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Gormanston Top 10 Highlights 2007

1. We accepted 469,795 tonnes of inert material (mostly soil and stones) for restoration of the Gormanston (Sarsfieldstown) site.
2. Incoming tonnages were down considerably on previous years due to a nationwide slow-down in the residential construction sector.
3. To-date we have restored an area of over 160,000m² at the Gormanston site.
4. We commenced the process of including an additional landholding acquired to the south of the Sarsfieldstown site into our EPA-licensed boundary.
5. Our company staff numbers grew by five during 2007.
6. We rolled out wide-ranging improvements in our Health & Safety procedures, including issuing Health & Safety instruction leaflets in Russian and Polish.
7. We renewed our 5-year rolling sponsorship programme of environmental projects in local primary schools.
8. We attained re-certification to ISO14001:2004, the International Standard for Environmental Management Systems.
9. We were honoured with a Business Award by Fingal County Council, having been invited to participate in their Greener Communities Awards Scheme.
10. We were further honoured by Business Awards from Swords Fingal Chamber and Drogheda Chamber.





Opening Statement by Murphy Environmental General Manager

Dear Reader,

Thank you for taking the time to look over our Annual Environmental Report (AER) for the Gormanston facility for 2007. If you have read previous reports you will know that we are required to prepare a report under the terms of our EPA licence. The licence also specifies issues which must be addressed within the AER, all of which can be found in this document. However, as you may be aware, we at Murphy Environmental see this document as an opportunity to do much more than simply report statistics. We see it as a chance to give the reader a glimpse into the daily running of the facility, the people who make it happen and the significant events that have occurred during the year.

We also think that this report is a great place to acknowledge some of the achievements of the individuals who make up the team at Murphy Environmental and allow them to have a direct input into the form and content of the Annual Environmental Report. Last year we had introductions at the beginning of the AER for this facility and its sister site, Hollywood, from each of the Facility Managers, Emma Murphy for Gormanston and Ken Rooney for Hollywood. This year I decided that I would welcome the opportunity to give the introduction myself, as General Manager of the company, and perhaps speak about our management team, staff and the family we call Murphy Environmental.

The theme of this year's report is very much 'family' - this is a family business, as are so many Irish companies and the extent to which this is a family business is quite unique. We realised that over time we have accumulated an extraordinary number of people who are from the same families: fathers and sons, uncles and nephews, fathers and daughters, brothers and sisters, so we decided to illustrate our family tree and we hope you will find this interesting. We have supplemented the report with some fantastic tree illustrations, all of which were photographed in the grounds of Gormanston College in Co. Meath.

One of the things that mark out this company and its parent Murphy Concrete Manufacturing Ltd is the lengthy service record of many of its employees. In this company we have many, many members of staff who have been with the company over 30 years, although they all claim eternal youth and therefore it can be difficult to pin them down as to length of service!



I am certain of at least ten that fall into that category and at least ten more who have been with the company for over 25 years. This is as much about the family that is Murphys as the various and multiple family

connections. Equally we have many youngsters and newcomers, even boasting families from Latvia and we have managed to persuade the father of our father and son team from Latvia to give us some insight into his home and background before he joined us in Ireland along with his son.

On the business front, this has been another challenging and successful year and the managers of both facilities have coped admirably with all the events and occurrences that have arisen, taking us smoothly to the conclusion of another year while recruiting and training even more staff, developing the business further to underpin our significant place in the Irish Waste Management Industry and addressing all the responsibilities that come with those tasks with the usual enthusiasm and innovation that we have now come to expect from them.

Emma Murphy who manages the Gormanston facility was the person who introduced the concept of providing each of our customers with an 'Annual Activity Report' at the end of the year and these have become an invaluable part of the customers' plans in complying with their legal obligations to submit their Annual Environmental Reports to the Local Authorities and/or EPA and indeed to give similar feedback to their customers. Emma is ably assisted in Gormanston by the Assistant Facility Manager at the site, Lisa Maguire, and the rest of the office and operations team.

Small haulage companies who may not have the sort of administrative back-up of bigger firms especially find this service invaluable in helping them comply with waste management regulations. In a typically 'Emma-like' manner she offers these reports in advance of year-end and in every format possible to meet the individuals' needs: hard copy, fax and electronically, so whatever level of administration they are operating at, we can accommodate it.

Continued... ↩

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Emma Murphy can also claim to have assisted greatly in the education of the smaller operator in the matter of compliance and is something of an expert in the area of Waste Collection Permits, the application process and the requirements of the various Local Authorities when making an application to move waste. With her customary generosity she has spent a great deal of time giving assistance to these companies and saved them a lot of stress and a significant amount of money in the process, often removing the need for them to engage expensive consultancy firms to do the work for them. This is all done free of charge and in addition to being of huge benefit to our clients, helps to enhance our company's reputation with both business and regulators.

All the staff and management at Murphy Environmental are committed to the delivery of the best standards of service, legal compliance and community responsibility and this continues to be at the heart of our policies and philosophy. This year we translated all of our Health & Safety documentation into the most commonly spoken languages of the many drivers that enter our premises - Russian and Polish. We provided all of our staff with personal alarms that can be employed in the event of an accident at work or at home to gain assistance quickly.

Our training programme moved on apace and our Health & Safety Officer, Lisa Murphy, has implemented many new controls and initiatives to support a safe and healthy working environment for all staff and customers. The environmental measures that were introduced on a pilot basis at the end of last year were rolled out in full this year, with the transfer to sustainable electricity supply across the company and we can see more about the saving of CO₂ emissions in our energy monitoring section.

2008 will be no different from previous years as we strive to improve in every area of the business following the continuous improvement model that forms the basis for the ISO14001 certification we hold. We hope that you, the reader, find what we have to tell you in our report of interest and, on behalf of the Managing Director and all the staff at Murphy Environmental, thank you for your interest in our company.

Patricia Rooney - General Manager

About the Gormanston Facility

Murphy Environmental holds a Waste Licence (Reference W0151-01) from the Environmental Protection Agency (EPA, also referred to as 'the Agency') for restoration of the Gormanston site and recovery of inert Construction & Demolition (C&D) materials.

The site is located at Sarsfieldstown, Gormanston, Co. Meath. The facility at Gormanston has been an operational sand and gravel pit for over 35 years and this activity continues at the present time, under the management of Murphy Concrete Manufacturing (MCM) Ltd. At the same time, worked-out areas of the site are being restored with inert soil and stones.

Murphy Environmental was established as a trading division of MCM Ltd. in 2003, to serve as the waste management division of the company. Murphy Environmental is responsible for all aspects of the management and operation of the facility and compliance with the Waste Licence. We operate another inert Waste Licence (Reference W0129-01) at Hollywood, The Naul, Co. Dublin.

About this Report

This report is the fifth Annual Environmental Report (AER) for Gormanston and contains data for the calendar year 2007. This report is available to download from www.murphyenvironmental.ie and previous AERs are available on request from Murphy Environmental.

The AER is required under the Waste Licence and must contain as a minimum the information specified in Schedule F of Waste Licence W0151-01 - Content of the Annual Environmental Report. A cross-reference to the requirements is available at the back of this report.

About the EPA Waste Licence

The EPA Waste Licence reference number for the Gormanston facility is W0151-01 (in July 2006, the EPA required the licence number to be renamed from "151-1" to "W0151-01"). The licence was granted on 5th June 2003 for the operation of a facility for the recovery of inert C&D waste in an active sand and gravel pit so as to restore the site into the surrounding landscape.

A full copy of our EPA Waste Licence, plus summaries of monitoring reports, and a wide range of other information relating to the company, can be downloaded from our website, www.murphyenvironmental.ie

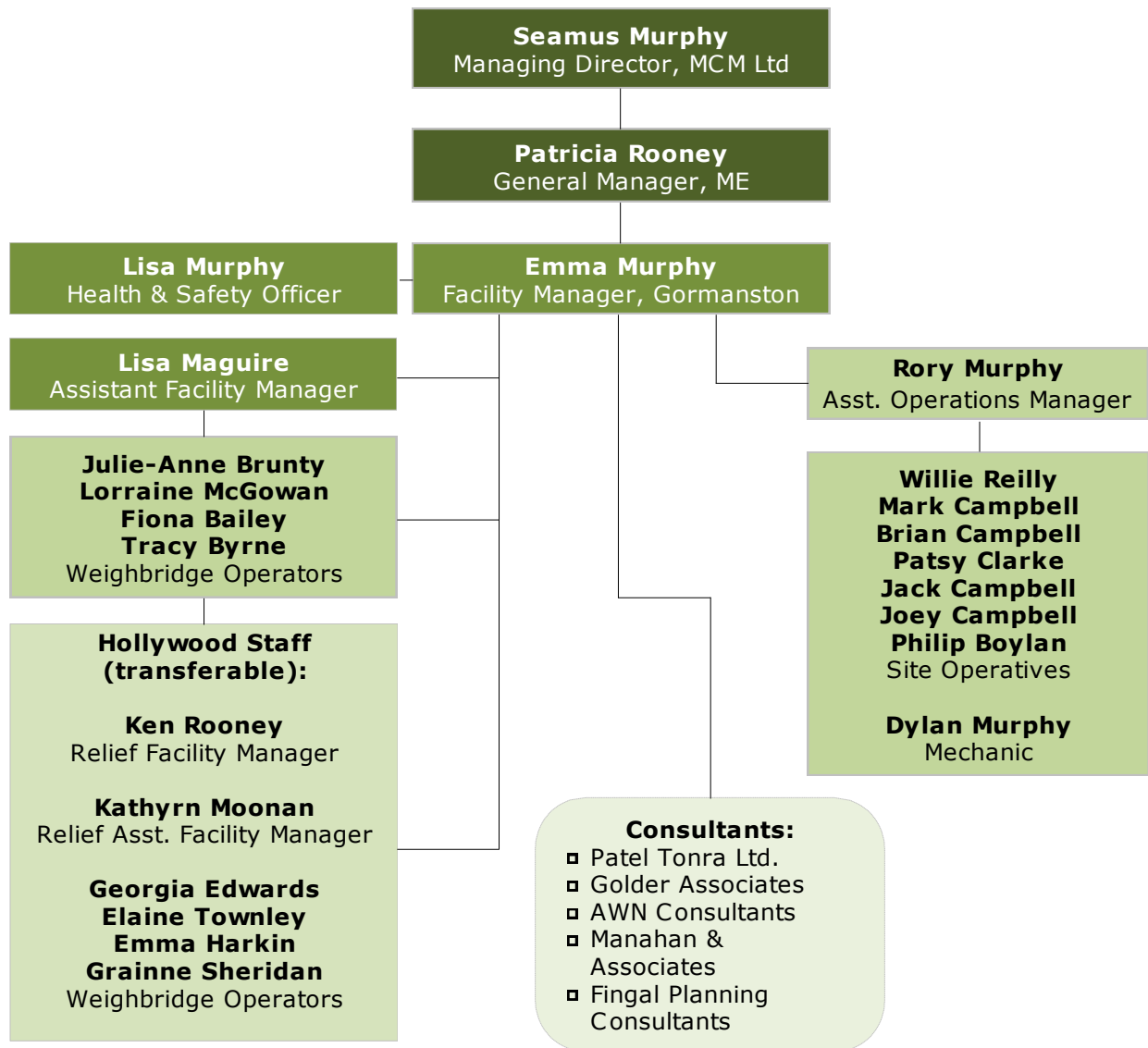
Our Gormanston Management Team

Murphy Environmental has dedicated management teams at its Gormanston and Hollywood facilities. Patricia Rooney is the General Manager of the company. Staff at Gormanston and Hollywood is trained on Waste Acceptance Procedures and other requirements for both sites, such that all staff are transferable between sites.

The Facility Manager at Gormanston is Emma Murphy and the Assistant Facility Manager is Lisa Maguire. They are supported by an office team, who have responsibility for operating the weighbridge and office and data management duties, and an operations team, who direct and control incoming vehicles in restoration areas.

The company is further supported by its consultant teams – Patel Tonra Ltd., Environmental Consultants, Golder Associates, Engineering Consultants, AWN (Air and Noise Consultants), Fingal Planning Consultants and Manahan & Associates (Planning Consultants).

2007 again saw a growth in staffing numbers across the company; our organisational structure is summarised below.



Murphy Environmental *Family Tree*

In an attempt to graphically illustrate the number of family connections amongst work colleagues at Murphy Environmental, the family tree opposite was prepared. Emma Murphy, Facility Manager at Gormanston, and Lisa Murphy, Health & Safety Officer, themselves central to the 'Murphy Clan' noted the following:

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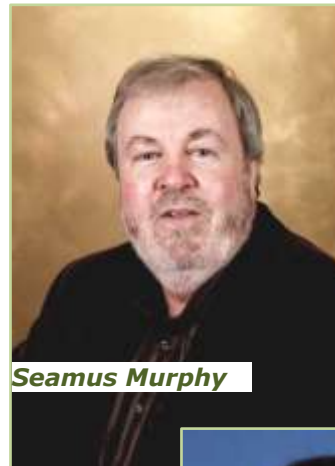
We knew there were lots of relatives working within the company but we surprised ourselves to see the extent of this when we started to write it all down. Of course our own family features strongly in the tree opposite – sometimes it can be a challenge working with your father, brother and two sisters, but overall it's great! A lot of our extended family also works for the business, as full-time employees or on a contractor basis. Our uncle, Jerry Murphy, is an electrical contractor, as is his son, and a couple of our second cousins are lorry-drivers for MCM. We're lucky that the family has a wide range of skills, all of which are useful to the business.

Apart from our own family, we have two other father and son teams: Jack Campbell has worked with MCM for 30 years, and now his three sons, Mark, Brian and Joey also work with us. We were joined by another hard-working pair in 2006 – Egils Zigurs and his son Edgar, from Latvia. Egils shared some of his experiences since moving to Ireland with the Hollywood Facility Manager, Ken Rooney, which is detailed on page 8.

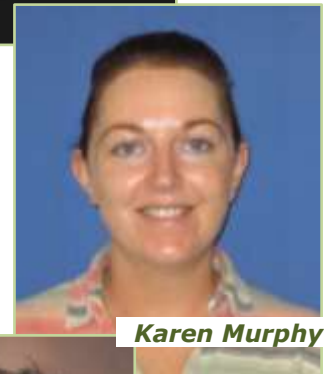
Many more connections are detailed in the family tree diagram, but we had to draw the line at close family connections. There are a whole host of second and third cousins and relations through marriage that were not possible to list.

And just to set the record straight, we have to finish by saying that our General Manager, Patricia Rooney, and Hollywood Facility Manager, Ken Rooney are not related in any way!

”



Seamus Murphy



Karen Murphy



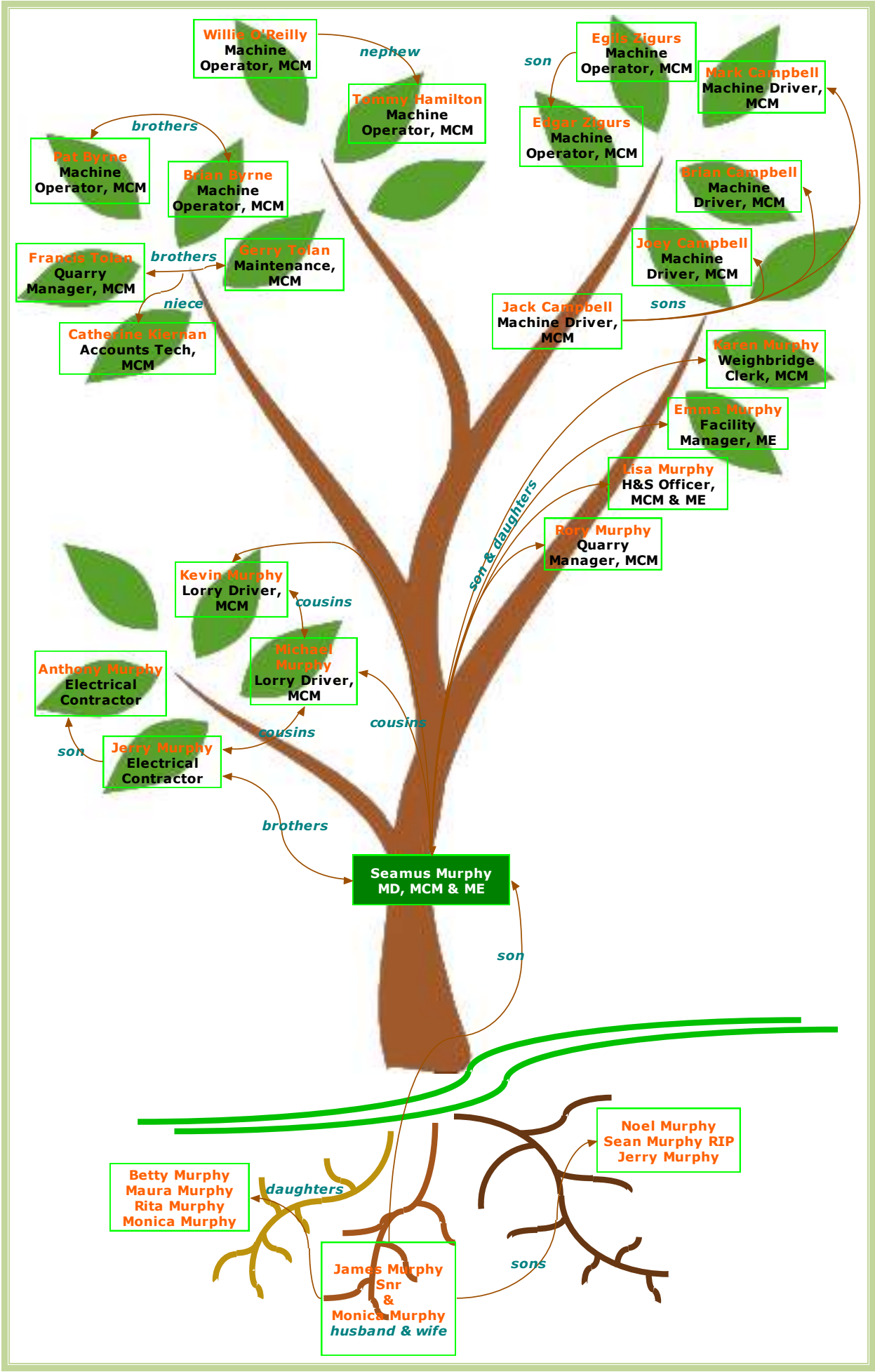
Lisa Murphy



Emma Murphy



Rory Murphy



A New Life in Ireland

Egils Zigurs moved to Ireland from Latvia in 2001. He started working with Murphy Environmental in early 2006.

As a nation we are acutely aware of our own history of migration as a result of economic depression and chronic unemployment. Many of our employees themselves moved to the UK and further afield for work, our company director, Seamus Murphy, being one of those. Seamus and his father Jem, along with brothers Sean and Noel, relocated to Slough in Buckinghamshire. They worked as labourers, mostly in construction-type businesses, in the 1960s when there was little or no work to be had in Ireland.

For a brief period even Mona, the mother of the Murphys, and their sister Monica joined them, before returning to Ireland and the remainder of the family. So many Irish people can tell this story or one just like it, and like them, Seamus recalls it still with a mixture of fond memories of his experiences and a few not so fond and regret that it was necessary at all.

Naturally Egils is often asked about daily life in Latvia and how it compares with Balbriggan and County Dublin. We therefore decided to document Egils' impressions of Ireland and to make the connections with our own people's history, where appropriate. He was interviewed by Ken Rooney, Facility Manager at Hollywood.

Name: Egils Zigurs

Date of birth: 20th April 1958

Nationality: Latvian

Place of Birth: Aluksne, Latvia

Latvian Address: Incukalns, Latvia

Irish Address: Balbriggan, Co. Dublin

Occupation: Welder or Driver



Egils Zigurs, fondly known to us as 'Eggy', moved to Ireland in 2001 from Incukalns in Latvia. Incukalns is a town located in proximity to the city of Riga in central Latvia, close to the coast and the Gulf of Riga. The population of Incukalns and its environs is approximately 25,000. One of the major industries in the town is the timber/sawmill industry. It is also home to a 2 billion cubic metre underground reservoir for natural gas, which is imported by pipeline from Russia to meet the demands of the Latvian energy market.

Eggy and many of his colleagues were laid off when the plant at which he worked in Latvia was split into three different divisions. Back then Latvians who wanted to move abroad to work had two choices: Ireland or Germany. Eggy chose Ireland over Germany for the following reasons:

- Latvians working in Germany mainly worked as farm labourers; Eggy did not want to work on a farm.
- Germany at that time was more expensive to live in.
- Eggy studied German in school and decided he wanted to learn a new language. He could learn English working in Ireland.
- A lot of Latvians at the time were moving to Ireland.
- He had heard that employer-employee relations in Ireland were better than in Germany.

Eggy had no knowledge of the English language when he first moved to Ireland and adapting to the language was the most difficult challenge of the move. He found it very frustrating knowing what you want to say in a conversation but not being able to say it. But Eggy used the challenge to his advantage as it acted as a strong push to pick up the language as fast as he possibly could.

Eggy got his first job in Ireland working for Kiernan Bros. Plant Hire Ltd. He did a range of different jobs, from driving excavators and bulldozers to machine maintenance. Thanks to his quick adaptation to the English language he began working as a foreman, which involved managing all of the other Latvian employees in Kiernan Bros Plant Hire Ltd.



Eggy started working for Murphy Environmental in February 2006 where he took up the post as an excavator driver at the Hollywood facility. He has been involved since then in a range of different projects from quarrying to landfill cell preparation and installation works. One week after he started working with Murphy Environmental, his son Edgar also began working in Hollywood.

In Latvia, Eggy worked in a range of different jobs. He finished school in 1976 and in 1977 he joined the Russian army for 2 years. From 1979 to 1985 Eggy drove both narrow railway trains (750mm tracks) and passenger locomotives (1520mm Tracks). Eggy has fond memories of driving the route between Aluksne, where he was born, and Gulbene (lying in the north-east of Latvia, close to the Estonian and Russian borders). For the following 6 years Eggy worked in the construction sector driving cranes, lorries and excavators.

In 1991 Latvia gained independence from Russia and Eggy took up another role in the transport sector. This time he worked on trains but looked after the issuing of tickets for bulk haulage transport, where he worked until 1993. Eggy then set up his own business installing shelving units in shops; he worked at this until 1996 and then moved on to welding and fabricating in a saw mill in Aluksne.

Eggy thinks that the break away from Russia is a good thing for Latvia; it is nice to be independent. Although independent, Latvia is still very dependent on the Russian economy; all gas and fuel comes from Russia.

Eggy says that Latvia has European prices and Russian wages; the price of a litre of milk in Latvia is twice that in Lidl in Balbriggan!

Eggy really likes living in Ireland; he finds that work relationships and personal relationships between people in Ireland are very good. In Latvia there is a lot of bureaucracy, it is easier to get set up in Ireland and to get a job, and there is not as much red tape. One thing Eggy really notices is the number of people that smile in shops; he says it gives him a very welcoming feeling! Eggy also feels that An Garda Síochána do a very important and controlled job in Ireland compared to the Latvian police force, he feels more comfortable knowing they are patrolling the streets.

Things Eggy really misses in Latvia are under-ice fishing; he misses the snow and really does not like Irish winters. He also finds the transport service very poor and it is almost impossible to have a comfortable life in Ireland without a car.

Eggy's hobbies include all types of fishing, reading books on travel, wildlife, hunting, technology and space; he likes learning how to use computers and he is designing a webpage at the moment. He enjoys spending time with both of his sons Edgar and Raymond, who also live and work in Ireland.

We are glad that Eggy is enjoying Ireland for the most part though we totally appreciate and sympathise with his views on the weather! When Seamus and the rest of the Murphys were in Slough eventually there were so many people from Balbriggan that it was referred to as 'Little Balbriggan' for a time. The weather was pretty much the same as here, but you could not get a decent pint for love nor money, unlike the Irish and the Latvians, Guinness does not travel that well!



Waste Management in Ireland



The strategically-located Murphy Environmental Hollywood and Gormanston waste management facilities

Waste management in Ireland has historically been focused on the disposal of municipal waste to landfill. In little over a decade, waste management disposal and recovery options have developed at a pace in line with national and EU targets. A key licensing and enforcement body, the Environmental Protection Agency (EPA), was established in 1992 in response to the waste issue.

The private sector has played a key role in the development of modern waste management infrastructure in the country.

The Murphy Environmental inert waste facilities at Hollywood (W0129-01) and Gormanston (W0151-01) offer strategically-located waste recovery and disposal options, operated to the highest standards of environmental control.

In the latest National Waste Report (2006), the EPA reported that construction and demolition (C&D) waste generation increased by 13% in 2006 to an all-time high of almost 17 million tonnes, including almost 3 million tonnes of waste other than soil and stones.

The EPA states that new impetus is required if the construction industry is to demonstrate its progress towards the targets and objectives set out in national policy and in the industry's own voluntary initiative for the improved management of waste.

Almost 450,000 tonnes of C&D waste was disposed of at EPA-licensed landfills in Ireland in 2006. 75% of this was accepted at Murphy Environmental Hollywood.

Over 2.6 million tonnes of C&D waste was recovered at EPA-licensed landfills in Ireland in 2006. Over 20% of this was accepted at Murphy Environmental Gormanston.

Our facilities have unrivalled access to the significant markets of the eastern seaboard and greater Dublin region and we anticipate that the proposed development of the Bremore Port will yield further business opportunities for the company.

Managing Our Environment

This section examines the following means by which we manage the environment and our operations at Gormanston:



EPA Licence

Murphy Environmental rigourously comply the requirements of our EPA Waste Management Licence and other EPA requirements

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ISO14001

Continually improve our environmental performance through the implementation of our Environmental Management System and independently maintain certification of that system to ISO14001:2004

Page 13



Policies

Roll out our Environmental and Health & Safety Policies

Page 16



Working Safely

Implement safe working practices and associated H&S procedures

Page 19



Site Development Works

Undertake necessary site development works to further the restoration objectives

Page 22



Staff Training

Train our staff to attain the highest possible standards in the waste sector

Page 23



Communication

Communicate with our neighbours and other interested parties on issues of importance to them

Page 24



EPA Licence



The licence sets out in detail the conditions under which Murphy Environmental are required to operate and manage the facility to ensure that the activities do not cause environmental pollution. Murphy Environmental has to carry out regular environmental monitoring and submit all monitoring results, and a wide range of reports on the operation and management of the facility, to the Agency (EPA).

All of the information is on the public record. It is available for inspection at our site offices or at the EPA Inspectorate Office in Clonskeagh, Dublin. We also make available all our monitoring results and other company information at our website, www.murphyenvironmental.ie.





ISO14001

'EMS' stands for 'Environmental Management System'. It is a system which helps companies meet high standards of environmental good practice, and challenges them to continually improve their environmental performance year-on-year. The International Standard for EMS is called ISO14001, and the current standard is effective from 2004, therefore it is usually referred to as 'ISO14001:2004'.

The process of implementing an EMS at the Gormanston site commenced in 2003. Our system was independently verified in December 2005 and Gormanston was the second privately-operated landfill in Ireland to attain the standard (Murphy Environmental Hollywood being the first). Mr. Dick Roche, T.D., Minister for the Environment, Heritage & Local Government presented Murphy Environmental Gormanston with the ISO 14001 Award in April 2006.

Legal Register

The legal register is reviewed on a six monthly basis. The legal register was updated in May and October 2007 to include all recent applicable environmental legislation.

Aspects & Impacts and EMS Audits

A comprehensive review of the Aspects and Impacts Register was undertaken in 2007. Significant impacts were assigned as having a positive or negative impact on the environment and control mechanisms were outlined for all significant impacts.

A full cycle of internal EMS audits was completed in 2007. This involved checking of all procedures and records to ensure their full and correct implementation.

Environmental Objectives and Targets

A core requirement of ISO14001 is the setting and reviewing of environmental Objectives and Targets (O&T), structured around the overall goal of continual environmental improvement. Our O&T Register is an invaluable tool to help us manage our goals for the site. We use it to strategically plan for issues for the forthcoming year, and it serves as a reminder of key target dates.

The O&T schedule which was included in the 2006 AER is presented overleaf. An indication of progress against targets is given. A number of additional targets which were included in the register over the course of the year are also listed.

PROCEDURES DEVELOPED DURING 2007		
TITLE	REF.	PURPOSE
Contractor Legal	F3.2.B	To ensure that suppliers and contractors are aware of Waste Licences and the obligations of relevant environmental legislation
P&L Training Manual	P4.2.B	Internal staff training for weighbridge operation
Bi-annual Review	F4.2.B	Internal HR forms
Employee Warning	F4.2.C	
Infrastructure - SEW	P7.0.A	Procedure for proposing Specified Engineering Works
Containment of Large Oil Spill & Checking Class 1 Oil Separator Alarm Procedure (Hollywood only)	P7.0.B	Procedures for spillage, operation of interceptor alarm and routine emptying of the silt trap at Hollywood
Emptying Silt Trap Procedure (Hollywood only)	P7.0.C	
H&S - Issue of PPE Equipment	F8.0.C	Internal Health & Safety documentation
H&S - PPE Equipment Records	F8.0.D	
H&S Site Inspections	F8.0.E	
H&S Monthly Site Inspections	F8.0.F	
Occupational First Aiders Numbers	F8.0.G	
H&S Structure	F8.0.H	
H&S Stock Control	F8.0.I	
H&S Documentation	F8.0.J	
First Aiders	F8.0.K	
Occupational First Aiders	F8.0.L	
Fire Safety Officers	F8.0.M	Health & Safety instructions and guidance for three target groups
Site Safety Booklet: Drivers/Hauliers	F8.0.N	
Site Safety Booklet: Visitors/Contractors /Other	F8.0.O	
Site Safety Booklet: Staff	F8.0.P	

Objectives & Targets, 2007

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Progress
Submit AER to the Agency		⊙											👍
Bi-annual noise monitoring & Noise at Work survey								⊙				⊙	👍
Carry out daily meteorological monitoring	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	👍
Carry out quarterly landfill gas monitoring			⊙			⊙			⊙		⊙		👍
Carry out quarterly dust monitoring			⊙			⊙			⊙		⊙		👍
Carry out quarterly leachate & groundwater monitoring		⊙		⊙			⊙			⊙			👍
Carry out bi-annual surface water monitoring				⊙						⊙			👍
Conduct annual slope stability assessment and submit to the Agency									⊙				👍
Conduct topographical survey								⊙					👍
Renew school sponsorship programme	⊙												👍
Supply annual waste collection permit reports for all customers/haulers	⊙												👍
ISO14001 re-certification audit						⊙							👍
6-monthly review of legal register				⊙						⊙			👍
All site files and folders audited for administration issues			⊙										👍
Install broadband		⊙											👍
Air conditioning units to be installed in all offices					⊙								👍
Switch all energy usage to Airtricity, a green energy source			⊙										👍
New CCTV cameras to be installed							⊙						👍
Extra bunded storage area to be ordered for the oil and lubricants retained in the garage						⊙							👍
Translate site signage into the most common foreign languages used by drivers		⊙											👍
Additional signage to be installed to direct persons towards the landfill, Readymix and sand & gravel									⊙				👍
Vegetation planting to be carried out around site boundary, with particular attention to Zone 6			⊙										👍
Groundworks in preparation for seeding of Zone 5									⊙				👍

Key:

- ⊙ = Target
- 👍 = Achieved 2007
- 👎 = Not Achieved 2007

Health & Safety Targets, 2007

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Progress
Health & Safety leaflets to be drafted and distributed to all employees and hauliers									⊙				
Safety harnesses for the teleporter										⊙			
Personal alarms for all members of staff										⊙			
PPE issued to all operatives	⊙					⊙							
Additional 'deep water' signage erected around the ponds											⊙		
Develop a H&S induction presentation				⊙									
MSDS folder for the garage				⊙									
Submit Chemical Risk Assessment to HSA			⊙										
Eyewash solution to be made readily available in wash/welfare areas of garage					⊙								
Review and revise the Emergency Response Procedure								⊙					
Provide Emergency Signal Device to visitors									⊙				

Objectives & Targets 2008

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Submit AER to the Agency			⊙									
Carry out bi-annual noise monitoring and Noise at Work monitoring					⊙				⊙			
Carry out daily meteorological monitoring	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
Carry out quarterly dust monitoring			⊙			⊙			⊙		⊙	
Carry out quarterly leachate & groundwater monitoring		⊙		⊙			⊙			⊙		
Carry out bi-annual surface water monitoring				⊙						⊙		
Install computers in garages for improved upkeep of records				⊙								
Emergency Response Procedure drills			⊙									
Mobile phone alarm system connected to H&S alarm	⊙											
Appeal conditions of Quarry Registration issued by Meath County Council		⊙										
Investigate sprinkler system							⊙					
Submit licence review application to the EPA					⊙							
Seed and grass Zone 5						⊙						



Policies

Our Environmental and Health & Safety Policies were written to document the company's overarching policy commitments in these two key areas. The policy statements are fully backed up by the resources required to fulfil our goals.



Health & Safety Policy Statement

In accordance with the Safety, **Health and Welfare at Work Act 2005** and in fulfilling its obligations to both employees and the public, Murphy Environmental & Murphy Concrete Manufacturing Ltd produce the following safety statement in respect of health, safety and welfare:

It is the aim of **Murphy Environmental & Murphy Concrete Manufacturing Ltd** to achieve a working environment, which is free of work-related accidents and ill health and to this end the company will pursue continuing improvements from year to year.

Murphy Environmental & Murphy Concrete Manufacturing Ltd undertake to discharge their statutory duties by:

- **Identifying hazards in the workplace, assessing the risks related to them and implementing appropriate preventative and protective measures;**
- **Providing and maintaining modern work equipment; in compliance with BAT (Best Available Techniques)**
- **Establishing and enforcing safe methods of work;**
- **Recruiting and appointing personnel who have the skills, abilities and competence commensurate with their role and level of responsibility;**
- **Ensuring that tasks given to employees are within their skills, knowledge and ability to perform;**
- **Ensuring that technical competence is maintained through the provision of refresher training as appropriate;**
- **Promoting awareness of health and safety and of good practice through the effective communication of relevant information (see www.hsa.ie);**
- **Furnishing sufficient funds needed to meet these objectives;**
- **Being proactive in the production of satisfactory compliance documents for drivers, visitors, contractors & suppliers entering our facilities, under the terms of H & S legislation.**

This health and safety statement will be reviewed annually to monitor its effectiveness and to ensure that it reflects changing needs and circumstances

This policy will be displayed in our Site Offices, made available to all employees and interested parties and published on www.murphyenvironmental.ie

Patricia Rooney
General Manager, Murphy Environmental





A DIVISION OF MURPHY CONCRETE MANUFACTURING LTD.

Environmental Policy Statement

W0129-01 Hollywood Scope

The Management of the disposal of mildly contaminated inert waste materials into engineered lined cells in a monitored environment in the full restoration of a limestone and shale quarry.

W0151-01 Gormanston Scope

The management of recovery, recycling & restoration of C&D Materials at a Licenced Landfill

Our business

Murphy Environmental is the waste management division of Murphy Concrete Manufacturing Ltd., based in Balbriggan, Co. Dublin. Murphy Environmental operates waste management facilities in Hollywood, Co. Dublin and Gormanston, Co. Meath with a combined maximum intake for landfill and waste recovery of over one million tonnes per annum. These facilities operate under the terms of Waste Licences from the Environmental Protection Agency (EPA). **Our sites set new standards for engineered restoration in Ireland, and we are developing a major centre for recovery and recycling of Construction & Demolition-type waste.**

Our core principles

Our overall objectives are to enhance the environment at our sites by implementing programmes of controlled restoration, and to research, develop and facilitate waste management and recovery options for the construction and related sectors. Murphy Environmental is conscious that waste-related activities have the potential to impact on the environment. We are fully committed and obliged under our EPA licences to manage and operate our facilities to the highest possible standards thus ensuring that our activities do not cause environmental pollution.

Our staff and customers

Murphy Environmental facilities are managed by experienced and trained teams, who receive every support from management to fulfil their responsibilities towards environmental management. We are committed to achieving a safe working environment, where our staff are valued and respected. We will work to meet the demands of our customers wherever possible, without compromising company policy or stated environmental objectives and legal requirements.

Management of the environment

We have established Environmental Management Systems for our facilities.

We commit to:

- Satisfying and exceeding all legal requirements for waste management and other relevant legislation
- Managing our environmental impacts and improving our performance by setting and reviewing environmental objectives and targets
- Avoiding nuisance to neighbours by managing traffic, noise, dust and mud
- Carrying out regular environmental monitoring and publishing results on our website
- Reporting publicly on the operation and management of the facility
- Certifying our Environmental Management Systems to ISO14001:2004

This policy will be displayed in our Site Offices, made available to all employees and interested parties and published on www.murphyenvironmental.ie

Patricia Rooney
General Manager, Murphy Environmental







Working Safely

Lisa Murphy is the Health & Safety Officer for the company, and together with the managers across the business, has implemented wide-ranging H&S benefits since she commenced in her position in 2006.

Defibrillator

A defibrillator machine is installed in both the Hollywood and Gormanston site offices, owing to the high numbers of customers and visitors (up to and exceeding 300 people) moving through each site on a daily basis. The defibrillator is normally used immediately following a cardiac arrest, to restart the heart rhythm. 11 of our staff have received accredited training in the use of the defibrillator.



First Aid Bags

First aid bags are installed at three strategic locations on each site: one in the offices, one in the garage/mobile mechanic's unit, and one located with a machine driver. Their positioning means that, in the event of an accident at any point on the site, a First Aider and a first aid bag can reach the victim within a very short period of time.



Personal Alarm System

Further development of personal security occurred in 2007, as all site staff were issued with personal alarms and air foghorns. Visitors and consultants involved in site work are also issued with such alarms.



Occupational Noise Monitoring

A Noise at Work survey was carried out at Gormanston during April 2007. The purpose of the survey was to determine if any of our operatives were exposed to excessive noise levels related to working with, at or near heavy equipment or machinery. The results of the survey indicated that all cabs of machinery were sound-proofed. Staff have been provided with ear defenders if, in an unusual event, they are working outdoors at particular locations on site.

Health and Safety Training, 2007

The following Health & Safety training was completed in 2007:

TRAINING	COURSE PROVIDER	STAFF NUMBERS TRAINED
Safe Pass <i>(Feb 2007)</i>	OSTO Ltd	13
Safety Rep. Training <i>(Apr 2007)</i>	Nifast	1
Chemical Safety Training <i>(Nov 2007)</i>	Nifast	2

H&S Induction DVD

In 2007 Murphy Environmental undertook the production of a Health & Safety and general company and site induction DVD for new staff. We consider that good induction is crucial for risk management and helps staff start their new posts feeling welcome and supported.



Above are captions from Murphy Environmental's induction DVD. The DVD is a Health & Safety aid to further educate people and maintain a safe working culture on Murphy Environmental sites.

Why make a DVD?

A DVD covering key information has many advantages. It can be edited to emphasise important messages and reduce overlap. Once made, it can be shown as often as necessary and in different settings. Overall, film is an efficient way of conveying information, and the finished product can be considerably shorter than similar live talks.

Preparation is key

As well as listing necessary topics, it was important to choose speakers who were happy to be filmed. A speaker must meticulously plan their script and prepare bullet point headings to produce a natural, confident and welcoming presence on film. It was also important to think about additional footage such as location shots and even music.

The wider picture

Brief talks combined with footage of the sites or the subject were interesting to watch and easy to assimilate, and a surprising amount of information can be covered. For example, a memorable part of our latest DVD is a demonstration by staff of the response to the emergency alarm showing the correct procedure in the event of an emergency or the way to communicate with a person operating heavy equipment.

What we learned in the process of making the Induction DVD

We noticed quite early on how important it was for our staff to get to know the site they work on. The topography of the sites, as well as the plant and equipment, are our major concerns from a Health & Safety point of view. We found they could relate particularly well to the DVD as they could directly relate to what was on the screen in front of them. It was also interesting to see how the operatives could 'take a step back' from what they are so used to seeing on a daily basis on their sites and be able to identify good and bad practice and to discuss potential issues.

Evaluation

Participants evaluate inductions and give us useful suggestions on improvements. Generally the DVD has been popular, with aspects most valued by staff being those related to emergency procedures.

Murphy Environmental Safety Representatives



John McGillvary
Mechanic
Hollywood



Mark Campbell
Site Operative
Gormanston



Willie O'Reilly
Site Operative
Gormanston



Peter Jones
Site Operative
Hollywood

Murphy Environmental Occupational First Aiders



Kathryn Moonan
Assistant Facility
Manager
Hollywood



Julie-Anne Brunty
Weighbridge
Operator
Gormanston



Lisa Maguire,
Assistant Facility
Manager
Gormanston



Catherine Kiernan
MCM
Gormanston



Lisa Murphy,
Health & Safety
Officer, Hollywood
& Gormanston

Murphy Environmental First Aiders



Philip Boylan
Site Operative
Hollywood and
Gormanston



Emma Murphy
Facility Manager
Gormanston



Lorraine McGowan
Weighbridge
Operator
Gormanston



Fiona Bailey
Weighbridge
Operator
Gormanston



Pat Byrne
Site Operative
Hollywood

Willie O'Reilly
Site Operative
Gormanston

Mark Campbell
Site Operative
Gormanston

Murphy Environmental Fire Safety Officers



Dylan Murphy
Mechanic,
Gormanston

Julie-Anne Brunty
Weighbridge
Operator
Gormanston

Philip Boylan
Site Operative
Hollywood and
Gormanston

Mark Campbell
Site Operative
Gormanston

Peter Jones
Site Operative
Hollywood

Murphy Environmental Fire Marshals

Lisa Murphy
H&S Officer, Hollywood & Gormanston

Kathryn Moonan
Assistant Facility Manager, Hollywood

Willie O'Reilly
Site Operative, Gormanston

John McGillvary
Mechanic, Hollywood



Site Development Works

Murphy Environmental undertook a range of site development works at Gormanston during 2007 to meet the infrastructural requirements of the licence and the business.

Restoration Project

Intensive restoration works were ongoing at the site during 2007. Zone 6, located in the north-west of the site (see drawing on Page 32), was the active tipping area for most of 2007. During the course of the year, Zone 5, located in the north-east of the site, was completed and is to be capped and grassed in Quarter 2, 2008.

Bunded Storage at Garage

A bunded storage container was purchased and is located beside the garage. This was chosen as a suitable, recognisable, convenient and, most importantly, safe location for the containment of chemicals on site.

Bund Testing

No bund integrity testing was completed during 2007 due to plans to relocate the existing bunded tank storage areas in 2008, in line with the construction of a C&D Waste Recovery building.

Septic Tank

The septic tank was routinely desludged to ensure its ongoing effectiveness (see 'composition of wastes removed off-site', page 38 for further details).

Other Site Development Works 2007

The following site development/infrastructural works were completed in 2007:

- The purchase and operation of a new 40-tonne Volvo dump truck and a new teleporter during 2007 has allowed for the improved efficiency of the quarrying operations.
- New Bell B40D Dumper and A40 Volvo Dumper were purchased.
- Personal alarms were issued to all staff.
- Broadband was installed in the site offices.
- New CCTV cameras installed.



Bunded Storage at Garage



Volvo Dump Truck



New Teleporter



Staff Training

Our company training and conference room, located at Gormanston, was opened in June 2006. This includes a fully integrated computer system, ceiling-mounted projector and touch-screen/whiteboard. This resource offers us excellent facilities for internal staff training and allows external trainers to deliver their courses at our site offices.

Personal training files for all staff are securely retained in the training room, where staff can keep notes and records of training they have received, and where copies of training certificates are retained.

Overview of Training Received by Murphy Environmental Staff in 2007

At Murphy Environmental, training of new staff and ongoing training for existing staff is emphasised at each stage of an employee's career.

All staff employed by Murphy Environmental has a foundation level of waste management knowledge. The FÁS National Waste Management Training programme has been completed by all Facility Managers and Assistant Facility Managers in the company. There are currently six members of staff who are certified as per Waste Licence Condition 2.1.2.

Kathryn Moonan completed a BBS (Bachelor of Business Studies) in Human Resources in 2007. Ken Rooney graduated with an MIE (Masters in Industrial Engineering) in 2006 and is currently studying for a Post Graduate Diploma in Environmental Engineering.

In addition to management qualifications obtained from external organisations, a strong emphasis is placed on internal training at all levels in the company, and records of all such training events are retained on site. New weighbridge operatives are given intensive training on the Waste Acceptance Procedures and weighbridge software. This is backed up by Waste Licence training, and training on specific parts of the EMS, as required.

The following training was conducted during 2007:

MONTH, 2007	TRAINING	COURSE PROVIDER	STAFF NUMBERS TRAINED
Jan/Feb	Touch Typing for beginners	Drogheda Training Centre	1
Jan/Feb	Computer Training	Drogheda Training Centre	16
Mar/May	Legal Register Training	Patel Tonra Ltd	6
Apr/Jun	Computer Equal Skills	Drogheda Training Centre	1
Apr	Initial Training for new weighbridge clerk	Internal	1
May	Complete Bachelor in Business Studies	National University of Ireland	1
May	Management Training	IBEC	2
June	Licence Review training	Patel Tonra Ltd	5
June	Initial Training for new weighbridge clerk	Internal	1
July	Initial Training for new weighbridge clerk	Internal	1
Oct	Post Graduate Diploma in Environmental Engineering	Trinity College	1
Nov	Legal Register Training	Patel Tonra Ltd	5



Communication

Murphy Environmental has developed a communications procedure to allow public access to facility information. The main methods are:

- The company website, www.murphyenvironmental.ie, which is updated regularly with company news, monitoring results and licence information.
- Annual Environmental Reports, available on our website
- Company newsletter
- Site notice board
- Complaints are recorded and tracked
- Information letters to neighbours
- An information pack is available to customers and interested parties
- Site documentation is available for inspection at the site office
- Our Facility Managers are available to answer any queries

We are also in routine and regular communication with the Agency with reference to compliance requirements and requests for information.



www.murphyenvironmental.ie

Avoiding Nuisance

Murphy Environmental has invested in a number of pieces of equipment in order to better manage our environmental impacts. Roads in the vicinity of the site are serviced by a facility roadsweeper and water bowser. All trucks exiting our site must use the wheelwash, further reducing the potential for the generation of mud on roads.

Daily, weekly and monthly site inspections are carried out to ensure that the site is kept clean and free of anything that might be perceived to cause a nuisance to site neighbours.

Complaints

Murphy Environmental logs all complaints or comments relating to the site which may be received directly by them, by the EPA or other parties. There were no public concerns received during 2007.

Environmental Incidents

Any incident that occurs on site must be reported to the EPA in accordance with the licence conditions. Incidents arising during 2007 are summarised in the table below. An incident is defined by the Waste Licence as:

- An emergency
- Any emission which does not comply with the requirements of the licence
- Any trigger level specified in the licence which is attained or exceeded
- Any indication that environmental pollution has, or may have, taken place
- The non-acceptance or rejection of any waste load at the facility

The following incidents were reported to the EPA during 2007 (please see the 'Monitoring and Measurement' Section for further details):

Incidents
2007_01: Gas Monitoring
2007_02: Load Rejected
2007_02b: Gas Monitoring
2007_03: Groundwater Monitoring
2007_04: Gas Monitoring
2007_05: Water Monitoring
2007_06: Rejected Load
2007_07: Dust Monitoring
2007_08: Attempted Burglary
2007_09: Water Monitoring
2007_10: Gas Monitoring
2007_11: Dust Monitoring
2007_12: Groundwater Monitoring



Gormanston Restoration 2007

Waste Activities Licensed at the Facility

Under the Waste Management Act (1996), waste activities may be classified as waste disposal or waste recovery, within which there are a number of classes of activity. During 2007, the following waste activities were carried out at the site:

- (1) Acceptance of clean soil and stones for restoration works.
- (2) Acceptance of inert materials (e.g. stone/concrete) for construction of on-site haul roads.
- (3) Acceptance of inert Construction and Demolition materials for crushing/reprocessing, to be sold/reused for off-site purposes.

These activities are classified by the EPA as 'recovery' activities, i.e. the incoming material has a useful purpose for restoration or reuse. There are no engineered cells at the facility. The Waste Licence (Ref. W0151-01) lists the activities which Murphy Environmental is licensed to carry out:

Licensed Waste Disposal Activities

Class 1: Deposit on, in or under land (including landfill).

Class 13: Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.

Licensed Waste Recovery Activities

Class 3: Recycling or reclamation of metals and metal compounds.

Class 4: Recycling or reclamation of other inorganic materials.

Class 13: Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.

Waste Types Accepted

Only inert waste is acceptable at Gormanston. Inert waste means waste that does not undergo any significant physical, chemical or biological transformations.

Inert waste will **not**:

- Dissolve, burn or physically or chemically react
- Biodegrade (decompose)
- Adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health.
- Generate a leachate (runoff) which could cause pollution or endanger the quality of surface water and/or groundwater.

In other words, inert waste is **not** hazardous and it is NOT similar to "black bag" domestic refuse. The Gormanston facility accepts only clean and inert soils and stones.

Waste Collection Permits

All hauliers delivering waste to site must hold a valid Waste Collection Permit. Anyone collecting waste is required by law to hold a valid Waste Collection Permit. We maintain an on-site register of Waste Collection Permits for all vehicles delivering waste to our facilities.

Weighbridge Software

Murphy Environmental operates specially-designed computer software to manage waste records.

Methods of Waste Deposition

Inert waste material is brought to the site in trucks from construction/ demolition or soil removal sites. Material is deposited directly into the active restoration area, as directed by the weighbridge operator and banksman.



Gormanston Restoration, Aerial Photograph, August 2007

Calculated Remaining Capacity of the Site & Progress on restoration of completed phases

The proposed site restoration and progress to-date is detailed in the Restoration Plan for the site submitted to the EPA in 2005.

The site has been divided into 8 zones (see drawing on page 32).

- **ZONE 1** has been used for the storage of pipes by Bord Gais but this activity ceased at year-end 2007.
- **ZONES 2 to 4** are areas of historical waste deposition. These areas were capped and grassed during 2005. Zones 1 and 4 were subject to a gas pumping trial, which was reported on in 2006.
- **ZONE 5** is filled and is to be capped and grassed during 2008.
- **ZONE 6** is the current tipping area for incoming material and will remain so through 2008.
- **ZONE 7** is the location of the Cemex batching plant.
- **ZONE 8** will be developed as a C&D waste recovery area. There will also be capacity for filling.

Proposed restoration of the site and timescale of such development

The restoration and aftercare of the facility shall be carried out in accordance with the Restoration Plan and the Aftercare Management Plan approved by the EPA.

Site survey showing existing levels of the site

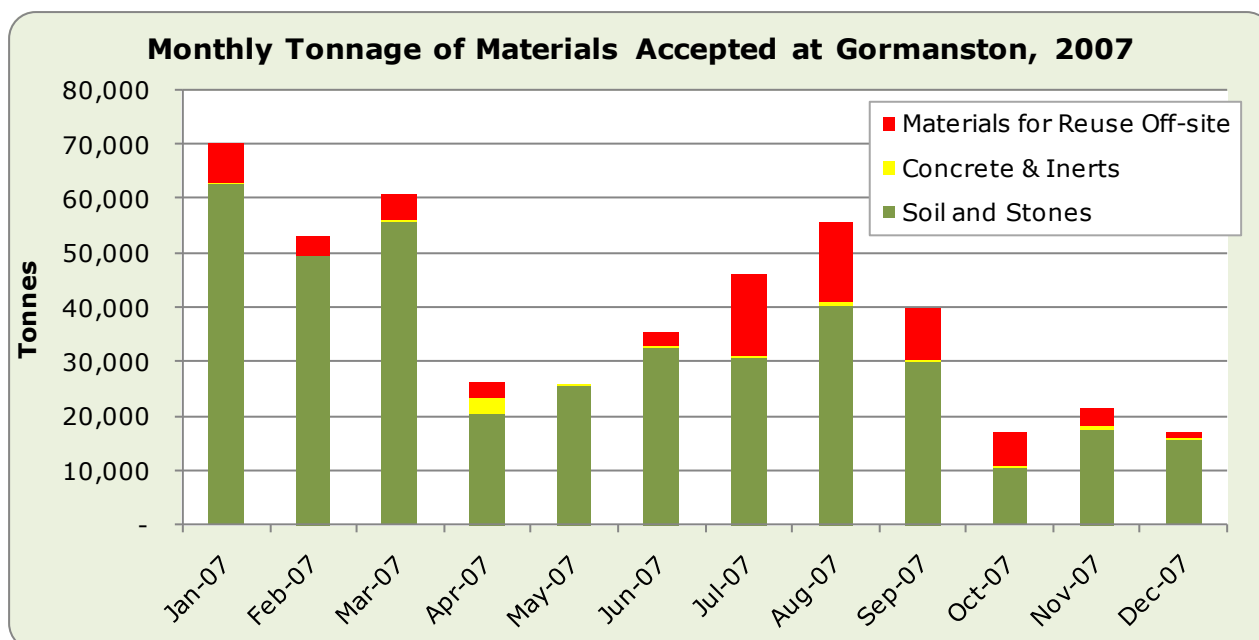
An updated topographical survey for the site was completed and submitted to the Agency in June 2007. A copy is available in the Site Office.

Gormanston Restoration, Aerial Photograph, August 2007



Materials Accepted 2007

A summary of waste accepted in 2007, classified by EWC code, is presented in the table and chart below. All materials were either used for on-site restoration or reused off-site, i.e. a 100% recovery rate was achieved at the facility.



Type Of Waste	EWC Code	Tonnes 2003	Tonnes 2004	Tonnes 2005	Tonnes 2006	Tonnes 2007
Stone, Rock & Slate	01 01 02	-	806	39	81	-
Recovered Gravel & Crushed Rocks	17 05 04 (RG)	-	-	19,405	2,937	69,956
Natural Waste Sand & Clays	17 05 04 (NS)	-	72	-	5,200	2,232
Concrete	17 01 01	-	2,538	6,393	7,530	3,348
Brick	17 01 02	-	7,286	-	15	-
Concrete, Bricks, Tiles & Ceramics	17 01 07	-	-	256	31	62
Soil and Stones	17 05 04	109,734	670,758	660,294	538,698	394,196
Mixed C&D	17 09 04	-	555	275	-	-
Total Tonnage of Inert Materials Accepted at Gormanston		109,734	682,015	686,662	554,493	469,795
TOTAL TO-DATE		2,502,699 tonnes				

Over 70,000 tonnes of material was recovered at the facility in 2007 for reuse off-site.

This included sands and gravels delivered to the facility which were screened and sorted on-site and sold for use in the sector. This complies with national policy to recycle and recover C&D materials, where possible, thereby conserving natural resources.

Monitoring & Measurement

Murphy Environmental is required to conduct regular monitoring to ensure that no environmental impact is occurring as a result of site operations. All monitoring reports are submitted to the EPA, and summaries are available for all to view at www.murphyenvironmental.ie Monitoring of the following is conducted: Noise, Dust, Surface Water, Groundwater, Leachate and Meteorology. The location of monitoring points is shown on the drawing on page 32.

Financial Provision

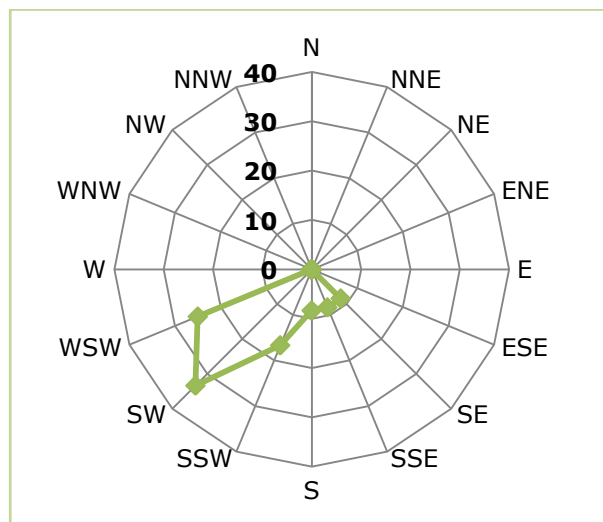
Murphy Environmental has established a Liabilities and Restoration Fund for Gormanston, following consultation with the Agency.

Meteorological Data

Meteorological data was obtained from the meteorological station situated at Dublin Airport. The parameters obtained were: precipitation, temperature (average), wind speed and direction, relative humidity and atmospheric pressure (as per Schedule D.5 of the Waste Licence).

The following charts represent temperature, precipitation, atmospheric pressure and wind direction throughout the reporting period. The wind rose for 2007 indicates that winds were mainly from a south westerly direction. Daily wind data and all meteorological data required under the licence are retained on site.

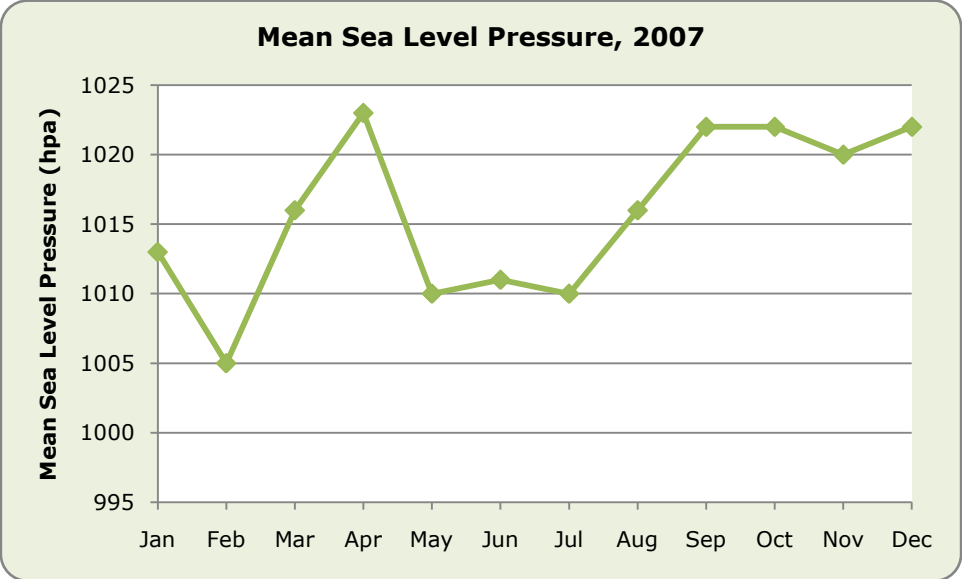
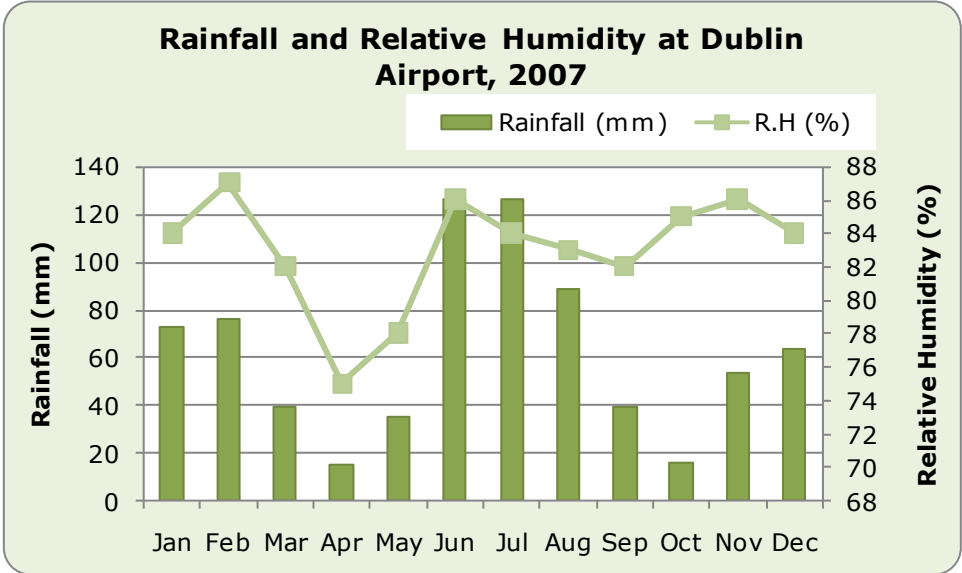
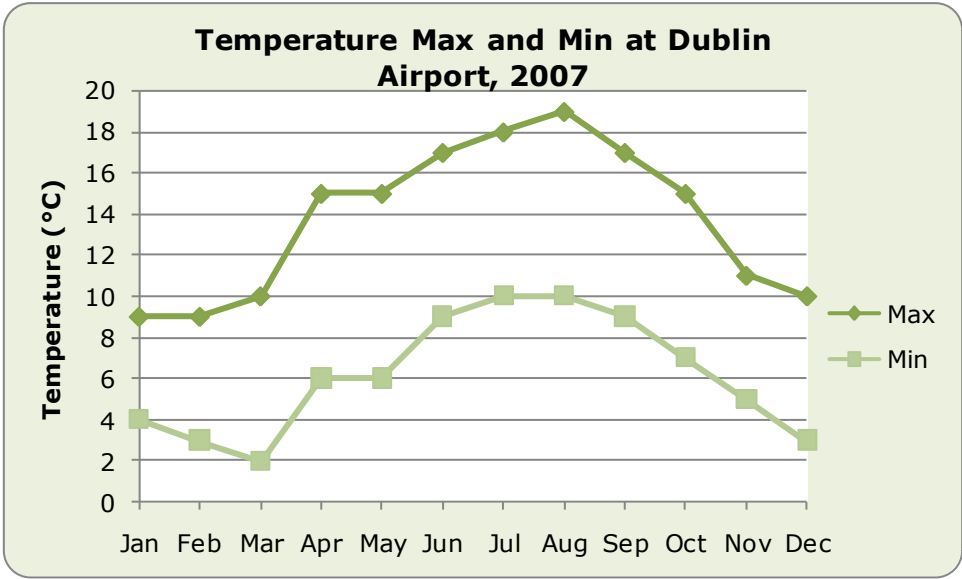
Wind Direction



Rainfall

The total rainfall for 2007 was comparable with the 30-year average; however there were significant variations within individual months, e.g. April 2007 rainfall was only 15mm compared with a 30-year average rainfall amount of 51mm. The months of June and July were excessively wet, the combined total of the two months was 254mm of rainfall, more than double the 30-year average for these two months (106mm). There were four days in June 2007 when rainfall exceeded 10mm. The month of October was relatively dry. It had a rainfall of 16mm compared to the elevated levels calculated in the 30-year average of 70mm.

	Monthly Rainfall (mm)	
	30-year average	2007
Jan	69	73
Feb	50	76
Mar	54	39
Apr	51	15
May	55	35
Jun	56	127
Jul	50	127
Aug	71	89
Sep	67	39
Oct	70	16
Nov	65	54
Dec	76	64
Total	733	754



Water Balance Equation

The water balance equation is estimated as follows:

- Annual Rainfall, 2007 = 754mm
- Annual Evapotranspiration, 2007 = 447mm

It is assumed that water losses during operations will be numerically approximately 50% of evapotranspiration from vegetated surfaces, i.e. 223.5 mm/year.

- Effective Rainfall = 754mm - 223.5mm = 530.5mm/year

The surface area of Zones 1 to 6 at the facility is 249,000m². Therefore the amount of recharge within Zones 1 to 6 is estimated as:

- 249,000m² x 0.5305m/year = 132,095 m³/year.

Dust Monitoring

Murphy Environmental must monitor dust levels at 4 locations (D1, D2, D3 and D4) once per quarter. Dust emission limits are set in Schedule C.3 of the licence.

Dust is measured using a Bergerhoff dust gauge. This is exposed over a 30-day period to collect bulk dust deposition. The gauge consists of a gauge bottle supported on a stand of approximately 1.5 metres high. The samples collected are then transferred to a laboratory for gravimetric (weight) analysis to determine the concentration of deposit material in each gauge bottle.

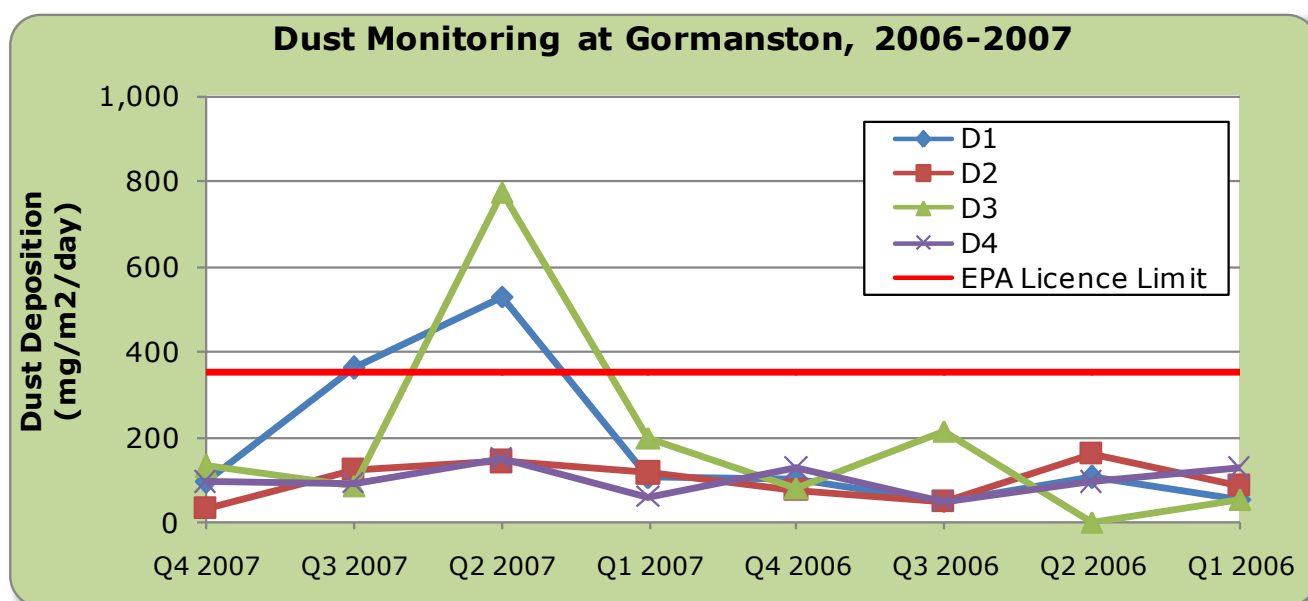
Dust Monitoring Results, 2007

Quarterly dust deposition surveys were carried out at the site. Results from the surveys showed that there were 3 breaches of the emission limit for dust deposition of 350mg/m²/day as prescribed in the Waste Licence.

During Quarters 2 and 4, 2007 dust monitoring results for all monitoring locations were in compliance with the licence limit for dust set in Waste Licence W0151-01.

Dust exceeded the emission limit value at D1 during Quarters 2 and 3 in 2007. The exceedance during Q2 was thought to be attributable to site operations/restoration activities in this area, combined with the unseasonably dry weather conditions during this monitoring period. The exceedance during Q3 is thought to be attributable to site operations/restoration activities in this area.

Dust exceeded the emission limit value at D3 during Quarter 2, 2007. It is thought that the exceedance can be attributed to construction activity, hedge-cutting and other dust-generating activities unrelated to Murphy Environmental operations, as it is located some distance from the site (approx. 220m from the site boundary).



Noise Monitoring

Murphy Environmental must monitor noise levels at 4 locations (NMP5, NMP7, NMP8 and NMP13) biannually [Schedule D.1]. Noise emission limits are set in the licence [Schedule C.1]. Noise is monitored using a specialist noise meter.

Noise Monitoring Results 2007

Biannual noise monitoring was conducted in August and November 2007. The results from the noise survey indicated that noise levels exceeded EPA Licence limits on occasions; however it is thought that noise emissions associated with sources other than the activities at the Murphy facility contributed significantly to the measured levels.

Road traffic along the N1 was cited as the main contributor to noise during the monitoring period. It was envisaged that, with the opening of the M1, traffic-related noise would decrease, however traffic volumes on the "old" N1 appear not to have diminished significantly. Furthermore, the night-time noise limit was breached and the Murphy Environmental facility is closed during this time.

Noise Monitoring Results, 2007

Location	Day LA _{eq} dB(A)			Night LA _{eq} dB(A)		
	Q2, 2007	Q4, 2007	EPA Limit	Q2, 2007	Q4, 2007	EPA Limit
NMP5	61	63	55	55	56	45
NMP7	57	56	55	48	49	45
NMP8	53	54	55	40	42	45
NMP13	58	57	55	49	48	45

NMP5: located close to the N1 roadway beyond the north-western boundary of the facility

NMP7: located along a local roadway which leads east from the N1 roadway at a point close to the main entrance

NMP8: located along a local roadway to the northeast of the facility

NMP13: located close to a dwelling, which overlooks the site from beyond the south-western boundary of the facility

Surface Water Monitoring

Murphy Environmental must monitor surface water at 2 locations (ST1 and ST2) twice per annum [Schedule D.1]. Surface water monitoring is conducted by taking "grab samples" of the stream water at both monitoring points and sending them for laboratory analysis for the parameters listed in Table D.6.1 of the Waste Licence. Results are compared against limits for surface water and salmonid water set in legislation.

Monitoring Results, 2007

Surface water monitoring was carried out during Quarters 2 and 4, 2007. Samples could not be obtained from ST-1 during Quarter 2, 2007 monitoring round as it was found to be dry.

In Quarter 4, 2007 breaches of limit values occurred in ST-1 for Dissolved Oxygen and Total Suspended Solids. Dissolved Oxygen levels have historically been non-compliant at this point.

Dissolved Oxygen also breached the Salmonid Water Regulations in ST-2 in Quarter 2 and 4, 2007.

BOD and COD were non-compliant with the Salmonid Water Regulations at ST-2 in Quarter 4.

Leachate Monitoring

Leachate monitoring was conducted during Quarters 1, 2, 3 and 4 of 2007. Annual monitoring was taken in Q2, 2007. Samples could only be obtained from L-4 as there was no leachate present at the other leachate monitoring points.

There were elevated levels of ammoniacal nitrogen and manganese in the L-4 leachate. The Surface Water Limits are used for comparison purposes due to the fact that there are no trigger levels for leachate.

Groundwater Monitoring

Groundwater and leachate monitoring is carried out on a quarterly basis [Schedule D.1]. Murphy Environmental monitored groundwater at:

- 17 monitoring boreholes: MW1, MW2, MW3, MW4, MW5, MW6, MW14, MW16, MW17, MW18, MW19, MW20, MW21, MW22, MW24, MW25 and TW2
- 1 private well: PW3 (this is only point from which water may be extracted for human consumption)
- Leachate quality: L4 (L1, L2 and L3 were dry during monitoring)

The water level in each borehole is recorded using a "dip meter". During sampling it was borne in mind that stagnant groundwater in the well casing and in close proximity to the borehole is not representative of the general groundwater at any given location.

To ensure that the groundwater samples extracted from the monitoring boreholes were representative of the water held in the underlying subterranean strata and not stagnant water held in the borehole casings, evacuation of the boreholes was undertaken before sampling was carried out.

A submersible pump and hand balers were used to evacuate each borehole. The pumping operation required separate tubing and flushing of the pump or baler after each borehole was sampled to eliminate the possibility of cross-contamination. After purging the appropriate volumes from each of the boreholes, samples were extracted for analysis.

Estimated Indirect Emissions to Groundwater

Based on the area of Zones 1 to 4, effective rainfall and leachate monitoring data for 2007, the cumulative and indirect emissions to groundwater were estimated at 9.2 tonnes per annum.

Groundwater Monitoring Results, 2007

Groundwater monitoring was conducted during Quarters 1, 2, 3 and 4 of 2007. Results were compared against EU Drinking Water Regulations and the EPA Trigger Limits set for the site.

Over the course of the year almost 1,000 analytical tests were conducted on groundwater samples. The vast majority complied with relevant legislative and guideline limits. If there is a breach of guideline limits, Murphy Environmental must report this as an 'incident' to the EPA.

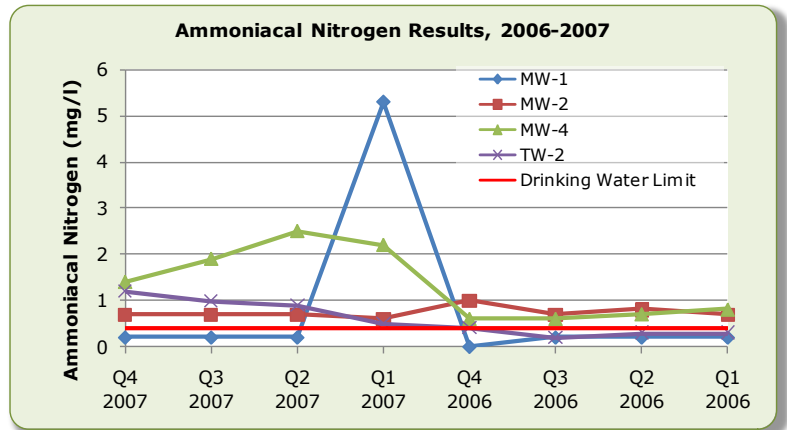
Compliance Levels for Quarterly Groundwater Monitoring with reference to Guideline Limit Values and EPA Trigger Levels for W0151-01

Parameter (to be monitored quarterly as required by the licence)	No. of Boreholes/Wells Monitored Quarterly, 2007				Total No. of Tests	No. of Breaches of Guideline Limit/EPA Trigger Values, 2007	% Compliance
	Q1	Q2	Q3	Q4			
Ammoniacal Nitrogen	18	18	18	18	72	12	83%
Chloride	18	18	18	18	72	0	100%
Conductivity	18	18	18	18	72	6	92%
Dissolved Oxygen	18	18	18	18	72	0	100%
pH	18	18	18	18	72	5	93%
Total Phenols	18	18	18	18	72	0	100%
Total Organic Carbon	18	18	18	18	72	0	100%

Ammoniacal Nitrogen

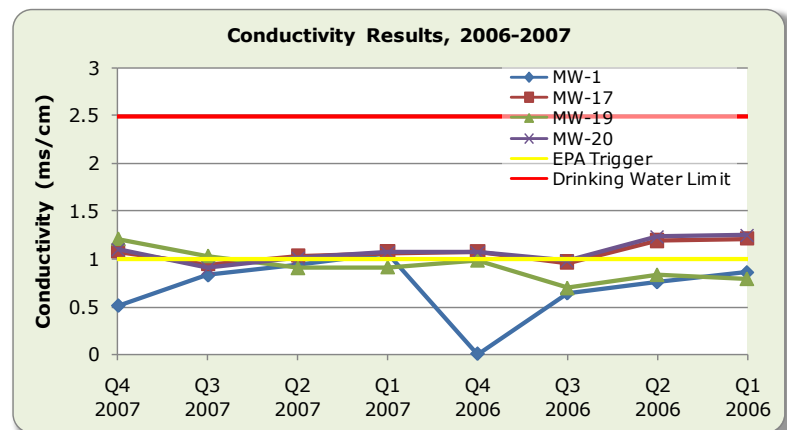
Ammoniacal nitrogen was found at levels slightly above drinking water regulation limits in 4 of the 18 groundwater monitoring locations.

It is thought to have been associated with agricultural or sewage sources in the vicinity of the site. This trend was also observed in 2006 as is shown in the graph opposite.



Conductivity

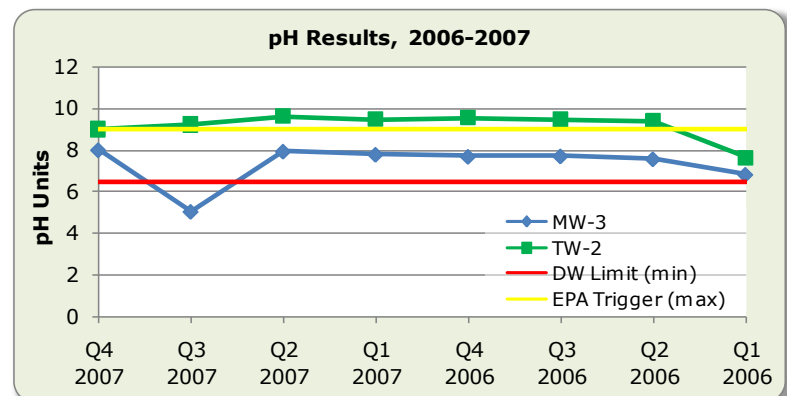
The EPA Trigger level for conductivity for the site is 1.0 mS/cm. The levels recorded at 4 monitoring wells were in exceedence of this value during some of the monitoring rounds but were within the limit set by the Drinking Water Directive of 2.5 mS/cm. The remaining 14 boreholes were in compliance with the drinking water regulation limit. Conductivity is a measure of the mineral salt content of water and has no direct health or sanitary significance.



pH

The EPA Trigger level for pH for the site is $6.5 < \text{pH} < 9.0$. The levels recorded at 2 monitoring wells, i.e. MW-3 and TW-2, were in exceedence of this value and were also in exceedence of the limit set by the Drinking Water Directive of $6.5 < \text{pH} < 9.5$. The remaining 16 boreholes were in compliance with the Drinking Water Regulation limit.

There is no obvious reason for the observations in relation to pH, and no negative impacts are being recorded in the vicinity.



Please note that the above graphs show results only for those monitoring locations which breached relevant standards.

Results for all other groundwater monitoring locations not shown on these charts were below relevant standards.

Total & Faecal Coliforms

Total and faecal coliforms were sampled during Q2, 2007 and were found to exceed the Drinking Water limit value of zero in bedrock and overburden wells both upstream and downstream of the site. Coliform results for all monitoring locations are provided in the table opposite.

Levels are likely to have been attributed to either agricultural or sewage sources in the area; the lands bordering the site are almost exclusively used for agricultural purposes. Coliforms are not traditionally associated with landfill runoff.

Bore-hole Ref.	Faecal Coliforms (cfus/100ml)			Total Coliforms (cfus/100ml)		
	Q2, 2007	Q2, 2006	DW Limit	Q2, 2007	Q2, 2006	DW Limit
MW-1	<1	<1	0	<1	2	0
MW-2	<1	<1	0	<1	<1	0
MW-3	7	<1	0	7	64	0
MW-4	<1	<1	0	6	18	0
MW-5	5	-	0	62	-	0
MW-6	<1	-	0	19	-	0
MW-14	1	<1	0	15	56	0
MW-16	1	8	0	1	15	0
MW-17	<1	4	0	10	21	0
MW-18	<1	<1	0	<1	2	0
MW-19	<1	<1	0	<1	32	0
MW-20	<1	<1	0	42	64	0
MW-21	-	<1	0	-	<1	0
MW-22	<1	<1	0	1	12	0
MW-24	6	<1	0	32	1	0
MW-25	2	<1	0	2	45	0
PW-3	<1	<1	0	<1	28	0
TW-2	4	<1	0	10	72	0

Other Instances of Groundwater 'Incidents' with reference to Guideline Limit Values during 2007

Parameter	Location	Concentration (mg/l)	Limit (mg/l)*	Quarter, 2007	Possible Causes
Manganese	MW-1	0.71	0.05	Q2	The occurrence of manganese is presumed to be associated with the geology of the quarry and the surrounding bedrock. Manganese was detected up-gradient and down-gradient of the site, as well as in on-site analysis.
	MW-2	0.40	0.05	Q2	
	MW-4	1.98	0.05	Q2	
	MW-5	0.09	0.05	Q2	
	MW-18	0.16	0.05	Q2	
Sulphates	MW-1	383	140	Q2	Sulphate is naturally occurring in sedimentary rock. The high levels may be due to locally deposited non-native soil.
	MW-5	159	140	Q2	
	MW-19	203	140	Q2	
	MW-4	143	140	Q3	
	MW-17	144	140	Q3	
	MW-19	239	140	Q3	
	MW-19	324	140	Q4	

* Manganese limits provided are with reference to Drinking Water Regulations; Sulphate limit provided is with reference to EPA Trigger Level for W0151-01

Landfill Gas Monitoring

The inert material deposited at Gormanston will not generate landfill gas; however, landfill gas is monitored at Gormanston because of historic waste deposits on site.

Landfill gas is measured at 20 monitoring wells on the Gormanston site (within the waste: G-6, G-7, G-8, G-9, G-11, L-1, L-2, L-3 and L-4; outside waste: G-12, G-14, G-15, G-16, G-17, G-18, G-19, MW-17, MW-19, MW-20 and MW-21).

Gas Monitoring Results, 2007

The level of landfill gas is monitored on a quarterly basis and levels are compared against limits set down in Schedule C of the Waste Licence. Methane (CH₄) and Carbon Dioxide (CO₂) results are summarised in the table opposite.

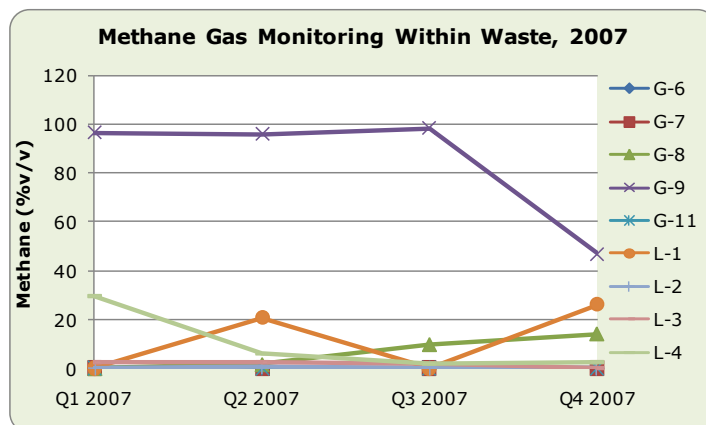
Methane was recorded at a low level of 0.1% v/v during Q2, 2007 in monitoring points situated outside the waste. During Q1, Q3 and Q4, 2007 the CH₄ result for these locations was zero. The licence specifies a CH₄ emission limit of 1% v/v in any building on or adjacent to the facility.

Methane results at monitoring locations within the waste were variable during 2007. Generally these locations recorded low levels of CH₄, with the exception of G-9, where results were relatively high, although there was a significant drop at this point during Q4, 2007.

Carbon dioxide levels recorded above 1.5%v/v at monitoring locations outside the facility or at perimeter locations were reported to the EPA as 'incidents'. Such incidents were recorded at G-12, G-14, G-19, MW-17 and MW-20 during 2007.

Gas monitoring results for locations situated outside the facility or at perimeter locations

Monitoring Location	2007 Methane Levels (% v/v)				2007 Carbon Dioxide Levels (% v/v)			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
G-12	0	0.1	0	0	4.1	5.8	6.6	2.0
G-14	0	0.1	0	0	1.8	2.4	6.9	0.9
G-15	0	0.1	0	0	0.1	0.2	0.2	0.1
G-16	0	0.1	0	0	0.1	0.4	0.7	0.7
G-17	0	0.1	0	0	0.1	0.1	0.3	0.2
G-18	0	0.1	0	0	0.2	0	0.1	0.1
G-19	0	0.1	0	0	0.1	2.3	1.2	1.1
MW-17	0	0.1	0	0	0.9	1.1	2.3	2.5
MW-19	0	0.1	0	0	0.1	0.2	1.3	0.7
MW-20	0	0.1	0	0	0.6	1.6	2.5	3.1
MW-21	0	0.1	0	0	0.1	0.4	0.1	0.2



Composition of Wastes Removed off site

General municipal waste (e.g. from the site canteen) and waste paper are collected and removed off-site by permitted waste collectors for recycling or disposal. The quantity of waste removed during 2007 is detailed in the table opposite.

In addition, 4,900 litres of waste oil, 3,000 gallons of sewage/wastewater sludge and 6 waste filters from garage operations were removed off-site during 2007 by approved contractors.

Waste Removed Off Site	Approx. Weight (tonnes)
General municipal waste	7.25
Skip waste for segregation & recovery	7.65
Waste paper for recycling	2.88
End of life tyres	6.67
Iron and steel	7.34
Lead batteries	1.14
Total	32.93



Energy Consumption

Background: Climate Change

There is growing consensus that climate change, also known as global warming, is becoming the greatest threat to our environment. It is the result of a build up of greenhouse gases (GHG), chiefly carbon dioxide, in the atmosphere. GHGs serve to trap the sun's heat in the atmosphere, forming the 'greenhouse effect'.

However, when the concentration of GHGs gets too large, and the earth's equilibrium gets out of balance, we experience a dangerous rise in temperatures, which can result in severe and extreme weather conditions. In effect, the earth's blanket thickens and our atmosphere absorbs and holds more heat than it radiates back. This could directly affect rainfall, flooding and droughts, agriculture, economies, health and biosecurity.

Kyoto Protocol

Ireland is committed under the UN Kyoto Protocol to limiting our rate of increase of greenhouse gas emissions to 13% above 1990 levels by 2008 – 2012.

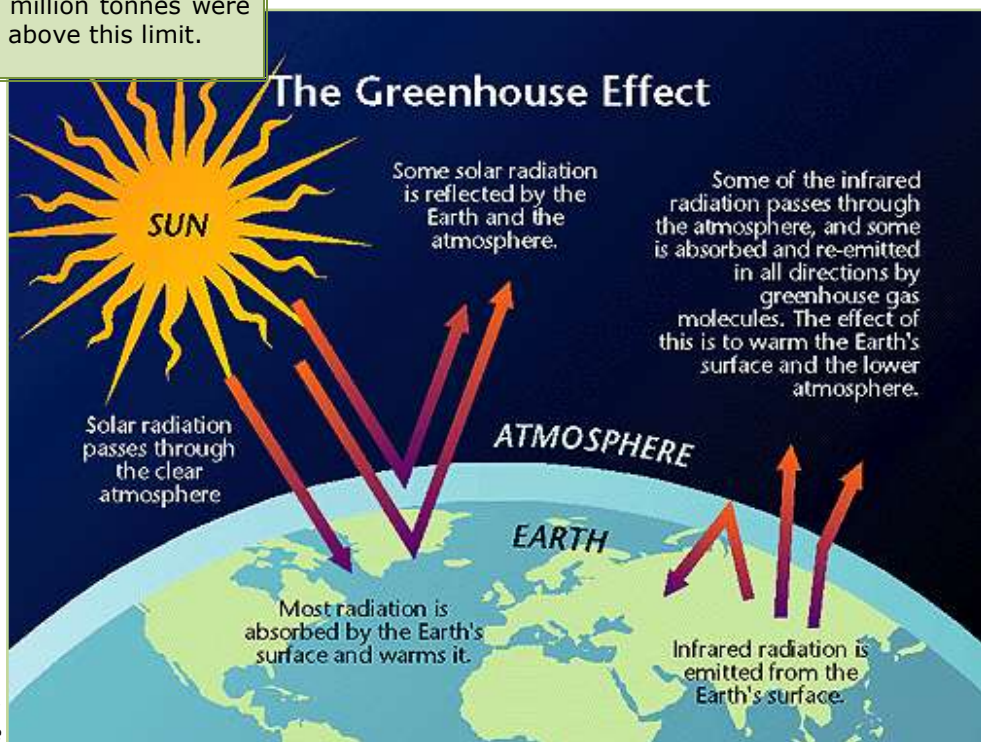
The EPA recently released the *Greenhouse Gas Emissions Estimates*; the report states that Ireland's Greenhouse Gas emissions fell by 0.8 per cent in 2006, as compared to 2005. While Ireland's Kyoto target in the period 2008-2012 is 62.84 million tonnes per annum, Ireland's emissions in 2006 of 69.77 million tonnes were almost seven million tonnes above this limit.

Carbon Footprint

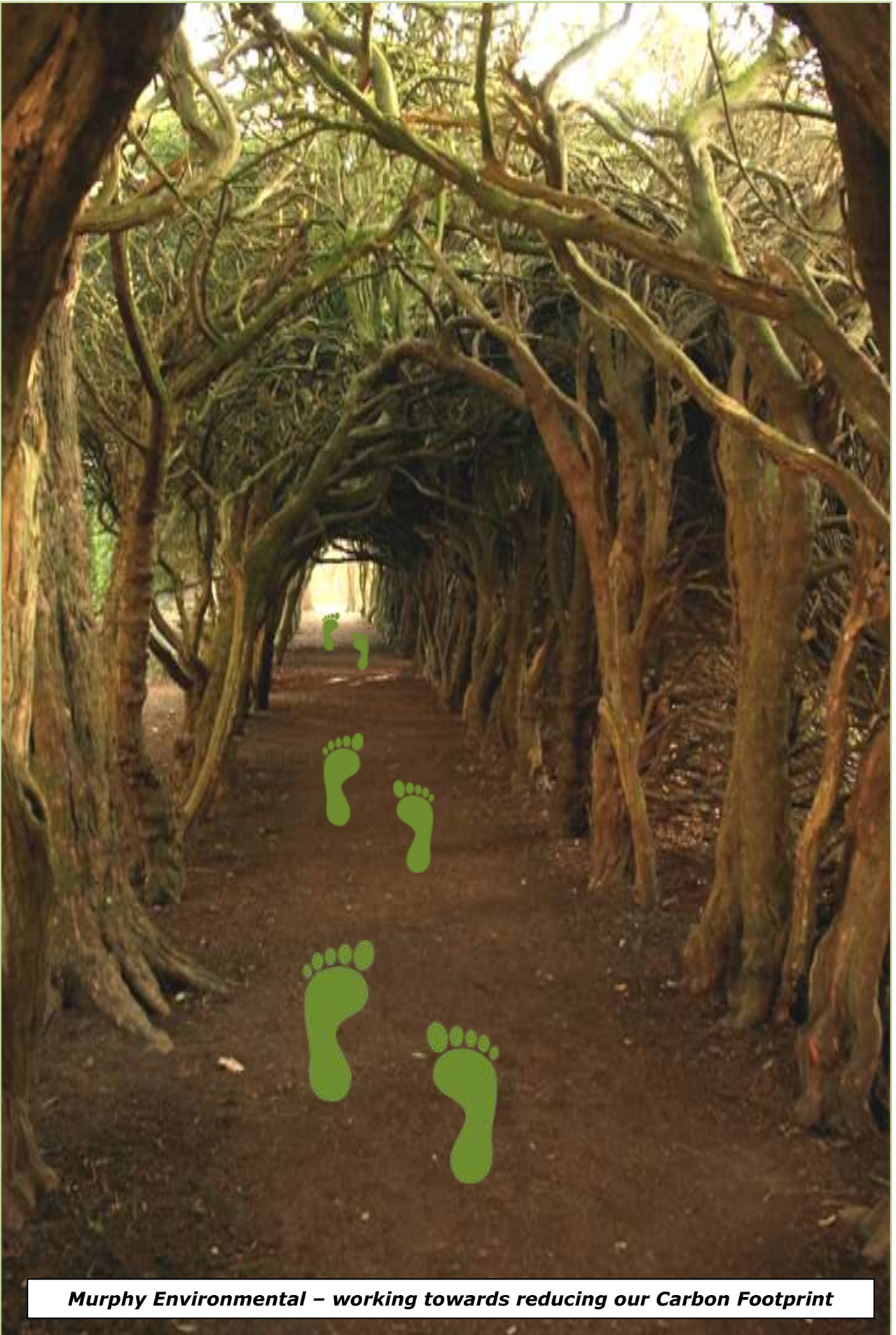
'Carbon Footprinting' has been developed to identify the climate change potential of products and services. The Carbon Footprint for any business is a calculation of the carbon dioxide emitted as a result of its activities over a set period of time.

Electricity, heat and transport are the main ways we use energy. Most electricity in Ireland is generated by burning fossil fuels which releases carbon dioxide. However, at Murphy Environmental, we have opted for a 'green' energy supplier.

- Ireland is responsible for over 44 million tonnes of energy related carbon dioxide emissions.
- The average Irish person is therefore responsible for about 11 tonnes of carbon dioxide emissions each year.
- Ireland currently has a Carbon Footprint of 5.0 global hectares per person, more than double the global average.



Source:
www.combatclimatechange.ie



Murphy Environmental – working towards reducing our Carbon Footprint

Energy & Resource Use at Murphy Environmental

Murphy Environmental's energy provider is Airtricity, one of Ireland's green renewable energy providers. Their power is sourced from their own windfarms and from certified hydro-power stations. Airtricity sources the power at a premium cost compared with "Brown" power to enable Airtricity to supply its customers with 89% "green" renewable energy.

Electricity

The energy consumption at Murphy Environmental Gormanston for 2007 was recorded as:

- 75,850 kWh for site offices, and
- 284,640 kWh for the on-site MCM washing plant and the garage
- TOTAL: 360,490 kWh

Airtricity data from December 2007 states that 89% of its energy is sourced from renewable sources, as opposed to 9% for ESB. Electricity generated by Airtricity produces 151.5 grams CO₂ per kWh (as opposed to 671.6 grams for ESB. Source: Airtricity).

Based on 2007 consumption rates, CO₂ emissions associated with Murphy Environmental Gormanston electricity usage were 55 tonnes. The graph opposite shows the savings in CO₂ emissions made by the Gormanston facility in switching to a green energy provider.

The average Irish car releases 167g CO₂/km, with an average mileage of 16,894 km/annum. In 2007 Murphy Environmental Gormanston avoided the release of 187 tonnes of CO₂ emissions to the atmosphere – this is the equivalent of taking 66 cars off the road for a year.

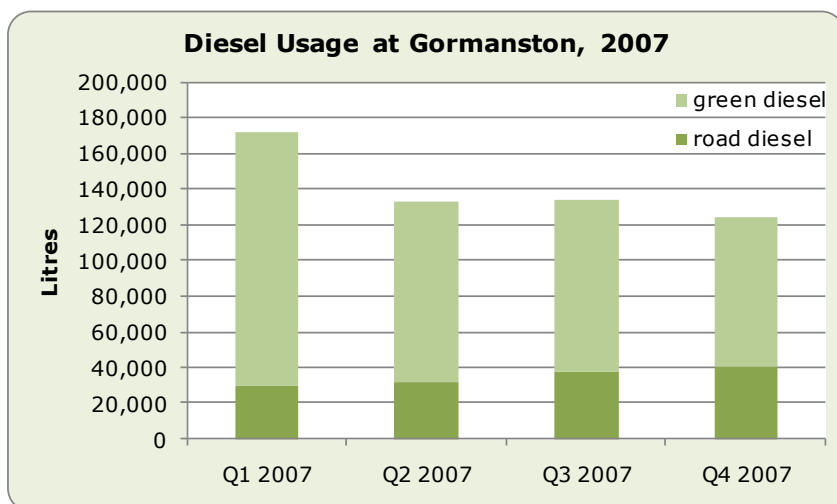
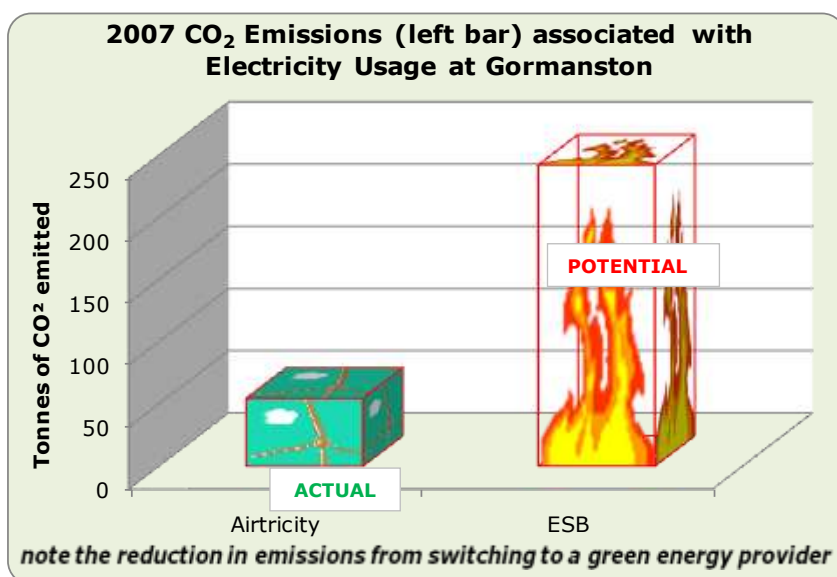
Water

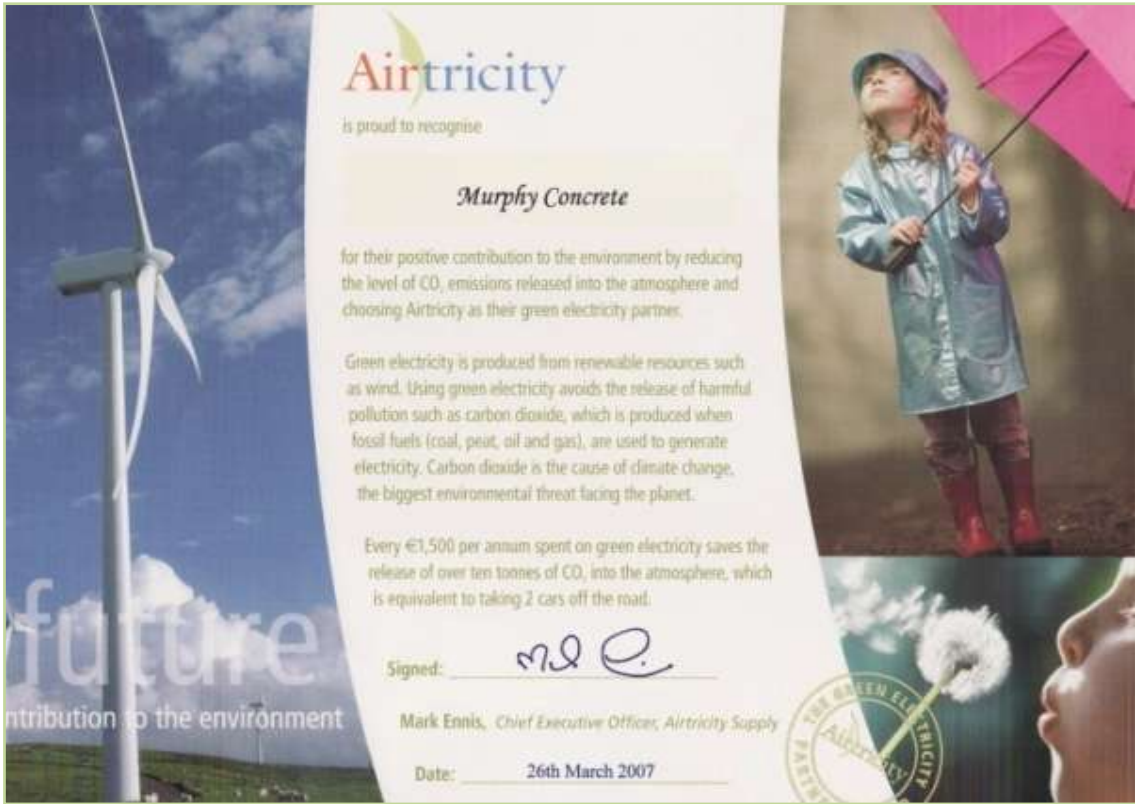
Water usage at the site was not metered in 2007.

Diesel

During 2007, a total of 141,069 litres of road diesel and 421,732 litres of green diesel was used by trucks, cars and plant associated with waste recovery activities at Murphy Environmental Gormanston.

Recent changes in the national motor taxation system by the Minister for the Environment, Heritage and Local Government recognises the reduced CO₂ emissions from diesel-fuelled vehicles as opposed to petrol-fuelled.





By using a green energy provider, Murphy Environmental Gormanston avoided the release of the equivalent of 66 cars' CO₂ emissions

Murphy Environmental in the Community

Murphy Concrete Manufacturing Ltd. has been in operation in the locality for over 30 years and is long-established as a generous and consistent contributor to local charities and events. In this section, we look at some of the initiatives and sponsorships we have been involved in locally, and also some awards bestowed upon us as a company during 2007, ranging from environmental management to business awards.

Many of our sponsor schools are new 'Green Flag' holders, a demonstration of their hard work and commitment to sustainability projects.

Local Schools Sponsorship Programme

Murphy Environmental launched an environmental sponsorship programme of local primary schools in December 2005. We made a commitment to maintain the initiative for a minimum of five years, with the objective of fostering long-term projects. Projects which promote and encourage the preservation and protection of the environment are rewarded, with the specifics of the selected projects entirely at the schools' discretion.

The following primary schools have been sponsored by Murphy Environmental in relation to the promotion of environmental issues:

1. White Cross N.S., Julianstown, County Meath
2. Laytown N.S., Laytown, County Meath
3. St. Patrick's N.S., Stamullen, County Meath
4. Balscadden N.S., Balscadden, County Dublin
5. Realt na Mara N.S., Donacarney, Mornington, Co. Meath
6. Saints Peter & Paul N.S., Chapel Street, Balbriggan, County Dublin
7. St. George's Church of Ireland N.S., Hampton Street, Balbriggan, County Dublin
8. St. Teresa's N.S., Pinewood, Balbriggan, County Dublin
9. Hedgestown N.S., Hedgestown, Lusk, County Dublin
10. Naul N.S., Naul, County Dublin
11. St. Oliver Plunkett N.S., Balrothery N.S., Balrothery, County Dublin
12. St. Mologa's N.S., Bremore, Balbriggan, Co. Dublin
13. Balbriggan Educate Together N.S., Hamlet Lane, Balbriggan, Co. Dublin



Congratulations to all the pupils and staff at St. Mologa's for all the hard work put into achieving their Green Flag, pictured here at the presentation with the Mayor of Fingal during 2007.

Hedgestown N.S. Restore Balrothery Union Workhouse Graveyard

During 2007, Hedgestown National School, in conjunction with Murphy Environmental, was involved in a restoration project at the graveyard of the old Balrothery Union Workhouse (1839-1851).

This Union served most of north County Dublin, which in the 1830s was a rural, agricultural area with almost no industry. The main source of employment was as agricultural labourers of whom there was an over-supply due to the continuing growth in population and the transition among the large farmers from tillage to grazing.

The workhouse system was originally designed to accommodate 1% of the population or 80,000 people but, by March 1851, famine had driven almost 4% of the population into the workhouses.

Experts believe as many as 11,000 people are buried at the site in Balrothery. The burial site is marked by a single cross, erected in 1918, which has been restored.

The students and teachers have tidied up the area, planted trees and cut grass. Murphy Environmental sourced and fixed slabs of rock from their Hollywood site, to be used as an altar. The project has provided students with an insight into research, the environment, local history and horticulture.

We think it was an outstanding achievement for the school and the end result is an invaluable resource. Murphy Environmental was delighted to be able to assist the school's staff and pupils in this very worthwhile project.

The school has worked hard in detailing the various aspects of the project and will be entering it in this year's Cleaner Community Awards.

Hedgestown Mass Rock



Drogheda United Football Club

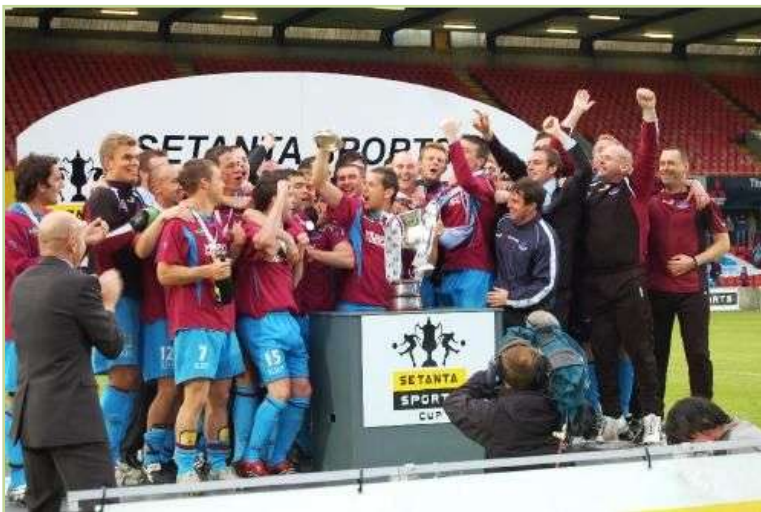
Murphy Environmental is proud to be the main sponsors of Drogheda United. 2007 was another hugely successful year for "the Dregs". Firstly Drogheda United retained the Setanta Cup on 12th May with a great display at Windsor Park where they showed true grit and perseverance to miss a penalty during play, go a goal behind, lose the first penalty in the shoot-out and go on to edge out Linfield 4-3 after it finished 1-1 after extra time!



In November Drogheda were crowned Eircom League of Ireland Champions. Drogheda United became the League Champions with one game to go with a total of 68 points, 7 more than their nearest rivals St Patrick's Athletic. They claimed the new look trophy at home in United Park.



Drogheda United celebrate their Eircom League of Ireland win



Drogheda United celebrate their Setanta Cup win



Balbriggan local Tony 'Boots' Grant is a member of the double winning Drogheda United team. Tony received a nomination for Sports Star of the Year 2007. Commenting at the Awards ceremony, Tony said that 'To achieve what we've achieved, with our first league championship - the town has been buzzing. It's great.'



It has been a terrific journey for the Balbriggan man who has played for such high profile clubs as Leeds United, Glenavon, Shamrock Rovers and Bohemians. Grant signed for Drogheda United in 2006, making his debut in the UEFA Cup away to HJK Helsinki in Finland.

Injury brought his first season to an early end but 2007 proved to be very successful year, scoring four goals in twenty appearances. He is probably remembered by most Drogheda fans as the goal scorer in the Setanta Cup Final last season, a goal which sent the game into extra time and ultimately penalties.

Murphy Environmental would like to extend our congratulations to Tony on his excellent achievements.

Supporting Irish and Local Cricket

The words *Ireland* and *Cricket* have not normally been associated together, but six remarkable weeks in the Caribbean at the 2007 ICC Cricket World Cup saw the face of cricket change forever and Ireland took its place among the cricketing nations of the world.

Overcoming massive odds, the mainly amateur Irish team coming from jobs that include delivery drivers, a farmer, a civil servant and a postman to name but a few, set off from an empty Dublin Airport to take on the world's best professional cricket countries, among them four players from our local *North County Cricket Club* - Andre Botha, Eoin Morgan and brothers Paul and John Mooney.

Cricketing giants Pakistan were knocked out of the tournament after they fell to our rebellious Irish team on our national holiday, St Patrick's Day. Add to this a draw with Zimbabwe and Ireland became the first team in Cricket World Cup history to qualify for the World Cup AND make it to the exclusive *Super Eights* series. Victory over Bangladesh in the *Super Eights* secured Ireland's place on the world cricketing map.

Not alone that, the Irish Cricket team was followed to Jamaica by more than 3000 men, women and children dubbed "*The Blarney Army*", a sea of tri colours waving to the singing of the Irish Cricket Anthem for the world cup, "*C'mon Ireland*", sponsored by Seamus Murphy and Murphy Environmental.

The Irish fans were a big part of the World Cup and the "Blarney Army" made its mark on the tournament for its exuberant support of the team day in and day out in the blistering heat – and of course they knew that as many of them as there were out there cheering could be multiplied by hundreds at home cheering as well.

North County Cricket has also been supported by us and MCM over the last few years, as it continues to flourish as one of the best Cricket Clubs in the country, proving to be a great source of provincial and national talent for the game.



Other sporting beneficiaries

Hyde Park F.C. Murphy Environmental has sponsored many, if not all, the local soccer clubs in the last number of years, including Glebe North, Balbriggan F.C. and Hyde Park F.C., a Balbriggan-based club who are in existence since the early seventies.

Balbriggan R.F.C. has received sponsorship and support from Murphy Environmental in building their new facilities at Balrothery.

GAA naturally has also been close to our hearts and minds when allocating sponsorship and we have supported a number of clubs locally, including St. Pat's in Stamullen, Man of War G.F.C. and O'Dwyers in Balbriggan, to name but a few.

Horse Racing at Bellewstown, Co. Meath

Meath are the proud custodians of the oldest racecourse in Ireland and our Managing Director, Seamus Murphy, is also one of the Racecourse Committee responsible for the management and upkeep of this very special track and its annual July meeting. Murphy Environmental sponsors a number of races, including the 'Mullaghacurry Cup', the feature race of the August meeting.

Drogheda Women's & Children's Refuge

The Drogheda Women's & Children's Refuge is an organisation that like so many in this country was set up by volunteers to offer some help to those women who have suffered domestic violence and need somewhere to turn in these times of crisis.

Domestic violence has no social or class boundaries, it is everywhere and in almost all cases it is well hidden even from close members of the victim's family.

Typically women who suffer Domestic Violence are assaulted at least **35** times before they act to remove themselves from the abuse. **Two** women every week die at the hands of a 'loved one' in these islands alone and many, many more are permanently disfigured and/or disabled.

The children of violent relationships are far more likely to enter into a violent relationship in adulthood, either as the victim or the abuser. The damage they suffer can be permanent and irrevocable in some cases.

Drogheda Women's & Children's Refuge serves Drogheda and district, Balbriggan and district and all the country villages in between. In other words it serves us all, silently, invisibly, but if anyone you know or indeed you personally ever need their help they are there and they are willing and able to help.

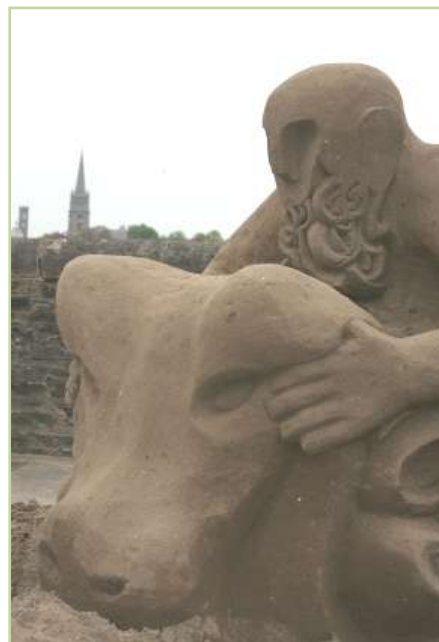
For Christmas 2007, instead of sending out our usual and extensive list of gifts, Murphy Environmental sent the money to the Drogheda Women's & Children's Refuge Building Fund. So far they have functioned in an unsuitable building owned by the Augustinians in Drogheda. Now they have a site and a Planning Permission for a purpose-built home which will assist in the delivery of even more services and support to those who find themselves in need of it.

Drogheda Women's & Children's Refuge can be contacted at 041-9844998 or [drogheda womensrefuge@eircom.net](mailto:womensrefuge@eircom.net) 24 hours a day and 365 days of the year.

The Drogheda Arts Festival 2007

This Festival takes place over the May Bank Holiday in the town of Drogheda, Co. Louth which is one of Ireland's oldest medieval towns. The town is divided in two by the River Boyne and is steeped in history from the Battle of the Boyne site to Millmount and Laurence's Gate.

Murphy Environmental supplied up 80 tonnes of compacted sand for the creation of two massive sand structures relating to the history of the town of Drogheda. The sand structures were created by Duthain Dealbh, who spent a week creating, sculpting, carving and forming unique sculptures which could be visited daily during the week of the festival.



Detailed sculptures of Duthain Dealbh at the Drogheda Arts Festival 2007

Fingal Chamber Business Award 2007

Murphy Environmental was honoured at the Swords Fingal Chamber Business Awards 2007. The Company scooped the award in the Environment Category.

The Fingal Business Awards 2007 are a testament to the talent, drive, innovation and success of the business community in Fingal. Each business/company that enters the Awards has a story to tell about their commitment to excellence in the quality of their products, services and customer care.

RTE newscaster Marty Whelan presented the awards to the area's best businesses in sixteen different categories.

Drogheda Chamber Business Awards 2007

The Drogheda Business Excellence Awards 2007 was held in the Boyne Valley Hotel and Country Club. The guest presenter for the evening was RTE's Mr. Bryan Dobson. The Chamber's President, Mr. Eugene Kierans took to the stage during the evening and welcomed and entertained the gathered audience.

Following dinner Bryan Dobson announced the four shortlisted companies in the nine categories. The winning companies were then invited to the stage to receive their award from the category sponsor.

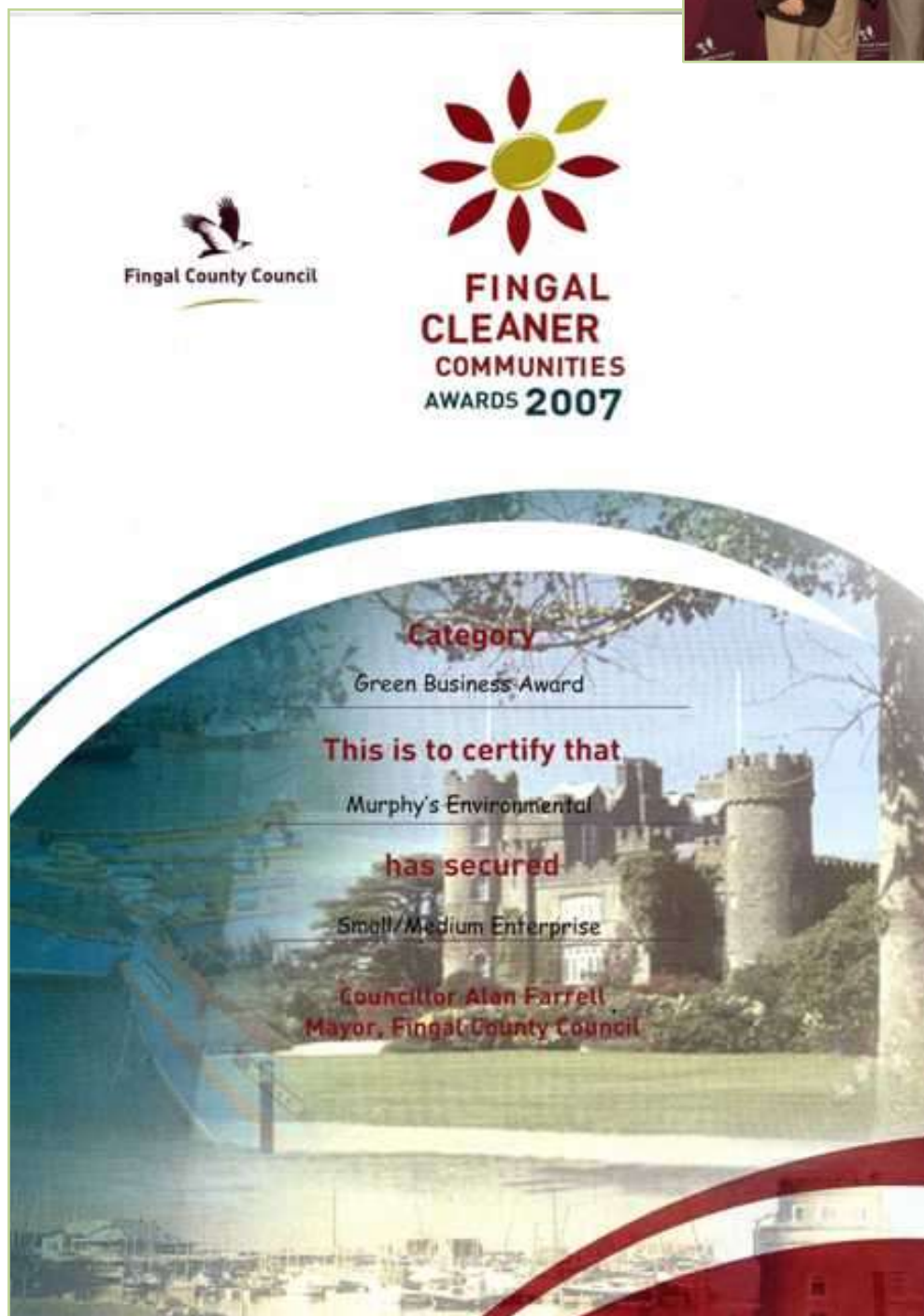
This year the winners were presented with a copy of the commissioned painting of "The Drogheda Boat" by artist Mr. Sean O'Dwyer. Holger Schweitzer, Archaeologist in charge of the boat, explained the importance of this great find in the River Boyne at Drogheda. Bryan Dobson asked Holger "Is this find of National importance?" Holger's reply was "No, that it was of international importance and that the boat is the only one of its kind ever found, this boat must remain in Drogheda."

Murphy Environmental won the Environment award at the Swords Fingal Chamber Business Awards 2007



Fingal County Council Cleaner Communities Awards for 2007

Murphy Environmental was honoured with a Green Business Award in the Fingal County Council Cleaner Communities Awards for 2007. We were delighted to be requested by Fingal County Council to enter into the competition and the award bestowed on the company on the night was one which we were particularly privileged to accept.



Glossary of Terms

WASTE: Any substance or object which a holder discards is considered waste. At Murphy Environmental, we put the materials delivered to our sites to good use for site restoration or recycling it for other useful purposes. We do not accept domestic (or 'black bag') refuse; the material we accept is comprised of soil and stones or similar materials.

AER: Annual Environmental Report.

Approved facility: An authorised and technically suitable waste management facility which has been agreed by the EPA for the removal of waste.

Borehole: Groundwater monitoring infrastructure.

Bund: Containment constructed around potential spillage areas to eliminate the risk of environmental contamination.

Condition: A condition of the EPA Waste Licence.

Conductivity (Electrical): A measure of the ability of a solution to carry an electrical current. It is an estimate of the amount of total dissolved solids (TDS), or the amount of dissolved ions in water.

Construction and Demolition Waste: All waste materials which arise from construction, renovation and demolition activities.

EMS: Environmental Management System – Documented system to facilitate continuous environmental improvement.

Environmental impact: Any change to the environment, positive or negative, resulting from an organisation's activities.

Environmental objective: Overall environmental goal that an organisation sets itself to achieve.

Environmental policy: Overall intentions and direction of an organisation related to its environmental performance as formally expressed by top management.

EPA: Environmental Protection Agency.

European Waste Catalogue (EWC): A classification system for waste materials. It categorises wastes based on a combination of what they are and the process or activity that produced them.

Evapotranspiration: Water discharged to the atmosphere as a result of evaporation from the soil and surface-water bodies and as a result of plant transpiration.

Groundwater: Water that exists beneath the earth's surface in underground streams and aquifers.

Inert waste: Waste material that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health.

ISO14001: ISO14001 is the standard set by the International Standards Organisation, which specifies the requirements of an environmental management system, to assist organisations to achieve environmental and economic goals. Certification to the standard can only be provided by independent, third party organisations.

Landfill: Refers to the area of the facility where the material is disposed of by placement on the ground or on other waste.

Landfill Gas: Gases generated from landfilled waste.

List I/II Organics: Substances classified pursuant to EC Directives 76/464/EEC and 80/68/EEC.

Leachate: Any liquid percolating through or emitted from a landfill.

Permeability: The measurement of a material's ability to transmit fluids. Permeable materials allow fluid to pass through readily.

pH: The pH is a measure of the acidity or basicity (alkalinity) of a material when dissolved in water. It is expressed on a scale from 0 to 14 (pH 7 is neutral).

Procedure: Specified way to carry out an activity or a process.

Quarantine Area: Area for temporary storage of rejected loads or other materials which are deemed unsuitable.

Surface Water: Streams, rivers, canals, ditches (flowing freshwater systems), lakes, reservoirs and lagoons (static freshwater systems), wetlands, estuaries and coastal waters.

Trigger Level: A parameter value specified in the licence, the achievement or exceedance of which requires certain actions to be taken by the licensee.

Void Space: The volume of space within landfill sites, which is required to be filled with waste/materials in order to complete the site to required restoration levels.

Waste Licence: A licence issued by the EPA to waste management facilities to ensure a high standard of environmental protection applies to the location, design, construction, operation and aftercare of waste facilities.

Weighbridge: Device for accurate weighing of incoming waste.

Contents of Annual Environmental Report – Requirements of Waste Licence W0151-01: Cross Reference

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