must now take account of all available options to reduce long-term reliance on landfill, so that, over a fifteen year planning horizon, required capacity can be very substantially reduce". (section 3.9, page 6).

This important policy document continues to state that proper management of waste will require:

"a dramatic reduction in reliance on landfill, in favour of an integrated waste management approach which utilises a range of waste treatment options to deliver ambitious recycling and recovery targets" (section 10.4, page 20).

"Delivering Change – Preventing and Recycling Waste – A Policy Statement", was published by the Department of the Environment in March 2002, and this policy emphasises waste prevention, minimisation, re-use, recycling and biological treatment of waste (composting) to a much greater extent than the previous policy issued in 1998, and it proposes to reverse the growth in waste generation. Steps to achieve this aim included a € 127m capital grant scheme under the National Development Plan for the provision of infrastructure to support greater re-use and recycling; the establishment of a National Waste Management Board to co-ordinate, monitor, review, and advise on all aspects of waste management policy; and a Recycling Consultative Forum and Market Development Group under the aegis of the Board. The policy states that a Core Prevention Team will be established in the Environmental Protection Agency to implement a National Waste Prevention Programme focusing on the elimination of production waste at manufacturing facilities, the improvement of the environmental performance of products, and the elimination of other industrial and commercial wastes including unnecessary packaging.

This waste management policy aims to ensure that producers should take more responsibility for the environmental impact of their goods and services. Producer responsibility agreements are being pursued by the Government, with the participation of key industry stakeholders, and a network of local authority enforcement officers has already been established to intensify enforcement of the packaging regulations.

If we compare the 1998 Government policy on waste "*Changing our Ways*" with the policy statement "*Preventing and Recycling Waste – Delivering Change*" (March 2002), we can see that there is a much greater emphasis in the latter policy on waste minimisation and prevention, on dealing with the causes and origins of our waste, and on how re-use, recycling and composting may be more rapidly implemented, and to a greater degree.

Actions proposed to ensure the prevention and minimisation of waste, include the establishment of a National Waste Prevention Programme (NWPP) and a Core Prevention Team to drive the process. The reuse and recycling of waste is to be promoted by:

- Introduction of landfill levies and banning the landfilling of certain types of materials;
- Implementation of the plastic bag levy;
- The provision of monetary support for recycling infrastructure; and,
- The establishment of a Market Development Programme to ensure a better and more stable market for recycled materials diverted from landfills.

The above policies and actions indicate a commitment on the part of the State to continued improvement in waste management generally; and they recognise, as a critical part of the national waste policy, the necessity to eliminate reliance upon landfill, the need to divert waste away from landfill and the need to develop waste prevention and minimisation initiatives together with re-use, recycling, biological treatment and other environmentally acceptable treatment facilities.

According to the Department's "*National Overview of Waste Management Plans*", published in April 2004, the options chosen by local authorities in their waste management plans were recycling, thermal treatment and landfill, with recycling being the most favoured option.

Recycling is being facilitated by segregated household collection, bring banks, civic amenity sites, materials recovery facilities or transfer stations and biological treatment facilities. The provision of biological treatment facilities, which would deal with organic waste riscionly at the proposal stage in local authorities in all but two of the regions. However, increasing numbers of private sector facilities are coming on stream with others at the planning and development stages.

3.9 Policy Direction on Materials Other than Biodegradable Waste

Other materials which will not be acceptable in landfills include untreated wastes (i.e., wastes which have not been sorted to extract re-usable or recyclable components, or by otherwise reducing the quantity of the wastes or the hazard associated with the wastes, as required by Articles 1 and 6 of the EU Council Directive 1999/31/EC of 26 April 1999 on the Landfill of Waste), liquid wastes, flammable wastes, hospital and clinical wastes from medical or veterinary establishments, and whole or shredded used tyres (Article 5 (3)). Directives in force which are further restricting the types and amounts of waste allowed in landfills include Directive 94/62/EC on packaging and packaging waste, and Directive 2002/96/EC of 27 January 2003 on Waste Electrical and Electronic Equipment (WEEE). All of these Directives demand that Member States apply strict waste recovery targets.

3.10 Recent Statement of Government Policy on Waste

The Agency will be aware of its statutory obligation to have regard to Government policy, and in this context I would point out that the 2007 Programme for Government (*An Agreed Programme for Government*, dated June 2007) includes a strongly expressed objective to reduce reliance on landfill to as low as 10%. The programme also commits the Government to ensuring that "the landfills currently provided for under regional waste management plans should be the last to be constructed for a generation".

Under the heading of "**Waste Management**" (page 20), the programme states that:

This Government is strongly committed to a waste management hierarchy based on the cornerstones of reduction, re-use, recycling and marketing of recycled products.

We are also committed to meeting the targets to divert biodegradable waste from landfill required under the 1999 EU Landfill Directive. To achieve this, we are committed to the introduction of Mechanical Biological Treatment (MBT) facilities as one of a range of technologies.

We will ensure the highest operating standards for all waste management technologies based on best international practice. We will also ensure that all waste tacilities have good transport links and, where feasible, are close to the national road or rail networks.

We will undertake an immediate international review of waste management plans, practices and procedures and act on its conclusions.

In the meantime, in order to reach our targets under EU legislation :

- We will ensure that for any future projects neither the State nor local authorities will be exposed to financial risk through 'put or pay' clauses in waste facilities.
- We will not alter the landfill levy in such a way as to give a competitive advantage to incineration.

In particular the Government will:

• Establish new ambitious waste management targets for maximum prevention, re-use, recycling and modern waste treatment to ensure that we match the best performance in the EU for recycling with the objective that only 10% of waste or less is consigned to landfill (down from 66% now).

- Ensure that the landfills currently provided for under regional waste management plans should be the last to be constructed for a generation.
- Drive down the cost of waste management charges to householders and business by ensuring that our waste management system is competitive and uses all available technologies to achieve this including the use of waste for generating sustainable electricity.
- Ensure the implementation of the National Strategy on Biodegradable Waste which aims to divert 80% of biodegradable waste from landfill through segregated collection of biodegradable waste and the generation of compost.
- Establish community monitoring arrangements of major waste management facilities, including on-line monitoring where appropriate, with specific powers/rights to information.
- Expand the network of bottle banks, recycling centres and segregated collection and introduce household hazardous waste collection (e.g. paint cans etc) in all suitable recycling centres.
- Ensure that flat rates on waste disposal will be abolished and a mandatory system of weight-related charges for waste collection introduced.

I would suggest that this policy provides a clear direction to the Agency that no new landfills should be permitted, and that a decision to grant a waste licence to Fingal County Council for the proposed large-scale landfill at Nevitt would be in conflict with this policy.

3.11 Waste Minimisation Activities in other Countries

The 2007 Programme for Government refers to "*best international practice*" and we would suggest to the Agency that international experience has shown that it is more than possible to meet and exceed the target for diversion from landfill set out in EU and National policies, and this experience is relevant to the decision to be made by the EPA.

For example, the official waste policy of Canberra (Australia) is to create a waste free society by 2010, and by the year 2003 city had already achieved a 60% diversion rate from landfill without the use of incineration. At a conference on sustainable waste management, organised by Galway Corporation and Galway City Forum on 21 and 22 September 2001, the general manager of the South-east Waste Board, New South Wales, Australia, stated that ultimately only 1% of waste is not recyclable. This policy of turning all waste into resources – or zero waste – has also been embraced in New Zealand where thirty district and city councils (from a total of 72) have joined a national pilot project originally designed for ten local authorities, and all of them are committed to reduce wastes to zero by 2015. One of these councils achieved a

70 % diversion from landfill in six weeks. The key to the effectiveness of these rapid changes appears to be well thought-out policies, detailed planning and a community consensus to implement a change of direction in waste management.

Canada provides a number of very relevant examples. The Quinte area in eastern Ontario (population 95,000) diverted an average of 68 % of household waste from disposal over a seven-year period starting in 1989. This was achieved by the implementation of a comprehensive system, which combined recycling, home composting, reduction, reuse and financial incentives. Over this period, the total cost of waste management and recycling -- including disposal -- dropped by 39 %.

Nova Scotia (population 950,000) had over 100 landfills in the province until 1995 when new laws on the landfilling of waste were introduced. The province has gone from a recovery rate of approximately 8 % to 51 % in the five year period (1995 - 2000) without building incinerators, and 1000 new jobs were created in the process. In 2004, a comprehensive full cost-benefit analysis of Nova Scotia's waste-resource management system was carried out, taking into account benefits such as avoided greenhouse gas emissions and liability costs and the more efficient use of landfills, and noting additional benefits such as increased employment. The analysis showed that Nova Scotia's wasteresource strategy has created significant economic benefits and savings of several hundred million dollars, and has produced more than 1,000 new jobs, exceeding its target of 600 jobs by almost 30%. New enterprises developed under Nova Scotia's waste-resource management strategy include used tyre recycling, plastics processing, and the manufacture of liner board, paper products and cellulose, based on the processing of recyclables.

The economic and employment benefits of Nova Scotia's strategy must be contrasted with our failure in reland to produce any comprehensive full costbenefit analysis of waste-resource management options. Instead, we are promoting and adopting the least desirable methods of dealing with our discarded materials, viz., landfilling and incineration. It is instructive to note that, perhaps because of these short-sighted policies, we have lost at least two firms manufacturing useful products from recyclables (Irish Glass Bottle, and Smurfit Paper Mills), while most of our recyclable materials end-up in landfills (legal and illegal) or are exported for processing elsewhere.

A combination of comprehensive recycling and composting schemes, together with charges for each sack or bin of refuse, has helped the town of Sidney, Ontario, to reduce household waste going to landfill by 69 % over a seven year period between 1989 and 1996. Guelph, Ontario, (population 100,000) has achieved a 58 % diversion rate (67 % diversion of wet waste and 51 % of dry waste) of household waste using a wet/dry collection system.

In Europe, the municipality of Dilbeek, Belgium, reduced its quantity of household waste by more than 60 % within six months in 1996. The average amount of household waste generated fell from 495 kg/capita in 1995 to 304 kg/capita in 1996. With such an impressive reduction, the municipality saved

about € 2 million in 1996 and 1997. The town of Bellusco, Italy, (population 6,000) achieved 73 % diversion from landfill by use of drop-off facilities and kerbside collection of paper and green waste. Examples of successful recovery programmes in Britain include Daventree (population 80,000), which went from less than 10 % recovery rate to 46 % in 26 months, and 11 Essex districts that have set a 60 % recovery rate by 2007.

If we take into account examples such as those few listed above, a decision to grant a waste planning permission for such a large-scale landfill facility without considering the implications of the EU Directives and the waste reduction policies mentioned above, and without examining the global trends shown by the examples given in this section, could be regarded as going against agreed policies and objectives.

We therefore urge the EPA to refuse a waste licence for the proposed facility, for the above reasons; and we do not need to remind the Agency that it should ensure that major infrastructure projects in Ireland should respect the principles of sustainable development.

3.12 Other Relevant Government Policies

The National Climate Change Strategy, 2007 to 2012, points out that "national policy is to regard waste as a resource; and this is reflected in our commitment to developing a recycling society and in the priority given to the diversion of waste from landfill. The implementation of these policies has a positive side-effect in reducing greenhouse gas emissions" (section 8, page 33).

The National Climate Change Strategy views landfilling as an option of the last possible resort, even for residual waste, and refers to the National Strategy on Biodegradable Waste (see sections 3.5 and 3.6 above):

To maximise the recovery of useful materials and energy from residual waste, the National Strategy on Biodegradable Waste identifies thermal treatment with energy recovery as the preferred option in most Waste Management Plans adopted by local authorities. The National Strategy on Biodegradable Waste also recognises, particularly in the shorter term prior to the development of adequate thermal treatment capacity, a potential role for mechanical biological treatment (MBT). MBT should be expected to contribute to national energy recovery policy. In the absence of energy recovery potential, fully stabilised waste may be sent to landfill where alternative and more suitable treatment solutions are not available (Chapter 8, page 34).

The National Development Plan 2007 to 2013 states that:

"In line with national policy on the integrated approach to waste management, thermal treatment with energy recovery will be the preferred option for dealing with residual waste after achieving ambitious targets in respect of waste prevention, recycling and recovery" (page 120).

Neither of these important strategic documents regard landfilling as a desirable or necessary component fighthe country's waste management strategy, and there is certainly no suggestion in them that new landfills are necessary or should be encouraged.

Having examined a reasonable number of Government policy documents which refer to waste management, it is clear that a decision to grant planning permission for the proposed landfill at Nevitt would be in conflict with relevant national policies and objectives.

4. Is There Excessive Landfill Capacity in Ireland ?

Before considering the landfill capacity situation in the Greater Dublin Area, we should firstly examine landfill capacity nationally; then we can look more closely at the regional state of affairs. This is not in any way to suggest that Dublin's waste should be transported to distant parts of the country, but to discover if there are significant differences between regions in terms of waste generation and disposal.

4.1 Relevance and Importance of the EUW waste Hierarchy

In order to address this question, we need to look at the waste management hierarchy, which is a key concept and approach developed by the European Union, and accepted by the Member States, including Ireland. The hierarchy emphases waste prevention, main isation, repair, re-use and recycling as primary objectives; with the disposal of waste by incineration and landfilling as the least desirable objectives. If incineration includes a significant amount of energy recovery, it is not classified as disposal, but may be considered as "recovery".

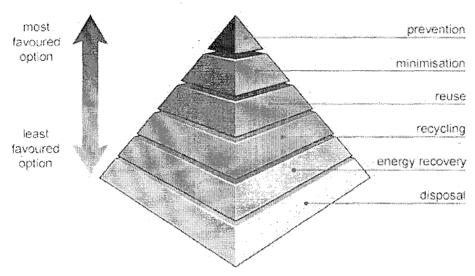


Figure 4.1 The Waste Hierarchy

Moving "up the pyramid" requires some curtailment of landfill facilities, or the imposition of landfill charges, or both types of disincentive, so as to provide a positive encouragement to reduce waste generation, and to re-use and recycle where possible. However, in recent years, a significant number of waste licences have been issued by the EPA for new large-scale landfills and for incineration, while An Bord Pleanála has also granted planning permission for some landfills and for two incinerators. These recently issued licences and permissions have greatly increased the country's capacity for the disposal of waste (the least favoured option), as opposed to waste prevention, reduction, re-use and recycling (the most favoured options).

It is our opinion that, if this trend continues, Ireland could face criticism and possible legal proceeding for failure to comply with the requirements of the EU Waste Framework Directive (75/442/EEC) and the Directive on the Landfill of Waste (1999/31/EC).

4.2 National and Regional Data on Landfill Capacity

Table 4.1 lists the landfill sites which have been granted planning permission by An Bord Pleanála and / or a waste licence by the Environmental Protection Agency; based on data from the "*National Waste Report, 2005*", published by the EPA in December 2006, and from the "*National Waste Report, 2004*", published in December 2005. The data are summarised in **Table 4.2** which gives regional data on licensed landfill capacity, quantities of waste accepted for disposal in 2005, and regional landfill capacity required according to the Regional Waste Management Plans. These figures are the most recent available, and they show that there is adequate landfill capacity throughout most of the country.

Table 4.1Approved National Landfill Capacity in tonnes per annum
(tpa) and amounts of Waste accepted for disposal in 2005

Waste Management Region	Landfill Location	Approximate Lifespan of the Facility	Maximum Capacity Licensed or Provisionally Licensed by the EPA (tpa)	Capacity Applied for or Granted Planning permission by ABP (tpa)	Quantity of Waste Landfilled in 2005
	Inagh	12-13 yrs ⁷	56,500	56,500	52,942
Clare Limerick	Gortadroma	-	130,000	130,000	43,252
Kerry	North Kerry	To 2015	77,000	77,000	34,431
	Total		263,500 ³	263,500 ³	130,625
	Ballaghaderreen ¹	To 2006	25,000	25,000	15,860
	Derrinumera ¹	To 2005	29,950	29,950	29,915
	Pollboy ¹	To 2005	120,000	120,000	122,194
Connacht	Rathroeen	-	45,000	45,000	26,378
	Galway Co Council ⁶	20 yrs	100,000 ⁶	100,000 ⁶	0
	East Galway	To 2013	100,000 me	100,000	0
	Total		245,000	245,000	194,347
	Benduff ¹	To 2005	£12,000	12,000	0
	Derryconnell ¹	To 20051 0 100	14,000	14,000	9,156
	East Cork ¹	To 2005	120,000	120,000	30,306
	Kinsale Road ¹	To 2007	100,000	100,000	45,549
Cork	Youghal ¹	5То 2007	170,000	170,000	3,066
	Rafeen ¹ consent	То 2005	20,000	20,000	0
	Bottlehill	20 yrs ⁷	217,000	217,000	0
	Ballyguyroe ²	10 yrs ⁷	145,000	0 (refused)	0
	Total		362,000 ³	217,000 ³	88,077
	Ballynacarrick	-	24,000	24,000	36,140
Donegal	Glenalla	?	?	?	0
Donegai	Muckish	?	?	?	0
	Total		24,000	24,000	36,140
	Arthurstown ¹	To 2007	600,000	600,000	497,274
	Balleally ¹	To 2006 / 2007	451,500	451,500	131,236
Dublin	Ballyogan ¹	Closed 2004	50,000	50,000	7,113
	Nevitt/Tooman ⁶	-	500,000 ⁶	500,000 ⁶	0
	Total		500,000 ³	500,000 ³	635,623

Waste Management Region	Landfill Location	Approximate Lifespan of the Facility	Maximum Capacity Licensed or Provisionally Licensed by the EPA (tpa)	Capacity Applied for or Granted Planning permission by ABP (tpa)	Quantity of Waste Landfilled in 2005
	KTK ¹	To 2007	275,000	275,000	273,565
	Drehid	20 yrs ⁷	120,000	120,000	0
	Calf Field ²	13 yrs ⁷	213,500	0 (refused)	0
Kildare	Usk ²	To 2014 / 2015	180,000	0 (new decision awaited)	0
	Kerdiffstown	10 yrs ⁷	303,000	303,000	0
	Total		816,500 ³	698,000 ³	273,565
	Ballaghveny	To 2010	37,000	37,000	25,595
	Ballydonagh	To 2010	60,000	60,000	21,916
Midlands	Derryclure ¹	То 2006	40,000	40,000	23,647
withanus	Kyletalesha		47,100	47,100	48,405
	Anniskannan ²	10 yrs ⁷	175,000	0	0
	Total		319,1003	144,100 ³	119,563
	Corranure	To 2011	90,000	90,000	46,833
	Scotch Corner	To 2011	\$39,500	39,500	38,931
North East	Whiteriver	15 yrs tonner to	92,000	92,000 (80,634
	Knockharley ⁸	To 2018	175,000	88,000	136,121
	Total	FOLLOPYTEL	396,500 ³	309,500 ³	302,519
	Donohill ¹	To 2007	40,000	40,000	20,415
	Dungarvan ¹ Conset	Closed 2003	11,520	11,520	0
	Dunmore ¹	To 2007	42,495	42,495	19,266
	Kilbarry ¹	To 2005	68,000	68,000	18,879
	Killurin ¹	To 2005	45,500	45,500	13,396
South East	Powerstown	-	28,500	28,500	30,257
	Tramore ¹	To 2005	15,000	15,000	25,167
	Garrynagree	21 yrs ⁷	113,034	113,034	0
	Holmestown	20 yrs ⁷	80,000	80,000	0
	Hardbog	-	40,000	40,000	0
	Total		261,534 ³	261,534 ³	127,380
	Rampere	5 yrs ⁷	50,000	50,000	8,645
Wicklow	Ballynagran	15 yrs ⁷	175,000	150,000	0
ļ	Total		225,000 ³	200,000 ³	8,645

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In 2005, a total of 32 landfills accepted 1,824,066 tonnes of municipal waste for disposal; this consisted of 1,193,872 tonnes of household waste and 630,194 tonnes of non-household municipal waste. In 2004, a total of 34 landfills accepted 1,818,535 tonnes of municipal waste (a marginal decrease from 1,832,624 tonnes accepted at 35 landfills in 2003); this consisted of 1,214,908 tonnes of household waste, 561,079 tonnes of commercial waste, including 42,549 tonnes of non-process industrial waste.

Table 4.2Regional data on licensed landfill capacity, quantities
of waste accepted for disposal in 2005, and regional
landfill capacity required according to the Regional
Waste Management Plans.

Waste Management Region	Licensed Annual Capacity (where EPA and ABP figures differ, we have taken the smaller)	Quantity of Waste Accepted for disposal in 2005	Annual Capacity required according to the Regional Waste Management Plans (tonnes)
Clare Limerick Kerry	263,500 ³	130,625	70,143
Connacht	245,000	194,347,5	107,902
Cork	217,000 ³	88,097	See Note 5
Donegal	24,000	es 01, 36, 140	250,000
Dublin	500,000 ³	urponine 635,623	500,000
Kildare	698,000 ³	100 net red 635,623 273,565	20,000
Midlands	144,100 ³	119,563	79,333
North East	309,5003 ³⁴⁷⁴	302,519	119,134
South East	261,534 ³	127,380	69,000
Wicklow	200,000 ³	8,645	25,000
All Regions	2,862,634	1,916,484 ¹¹	1,240,512

Notes on Table 4.1 and 4.2:

- 1 Due for closure, or recently closed.
- 2. No planning approval (June 2007). In the case of the proposed Usk landfill (County Kildare), the Inspector appointed by An Bord Pleanála recommended refusal of planning permission; the Inspector's recommendation was overturned by the Board, but the Board's decision was subsequently quashed by the High Court following a Judicial Review application by the Usk and District Residents Association.
- 3. Estimated landfill capacity at end of 2007 if all proposed developments are approved.
- 4. Regional waste management plans are under review.
- 5. No capacity forecast in current regional waste management plans.

- 6. No planning/licensing permission granted yet (June 07).
- 7. Following commencement of acceptance of waste.
- 8. Capacity restricted to 132,000 tpa until 2007 and 88,000 tpa thereafter by An Bord Pleanála.
- 9. Data source: www.epa.ie; www.pleanala.ie; Regional Waste Management Plans.
- 10. Construction and Demolition waste only.
- 11. There is a discrepancy between the EPA total of 1,824,066 tonnes of municipal waste landfilled in 2005, and the total of 1,916,484 tonnes which we obtained by adding the figures for each landfill in Appendix C of the Agency's "*National Waste Report, 2005*".

Table 4.2 clearly shows that the total capacity of landfills licensed to receive waste amounts nationally to 2,862,634 tonnes per annum, which is 946,150 tonnes (nearly one million tonnes) more than the amount of waste accepted for disposal by landfilling in 2005, and is 2.3 times more than the annual landfill capacity required to meet future demands for landfilling, according to the regional waste management plans.

While it must be accepted that regional and temporary deficits will occur, there is no doubt that, nationally, Ireland has more than adequate landfill capacity to deal with the current amounts of waste. Because a significant proportion of this excess capacity is under the control of private andfill operators, competition can keep gate fees from rising too high, with a resulting economic benefit to waste producers. However, this issue of economic benefit has no place in the waste hierarchy, or in the national policy of diverting waste from landfills; and it therefore follows that the excess capacity is in conflict with national policy and with the principal objectives of the Council Directive of 15 July 1975 on Waste (75/442/EEC) and Council Directive 1999/31/EC of 26 April 1999 on the Landfill of Waste (the Landfill Directive).

However, before stating that no further landfills should be licensed, it is necessary to examine what might happen in future years. An excess capacity now might be a prelude to a shortage of landfill space in a few years, or, on the other hand, current policies may be acting to reduce further the need for landfilling of waste, and the landfills coming on stream may be adequate to deal with future amounts waste which cannot be re-used, recycled, or composted.

4.3 Remaining Capacity at Existing Landfills

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According to the Environmental Protection Agency's "*National Waste Report*, 2004", published in December 2005, the current remaining landfill capacity for municipal waste in the whole country is estimated to be 8 years, as shown in **Table 4.3**. Dublin and Donegal each have less than five years remaining capacity, but the two incinerators recently licensed (in County Cork and County Meath) will increase the annual capacity for disposal of municipal waste.

Waste Management Planning Region	ment annual MSW remaining capacity		apacity sed	Facilities included in the calculation (EPA waste licence reg. numbers in brackets)
	Tonnes	Tonnes	Years	
Clare Limerick Kerry	185,294	2,496,767	13.5	North Kerry (1-3); Gortadroma (17-2); Inagh (109-1).
Connaught	186,259	1,604,913	8.6	Rathroeen (67-1); Ballaghadereen (59-2); Derrinumera (21-1); East Galway (178-1, operational in 2006).
Cork	506,161	6,025,519	11.9	East Cork (22-1); Kinsale Road (12-2); Derryconnell (89-1); Youghal (68-2); Donohill (74-2); Bottlehill (161-1, to begin operation in 2008).
Dublin	791,805	2,064,638	2.6	Arthurstown (4-3); Balleally (9-2).
Midlands	131,237	1,082,661.	8.2	Kyletalesha (26-2); Derryclure (29-2); Ballydonough (28-1); Ballaghveny (78-1).
North East	319,649 Fotossie 133,526 Aconytie	09,954,784	12.4	White River (60-2); Corranure (77-2); Scotch Corner (20-1); Knockharley (146-1).
South East	133,526 01001	1,259,974	9.4	Powerstown (25-2); Dunmore (30-2); Holmestown (191-1, operational in 2007).
Donegal	36,565	165,000	4.5	Ballynacarick (24-1).
Kildare	248,049	701,951	2.8	КТК (81-2).
Wicklow	145,476	2,189,524	15.1	Rampere (66-2); Ballynagran (165-1, operational in 2006).
National Capacity	2,684,021	21,545,732	8	

Table 4.3	Remaining capacity at municipal waste landfills, December 2005
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However, there are a number of uncertainties associated with the calculations, for example:

i) It is assumed in the calculations that disposal rates will remain constant at the levels advised by the landfill operators and that all licensed capacity will be utilised at some point in the near future. Of the landfills listed in **Table 4.1** as "not yet operational", the new large-scale East Galway Landfill (EPA Licence Reg. No. 178-1) commenced operation in 2006; Ballynagran Landfill (EPA Licence Reg. No. 165-1) was also expected to commence accepting waste in 2006; while Bottlehill Landfill (EPA Licence Reg. No. 161-1) and Holmestown Landfill (EPA Licence Reg. No. 191-1) will commence operation in or around 2007 and 2008; both of these being large-scale facilities. Up to 70% of Rathroeen Landfill's (EPA Licence Reg. No. 67-1) remaining licenced capacity will, if commenced, be available from 2008.

- ii) No account has been taken of the sharing of facilities between regions, for example:
 - Local Authorities and private sector waste disposal operators in the Dublin Region, with an estimated 2.6 years remaining landfill capacity, intend to continue using landfills in the neighbouring counties of Meath, Kildare and Wicklow as an interim measure. It is stated in the Dublin Waste Management Plan (November 2005) that this interim measure is being adopted by the Region until such time as the new facility planned for Fingal is operational (intended as a major large-scale landfill); and,
 - Kildare County Council currently accepts waste from baling stations in South Dublin for subsequent disposal at Arthurstown landfill in Kill, County Kildare. In the draft Kildare, Waste Management Plan (July 2005) it is stated that Kildare County Council will consider cooperating with neighbouring regions and/or the private sector in the provision of landfill capacity.

The proposed facilities at Drehid (EPA Licence Reg. No. 201-1; ABP planning permission received) and Usk (EPA Licence Reg. No. 168-1; ABP decision awaited) would provide a further very significant increase in landfill capacity in the Greater Dublin Area. Drehid has received an EPA waste licence and planning permission, while the proposed landfill at Usk (in County Kildare) was granted planning permission by An Bord Pleanála, but the Board's decision was quashed by the High Court following a Judicial Review application by the Usk and District Residents Association. The oral hearing held by the Board into appeals against this landfill was held last year, but the future of this proposed landfill is uncertain, and we have not included it in our calculations.

While 8 years would appear to be a relatively short period of time, and would suggest a reasonably urgent necessity for some additional landfill capacity, it should be remembered that the above table does not include:

- the incineration facility at Carranstown, County Meath, for which planning permission and a waste licence has been granted, and which would accept 150,000 tonnes of municipal waste per annum;
- the incinerator at Ringaskiddy, County Cork, for which planning permission and a waste licence has been granted, and which would accept 100,000 tonnes of industrial and commercial waste per annum; and,
- the large-scale landfill at Drehid in County Kildare, which has received an EPA waste licence and planning permission for a residual waste landfill

(capacity 120,000 tonnes per year) and biologicial waste treatment facility (capacity 25,000 tonnes per year), to accept a total of 2.3 million tonnes over a 20-year period; and this facility is expected to begin accepting waste within the next 12 months.

Taken together, these additional facilities will add a further 395,000 tonnes per annum to the country's licensed landfill capacity shown in Tables 4.1 and 4.2, thereby increasing the total capacity to approximately 3,257,000 tonnes per annum; i.e., 1.7 times the amount of waste sent to landfill for disposal in 2005, and 2.6 times the annual landfill capacity required by the regional waste management plans.

It is therefore clear that the country's landfill capacity is excessive, even if there is no reduction in the annual amounts of waste being generated.

If the proposed large-scale landfill at Nevitt is licensed and receives planning permission, the total capacity would be increased to approximately 3,757,000 tonnes per annum; i.e., 1.96 times the amount of waste sent to landfill for disposal in 2005, and 3.0 times the annual landfill capacity required by the regional waste management plans.

4.4 Excess Capacity of Other Large-Scale Landfills in the Region

We would also suggest to the Agency that the proposed facility at Nevitt cannot be regarded in any way as a necessary facility, especially as there are other large-scale waste disposal facilities in the region, within similar distances or not significantly greater distances from Dublin, and others have been granted planning permission.

4.4.1 Decision by Kildare County Council and An Bord Pleanála to grant Planning Permission for a Large-Scale Landfill at Drehid (An Bord Pleanála Reference Number: PL 09.212059)

On 18 February 2005, Kildare County Council issued a notice stating that it is the intention of the County Council to grant planning permission to Bord na Mona for a proposed engineered landfill site of approximately 21.2 hectares at Drehid to accept up to **120,000 tonnes per annum** of non-hazardous residual municipal waste for disposal; and on 13 April 2005 the Council made a decision to grant planning permission for the landfill and ancillary facilities, subject to 24 conditions (Kildare County Council Planning Reference 04/371). In making the decision, the County Council referred to the relative remoteness of the proposed site and the degree of separation between it and the nearest houses, the degraded character of the site (cut-over blanket bog), and the previous identification of the site as suitable for landfill development.

On 21 November 2005, An Bord Pleanála granted planning permission for a large-scale landfill at Drehid, subject to 22 conditions, one of which (condition 2) permits the applicant to deposit up to 120,000 tonnes of waste annually for a period of twenty years. This final decision was made after the first oral hearing

by the Board of the appeals against the proposed landfill at Usk, and it therefore represents a major change of circumstances compared with the situation in April 2005 when no decision had been made about the landfill at Drehid.

Whether or not a landfill at Drehid is appropriate for the proposed site, or whether the site is suitable for the planned landfill, are issues outside the scope of this oral hearing. Nevertheless, the Drehid site is not too far from Dublin as to be considered out of the question.

4.4.2 Kerdiffstown, County Kildare

Kerdiffstown, near Naas, County Kildare, operated by A1 Waste, currently has a processing capacity of 4,000 tonnes of construction and demolition waste per day, or approximately 1 million tonnes per year. At current estimates, this one site alone could provide for the recovery of 25% of the national production of C&D waste.

EPA waste licence W0047-02, granted on 27 September 2006 to Neiphin Trading Limited, allows up to 630,000 tonnes of waste per annum to be processed at the facility, provided adequate processing capacity is available. This waste includes commercial and industrial waste, household dry recyclables, construction and demolition waste, compostable waste and waste previously landfilled at the facility.

Wastes which can be accepted include imported commercial, industrial, and C & D wastes, and household dry recyclables (235,000 tonnes per annum); waste excavated on-site for reprocessing (330,000 tonnes per annum); and biodegradable waste for composting (including residues from treatment of municipal waste, household putrescibles, and green waste) (65,000 tonnes per annum).

4.4.3 Kilcullen, County Kildare

KTK Landfill Limited operates a large landfill at Kilcullen, County Kildare, under a licence granted by the EPA on 16 February 2006.

Wastes which can be accepted under the licence include commercial waste (222,750 tonnes per annum), construction & demolition waste (7,750 tonnes per annum), industrial non-hazardous solids (24,750 tonnes per annum), dewatered industrial non-hazardous sludges and filtercakes with more than 25% solids (13,750 tonnes per annum), and construction materials containing asbestos (6,000 tonnes per annum); giving a total maximum intake of **275,000 tonnes of waste per annum**.

4.4.4 Knockharley, County Meath

Also reasonably close to Dublin, the landfill at Knockharley can accept household waste (100,000 tonnes per annum), commercial waste (45,000 tonnes per annum), industrial waste (30,000 tonnes per annum), construction &

demolition waste for recovery at the facility (25,000 tonnes per annum); giving a maximum intake of **200,000 tonnes per annum**.

The three landfills listed above can take, between them, some 895,000 tonnes of waste per annum.

4.5 Dublin's Requirements for Landfill Capacity

If we now turn briefly to the landfill capacity requirements for the Dublin Region, we see that the amount of waste sent to landfill in 2003 was 756,970 tonnes (data from Section 12 of the Waste Management Plan for the Dublin Region, 2005 – 2010).

Table 4.5	Waste Disposal to Landfill in the Dublin Region 1997 – 2003
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Waste Type	1997 (Tonnes)	2003* (Tonnes)
Household Waste	352,000	383,816*
Commercial/ Industrial Waste	364,000	342,829**
Street Cleaning	21,800	ي ^{و.} 30,325
Total	737,800 _{olite} s	756,970

Data from table 12.1, Waste Management Plan for the Dublin Region, 2005 – 2010 * Excludes an estimated 90,000 tonnes coming from Meath, Kildare and Wicklow transferred to Dublin baling stations

** Estimates include 140,000 tonnes and filled at KTK from Dublin Region.

The previous Dublin Waste Management Plan (1998) aimed to reduce the Region's over dependence on landfill through waste prevention, re-use and recycling; and it set a target for the landfilling of 16% of the total household, commercial and industrial waste. The current plan states that, although the situation has improved with increased awareness and recycling, over 74% of the household, commercial and industrial waste streams is deposited in the existing landfills. This is clearly unsustainable, and I would submit that Fingal County Council should be looking seriously at reducing this high proportion instead of attempting to construct yet another landfill.

5. Non-Compliance with the Principle of Sustainable Development – Unsustainability of the Proposed Abstraction

Adherence to the principle of "Sustainable Development" requires that demands and resources should be managed sustainably, so that human societies can live within the natural flows of materials and energy, and within the carrying capacity of the environment. Applying the principle to only one side of the equation, i.e., to provide a continuing supply of landfill capacity, and to fail to manage the demand for landfill capacity, is not an adequate or correct approach.

It is our view that the European Union's long-standing commitment to meet the challenges of sustainable development¹, a policy which has been endorsed and supported by our Government, must be considered as an over-arching policy, to be fully considered by the Environmental Protection Agency, and that sustainable development cannot be seen as a separate, independent issue.

Sustainable Development is generally described as "development which meets the needs of the present without compromising the ability of future generations to meet their own needs", but there are other (and perhaps more appropriate) definitions which should find a place in our consideration of water and other natural resources:

"Improving the quality of human life while living within the carrying capacity of the Earth's supporting eco-systems"².

and

"Sustainable Development is about raising our quality of life by establishing symbiotic relations within and between our diverse human cultures and between those cultures and the biosphere"³

A key objective of the EU Sustainable Development Strategy is "avoiding waste and enhancing efficient use of natural resources by applying the concept of lifecycle thinking and promoting re-use and recycling". It is our view that the implementation of the strategy and the above objective requires:

- A long-term and sustainable economic development policy, supported by a healthy and diverse environment;
- Valuing our natural resources and using them efficiently, at a rate not exceeding their natural renewal;
- Developing and implementing strong policies on waste management, with the emphasis on waste avoidance and minimisation, re-use, repair, recycling and composting; so as to divert as much waste as possible from disposal by landfilling;

¹ Review of the EU Sustainable Development Strategy (EU SDS). Council of the European Union, Brussels, 9 June 2006; document 10117/06.

² From "Caring for the Earth: a Strategy for Sustainable Living", IUCN/UNEP/WWF (1991).

³ Shiela Convery, DIT, 2004.

- Preserving the quality of landscape, cultural heritage, material assets and natural resources;
- Involving local communities in decision-making on environmental issues, especially those related to sustainability;
- Protecting flora; fauna, and bio-diversity; and restoring damaged habitats where necessary;
- Sustainable development should form the cornerstone for all planning decisions, especially those involving long-term infrastructural projects.

As we have detailed above, the proposal by Fingal County Council to develop a large-scale landfill, while at the same time placing at risk and sterilising for future generations an important and vital water resource, cannot be considered as complying with the principles of sustainable development.

6. Failure to Comprehensively Assess the Applicant's EIS and to carry out an Environmental Impact Assessment of the Proposed Landfill as Required by the EU Directive

NLAG is particularly concerned about the inadequate procedure by which the applicant's EIS has been assessed, i.e., some of the issues were assessed by An Bord Pleanála, and other issues are being examined by the EPA, while some important issues are omitted entirely from consideration. This is a systemic problem, derived from the way in which the EU Directives on Environmental Impact Assessment bave been implemented in Ireland, so that decisions about proposed projects are independently made by planning authorities and by the EPA, with no combined or comprehensive assessment of the environmental consequences.

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For example, as the Agency will be aware, planning permission was refused on four separate occasions by Cork County Council and by An Bord Pleanála for a large-scale landfill at Ballyguyroe in North Cork; yet, following these decisions, the EPA made a final decision on 17 November 2004 to grant a waste licence, though the inconsistency of the Agency's proposed decision had previously been pointed out to them. Subsequent to the Agency's decision, the applicant made a third attempt to obtain planning permission, and was refused by Cork County Council and by An Bord Pleanála on appeal. Clearly, an integrated decision-making procedure would have saved considerable time and finance, not only for the applicant, but also for the local residents who opposed the landfill.

As the Agency will be further aware, this issue of split jurisdiction is the basis of legal proceedings which were taken by the European Commission against the Government of Ireland for breaching EIA Directive 85/337/EEC as amended by Council Directive 97/11/EC. The Commission issued a Reasoned Opinion confirming that Ireland was in breach of the Directive, and giving examples of failures to comprehensively assess environmental impacts in an integrated manner as required by the Directives. The Opinion stated, *inter alia*, that

Ireland has failed to comply with Article 3 of the Environmental Impact Assessment Directive in that there is no provision which ensures that an EIA covers the inter-action between the factors mentioned in the first and second indents of Article 3 of Directive 85/337/EEC before its amendment by Directive 97/11/EC, or the inter-action between the factors mentioned in the first, second and third indents of Article 3 of Directive 85/337/EEC after its amendment by Directive 97/11/EC.

Article 7 of Council Directive 96/61/EC refers to this problem of independent decision making, and states that:

"Member States shall take the measures necessary to ensure that the conditions of, and procedure for the grant of, the permit are fully coordinated where more than one competent authority is involved, in order to guarantee an effective integrated approach by all authorities competent for this procedure".

It is evident that there has been little or no formal co-ordination between the EPA and An Bord Pleanála, and that the above requirement for coordination has not been complied with.

We would submit that changes in the planning legislation (in particular, Section 256 of the Planning and Development Act, 2000) have not been sufficient to address these failures, and that the environmental impact assessment process for the proposed landfill at Nevitt has not been carried out in compliance with the requirements of the EIA Directives.

The decisions of Mr. Justice Peter Kelly in the High Court in May and June of 2004 in the case of *Mary Pat Cosgrave -v- An Bord Pleanála, Wicklow County Council, Ireland and Others*, are very relevant to the issues before this hearing. These proceedings were by way of a Judicial Review of a decision of An Bord Pleanála to grant planning permission for a landfill facility at Ballynagran, County Wicklow, and the judgement of the Court was that the EPA is required to carry out a full Environmental Impact Assessment process in accordance with the EIA Directives of the EU on all of those matters which have not formed part of the remit of the Planning Authority

Relevance of the Former Unauthorised Landfill at Nevitt, the Importance of the Groundwater Resource, and Section 40 (4) of the Waste Management Act, 1996

Given that the site on which Fingal County Council is planning to construct a large-scale landfill contains (in one area) a former unauthorised landfill, in which a mixture of construction and demolition wastes and domestic wastes have been buried, it is our submission that a decision by the Agency to grant a waste licence which permitted any further deposit of wastes at Nevitt would be in breach of Section 40 (4) of the Waste Management Act, 1996. I would refer the Agency to a similar situation at Doora, near Ennis in County Clare, where the Agency refused to permit the landfilling of any further wastes (Waste Licence reference 31-1; condition 5.1.1). The proposed licence was the subject of an

objection by Clare County Council in which the applicant made the point that there is no beneficial use of the aquifer, and consequently there is no public health risk associated with the use of the groundwater.

A Technical Committee was established by the Agency to consider the County Council's objections, and among the Committee's conclusions was the important statement that "an aquifer is any groundwater and must be protected under the law, regardless of beneficial users". The Technical Committee also noted that the Agency is legally precluded (under Section 40 (4) of the Waste Management Act, 1996) from granting a licence unless they are satisfied that the activity concerned (i.e., landfilling of waste in this instance) will not cause environmental pollution or that any emissions from the disposal activity will not result in the contravention of the relevant standards. Consequently, the Technical Committee considered that Licence Condition 1.1, which does not allow the continuation of landfilling at the Doora facility, should not be changed.

Similar considerations applied to a site at Whitestown, County Wicklow, and the Agency refused to allow any further landfilling or acceptance of waste at Whitestown, when deciding to grant a waste licence.

As well as the examples of Doora and Whitestown quoted above, there are other precedents for the Agency to insist that any waste licence granted should require monitoring and remediation, but *no* landfilling with any waste, other than inert waste specified in advance for the purpose of site remediation. Another such example which the Agency might follow is the waste licence (Reference 181-1) granted to Swalcliffe Limited for Coolamaddra, County Wicklow, which requires the licensee to clean up an unauthorised landfill. Under the conditions of this waste licence, the activity permitted is described as the excavation and recovery of wastes already deposited on the site, including the sorting and segregation of these wastes prior to off-site disposal at a licensed facility.

Jack O'Sullivan Environmental Management Services

On behalf of

The Nevitt-Lusk Action Group

11 March 2008

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Environmental Management Services

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