



WASTE LICENCE REVIEW APPLICATION FOR DREHID WASTE MANAGEMENT FACILITY

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JUNE 2008

TOBIN CONSULTING ENGINEERS



ATTACHMENTS TO WASTE LICENCE REVIEW APPLICATION

Prepared on behalf of:

Bord na Móna Plc.
Bord na Móna,
Leabeg,
Tullamore,
Co. Offaly.

Prepared by:

TOBIN Consulting Engineers
Block 10-4
Blanchardstown Corporate Park
Dublin 15

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DOCUMENT AMENDMENT RECORD

Client:	Bord na Móna
Project:	Drehid Waste Management Facility Intensification and Extension
Title:	Attachments to Waste Licence Review Application

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TOBIN Consulting Engineers							

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- Appendix 2 Planning and Waste Licence
- Appendix 3 Correspondence with Kildare County Council
- Appendix 4 Management Structure and Quality Control Systems
- Appendix 5 Flow Chart
- Appendix 6 Accounts

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ATTACHMENT A:NON TECHNICAL SUMMARY**Attachment A1- Non Technical Summary**

This non-technical summary is prepared in accordance with Article 12(1)(u) of the Waste Management (Licensing) Regulations S.I. 395 of 2004:

Article 12 (1)(u),“include a non-technical summary of the information provided in accordance with paragraphs (a) to (t) of this sub-article”.

a) The address and contact details below are those of the applicant, the operator & the contact details of the registered company office

The address and contact details of the applicant are:

Bord na Móna Plc.
C/o John Connolly,
Bord na Móna,
Leabeg,
Tullamore,
Co. Offaly.
Tel: 057-934 5954
Fax: 057-934 5179
e-mail: john.connolly@bnm.ie

The address and contact details for correspondence are:

Damien Grehan, Tobin Consulting Engineers
Block 10-4,
Blanchardstown Corporate Park,
Dublin 15.
Tel: 01 8030 401
Fax: 01 8030 410
e-mail: damien.grehan@tobin.ie

The address and contact details of the registered company are:

Bord na Móna Plc.,
Main Street,
Newbridge,
Co. Kildare
Tel: 045 439 000
Fax: 045 439 001

- b) The planning authority in whose functioning area the activity will be carried out on is:

Kildare County Council*
Head Office,
Áras Chill Dara,
Devoy Park,
Naas, Co Kildare
(045) 980200
(045) 980240

*A Planning Application has been submitted to An Bord Pléanala under the Planning and Development (Strategic Infrastructure) Act 2006, however the subject site is located within functional area of Kildare County Council.

- (c) The address and contact details of the sanitary are:

Kildare County Council- Leixlip Wastewater Treatment Facility
Head Office,
Áras Chill Dara,
Devoy Park,
Naas,
Co Kildare
Tel: (045) 980200
Fax: (045) 980240

- (d) The location of the proposed development is Killinagh Upper, Carbury, Co. Kildare within the townlands of Parsonstown, Loughnacush, Kilkeaskin, Timahoe West, Drummond, Coolcarrigan, Killinagh Lower and Killinagh Upper

The National Grid Reference for the proposed development is E: 2744, N: 2315 (note this is the centre of the site located at the admin building)

- (e) The nature of the Drehid Waste Management Facility is outlined in the following Non Technical Summary

Introduction

Proposed Development

Bord na Móna proposes to intensify and extend the already permitted Drehid Waste Management Facility. This facility was granted permission by Kildare County Council (KCC) in April 2005, under KCC Reg. Ref No. 04/371 subject to a number of conditions. In November 2005 An Bord Pleanála (ABP) upheld that planning decision with revised conditions (ABP Ref No. PL.09.212059), following an appeal and an

Oral Hearing. The Environmental Protection Agency (EPA) issued a Waste Licence for the facility in August 2005 (EPA Ref No. W0201-1).

Under that planning permission and in accordance with that Waste Licence, 120,000 TPA of waste can be disposed of to the engineered landfill site with an additional 25,000 TPA permitted for disposal at a composting facility. The operational life of this facility is 20 years. That permission also provides for all associated site development works including the development of an access road from the R403 Regional Road to the site.

Construction of the facility commenced in August 2006 and the facility commenced accepting waste in February 2008. This proposal would enable an additional 240,000 TPA of waste (over and above that already permitted) to be disposed of for 7 years. After 7 years the development will revert back to receiving the permitted 120,000 TPA for the remaining permitted operational life of the facility. The proposed development necessitates additional physical works namely:

- The extension of the permitted landfill footprint on immediately adjoining lands;
- The development of additional ancillary facilities- such as surface water lagoons, site roads etc.

No modifications to permitted facilities such as general administration areas, access roads, site entrance, composting facility etc. are proposed. The proposed development will be entirely located within the landholdings of Bord na Móna.

Need for Environmental Impact Statement (EIS)

The consequences of any major engineering project are required to be presented in the form of an Environmental Impact Statement (EIS). The EIS as prepared contains a description of the existing environment, information on the scale and nature of the proposed development, an impact assessment of the proposed development and mitigation measures to reduce the impact on the receiving environment. This document provides a non-technical summary of the overall EIS describing the existing environment, the proposed development and potential impacts and mitigation measures.

Consultation

A very comprehensive consultation process has been followed to date in respect of the proposed facility. The consultation process consisted of consultation with the competent bodies, statutory bodies and other interested parties. The primary objectives of the consultation process followed were to aid the scoping of the Environmental Impact Assessment (EIA) and to fully brief all those listed above of Bord na Móna's proposal and to ascertain their observations.

Planning Process

The provisions of the Planning and Development (Strategic Infrastructure) Act 2006 (the 2006 Act) came into effect on 31st January 2007. The 2006 Act, which amends the Planning and Development Act 2000, provides generally for applications for permission/approval for specified private and public strategic infrastructure developments to be made directly to An Bord Pleanála.

Part 18 of the Planning and Development Regulations 2006 (S.I. No. 685 of 2006) (the 2006 Regulations) relating to strategic infrastructure development also came into effect on 31st January 2007. The 2006 Regulations amend the Planning and Development Regulations 2001.

Private strategic infrastructure developments, to which the 2006 Act and Regulations apply, are listed in a new 7th Schedule to the 2000 Planning Act (inserted by section 5 of the 2006 Act). These generally refer to projects classified as major energy, transport and environmental infrastructure, the applications for which are to be made to An Bord Pleanála instead of to local planning authorities.

An initial submission was lodged with An Bord Pleanála on the 2nd July 2007. Following this the first pre-application consultation took place on the 11th September 2007. A second submission was sent to An Bord Pleanála prior to this first consultation. A second pre-application consultation took place on the 27th November 2007.

In the context of detailed pre-application discussions with An Bord Pleanála as required under the relevant legislation, it is noted that this application is:

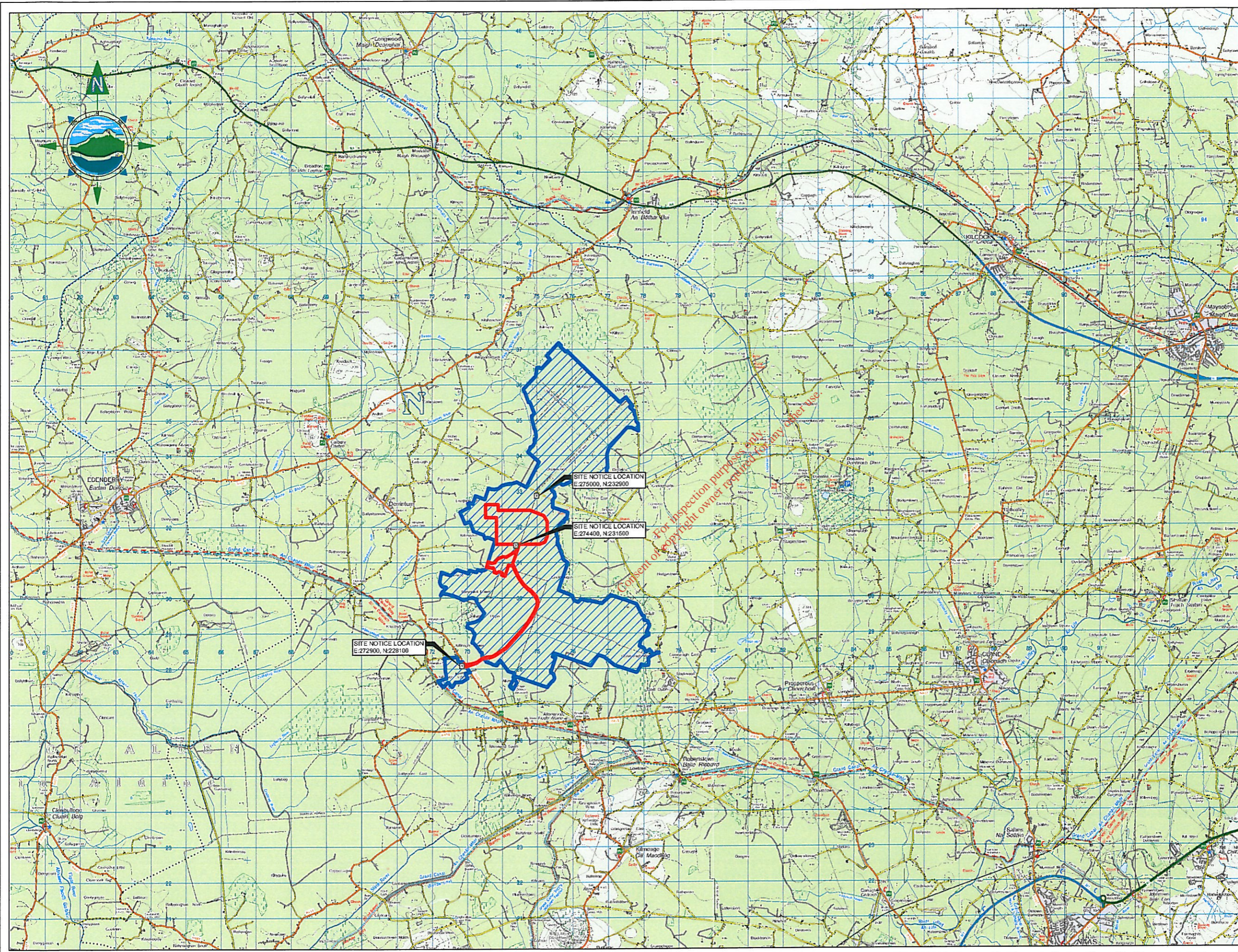
- For development classified within the 7th Schedule of the Principal Act (ref. Para. 3) namely:
 - “3. – *Development comprising or for the purposes of any of the following: an installation for the disposal, treatment or recovery of waste with a capacity for an annual intake greater than 100,000 tonnes.*”
- For development within the functional area of Kildare County Council.

An Bord Pleanála has determined that the proposed extension and intensification of the Drehid Waste Management Facility is regarded as Strategic Infrastructure and therefore subject to the provisions of the Planning and Development (Strategic Infrastructure) Act, 2006, with the planning application made directly to An Bord Pleanála.

Background**Site Location**

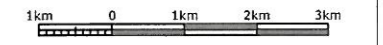
The site, as shown on Figure 1 (*General Site Location Map - extract from Discovery Series Sheet No. 49*), is located approximately 3 kilometres (km) north of Allenwood and 9 km south of Enfield, County Kildare.

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GENERAL LEGEND
 BORD NA MÓNA OWNERSHIP BOUNDARY SITE ACTIVITY BOUNDARY
 SITE NOTICE LOCATION

- NOTES**
1. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING
 2. ALL DRAWINGS TO BE CHECKED BY THE CONTRACTOR ON SITE
 3. ENGINEER TO BE INFORMED BY THE CONTRACTOR OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES
 4. ALL LEVELS SHOWN RELATE TO ORDNANCE SURVEY DATUM AT MALIN HEAD
 5. OS DISCOVERY SHEET NO'S: N-2622, N-2624, N-2822 & N-2824



Issue	Date	Description	By	Chkd.
B	06-06-08	ISSUED FOR LICENCE REVIEW	VB	PON
A	11-04-08	ISSUED FOR PLANNING	VM	PON

Client:
BORD NA MÓNA

Project:
 INTENSIFICATION AND EXTENSION TO DREHD WASTE MANAGEMENT FACILITY

Title:
 REGIONAL SITE LOCATION MAP

Scale @ A3: 1:100,000
 Prepared by: M. Nolan
 Checked: P. O'Neill
 Date: April 2008
 Project Director: D. Grehan

TOBIN
 Patrick J. Tobin & Co. Ltd
 Consulting, Civil and Structural Engineers,
 Block 10-4, Blanchardstown Corporate Park,
 Dublin 15, Ireland.
 Tel: +353-(0)1-8030406
 Fax: +353-(0)1-8030409
 e-mail: info@tobin.ie
 www.tobin.ie

Drawing No.: **Figure 1**
 B

The facility is located within the confines of the Timahoe Bog, which is owned by Bord na Móna and which comprises approximately 2,544 hectares (ha). The activity boundary of the facility is outlined in red on Figure 2 and comprises 179 hectares (ha).

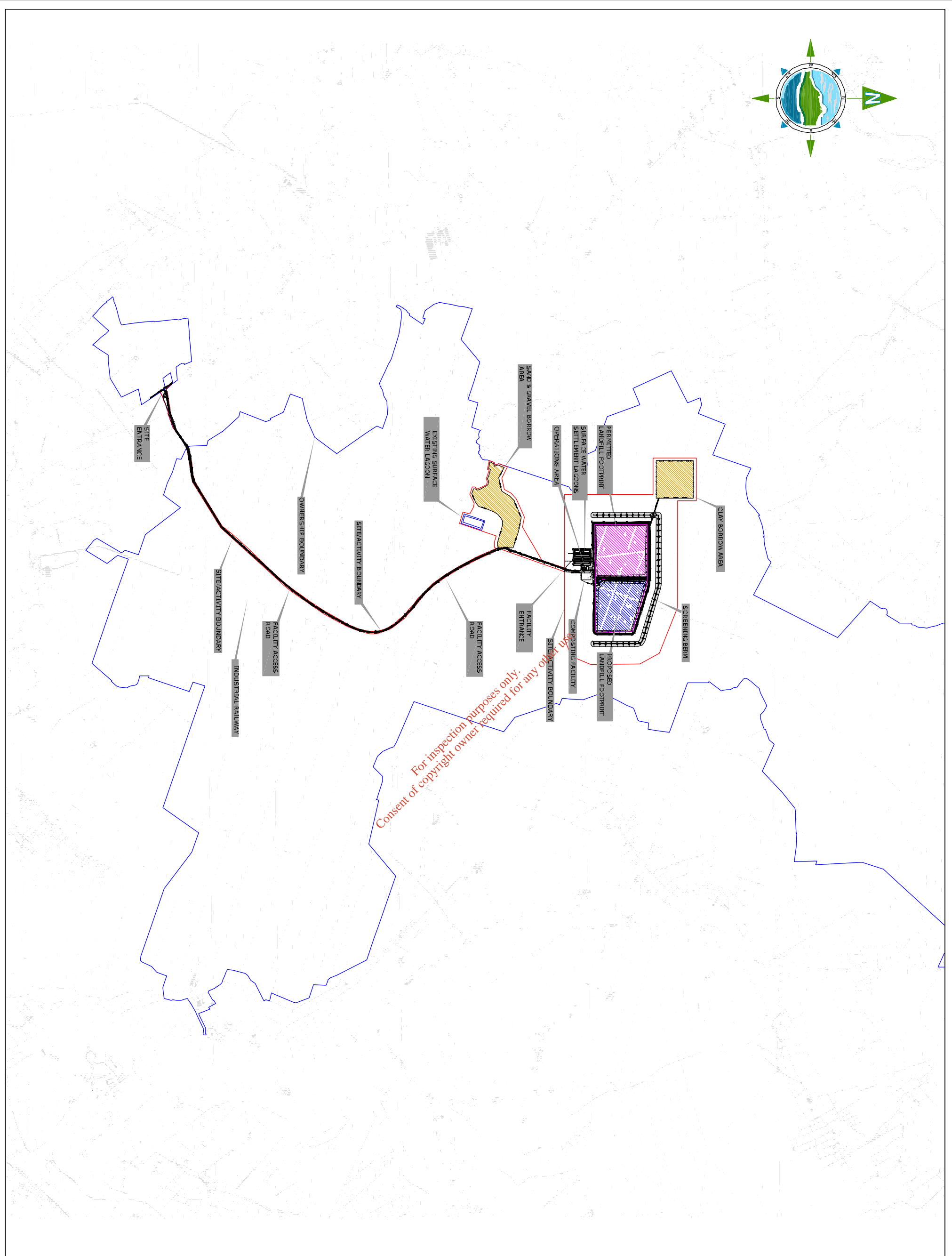
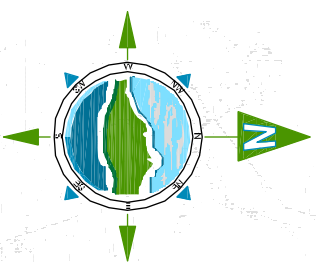
The site is accessible via a network of regional routes which in turn link with the National Primary Road / Motorway network. The R403 lies south, and southwest and west of the site: the R403 joins the R402 at Carbury to the northwest of the site. The R402 connects to the N4/M4 while the R403 connects to central and south County Kildare. The N4/M4 (Dublin to Sligo/Galway) National Primary road / Motorway is located some 8km to the north of the proposed facility, while the N7 /M7 (Dublin to Limerick/Cork) National Primary road / Motorway is located some 14km to the south of the proposed facility.

Engineered Landfill

The landfill footprint encompasses 39ha which includes the proposed extension of 17.8ha. The permitted landfill will be constructed in 8 phases and the proposed landfill extension will be constructed in 7 phases. The extent of both the proposed landfill extension footprint and the permitted landfill footprint are shown on Figure 2. Stripping of the peat layer and preparation of the ground to the formation levels required will take place prior to the development each phase. The total void space capacity of the landfill is estimated to be 5 million cubic metres.

On average the landfill will be 15-20m deep and the maximum final height, post settlement, of the landfill will be approximately 103.25 metres above Ordnance Datum (mOD). The site will be managed and landscaped to reflect the specific attributes of the surrounding landscape.

The landfill will be progressively capped on completion of each phase, with ongoing landscaping taking place throughout the lifetime of the site. On final capping, the site will be allowed to recolonise to natural species. The landfilling operation will be carried out in a planned and controlled manner, thereby minimising potential nuisances such as odours, dust, noise, litter, vermin, etc. Environmental monitoring stations, in accordance with EPA requirements, have been established at the site and monitoring will be continued post closure of the facility.



GENERAL LEGEND

ROAD NA MÓNA OWNERSHIP BOUNDARY	SITE ACTIVITY BOUNDARY	PERMITTED LANDFILL FOOTPRINT
OWNERSHIP BOUNDARY	PROPOSED LANDFILL FOOTPRINT	PROPOSED LANDFILL FOOTPRINT
OWNERSHIP BOUNDARY	PROPOSED LANDFILL FOOTPRINT	PROPOSED LANDFILL FOOTPRINT
OWNERSHIP BOUNDARY	PROPOSED LANDFILL FOOTPRINT	PROPOSED LANDFILL FOOTPRINT

- NOTES**
1. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING.
 2. ALL DRAWINGS TO BE CHECKED BY THE CONTRACTOR ON SITE.
 3. ENGINEER TO BE INFORMED BY THE CONTRACTOR OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES.
 4. ALL LEVELS SHOWN RELATE TO ORDNANCE SURVEY DATUM AT MALIN HEAD.
 5. 1:50 SHEET NO'S: KILDARE 3, 4, 8, 9, 10, 13



NO	DATE	DESCRIPTION	BY	CHKD
1	02-06-08	ISSUED FOR CONSTRUCTION	MM	MM
2	11-04-08	ISSUED FOR PERMITTING	MM	MM

Client:
BORD NA MÓNA

Project:
INTENSIFICATION AND EXTENSION TO DREHID WASTE MANAGEMENT FACILITY

Title:
SITE LAYOUT PLAN

Scale: 1:30,000

Prepared by: M. Nolan
Checked by: P. O'Neill
Date: APRIL 2008

Project Director: D. Gleghair

Tobin Engineering & Surveying Ltd.
 100, Park Road, Dublin 15, Ireland.
 Tel: 01-452 2000
 Fax: 01-452 2001
 Email: info@tobin.ie
 www.tobin.ie

Drawings No.: Figure 2
Sheet: B

Composting Facility

Under the original permission, a biowaste composting facility forms part of the overall waste management facility at Drehid, County Kildare. Once operational, this facility will deal primarily with separately collected biowaste from household, commercial and industrial sources. The biowaste will include a source separated organic fraction from household waste, food waste from the service industry and retail outlets and other commercial and industrial biowaste as available.

The initial short-term objective of the facility will be to produce compost suitable for usage for landscaping and for the restoration of the landfill. The facility will be designed for an overall capacity of biowaste of 25,000 tonnes per annum (TPA). The composting facility will be located to the south-eastern edge of the landfill footprint

Ancillary Infrastructure

The existing site infrastructure includes weighbridges, wheel-wash, site security arrangements, bunded waste inspection and quarantine areas, bunded fuel storage, site accommodation, site roads, surface and foul water drainage, leachate holding tanks, maintenance facility, surface water retention/settlement lagoon, landfill gas flare compound and car parking areas. Planning has already been secured for the site infrastructure listed above as part of the original proposal and construction of this infrastructure has been completed. The proposed development necessitates additional physical works including the development of additional ancillary facilities such as surface water lagoons and the extension of the site roads and swale around the proposed landfill footprint.

Construction Material On-Site

For the purposes of construction of the landfill extension, the existing clay borrow area and a sand and gravel borrow area will be utilised. These areas are located within the confines of the site. Planning Permission has already been granted for the clay borrow area and the sand and gravel area under the original planning application.

Potential nuisances

The landfilling operations are carried out in a planned and controlled manner, thereby minimising potential nuisances such as odours, dust, noise, litter, vermin, etc. Environmental monitoring stations, in accordance with EPA requirements, have been established at the site and monitoring will be continued post closure of the facility. The facility is operated in accordance with the conditions of the Waste Licence granted by the Environmental Protection Agency (EPA) and planning permission granted by An Bord Pleanála. Waste licence and planning conditions may be revised as an outcome of the current applications before the EPA and An Bord Pleanála. Bord na Móna employs 'Best Available Techniques' in all aspects of the management of the facility.

Existing Environment

Existing Site

The Bord na Móna property, outlined by the blue line on Figure 1, is located within the County Kildare townlands of Drehid, Ballynamullagh, Kilmurry, Mulgeeth, Mucklon, Timahoe East, Timahoe West, Coolcarrigan, Corduff, Coolearagh West, Allenwood North, Killinagh Upper, Killinagh Lower, Ballynakill Upper, Ballynakill Lower, Drummond, Kilkeaskin, Loughnacush, and Parsonstown.

The site boundary or the activity boundary, outlined by the red line on Figure 1, which is defined as the area in which all activities associated with the waste management facility will occur, is confined to the townlands of Parsonstown, Loughnacush, Kilkeaskin, Drummond, Timahoe West, Coolcarrigan, Killinagh Lower and Killinagh Upper. All activities associated with the waste management facility is confined to a landbank of 179ha. The proposed landfill extension footprint will be approximately 17.8 hectares (ha) in area.

Proximity of Dwellings

As shown, the immediate area is reasonably sparsely populated. The nearest residential dwelling is located approximately 980m to the northeast of the proposed landfill extension. Planning permission has been granted for a dwelling house located approximately 942m to the northeast of the proposed landfill extension. The largest concentration of houses close to the proposed facility is to the west of the site in the village of Derrinturn. There are no residences within a 500m radius of the previously permitted clay borrow area, with the nearest residential dwelling located approximately 800m to the northeast. A recently constructed residence is located 185m west of the previously permitted sand & gravel borrow area. The next nearest residential dwelling is located approximately 675m to the northwest of the footprint of the sand and gravel area.

Land Use & Site Topography

Land use on and adjacent to the site and existing permitted landfill facility is disused cutaway bogland used up to approximately eighteen years ago for production of sod peat for energy generation. Immediately adjacent to the site there are areas of land where turbary, commercial forestry and agricultural usage are evident.

The proposed site is situated in low-lying cutaway bogland with levels ranging from 84m to 86m OD. Whilst the topography throughout the site is relatively flat at 80 to 90m OD, screening of the site operations from the adjoining roads is provided by existing hedgerows and tree lines, which will be augmented by additional planting between the northern boundary of the landfill footprint and the County Road L5025 as per the previous planning permission. The remote nature of the previously permitted landfill footprint and the proposed landfill extension, lying 800m south of County

road L5025 and over 2km from both county road L1910 and regional road R403, provides considerable separation distances between the landfill and adjacent roads.

Infrastructure and Traffic

The site is accessible via a network of regional routes which in turn link with the National Primary Road / Motorway network. The R403 lies south, southwest and west of the site and joins the R402 at Carbury to the northwest of the site. The R402 connects to the N4/M4 (Dublin to Sligo/Galway) National Primary Road / Motorway, which is located some 8km to the north of the Facility. The R403 connects to the N7/M7 (Dublin to Limerick/Cork) National Primary Road / Motorway, which is located some 14km to the south of the Facility. Access has been provided into the previously permitted Waste Management Facility from the R403 via a new site entrance and a dedicated access road.

In order to quantify existing traffic flows on the adjoining road network a series of traffic counts were carried out in the area in 2007 and the most recent traffic count data for roads leading to the site were also sourced from Kildare County Council and the National Roads Authority. The traffic counts carried out included traffic counts at the site entrance which shows an estimated AADT (Annual Average Daily Traffic) of 5,844 with a Heavy Goods Vehicle (HGV) content of 11%.

Air/Climate

Air

Dust monitoring was carried out in 2002/2003 as part of the baseline studies for the initial application, in July 2006 during the initial phases of construction and on a monthly basis since January 2007. Dust deposition rates have primarily been within the licence limit of 350mg/m²/day. Five noise monitoring surveys have been undertaken at the waste management facility and noise measurements were taken at 6 No. locations. These show that the total noise environment is indicative of a rural environment, with no noise sensitive receptors within 900m of the extended landfill footprint.

Climate

Local meteorological data show that the estimated annual rate of precipitation for the Drehid site is of the order of 813mm. At the site, almost 55% of the total annual rainfall is recorded during the winter period (Oct - March). The prevailing wind direction is from the south and southwest. Evapotranspiration is of the order of 510mm, with just under 50% of the total occurring during the months of May to July.

Geology Hydrogeology & Surface Water

Geology

The principal dominant soil within the site comprises basin peat deposits. The permitted landfill footprint and proposed extension have been positioned to, inter alia,

minimise the volume of peat that is required to be removed. The thickness of peat within the landfill footprint extension varies from 0.5m to a maximum of 2.3m. The contact between the peat deposits and the underlying glacial subsoil is very pronounced, with a sharp change between the two materials. The subsoils, which underlie the site, are predominantly fine grained.

The bedrock encountered within the site was generally in accordance with the GSI geologic map. Waulsortian limestone, which comprises pale grey, fine grained limestone, was encountered throughout most of the site. To the south of the Bord na Móna ownership, dark argillaceous limestone was encountered. This rock is considered to be consistent with the description of the Boston Hill Formation.

The bedrock material encountered at the base of the deepest borehole drilled during the study was classified as the Edenderry Oolite Member of the Allenwood Formation based on material recovered during drilling.

Hydrogeology

The landfill footprint (including its proposed extension) will be entirely underlain by low permeability gravelly Silt/Clay. Sand and Gravel deposits do not underlie the permitted/proposed landfill footprint.

The extensive site investigations and laboratory testing carried out indicate that the geological and hydrogeological conditions deem that the site is acceptable for the development of a landfill in accordance with national guidelines, namely the Groundwater Protection Response Matrix for Landfills.

Surface Water

The artificial drainage network heavily influences the current appearance of the bog. The entire site has been divided into a number of compartments, referred to as 'peat fields' due to the excavation of east-west trending artificial surface drains. These artificial surface drains discharge to a central underground culvert, trending in a general north to south direction. The artificial drainage has been further modified due to the construction of the landfill.

All surface water draining from the operations area of the landfill and borrow areas drains to the west to the Cushaling River, which is a tributary of the River Figile. The access road from the R403 to the facility entrance passes through the sub-catchment of the Abbeylough Stream, which is also a tributary of the River Figile. The River Figile is a sub-catchment of the River Barrow.

The Slate River sub-catchment encroaches on the southern portion of the applicant's property. No activities associated with the development are located within the sub-catchment of Slate River.

Water Quality

Extensive groundwater and surface water baseline sampling has been carried out on and adjacent to the site.

The surface water sampling programme indicates that the quality is generally good; however the setting of the site is naturally impacting the quality of water. The reducing environment of the bog is resulting in elevated ammonia and iron concentrations. The organic analysis indicates that pesticides, herbicides and organic solvents are not detected in the area. Biological analysis indicates that the surface water is naturally impacted by microbial organisms.

Landscape

The Bord Na Móna-owned boglands are predominantly flat with little subdividing vegetation, and are surrounded on all sides by agricultural pastureland with a well-developed pattern of medium-sized and larger fields and an established hedgerow infrastructure. Field hedgerows are predominantly tall and sparse, consisting largely of mature trees, including ash. The bogland also continues to the north. The eastern site edge is bordered along much of its length by mixed coniferous and deciduous tree belts, and there are isolated tree plantations to the west. Because of intervening belts and blocks of woodland in the area many views of the site lands are obscured. Key open views are from minor roads off the R403 to the south west by the County road (L5025) and houses to the north of the site.

The site falls within the Western Boglands Landscape Character Area as indicated in the Kildare County Development Plan 2005-2011.

There are no scenic roads and views within the 5km radius study area, but there are two within a 5-10km radius of the site. There will be no impact on these views. A long distance walk runs to the east and south of the site at a distance of between 3km and 10km. There are no known views of the site from this walk.

Ecology

There are no designated conservation areas within the development site, but a number occur within 10km of the site. The Grand Canal pNHA and Hodgestown Bog NHA located some 3.6km and 4.4km from the landfill footprint respectively are the nearest sites designated for nature conservation.

Six No. habitat types were identified within the site. Spoil and Bare Ground habitat occupies the greatest area within the site and is of low local ecological value. The gravel borrow area is also included in this category. None of the habitats recorded on site were considered to be of high ecological value.

Alder buckthorn, a plant classed as 'rare' in Curtis & McGough lies outside the site activity boundary. No rare or protected species of plant were recorded on any of the site visits.

Evidence of Irish hare and common frog using the site was found. Both species are protected under the Irish Wildlife Acts. Redpoll and water rail were recorded on the site in suitable habitat during the breeding season. Both birds are amber listed in 'Birds of Conservation Concern Ireland' as their breeding populations have declined.

Human Beings/Socio-Economic/Material Assets

The total population residing within County Kildare was recorded as 186,335 at the time of the 2006 Census. Kildare is further characterised by an uneven distribution of population, with nearly one third of total population concentrated in Celbridge Rural District, containing the towns of Celbridge, Maynooth and Leixlip.

The activity site is located in part within the District Electoral Divisions of both Edenderry and of Naas Rural. Results from the 2006 Census, assessed against the population recorded at the time of the previous Census in 2002, indicate an increase of over eleven percent for Edenderry rural and eighteen percent for Naas Rural.

All of the existing settlements in the vicinity are a considerable distance from the subject site, the nearest being Timahoe, at approximately 2.1km kilometres from the previously permitted landfill footprint and proposed extension. Derrinturn Village is approximately 3.2km from the previously permitted landfill footprint and proposed extension, while both Allenwood and Coill Dubh are in excess of 5km.

There are a limited number of residences likely to be affected by the development.

The site is located within an area contained within the Western Boglands landscape classification. This area of the county is highly distinctive due to the existing large areas of bogland vegetation and therefore the area is thinly populated.

Archaeology

An extensive archaeological assessment was carried out of an area under consideration for the extension of the previously permitted Drehid Waste Management Facility. The archaeological assessment was initially conducted in 2003, with a further site visit in 2004. The archaeological assessment was conducted in order to identify the known monuments and to determine if any other previously unrecorded sites exist. The assessment involved a walkover survey of the site, concentrating on the areas of cutover bog, drain faces and remaining high peat banks, where it would be possible to identify archaeological features more readily.

Following the granting of planning permission for a waste management facility at the site, archaeological monitoring of ground disturbance took place over a period of five months from August 2006. The archaeologists monitored the reduction of ground levels and the removal of all peat layers from the access road, landfill footprint and the sand and gravel borrow area. No features or artefacts of archaeological significance were encountered in the course of monitoring.

Description of the Proposed Development

Bord na Móna proposes to intensify and extend the already permitted Drehid Waste Management Facility. Under the current planning permission and in accordance with the current Waste Licence, 120,000 TPA of waste can be disposed of to the engineered landfill site with an additional 25,000 TPA permitted for treatment at a composting facility. The operational life of this facility is 20 years. Construction of the permitted facility commenced in August 2006 and the facility commenced accepting waste in February 2008.

This proposal would enable an additional 240,000 TPA of waste (over and above that already permitted) to be disposed of for 7 years. After 7 years the development will revert back to receiving the permitted 120,000 TPA for the remaining permitted operational life of the facility.

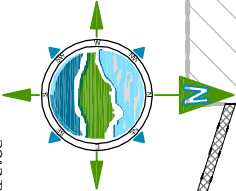
A sand and gravel borrow area and clay borrow area have also been previously permitted at the site, from which material for the construction of the waste management facility is sourced.

The locations of these elements of the proposed facility are shown on Figure 2, with a layout of the proposed facility infrastructure shown on Figure 3.

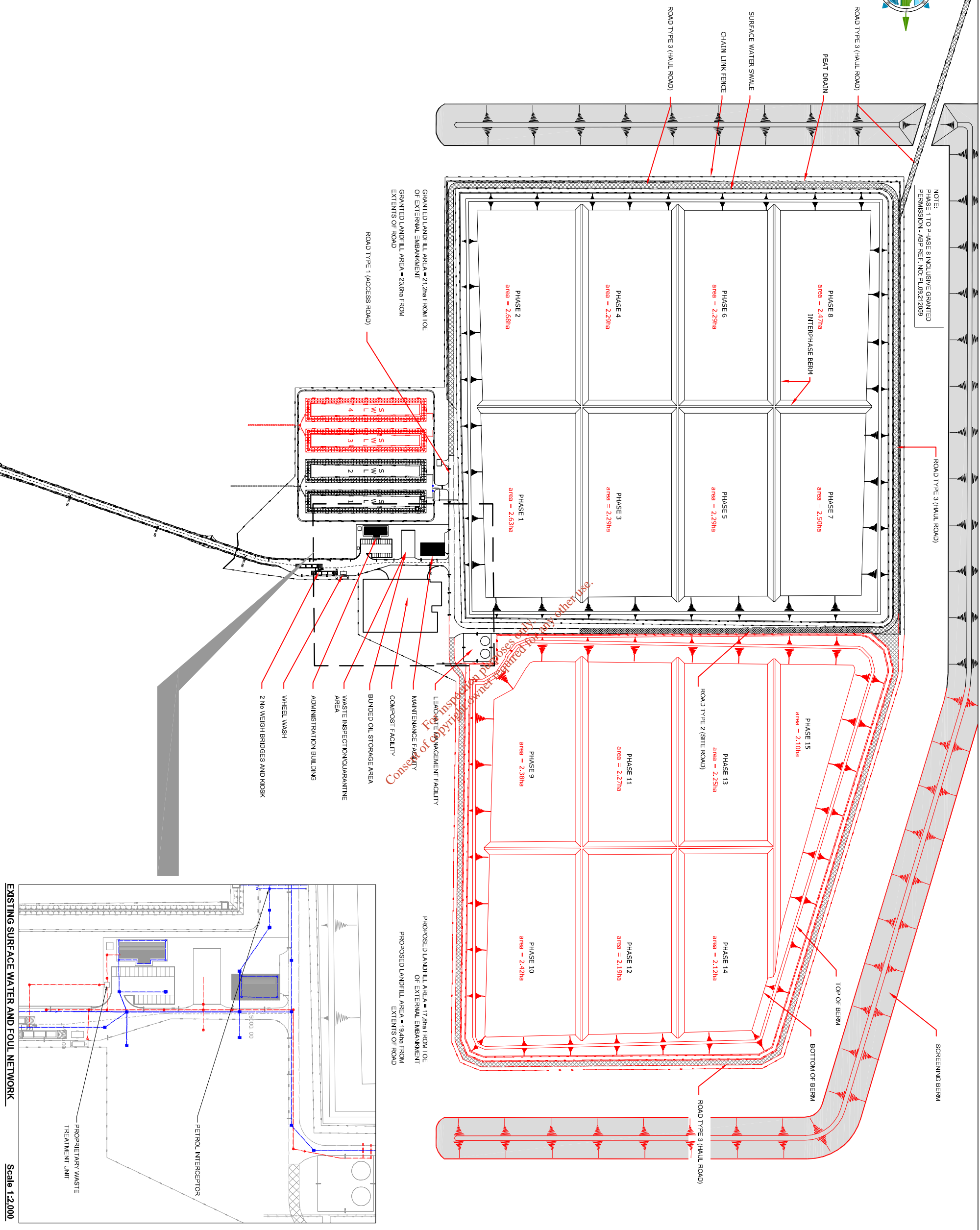
Proposed Landfill

The landfill footprint encompasses 39ha which includes the proposed extension of 17.8ha. On average the landfill will be 15-20m deep and the maximum final height, post settlement, of the landfill will be approximately 103.25 metres above Ordnance Datum (mOD). The site will be managed and landscaped to reflect the specific attributes of the surrounding landscape

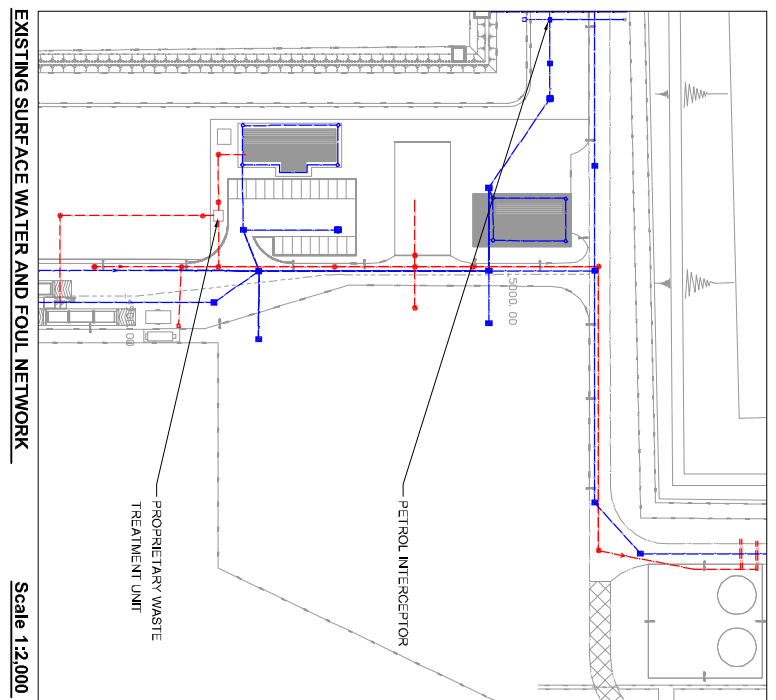
The permitted landfill will be constructed in 8 phases and the proposed landfill extension will be constructed in 7 phases. Stripping of the peat layer and preparation of the ground to the formation levels required will take place prior to the development each phase. The total void space capacity of the landfill is estimated to be 5 million cubic metres. This void space does not however allow for settlement of the waste, which will take place over time.



NOTE:
PHASE 1 TO PHASE 8 INCLUSIVE GRANTED
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GENERAL LEGEND

- BORD NA MÓNA OWNERSHIP BOUNDARY
- SITE ACTIVITY BOUNDARY
- BORROW AREAS (Clay & sand & gravel)
- TYPE 2 (SITE ROAD)
- TYPE 3 (HAUL ROAD)
- TYPE 1 (ACCESS ROAD)
- GRANTED INFRASTRUCTURE
- PROPOSED INFRASTRUCTURE

DRAINAGE LEGEND

- EXISTING SURFACE WATER NETWORK
- EXISTING FOUL NETWORK
- EXISTING SURFACE WATER MANHOLE
- EXISTING FOUL MANHOLE

Issue	Date	Description	By	CHKD
B	05-05-08	ISSUED FOR LICENCE REVIEW	VB	PN
A	11-04-08	ISSUED FOR RANKING	IAN	PN

Client:
BORD NA MÓNA

Project:
INTENSIFICATION AND EXTENSION TO DREHD WASTE MANAGEMENT FACILITY

Title:
FACILITY INFRASTRUCTURE

Scale @ A3: 1:4,000

Prepared by: M. Nolan
Checked: P. O'Neill
Date: April 2008

Project Director: D. Grehan

TOBIN
Patrick J. Tobin & Co., Ltd.
Consulting Civil and Structural Engineers,
Block 104, Blanchardstown Corporate Park,
Dublin 15, Ireland.
Tel: +353-(0)1-4803040
Fax: +353-(0)1-4803049
www.tobin.ie

Figure 3
B

The landfill will be progressively capped on completion of each phase, with ongoing landscaping taking place throughout the lifetime of the site. On final capping, the site will be allowed to recolonise to natural species. The landfilling operation will be carried out in a planned and controlled manner, thereby minimising potential nuisances such as odours, dust, noise, litter, vermin, etc. The permitted facility has been designed, and is being constructed and operated in accordance with the conditions of the Waste Licence (W201-01) issued by the EPA. Environmental monitoring stations, in accordance with EPA requirements, have been established at the site and monitoring will be continued post closure of the facility.

Phase one of the permitted landfill site is currently in construction. Construction and testing of Cells No.1 and No.2 of Phase No.1 were completed in January 2008 with first waste was accepted at the facility in early February 2008. Bord na Móna will progressively restore the site on completion of each phase and will provide for all necessary aftercare measures in accordance with the Environmental Protection Agency (EPA) landfill manuals.

Table 1 indicates the projected residual waste tonnages to be landfilled at the facility during its lifetime. The proposed additional residual waste volumes over and above the previously permitted volumes are outlined separately in this table and the intensification is proposed to commence during the second half of 2008.

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Table 1: Annual Tonnages of Waste to be landfilled at Drehid WMF

Year	Permitted (Tonnes)	Proposed Intensification (Tonnes)	Total (Tonnes)
2008	120,000	120,000*	240,000
2009	120,000	240,000	360,000
2010	120,000	240,000	360,000
2011	120,000	240,000	360,000
2012	120,000	240,000	360,000
2013	120,000	240,000	360,000
2014	120,000	240,000	360,000
2015	120,000	120,000*	240,000
2016	120,000	-	120,000
2017	120,000	-	120,000
2018	120,000	-	120,000
2019	120,000	-	120,000
2020	120,000	-	120,000
2021	120,000	-	120,000
2022	120,000	-	120,000
2023	120,000	-	120,000
2024	120,000	-	120,000
2025	120,000	-	120,000
2026	120,000	-	120,000
2027	120,000	-	120,000

* The intensification of the landfilling of waste is proposed to commence in mid 2008 and finish in mid 2015, spanning a 7-year period.

The permitted engineered landfill consists of eight fully lined phases, each further sub-divided into four to six separate cells (per phase), for the acceptance of residual waste. The proposed extension to the engineered landfill will consist of a further seven fully lined phases, each sub-divided into four to six separate cells (per phase) for the acceptance of residual waste. The landfill is fully contained and has been designed in order to provide for both leachate and landfill gas collection. The basal lining system consists of a High Density Polyethylene (HDPE) liner overlaying a 500mm thick layer of low permeability Bentonite Enhanced Sand (BES).

The finished phases will be capped with a low permeability capping system, consisting of a linear low density polyethylene (LLDPE) liner and a compacted clay layer, which will serve to prevent the uncontrolled migration of landfill gas and the infiltration of rainfall into the waste body thereby minimising the quantity of leachate generated. Lined cells have been and will continue to be constructed in accordance

with the *EPA Landfill Design Manual (2000)*, allowing for the isolation of the deposited waste at the site.

This final capping will also allow for the collection of clean surface runoff, which will be diverted via a surface water swale to the surface water settlement lagoons and eventually discharging into the Cushaling River, which contributes to the River Barrow catchment. This surface water run-off will be equivalent in quantity terms to pre-development levels. On completion of deposition of waste, the site will be fully restored and an aftercare/monitoring programme will be put in place.

All external landfill slopes will be designed and constructed to afford slope stability. However all slopes will be assessed annually by a qualified civil/geo-technical engineer. These surveys will facilitate detailed monitoring of landfill stability and settlement.

Landfill gas (LFG) is the end product of the microbiological degradation of organic material. It is produced under anaerobic conditions, for example in the waste body of a landfill site. The degradation process takes place in different steps, in which the raw organic material is degraded to smaller material that, in the course of the processes, is converted into LFG. In undiluted form, LFG consists primarily of the components methane (approximately 60%) and carbon dioxide (approximately 40%).

An intermediate landfill gas collection system will be implemented following the commencement of waste deposition into the lined cells. Gas collection during the infill of waste will contribute towards effective odour control. A permanent gas collection and treatment system will be installed at the site on final capping of each phase. Intermediate gas collection during the filling of cells is achieved by means of horizontal systems. Following completion of waste deposition and placement of the temporary cap, vertical gas wells will become the primary vehicle for the collection of gas.

A landfill gas flare has been provided at the site to flare the collected landfill gas in accordance with EU standards in terms of combustion temperature, retention times, emission levels etc. The landfill gas will be collected and flared during operation as well as after the cessation of landfilling, as gas production can continue for some years post-closure. If sufficient quantities of landfill gas can be harnessed at the site, and if economically feasible, this landfill gas will be utilised to generate electrical energy. The landfilling operation is carried out in a planned and controlled manner, thereby minimising potential nuisances such as odours, dust, noise, litter, vermin, etc.

When each of the landfill phases is filled, a final cover will be constructed on the waste body. In order to limit the risk of damage to the final cap due to waste settlement, a temporary cap comprised of clay will be installed for a period of at least

2 years. During this period, the settlement of the waste body will be measured on a regular basis. Once the settlement has sufficiently decreased and when weather conditions are favourable, the construction of the final capping system will commence.

Ancillary Infrastructure

The existing site infrastructure includes weighbridges, wheel-wash, site security arrangements, bunded waste inspection and quarantine areas, bunded fuel storage, site accommodation, site roads, surface and foul water drainage, leachate holding tanks, maintenance facility, surface water retention/settlement lagoon, landfill gas flare compound and car parking areas.

Planning has already been secured for the site infrastructure, listed above, as part of the original proposal and construction of this infrastructure has been completed.

The proposed development necessitates additional physical works including the development of additional ancillary facilities such as surface water lagoons and the extension of the site roads and swale around the proposed landfill footprint.

Material Borrow Areas

Planning permission for the periodic excavation of the clay borrow area, as a source of low permeability clay for the construction of embankment/bunds and landfill capping material, has already been secured. Construction of the facility to date has not necessitated the excavation of the clay borrow area due to the availability of suitable materials, for the construction of embankments and bunds, exposed during the stripping and clearing of areas to required formation levels. Bord Na Móna will endeavour to continue this construction approach for the remainder of the facility.

Following the full realisation of the clay borrow area, when the landfill has been fully restored, it will also be fully restored. Any side slopes, which at that time had not been regraded, will be regraded to a safe side slope.

The previously permitted sand and gravel borrow area has been partially excavated for the construction of the initial stage of the facility. The sand and gravel borrow area is used on a periodic basis for the provision of sand for use in the Bentonite Enhanced Soil (BES) layer of the basal liner. The sand and gravel borrow area is also used also as a source for granular sub-bases for the facility roads and will also be used to provide granular material for the capping drainage layer on the landfill. When each area of the borrow area has been fully exploited the area will be graded to ensure that the side slopes are safe.

Surface water settlement lagoons are constructed at the sand and gravel and clay borrow areas, which prevent any uncontrolled emissions of run-off to the adjoining

surface water bodies.

Facility Operations

The facility operates, as permitted, on a daily basis from 8.00am to 6.30pm Monday to Saturday each week. Waste is accepted at the facility between the hours of 8.00am to 6.00pm. This allows time for the daily cover of the waste at the landfill.

Waste acceptance procedures comply with the EPA's Draft Landfill Manual on Waste Acceptance (1998) and in accordance with Council Decision 2003/33/EC. Only household, commercial and non-hazardous industrial wastes which have been pre-treated or are not suitable for pre-treatment are accepted onto the site. Suitable construction and demolition waste is also accepted on-site for the construction of various elements of the landfill site.

The waste management facility is operated in compliance with EPA waste licence (W201-01). The conditions of the licence include measures to minimise or prevent nuisance to the public occurring as a result of the operation of the facility. A complaints register detailing any complaint received from the general public in respect of the operation of the facility is maintained at the site.

All environmental monitoring is carried out under the conditions of the waste licence (W201-01) for the facility, issued by the EPA. Emission Limit Values (ELV) has been set by the EPA for many of the parameters to be monitored. Exceeding these values is considered to be a non-compliance with the waste licence. As part of the Waste Licence an Annual Environmental Report (AER) is formulated that collates and reports all monitoring data each year. A comparative assessment is made with data from previous years.

Contingency plans have been put in place and any accidents and other emergencies are handled by on-site personnel in accordance with Bord na Móna emergency response procedures. Emergency response contact numbers for the relevant authorities including the Fire Service, Gardaí, or Ambulance Services are prominently posted on-site. All site operatives and other relevant employees of Bord na Móna are regularly trained in emergency response procedures and in fire prevention and control.

Potential Impacts and Proposed Mitigation Measures

The Drehid Waste Management Facility is designed, constructed, operated, monitored and will be restored in accordance with European Council Directive 1999/31/EC on the landfill of waste, the EPA Landfill Manuals, BAT guidance notes for waste facilities. Ongoing facility operations are in accordance with waste licence and planning conditions. Therefore potential impacts on the environment are minimised. Nonetheless, a number of mitigation measures for the facility are proposed, which limit potential impacts and ensure that the facility is operated without causing

nuisance to the local residents and local communities.

Air/Climate

Noise

The noise emission from the facility will be kept well within the emission limit values recommended in the EPA's Guidance Note for Noise in Relation to Scheduled Activities. There will be no tonal or impulsive noise emissions from the site and the night-time emissions from the ventilation system will be inaudible at all residences at less than 25 dB(A). The noise emissions associated with road traffic will result in a negligible noise impact at all residences.

There will be no perceptible increase in road traffic generated ground vibration. Road traffic generates low levels of ground vibration (<0.1mm peak particle velocity at 20m and these are indistinguishable by humans).

Only proper silenced plant is operated on site and the Resident Engineer/Facility Manager ensures that unnecessary revving of machines is avoided. Screening Berms will be constructed to the north, east and west of the landfill footprint, as extended. Construction of the berms to the north and west has already advanced as part of the initial stage of construction at the facility.

Dust

The extraction of material from the sand and gravel borrow area and the clay borrow area will have a negligible effect on the environment. Given that these borrow area are enclosed within the confines of the site it is considered that the nuisance due to dust generated will be negligible for the local residents.

Dust monitoring carried out, during excavation and processing of material at the sand and gravel borrow area for the construction of the initial phase of the facility, has provided assurance that mitigation measures and good construction practices are effective in achieving dust levels below 350 mg/m²/day.

Mitigation measures such as the grassing of exposed areas, the covering of stockpiles, spraying with water during periods of extended dry weather etc. will also reduce potential dust impacts from the borrow areas.

Odours

An odour impact assessment of the Drehid Waste Management Facility was carried out using library based olfactometric data and predictive dispersion modelling. The purpose of this assessment was to determine the potential for the generation of odour impact in the vicinity of the proposed extension and intensification of landfilling and composting operations and to outline general odour minimisation and mitigation strategies to be implemented into the facility operations. During Year 2011, 2014,

2020 and 2027 of operation, no residents should perceive an odour concentration of more than 1.50 and 3.0 OuE m⁻³ at the 98th and 99.5th percentile of hourly averages respectively, as odour management, minimisation and mitigation strategies (including best national and international practice) will be implemented throughout the lifetime of the waste management facility operations.

Landfill gas, operations and odour management plans implemented for the operation of the waste management facility provide for the identification of odour emission sources and immediate implementation of mitigation techniques. The management plans are document controlled through the Environmental Management System. All members of staff are trained and familiar with the workings of each plan. As the waste management facility will be operated over a 20-year period, Bord na Móna will continually update each plan to take account of advancements and key developments in the waste management and odour mitigation areas.

Landfill Gas and Gas Flare

The nearest dwelling is approximately 1km from the landfill footprint. Given the considerable distance to the nearest houses and the relatively restricted pathways for flow of landfill gas through the peat and mineral subsoil it is unlikely that there will be any difficulty with gas migration to these houses. Uncontrolled landfill gas migration will further be minimised by the installation of the horizontal landfill gas drainage layer and the vertical landfill gas extraction system in the waste cells.

A maximum worst-case modelling scenario was used to assess the air quality impact of the landfill flare unit. Based on the modelling, the landfill gas flare unit will have no ambient or GLC air quality impact in the vicinity of the flare. The flare unit will cause no ambient air quality impact on any of the nearest residences as demonstrated by the approved US EPA and Irish requested EPA dispersion model for a worst-case dispersion estimate of the flare units.

Aerosols

Aerosols can typically be generated from leachate treatment plants where aeration of the leachate is taking place. However the aeration or treatment of leachate is not carried out or proposed at the Drehid Facility. As outlined, leachate is transported off-site for treatment at Leixlip Wastewater Treatment Plant. In addition recirculation of the leachate will take place beneath the temporary cover and/or the final capping of the landfill. It is considered that aerosols will therefore not be generated at the site and as such no mitigation measures are proposed or required.

Climate

It is not considered that the proposed development will have a significant impact on the local or global climate.

Geology and Hydrogeology

Potential Impacts

The potential impact associated with exposed soil surface principally relate to sediment laden run-off to watercourses. The greatest risk of sediment run-off occurs during wet weather. Management and control of water falling on worked areas are an important aspect in minimising the impact of construction. The implementation of such measures has ensured that surface water discharges have been of good quality.

All excavations within the site are terminated in the unconsolidated material; therefore there is no potential impact on the bedrock environment. It is necessary to progressively clear the peat material from the landfill footprint and the borrow areas in order to win construction material or achieve formation levels for landfill construction.

Earthwork and excavation are likely to cause the greatest impact on the soil environment during the construction phase. It should be noted that the vast majority of the material required for the construction of the facility infrastructure is available within the confines of the site activity boundary, therefore construction disruption will not impact on the surrounding environment, i.e. the general public will not be impacted during the construction of the facility.

Peat has been removed from the administrative area, sand and gravel borrow pit and Phases 1 and 2 of the landfill. Further excavations will be phased over the overall 20 year lifetime of the facility and therefore the potential impact of such activity will also be phased.

The landfill will not impact upon the quality or abstraction rate of any supplies in the area. The landfill is outside of the source protection zones of both the Robertstown well field and the Johnstown Bridge well field. The landfill will not impact upon these major abstraction areas.

Proposed Mitigation Measures

The following mitigation measures have been employed on site for initial stages of construction of the previously permitted waste management facility including Phase 1 of the landfill. These mitigation measures will also be employed for the remaining phases of the previously permitted waste management facility and for the proposed intensification and extension.

During the construction of the facility and especially when excavation of unconsolidated material is required, standard approved working methods have been and will continue to be employed to reduce the risk to the surrounding environment. Temporary and permanent water control measures, comprising temporary sediment

control measures and permanent settlement lagoons, existing and proposed, will control the quality of any water discharged from the Drehid Waste Management Facility.

The borrow areas are excavated below the water table in places. Minor changes in the shape of the shallow water table in the vicinity of the borrow areas are likely to result from the excavations. However, the impact of these changes will be localised and considered insignificant.

Any standing water accumulating within the landfill footprint, where waste has not been placed, will continue to be diverted to the settlement lagoons, to enhance retention, lower velocity and allow suspended solids to fall out of suspension prior to discharge to the adjoining surface water network.

The engineering measures utilised in the construction of this facility are aimed at the containment of leachate within the landfill liner system and the collection of leachate for subsequent treatment off-site. The design has also taken account of the groundwater protection response matrix. The design of the containment system is in accordance with the EU Landfill Directive and the EPA Landfill Design Manual.

A composite basal lining system was developed to maximise the protection offered. This basal liner has already been installed for Phase 1 of the landfill and will be utilised for the remaining phases of the permitted landfill footprint. This basal lining system will also be utilised for the proposed extension. The basal lining system is comprised of a High Density Polyethylene (HDPE) liner and a 500mm thick layer of Bentonite Enhanced Soil (BES), with a permeability value of less than or equal to 5×10^{-10} metres/second, which forms a low permeability barrier to impede vertical percolation. The low permeability of the natural overburden material offers further protection to the groundwater environment.

A leachate collection system, comprising a permeable drainage layer with leachate collection pipework, has been installed on top of the basal liner, with a gradient towards the leachate sump to the extreme southeast of the landfill, for Phase 1 of the previously permitted landfill. The leachate collection system will be extended for all phases of the landfill. The leachate is pumped to secure leachate holding tanks already constructed at the site. These tanks are emptied periodically and the leachate tankered off-site to approved wastewater treatment facilities.

All effluent from the on-site proprietary wastewater treatment plant serving the administration building (i.e. liquid fraction) and surplus wastewater from the composting facility is also diverted to the leachate holding tanks.

Periodic sampling of the groundwater, from the monitoring boreholes installed within

the site, is undertaken to demonstrate that the quality is not being affected by the operation of the facility.

Given the above mitigation measures and the landfill design employed to contain the leachate within the landfill, it is considered that the impact on the geological and hydrogeological environment will not be significant.

Surface Water

Potential Impacts

The regional hydrological setting will not be significantly impacted by the proposed development. The impact of the temporary reduction in contribution to the surface water environment, due to the export of water falling on areas where waste has been placed (i.e. leachate) will be negligible to the overall flows in the Cushaling River. The net contribution will be restored to natural levels following the installation of the capping system.

As there are no natural surface water features crossing either the previously permitted landfill footprint, the proposed landfill footprint, composting facility, access road, sand and gravel borrow area or clay borrow area, it has been and will be possible to construct the facility without altering or culverting the natural surface water drainage network.

The existing Timahoe Bog drainage infrastructure is only impacted in areas of the site where construction occurs. It is proposed to re-route drainage channels at the periphery of the construction zones to minimise the volume of water that could potentially be impacted. The re-routing of some of the drainage channels has already taken place during the construction of the initial stage of the facility including Phase 1 of the landfill.

The site access road from the R403 road to the facility entrance is similar to public roads and run-off from these roads is not contaminated and does not pose a risk to the surface water environment. Run-off from these roads drains to the adjoining lands and ultimately to the existing artificial site drainage network.

Proposed Mitigation Measures

During the construction phase and the operational phase a high standard of environmental engineering practices will continue to be utilised to minimise the impact of the facility on the surrounding surface water environment.

In order to reduce the risk of sediment laden water adversely impacting surface water, measures are and will be implemented to divert such water through treatment systems (settlement lagoons) prior to discharge to receiving waters. During the construction period all water pumped from the base of excavations is pumped to temporary/mobile

sediment control devices, comprising grit traps or devices of similar efficiency.

Two additional lagoons will be constructed for the landfill extension. The construction of the lagoons will be phased during the progressive development of the landfill phases. The settlement lagoons mitigate the potential of sediment laden run-off impacting the surface water environment in the environs of the landfill extension. Settlement lagoons are also installed at the material borrow areas so that the extraction of sand and gravel and clay does not adversely impact on the quality of the surface water environment.

All potentially contaminated effluent, including leachate, captured rainwater from high risk areas and the liquid fraction of the domestic effluent, is diverted to the leachate holding tanks, from where the effluent will continue to be exported from the site to an approved wastewater treatment facility.

There will be no uncontrolled discharge from the facility to the surface water environment. Regular sampling of the surface water environment is undertaken downstream of the waste management facility to ensure that on-site activities are not causing an adverse impact on the natural water quality.

Given the above mitigation measures and the high design standard to which the Drehid Waste Management Facility, including landfill and ancillary infrastructure, is constructed, the risk to the surface water environment is significantly reduced. The measures employed will ensure that there is no adverse impact on the surface water environment.

Landscape/Visual Aspects

Potential Impacts

The proposed extension and intensification of use will have an impact on the visual and landscape character of the surrounding area.

Views from outside of the site boundary are limited however, due to intervening vegetation, and therefore impact on character in the wider landscape is generally low.

The retention of as much of the existing tree/scrub cover as possible, and minimal interference with the existing landscape within the activity boundary, in conjunction with new planting, will prove valuable in mitigating the visual impact of the extension and intensification of use.

The greatest levels of visual impact arising from extension and intensification of use as described will be on views from the county road (L5025) north of the northern site boundary, and on a small number of properties and road users located to the southwest.

The remaining views within the 5km study area will experience negligible to low to moderate visual impact, generally due to the screening capacity of intervening vegetation.

Proposed Mitigation Measures

A restoration plan has been prepared for the mitigation of potential visual and landscape impacts caused by the Drehid Waste Management Facility.

The main features of this plan include the planting of locally occurring native woodland, the formation of two lakes following decommissioning of borrow pits, hedgerow planting along the county road directly to the north of the site and the construction of a screening berm to the north, east and west of the landfill footprint, as extended, which will be sown with native grasses and planted with native trees and shrubs. A schematic of the proposed site restoration plan is presented herein.

Ecology

Potential Impacts

No direct impacts on any site designated for conservation will arise through the development of the facility.

There is the potential for silt or sediment run-off created by the proposed development to indirectly impact on the river Barrow cSAC, although given that the river Barrow is approximately 20km away from the landfill footprint, the potential impact would be insignificant. Mitigation measures will prevent silt and sediment entering the surface water drains and will ensure that there are no indirect impacts on the river Barrow cSAC or any other designated site.

The construction of the landfill site and the proposed extension, along with the development of the gravel and clay borrow areas, will lead to the permanent removal of the majority of the existing areas of habitat present within the landfill footprint (including the extended area) and the clay and gravel borrow areas.

The Cutover Bog habitat will be subjected to the greatest level of impact. Cutover Bog occupies the largest area on site and also has been classified as being of moderate ecological value, the loss of which will constitute a moderate negative impact.

Fauna species present within the vicinity of the facility could potentially be impacted through noise disturbance which can arise during construction, although this impact will only be minor and be of a temporary nature.

Proposed Mitigation Measures

Scrub and vegetation that are to be retained will be clearly marked to avoid accidental

damage during excavations and site preparation. Any removal of scrub or other areas of semi-natural habitat will be carried out in accordance with best practice in order to minimise impacts on breeding birds.

Foul drainage from all site offices and construction facilities will be contained and disposed of in an appropriate manner to prevent pollution of watercourses. The environmental monitoring programme for the facility includes the annual monitoring of the water quality of the Cushaling River using the standard kick sampling technique and the analysis of aquatic invertebrates to produce a Q value for the sample site.

The loss of wetland habitat (Drainage Ditches) will be compensated for by the inclusion of wildlife friendly designs in the restoration plans for water bodies at the sand and gravel borrow area and the clay borrow area, when these areas have been fully excavated.

The restoration plan for the facility includes the use of native trees and shrubs with the species mix chosen appropriate for the site conditions and to reflect the existing species composition in the Scrub and Bog Woodland areas. Where feasible, trees and shrubs used will be of local provenance.

Human Beings/Socio-Economic/Material Assets

Potential Impacts

There will be no disruption to the social travel patterns of those residing adjacent to the proposed site. The facility is accessed via the regional road network and the purpose built private site access road, which joins the R403 at Killinagh Upper. No public roads or pedestrian routes are severed by the facility and its proposed intensification and extension. The facility operates on a daily basis from 08.00 to 18.30 Monday to Saturday (inclusive), excluding public holidays and Sundays.

When fully operational, the previously permitted facility will provide direct employment for approximately 13 people, as well as for additional service and construction workers. The proposed intensification and extension will mean that there will be further additional employment for 2 No. permanent employees as well as for service and construction workers.

Any tourist attractions are located a significant distance from the facility and will not be impacted by the proposed extension and intensification. In addition, traffic generated by the proposed development will not adversely impact on visitors travelling to any of these attractions.

The only buildings located within the site activity boundary are the recently constructed buildings associated with the development of the previously permitted

waste management facility. There are no listed or other buildings of significant architectural or cultural heritage within the vicinity of the site. There will be no visual impact on any of the surrounding items or facilities of tourist potential.

Health and Safety

Impacts regarding health and safety at the waste management facility, relate primarily to concerns about individuals either straying or trespassing into the facility, alongside the health and safety of each worker or visitor to the facility. Security fencing has been erected to prevent accidental or intentional trespass onto the facility. Warning signs have been placed along the fencing at regular intervals, informing people of the potential hazards associated with unauthorised trespass.

With respect to human health, a landfill health study, based on work commissioned by the Department of Health and Environment (UK) from the Small Area Health Statistics Unit (SAHSU) at Imperial College London has failed to confirm any links between birth defects and proximity to landfill facilities.

This view is supported by a literature review carried out by the Health Research Board in Ireland in its 2003 report entitled “*Health and Environmental Effects of Landfilling and Incineration of Waste – a Literature Review*”. This report states that “*As there is a paucity of literature relating to modern landfill and incineration sites, nearly all of the studies identified in this report relate to older technologies. It can be assumed that as emissions controls improve, risks of adverse effects diminish*”

Property Values

There is no evidence to show that the siting, construction and operation of a modern engineered landfill would seriously injure the amenities and depreciate the value of property in the vicinity of the facility.

Community Development

Bord na Móna finalised arrangements with Kildare County Council to establish a community liaison committee in advance of commencement of operations at the site. The principal function of committee is to identify environmental works and community facilities to be funded by the Community Development Fund

Bord na Móna has also made arrangements with Kildare County Council for the establishment of this local community development fund. This fund will be used for the provision of environmental improvement and recreational or community amenities in the locality.

Proposed Mitigation Measures

The previously permitted Drehid Waste Management Facility has been developed in such a manner so that the impact on landuse, the local population, employment,

tourism and amenities is minimised. No further mitigation measures are required in addition to those previously proposed.

The Community Development fund will provide benefits for the local community through the provision of environmental improvement and recreational or community amenities in the locality.

Archaeology

Potential Impacts

Due to the size of the site and its location within a wetland environment, the potential for the discovery of archaeological features is quite high. However, due to the industrial peat extraction activity that has occurred within this site in the past, it is likely that a number of the archaeological features have already been removed.

The area of activity does incorporate sections of the two toghers, including their point of intersection, to the north of the previously permitted landfill footprint. However, no excavation works will take place within at least 30m of the recorded monuments.

Avoidance of impacts was included in the design of the waste management facility, in this case to avoid the recorded monuments, and excavations will be limited to areas where there are no known archaeological features. Subsequent to the granting of permission for the waste management facility archaeological monitoring of ground disturbance took place. No features or artefacts of archaeological significance were encountered in the course of that monitoring.

Proposed Mitigation Measures

A suitably qualified archaeologist will again monitor the removal of vegetation and drain cutting in advance of the future phases of construction of the waste management facility (including the future phases of the landfill as permitted and the proposed footprint extension). The borrow areas will also be monitored as they are developed. This work for future phases will again be undertaken in advance of commencement of construction works.

Infrastructure and Traffic

Potential Impacts

Stress tests carried out at junctions on the R403 and adjoining road network indicate that the proposed intensification and extension of the Drehid Waste Management Facility will generate a maximum additional 2.7% traffic even in the unlikely event that all the traffic comes from either the south or north. Based on NRA guidelines, it is concluded that there will be no significant short or long-term impact due to operational and/or construction traffic associated with the proposed intensification and extension of the development.

The spreading of the facility generated traffic between the route options will proportionally reduce the traffic loading on any one route. The existing access routes to the site (some of which have been upgraded since the previous planning application was lodged) have been demonstrated to be clearly capable of accommodating the additional traffic associated with the proposed intensification and extension of the Drehid Waste Management Facility.

A road safety audit carried out on the existing site entrance junction was submitted to and subsequently approved by Kildare County Council. The new site entrance as constructed provides adequate access for a dedicated entrance onto a Regional road with an 80km/h speed limit.

Adequate visibility splays of 4.5 x 160m have been provided at the site entrance junction. A ghost island junction at the existing site entrance junction with a right turning lane has been provided. This is adequate for the proposed traffic increases. Since the lodgement of the original planning application for the Drehid Waste Management Facility, a significant number of network improvements have taken place, which has had a positive impact on traffic movements to the Facility.

Proposed Mitigation Measures

There are no mitigation measures necessary for the proposed intensification and extension of the Drehid Waste Management Facility.

Interaction of the Foregoing

The most significant possible interactions are between the following potential impacts and human beings and the material assets of the area:

- Visual intrusion
- Noise
- Air quality
- Traffic

However, with the mitigation measures outlined in the preceding sections of the Non-Technical Summary in relation to visual intrusion, noise, air quality, and traffic, the likely effects of the proposed development on the local residents and material assets are expected to be relatively insignificant.

While there is potential for the above impacts to interact and result in a cumulative impact, it is unlikely that any of these cumulative impacts will result in significant environmental degradation.

The previously permitted facility and its proposed extension is sited at a significant distance from the local road network and residential properties, with the nearest residence being approximately 980m from the landfill footprint (permitted and extension). Avoidance of impacts was used throughout the design of the facility. The impact and mitigation measures proposed are designed to further ameliorate the impact of the proposed intensification and extension of the previously permitted waste management facility on the wider environment.

(f) The relevant activities to which this application relates as specified in the Third and Fourth Schedule of the Waste Management Acts 1996 to 2003 and Article 4 of the Landfill Directive are detailed below.

This application relates to a Landfill for non-hazardous waste.

Principal Activity

Third Schedule, Class 5 – ‘Specially engineered landfill, including placement into lined discrete cells which are capped and isolated from one another and the environment.’

The application includes for the following:

- the construction of the permitted landfill in eight distinct lined phases and the proposed landfill extension will be constructed in 7 phases;
- a top cover of low permeability soil on completion of landfilling at each phase;
- the collection and flaring of landfill gas;
- potential utilisation of the landfill gas produced at the site as a means of generating electrical energy; and,
- final shaping of the waste mound and planting to a landscape plan.

Remaining classes covered by proposed activities at the facility

Third Schedule, Class 1. ‘Deposit on, in or under land (including landfill).’

The application includes for the deposition of waste into lined cells on land.

Third Schedule, Class 4. ‘Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons’

The application also relates to the following activities, which are to be carried out at the landfill site:

- the collection and pumping of leachate to leachate holding tanks and tankering to an approved wastewater treatment plant;

- the collection and discharge of surface water via an oil interceptor, and grit trap to a surface water settlement/retention lagoons.

Third Schedule, Class 6: ‘Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1. to 10. of this Schedule.’

The application includes for the potential to carry out the treatment/pre-treatment on-site of leachate collected from the lined cells on-site.

Third Schedule, 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.’

The application also provides for the temporary storage of unacceptable waste in the waste quarantine area pending its dispatch from the site to alternative waste disposal facilities.

Fourth Schedule, Class 2: ‘Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).’

The application includes for the development of a composting facility with an annual capacity of 25,000 tonnes per annum and the utilisation of the compost on-site for restoration or construction purposes for the facility for instance for landscaping, landfill cover, etc.

Fourth Schedule, Class 11. ‘Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.’

The application includes for the utilisation on-site of the compost produced in the composting facility, for restoration or construction purposes at the facility for instance for landscaping, landfill cover, etc.

Fourth Schedule, 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.’

The application also provides for the temporary storage at the site of compost intended for utilisation for restoration or construction purposes at the facility for instance for landscaping, landfill cover, etc. The application also provides for the temporary storage of unacceptable waste in the waste quarantine area pending its dispatch from the site to alternative waste recovery facilities.

(g) Waste Management (Licensing) Regulations, 2004, Part 3, 12(g):

“Specify by the reference to the relevant European Waste Catalogue codes as presented by Commission Decision 2000/532/EC of 3 May 2000 the quantity and nature of the waste or wastes which will be treated recovered or disposed of”

The following is the nature and quantity of the waste which will be treated/recovered/disposed at the proposed development:

Waste Type	Tonnes per annum	EW Code ¹
Municipal Waste	385,000	20 00 00

(h) The envisaged usage of fuel, hydraulic oil, electricity and water is estimated to be as outlined below

Estimated Raw Materials and Energy Usage for Operation of Facility (Landfill Facility and Composting Facility)

Material/Resource	Annual Usage per Annum	Amount Stored On-Site
Hydraulic Oil	1,500 litres	500 litres
Electricity	400,000 kilowatt hours per annum	Not stored
Diesel	150,000 litres	20,000 litres
Water	650 m ³ (Domestic Requirement)	Not Stored
Water	1000 m ³ (Composting Requirement)	Stored in Process Water Tank

The table below outlines the estimated type and quantities of materials required to construct the complete facility (permitted and proposed). This table includes for the provision of the basal layer, capping layers and landscaping.

¹ European Waste Catalogue Codes

Estimated Material Balance for the construction of the landfill site

Item	Material	Quantity	Source
Material for Bund Construction	Compacted Fill Comprising Clause 616 or similar	200,466 m ³	Won on-site
Low Permeability Basal Layer	Bentonite Enhanced Soil - BES; Bentonite(Bentonite is 5% of volume of BES)	7,920 m ³	Import
	Bentonite Enhanced Soil - BES; Sand	150,480 m ³	Won on-site
Basal Geomembrane Liner	Flexible HDPE geomembrane liner (2.0mm).	316,800 m ²	Import
Protection Layer	Layer of woven Geotextile (750g/m ²) or similar	316,800 m ²	Import
Basal Drainage Layer	Granular Material e.g. Clause 505B (500mm)	120,915 m ³	Import
Daily Cover	Hessian rolls or similar	253,800 m ²	Import
Temporary Cover	Low permeability clay (300mm)	109,008 m ³	Won on-site
Gas Drainage Layer	Geosynthetic Gas Drainage Layer e.g. EnkaDrain or similar	363,366 m ²	Import
Capping Geomembrane Liner	Flexible LLDPE geomembrane liner (2.0mm) or Geosynthetic Clay Liner (GCL) or similar.	367,200 m ²	Import
Capping - Low Permeability Layer	Clay 300mm thick Layer	72,675 m ³	Won on-site
Protection Layer	Layer of woven Geotextile (750g/m ²) or similar	367,200 m ²	Import
Capping Drainage Layer	Granular Material e.g. Clause 505 (300mm) or similar including reprocessed C&D material	109,008 m ³	Won on-site
Capping Subsoil	Subsoil (850 mm)	308,862 m ³	Won on-site
Capping Topsoil	Topsoil (150 mm)	54,504 m ³	Won on-site
Perimeter embankments	Soil/Spoil material	30,000 m ³	Won on-site
Sub-bases and hardcore.	Gravel sub-base, for roads/buildings/hardstand areas etc.	33,000 m ³	Won on-site
	Clause 804	18,177 m ³	Import
	Surfacing (base course + wearing course)	6,857 m ³	Import

With respect to the composting facility, process control during the composting operation ensures the production of a mature and sanitised compost product. The finished compost will amount to approximately 30-40% weight of the original waste.

Up to 5% of the input may be unsuitable for composting (non-biodegradable materials) and will be deposited to the adjacent landfill. It is anticipated that the permitted composting facility will produce up to approximately 7,500 – 10,000 tonnes

of compost, originating from 25,000 tonnes of biowaste.

In the table below, the mass balance for the proposed composting process is summarised.

Expected Mass Balance for the Permitted Composting Facility

Input	(TPA)
Source separated Household/Commercial/ Industrial biowaste	22,500
Paper/cardboard residues	2,500
Output	(TPA)
Evaporation loss (biofilter)	15,000 – 17,500
Residue to landfill (< 5% mass)	< 1,000
Compost	7,500 – 10,000

(i) Plant, methods, processes, ancillary processes, abatement, recovery and treatment systems and operating procedures

The following plant and equipment is employed on site:

- 1 No. waste compactor
- 1 No. back-hoe excavator
- 1 No. D6 dozer
- 1 No. site tractor
- 1 No. water bowser
- 1 No. road sweeper
- 1 No. diesel pump
- 1 No. standby generator

A dump truck (typically A25 or equivalent) will be procured for the movement of low permeability clay for use in temporary capping.

The following plant specific to the composting facility will also be employed on site.

- 1 No. industrial front end loader
- 1 No. 360° hydraulic excavator with a grab attachment
- 1 No. trommel screen
- 1 No. shredder (periodic basis only)

Waste acceptance procedures comply with the EPA's Draft Landfill Manual on Waste Acceptance (1998) and in accordance with Council Decision 2003/33/EC (The criteria and procedures for the acceptance of waste at landfills, pursuant to Article 11 of, and Annex II to, Directive 1999/31/EC (Landfill Directive)).

Only household, commercial and non-hazardous industrial wastes which have been pre-treated or are not suitable for pre-treatment are accepted onto the site. Suitable construction and demolition waste is also accepted on-site for the construction of various elements of the landfill site.

Waste is accepted at the facility only from customers who are holders of a waste collection permit, unless exempted, under the Waste Management (Collection) Permit Regulations 2001. The facility does not accept waste delivered directly by the general public and a civic amenity facility is not provided at the Drehid Waste Management Facility.

Waste contractors using the site are required to have a contract with Bord na Móna. This ensures that all contractors have been assessed in advance and the general composition of the waste is known. Any contractors who arrive on-site without such a contracted agreement are refused entry and turned away.

Only household, commercial and non-hazardous industrial wastes that have been subject to treatment or are not suitable for treatment are accepted onto the site for deposition to the landfill.

The waste contractor/carrier is required to provide documentation, which allows a written record to be maintained for each load of waste arriving at the facility. The following information is recorded:

- a) the date;
- b) the name of the carrier (including if appropriate, the waste carrier registration details);
- c) the vehicle registration number;
- d) the name of the producer(s)/collector(s) of the waste as appropriate;
- e) the name of the waste facility (if appropriate) from which the load originated including the waste licence or waste permit register number;
- f) a description of the waste including the associated EWC codes;
- g) the quantity of the waste, recorded in tonnes; and,
- h) the treatment, where applicable, to which the waste has been subjected.

Bord na Móna also records the following information:

- a) the name of the person checking the load; and,
- b) where loads or wastes are removed or rejected, details of the date of occurrence, the types of waste and the facility to which they were removed.

Loads suspected of being non-compliant entering the landfill are tipped at the waste inspection area and inspected by the facility manager/supervisor. If the load is non-compliant then the waste contractor is responsible for removing it off-site. Compliant

loads are reloaded utilising Bord na Móna waste handling plant on-site and deposited at the appropriate working face of the landfill.

Following logging of authorised vehicles at the in-weighbridge these vehicles are directed to the working face of the landfill. The compactor operator also carries out visual inspections of all loads entering the facility, at the working face of the landfill, to ensure that no undesirable material is mixed through the waste.

The landfill only accepts waste delivered in fully contained or covered heavy goods vehicles (HGVs). It is a requirement of the waste contractor using the site that delivery vehicles are stable enough to traverse the landfill, mechanically unload and exit the site without danger of overturning.

Bord na Móna also cross references the relevant documentation submitted by the various waste contractors delivering waste to the landfill with documentation from licensed/permitted facilities to ensure that the waste is actually being treated at these facilities.

These procedures will help Bord na Móna to determine whether or not, where applicable, the waste to be deposited at the landfill has been subject to treatment.

Waste acceptance procedures within the composting facility are outlined in detail in Appendix 3.3.2, Volume IV of the EIS as part of the facility description.

Waste from the HGVs is deposited at the active landfill face as directed by the site operative on duty at the working face. The waste is spread and compacted in a maximum of 3m lifts using a steel-wheeled compactor with a typical gross weight of 40 tonnes. The compactor passes backwards and forwards over the waste until the desired level of compaction is achieved. The working face will be kept to a maximum of 40m by 40m. The waste is covered at the end of each working day using natural soils, recovered C&D fines or proprietary daily cover materials such as hessian etc.

Only an outline of the operational processes and treatment procedures are included at this point in the non technical summary. The detailed description and technical details of the equipment used is covered in detail in the section and attachment on waste handling.

(j) The activity will be carried out in such a manner so as to comply with environmental standards and legislation and will be carried out by a fit and proper operator, Bord na Móna, as per paragraphs (a) to (g) of Section 40 (4) of the Act;

All site activities will be carried out without the contravention of emission limits values, environmental standards and any enactments.

The Drehid Waste Management Facility is designed, constructed, operated, monitored and will be restored in accordance with European Council Directive 1999/31/EC on the landfill of waste, the EPA Landfill Manuals, BAT guidance notes for waste facilities, environmental standards and with any permitted licence conditions and therefore will not cause environmental pollution.

The Waste Management Plans for the Kildare and Dublin Waste Authorities recognise the need for inter-regional transfers of waste and in respect of the Dublin Plan, note that such arrangements will be essential, certainly in the short-term, to meet deficits in landfill capacity in Dublin. Both plans emphasise the importance of planning for short-term needs while protecting the longer-term objectives of that waste region – which in the case of Dublin means developing additional facilities within the Region. The proposed development complements these objectives providing an immediate solution to an identified short-term capacity deficit as well as protecting the long-term function of this waste management facility and does not prejudice measures taken or to be taken by the relevant local authority or authorities for the purpose of the implementation of any such plans.

Neither the operator, Bord na Móna, nor any of its personnel has been convicted of an offence under the Act.

Any person employed to direct or control the carrying on of the activity to which this waste licence relates has and will have the requisite technical knowledge or qualifications to carry on that activity in accordance with the licence and the other requirements of the Act.

As demonstrated in the financial statements (Appendix 6 of these attachments), Bord na Móna is in a position to meet any financial commitments or liabilities that the agency reasonably considers will be entered into or incurred by it in carrying on the activity to which this waste licence will relate in accordance with the terms thereof or in consequence of ceasing to carry on that activity.

Condition 12.2.2 of the current licence requires Bord na Móna to arrange for the completion, by an independent and appropriately qualified consultant, of an Environmental Liabilities Risk Assessment (ELRA). This ELRA was submitted to the EPA in January 2008. This ELRA includes a proposal for Financial Provision arising from the carrying out the activities to which the licence relates. Specifically Bord na Móna proposes to provide a Company Guarantee to the value of €1,400,000.00 in Year 1. This figure will be reviewed annually in accordance with condition 12.2.4 of the current licence. Based on the present calculation this figure is expected to rise to a maximum of €2,548,000.00 when the void space is fully used.

Bord na Móna is committed to the operation of the facility such that energy will be used efficiently in the carrying on of the activities on site.

Any noise from the activity concerned will comply with, or will not result in the contravention of, any regulations under section 106 of the Act of 2002.

All necessary measures will be taken to prevent accidents in the carrying on of the activity and, where an accident occurs, its consequences for the environment will be limited.

(k)- Source, location, nature, composition, quantity, level and rate of emissions arising from the activity are summarised in the non-technical summary outlined in section (g) and further outlined in Section 4, Volume II of the EIS.

(l) An assessment of the effects of any existing or proposed emissions on the environment and proposed measures to prevent or eliminate or, where this is not practical, to limit or abate such emissions is summarised in the non-technical summary outlined in section (g) and further outlined in Section 4, Volume II of the EIS.

(m) Monitoring and sampling points and the arrangements for monitoring of emissions and the environmental consequences of any such emissions are summarised in the non-technical summary outlined in section (g) and further outlined in Section 3.15 and Section 4, Volume II of the EIS.

(n) Arrangements for the prevention, minimisation and recovery of waste arising from the activities are dealt with in the non-technical summary outlined in section (g) and further outlined in Sections 3.12-3.14, Volume II of the EIS.

(o) The arrangements for off-site treatment of leachate are summarised in the non-technical summary outlined in section (g) and further outlined in Section 3.7 Volume II of the EIS.

(p) Existing and proposed measures, including emergency procedures, to prevent unauthorised or unexpected emissions are summarised in the non-technical summary outlined in section (g) and further outlined in Section 3.16, Volume II of the EIS.

(q) Measures for the closure, restoration, and aftercare of the facility are summarised in the non-technical summary outlined in section (g) and further outlined in Section 3.10 and 4.5, Volume II of the EIS.

(r) Condition 12.2.2 of the current licence requires Bord na Móna to arrange for the completion, by an independent and appropriately qualified consultant, of an

Environmental Liabilities Risk Assessment (ELRA). This ELRA was submitted to the EPA in January 2008. This ELRA includes a proposal for Financial Provision arising from the carrying out the activities to which the licence relates. Specifically Bord na Móna proposes to provide a Company Guarantee to the value of €1,400,000.00 in Year 1. This figure will be reviewed annually in accordance with condition 12.2.4 of the current licence. Based on the present calculation this figure is expected to rise to a maximum of €2,548,000.00 when the void space is fully used. These provisions are in accordance with requirements under Articles (7)(i) and (8)(a)(iv) of the Landfill Directive and Section 53 (1) of the Act.

(s) SI No 476 of 2000 does not apply to the proposed development.

(t) The proposed development will comply with Council Directive 80/68/EEC

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ATTACHMENT B:GENERAL**Attachment B1- Applicants Details**

A certified copy of the Certificate of Incorporation is attached in Appendix 1 herein.

The Company's Registration Number is 297717.

Name(s) of company director(s):

1. Fergus McArdle (Chairman)
2. Gabriel D'Arcy (Managing)
3. Pam Kearney
4. Gabriel Cribbin
5. Anne Heraty
6. Patrick Kane
7. Paudge Bennett
8. Paddy Fox
9. Paddy Rowland
10. Rory Scanlan

Attachment B.2- Location of Activity

Refer to Section 2.1.1, Volume II of the EIS and Figure 1.1.1, Volume II of the EIS for details of the Site Location, also:

- a. Refer to Drawing No. 3369-2401 of WLA Drawings for the Site Plan,
- b. Refer to Drawing No. 3369-2402 of WLA Drawings for the Site Location,
- c. Refer to Drawing No. 3339-2403 - 3369- 2405 of WLA Drawings for the Services Plan;

Attachment B.3-Planning Authority

A copy of the previous planning permission including a copy of all conditions for the Drehid Waste Management Facility is included in Appendix 2

The most recent waste licence W201-01 is included in Appendix 2

Attachment B4-Sanitary Authority

The agreement between the Bord na Móna and Kildare County Council is included in Appendix 3.

Attachment B6- Notices and Advertisements

Refer to Drawing No. 3369-2402 of WLA Drawings which shows location of site notices.

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**APPLICATION TO THE ENVIRONMENTAL PROTECTION AGENCY
FOR THE REVIEW OF A WASTE LICENCE**

BORD NA MÓNA PLC.

NOTICE IS HEREBY GIVEN in accordance with the provisions of the Waste Management Acts, 1996 to 2007 and Articles 5 and 6 of the Waste Management (Licensing) Regulations, 2004 (S.I. No. 395 of 2004) that Bord na Móna, plc, Main Street, Newbridge, Co.Kildare, has applied to the Environmental Protection Agency (EPA), Johnstown Castle Estate, County Wexford, for a review of the waste licence (currently licensed under W0201-01) for the intensification and extension of the Dredge Waste Management Facility, located at Killinagh Upper, Carbury, Co. Kildare and including the townlands of Parsonstown, Loughnacush, Kilkeaskin, Timahoe West, Drummond, Coolcarrigan, Killinagh Lower and Killinagh Upper, (Grid Reference E2744, N2315).

The classes of activity concerned are specified in the Third and Fourth Schedules of the Waste Management Acts, 1996 to 2003, as follows:

THE PRINCIPAL ACTIVITY TO BE CARRIED OUT ON THE SITE IS:

Third Schedule, Class 5 – ‘Specially engineered landfill, including placement into lined discrete cells which are capped and isolated from one another and the environment.’

The facility is also covered under the following classes of activity:

Third Schedule, Class 1. ‘Deposit on, in or under land (including landfill).’

Third Schedule, Class 4. ‘Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons’

Third Schedule, Class 6: ‘Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1. to 10. of this Schedule.’

Third Schedule, 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’

Fourth Schedule, Class 2: ‘Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).’

Fourth Schedule, Class 11. ‘Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.’

Fourth Schedule, 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.’

An Environmental Impact Statement (EIS) will be submitted with this application to the EPA.

The Waste Licence Review Application, accompanying Environmental Impact Statement and such further information relating to the application as may be furnished to the Agency in the course of the Agency’s consideration of the Application, will, as soon as is practicable after receipt by the Agency, be available for inspection or purchase, at EPA Headquarters, Johnstown Castle Estate, County Wexford.

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MEATH COUNTY COUNCIL

Snowbury Limited intends to apply to Meath County Council for permission and retention for development and retention of a previously permitted scheme under Reg. Ref. 00/1670 (PL17.125108), Reg. Ref. DA/40560, Reg. Ref. DA/60303, Reg. Ref. DA/60346 and Reg. Ref. DA/60601 comprising hotel, conference centre, golf course and clubhouse and residential development at Killeen Castle (a protected structure), Killeen Castle Demesne including Loughmore Stud, Dunsany Co. Meath. The overall hotel development as permitted under Reg. Ref. 00/1670 as revised by Reg. Ref. DA/40560, Reg. Ref. DA/60303 and Reg. Ref. DA/60346, involves the restoration and use of Killeen Castle along with a linked new build element as a hotel. The modifications and alterations now proposed comprise a two storey design and layout of the new build element of the permitted hotel, together with alterations to the layout of Killeen Castle (a protected structure) at lower ground, upper ground, 1st, 2nd and 3rd floor levels and the provision of 46no. Hotel 'Village' units located to the north east of Killeen Castle (a protected structure). The development now proposed comprises of revisions, modifications and alterations to the permitted hotel development at Killeen Castle Demesne under Reg. Ref. 00/1670 (PL17.125108), Reg. Ref. DA/40560, Reg. Ref. DA/60303 and Reg. Ref. DA/60346 so as now to provide for 17no. suites in Killeen Castle (a protected structure) together with a new structure varying in height from one to three storeys over basement incorporating a single storey link to the Castle (a protected structure) with a floor area of c. 5,920 sq.m., accommodating 39no. bedrooms, a leisure/spa facility, function room and other ancillary facilities, and a further 46no. Hotel 'Village' units with a gross floor area of c. 8,175 sq.m., comprising 20no. one storey 2-bed units (unit types B & D), 18no. three storey 4-bed units (unit type A) and 8no. three storey 2-bed units, all arranged in 10no. blocks ranging in height from two to three storeys incorporating 92no. keys in total, a forming part of the proposed revised hotel accommodation at Killeen Castle Demesne. Permission is also sought for the permanent retention of original chimney breast and fireplace, and the proposed replacement of the large single rooflight over the 2nd and 3rd floors of the octagonal rooflights at the roof level of Killeen Castle (a protected structure) in order to replicate the original structure. It is also proposed to provide a multi-purpose playing pitch north of the Walled Garden, in lieu of the 2no. tennis courts previously permitted under Reg. Ref. 00/1670, in the same location as the previously permitted over-flow tennis courts. Car parking spaces (Reg. Ref. DA/60601 refers) and a children's playground located to the northeast of the Walled Garden. This application also seeks permission for 49no. car parking spaces located to the northeast of Killeen Castle as part of the Village development which in addition to the 347no. car parking spaces and 15no. coach parking spaces previously permitted under Reg. Ref. DA/60601, will result in an overall car parking provision of 396no. car parking spaces and 15no. coach parking spaces to serve the proposed Hotel Accommodation and permitted Golf Course and Clubhouse at Killeen Castle Demesne. Particular access to Killeen Castle and the new build element of the hotel is via the previously permitted internal road network and entrance (Reg. Ref. DA/50416 and Reg. Ref. DA/60601 refers), while vehicular access to the proposed 46no. Hotel 'Village' units is proposed via Road 11 of the previously permitted internal road network and through the Walled Garden. To facilitate this access permission is being sought for modifications to the existing pedestrian entrance on the eastern perimeter of the Walled Garden, as permitted under Reg. Ref. DA/60601, to provide a new vehicular access in the Walled Garden (a total of 6no. access points presently exist in the Walled Garden Planning Permission Reg. Ref. DA/60601 permitted 2no. of these opens to be utilised in modified form as vehicular access and 4no. for pedestrian access). All associated site development and landscape works (including regrading works and the provision of a golf buggy path through the proposed Hotel 'Village' units, to connect the 9th green of the permitted Golf Course (a protected structure) (Clubhouse) also form part of this application. The development under this application is all on an overall site of approximately 4.32 Ha in area at Killeen Castle (a protected structure), Killeen Castle Demesne, including Loughmore Stud, Dunsany, Co. Meath. This application may be inspected or purchased at a fee not exceeding the reasonable cost of making a copy, at the offices of Meath County Council, Planning Authority, Planning Section, Abbey Mall, Abbey Road, Navan, Co. Meath during the public opening hours of the Planning Section. A submission or observation in relation to the application may be made by writing to the Planning Authority on payment of the prescribed fee of €20 within a period of 5 weeks, beginning on the date of receipt by the Planning Authority of the Application.

LEGAL

APPLICATION TO THE ENVIRONMENTAL PROTECTION AGENCY FOR THE REVIEW LICENCE

BORD NA MÓNA PLC.

NOTICE IS HEREBY GIVEN in accordance with the provisions of the Waste Management Acts, 1996 to 2007 and Articles 5 and 6 of the Waste Management (Licensing) Regulations, 2004 (S.I. No. 395 of 2004) that Bord na Móna, plc, Main Street, Newbridge, Co. Kildare, will apply to the Environmental Protection Agency (EPA), Johnstown Castle Estate, County Wexford, for a review of the waste licence (currently licensed under W0201-01) for the intensification and extension of the Dried Waste Management Facility, located at Killinagh Upper, Carbury, Co. Kildare and including the townlands of Parsonstown, Loughnacush, Killeaskin, Timahoe West, Drummond, Coolcarrigan, Killinagh Lower and Killinagh Upper (Grid Reference E2744, N2315).

The classes of activity concerned are specified in the Third and Fourth Schedules of the Waste Management Acts, 1996 to 2003, as follows:

THE PRINCIPAL ACTIVITY TO BE CARRIED OUT ON THE SITE IS:

Third Schedule, Class 5 - 'Specially engineered landfill, including placement into lined discrete cells which are capped by an impermeable or other protective barrier and the environment'. The facility is also covered under the following classes of activity:

Third Schedule, Class 1 - 'Deposit on, in or under land (including landfill)'.
Third Schedule, Class 4 - 'Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons'.
Third Schedule, Class 6 - 'Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1. to 10. of this Schedule'.
Third Schedule, 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'.
Fourth Schedule, Class 2 - 'Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)'.
Fourth Schedule, Class 11 - 'Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule'.
Fourth Schedule, 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'.

An Environmental Impact Statement (EIS) will be submitted with this application to the EPA.

The Waste Licence Review Application, accompanying Environmental Impact Statement and such further information relating to the application as may be furnished to the Agency in the course of the Agency's consideration of the Application, will, as soon as is practicable after receipt by the Agency, be available for inspection or purchase, at EPA Headquarters, Johnstown Castle Estate, County Wexford.

PLANNING APPLICATIONS

DUBLIN CITY COUNCIL — We the Society of Jesus (Jesus Order) intend to apply for Planning Permission for parking facilities at 28 Sherrard St, Dublin 1. The parking facilities will consist of the following: 2 car parking places with provision for 4 bike parking spaces. The existing garden wall for 28 Sherrard St., East side of laneway, will be demolished to make way for the parking facilities. The planning application may be inspected or purchased at a fee not exceeding the reasonable cost of making a copy, at the offices of Dublin City Council during its public opening hours and a submission or observation in relation to the application may be made to the Authority in writing on payment of the prescribed fee within the period of 5 weeks beginning on the date of receipt by the Authority of the application.

DUBLIN CITY COUNCIL — We Trodat Ltd intend to apply for permission for development at Tolka House, Glasnevin Hill, Dublin 9. The development will consist of a single storey, free standing structure to the rear of said property for the purpose of a smoking area. The planning application may be inspected or purchased at a fee not exceeding the reasonable cost of making a copy at the offices of Dublin City Council during its public opening hours and a submission or observation in relation to the application may be made to the authority in writing on payment of the prescribed fee within the period of 5 weeks beginning on the date of receipt by the authority of the application. The application may be inspected or purchased at a fee not exceeding the reasonable cost of making a copy at the offices of Dublin City Council, Planning Department, Block 4, Floor 3 Civic Offices, Wood Quay, Dublin 8. Office hours: 9am to 5pm Monday to Friday (Excluding public holidays).

DUN LAOGHAIRE RATHDOWN COUNTY COUNCIL — Glenkerin Homes intend to apply for Planning Permission for amendments to Ballintyre Hall (a protected structure) in previously approved scheme Reg. Ref. D05A/1472. The proposal consists of an amendment to revert the house back to a single dwelling, in lieu of the 4 apartments previously approved. A site of access to be dedicated to the house with 6 car parking spaces, as previously approved, associated infrastructure and site development works including internal roads, bin storage and bicycle parking areas, landscaping including the provision of open space and boundary treatment at Ballintyre Hall, Ballintyre Avenue, Dublin 16. The planning application may be inspected or purchased at a fee not exceeding the reasonable cost of making a copy at the offices of the Planning Authority during its public opening hours, 10.00 am to 4.00 pm Monday to Friday. The offices are at: Dun Laoghaire-Rathdown County Council, County Hall, Marine Road, Dun Laoghaire. A submission or observation in relation to the application may be made in writing to Dun Laoghaire-Rathdown County Council on payment of a fee of €20.00 within the period of five weeks beginning on the date of receipt by the Authority of the application.

DONEGAL COUNTY COUNCIL — Hutchison 3G Ireland Limited intend to apply for full planning permission for a 24 metre high support structure, antennas & dishes, equipment cabinets, other associated equipment and fencing for a new 3G broadband network. The site is located at Magheran, Letterkenny, County Donegal. The planning application may be inspected or purchased at a fee not exceeding the reasonable cost of making a copy, at the offices of the Planning Authority during its public opening hours. A submission or observation in relation to the application may be made to the Authority in writing on payment of the prescribed fee within the period of 5 weeks beginning on the date of receipt by the Authority of the application.

AIKENPROMOTIONS PRESENT

ERIC CLAPTON

PLUS SPECIAL GUESTS
ROBERT RANDOLPH & THE FAMILY BAND



SATURDAY 21 JUNE
MALAHIDE CASTLE

Please use public transport.
DART, DART and Suburban rail station 150 mts from venue entrance.
For more see www.irishrail.ie
CAR: Limited car parking, €10 per car.

For venue and travel information see aikenpromotions.com

TICKETS: €70.25 General Admission | 24HR CREDIT CARD BOOKINGS: 0818 719 300
BUY ONLINE: www.ticketmaster.ie and usual outlets nationwide |
Telephone & internet bookings subject to €6.95 per ticket | Agents €2.25 per ticket handling charge.

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PORTUGAL / MADEIRA

ALBUFEIRA, Late cancellations, lux 2 bed apt. A/C, beside beach, 18-26 June/ 20 Jul - 3 Aug Tel: 087 6862596

ALGARVE (Montechero), New 5 Bed Luxury Villa to let in June, July, Aug. & Sept. Check out www.albufeiraholidays.eu or Contact Carol 086 2477111

Albufeira new lux 3 bed apt sleeps 8 avail to rent 5mins to main strip & beach €750 pw 00353860440922

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SUMMER HOLS in Courtown Hotel & Leisure Centre. Any weekend in June, 2 B&B + 1D €99pp. July mid-week 3 B&B + 1D €199pp. Book fast for 1 extra B&B free! Ph: 053 9425210 / reservations@courtownhotel.ie

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A BIG Reduction in Enniscrone 4* Lux-Holiday Apartments from €249.00 for June, July & Aug - Call 081 335 799 or book online www.westcoastholidays.ie

BESIDE SANDY BEACH brand new seaview apts in Enniscrone, opp playground. Hotel, bar & restaurant onsite. Waterworld, seaweed baths & more locally FIRST LET OPENING OFFERS. CALL 084 41170 or BOOK ONLINE www.dreamireland.com

ENNISCROME 3bd, beside all amenities inc. surfing. Ph: 087 1224 867.

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PUBLIC NOTICES

Application to Cork County Council for a Waste Collection Permit relating to activities in Cork County Council / Cork City Council area/areas.

I Tom Shanahan of Spolless Drain Cleaning Services Ltd, intend to make an application to Cork County Council for a Waste Collection Permit within two weeks.

The application relates to the collection of Hazardous & Non-Hazardous waste to include Domestic/Commercial & Industrial waste, in the functional area of Cork County Council & Cork City Council.

A copy of my valid application will be available for inspection or purchase at the principal office of Cork County Council, Planning Section, Room F22 Iniscarra and Cork City Council Environment Dept., Norwich House, 89/90 South Mall, Cork. Any member of the public may, within a period of six weeks of a valid application having been lodged with Cork County Council, make a written submission to the relevant local Authority in relation to the said application.

PUBLIC NOTICES

Application to Limerick County Council for a Waste Collection Permit relating to activities in Limerick County Council / Limerick City Council / Clare County Council & Kerry County Council.

Spolless Drain Cleaning Services Ltd, will be making an application to Limerick County Council, within two weeks from the date of this notice, for a Waste Collection Permit to collect Hazardous & Non-Hazardous Waste in Limerick County Council, Limerick City Council, Clare County Council & Kerry County Council.

A copy of the application will, as soon as is practicable after receipt by Limerick County Council, be available for inspection or purchase at the offices of Limerick County Council/ Limerick City Council/ Kerry County Council/ Clare County Council. Any member of the public may, within a period of 6 weeks after publication of the application, make a written submission to Limerick County Council in relation to this application.



TOBIN
Patrick J. Tobin & Co. Ltd.

Consulting Engineers

www.tobin.ie

Block 10-4,
Blanchardstown Corporate Park,
Dublin 15, Ireland.
Tel: +353 (0)1 8030401/6
Fax: +353 (0)1 8030409/10

Fairgreen House,
Fairgreen Road,
Galway, Ireland
Tel: +353 (0)91 565211
Fax: +353 (0)91 565398

Northpoint House,
New Mallow Road,
Cork, Ireland
Tel: +353 (0)21 4308624
Fax: +353 (0)21 4308625

Bedford Place, Howleys Quay,
Lower Shannon Street,
Limerick, Ireland
Tel: +353 (0)61 415757
Fax: +353 (0)61 409378

Market Square,
Castlebar,
Co. Mayo, Ireland
Tel: +353 (0)94 9021401
Fax: +353 (0)94 9021534

2nd Floor, Elgee Building,
Market Square, Dundalk,
Co. Louth, Ireland.
Tel: +353 (0)42 9335107
Fax: +353 (0)42 9331715

An Bord Pleanála,
64 Marlborough Street,
Dublin 1

17th June 2008

Re: Waste Licence Review Application for the extension and intensification of the Drehid Waste Management Facility, located at Killinagh Upper, Carbury, Co. Kildare

On behalf of our client Bord na Móna, plc, NOTICE IS HEREBY GIVEN in accordance with the provisions of the Waste Management Acts, 1996 to 2007 and Articles 5 and 6 of the Waste Management (Licensing) Regulations, 2004 (S.I. No. 395 of 2004) that Bord na Móna, plc, Main Street, Newbridge, Co. Kildare, has applied to the Environmental Protection Agency (EPA), Johnstown Castle Estate, County Wexford, for a review of the waste licence (currently licensed under W0201-01) for the intensification and extension of the Drehid Waste Management Facility, located at Killinagh Upper, Carbury, Co. Kildare and including the townlands of Parsonstown, Loughnacush, Killeaskin, Timahoe West, Drummond, Coolcarrigan, Killinagh Lower and Killinagh Upper, (Grid Reference E2744, N2315).

The classes of activity concerned are specified in the Third and Fourth Schedules of the Waste Management Acts, 1996 to 2003, as follows:

THE PRINCIPAL ACTIVITY TO BE CARRIED OUT ON THE SITE IS:

Third Schedule, Class 5 – ‘Specially engineered landfill, including placement into lined discrete cells which are capped and isolated from one another and the environment.’

The facility is also covered under the following classes of activity:

Third Schedule, Class 1. ‘Deposit on, in or under land (including landfill).’

Directors: D.A. Downes (Chairman) L.E. Waldron (Managing Director) M.F. Garrick R.F. Tobin J. Colleran B.J. Downes S. Finlay P.J. Fogarty
D. Grehan J.P. Kelly B.M. Mulligan B. Murray C. O’Keeffe F. Renkema (Dutch) E.J. Harrigan (Company Secretary)

Associates: T. Cannon P. Cloonan D. Conneran M. Conroy T. Curran O. Downes B. Gaffney B. Gallagher B. Heaney
B. Hutchinson D. Kennedy M. McDonnell C. McGovern E. McPartlin G. Stevenson



Co. Reg. No. 42654 - Registered Office: Fairgreen House, Fairgreen Road, Galway, Ireland.

Third Schedule, Class 4. 'Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons'

Third Schedule, Class 6: 'Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1. to 10. of this Schedule.'

Third Schedule, 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

Fourth Schedule, Class 2: 'Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).'

Fourth Schedule, Class 11. 'Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.'


Fourth Schedule, 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.'

An Environmental Impact Statement (EIS) will be submitted with this application to the EPA.

The Waste Licence Review Application, accompanying Environmental Impact Statement and such further information relating to the application as may be furnished to the Agency in the course of the Agency's consideration of the Application, will, as soon as is practicable after receipt by the Agency, be available for inspection or purchase, at EPA Headquarters, Johnstown Castle Estate, County Wexford.

A Planning Application (Ref PA0004) has been submitted to An Bord Pléanala in relation to this development.

Yours sincerely,



Damien Grehan
TOBIN Consulting Engineers

cc Administration, Waste Management Licensing, Environmental Protection Agency



Block 10-4,
Blanchardstown Corporate Park,
Dublin 15, Ireland.
Tel: +353 (0)1 8030401/6
Fax: +353 (0)1 8030409/10

Fairgreen House,
Fairgreen Road,
Galway, Ireland.
Tel: +353 (0)91 565211
Fax: +353 (0)91 565398

Northpoint House,
New Mallow Road,
Cork, Ireland.
Tel: +353 (0)21 4308624
Fax: +353 (0)21 4308625

Bedford Place, Howleys Quay,
Lower Shannon Street,
Limerick, Ireland.
Tel: +353 (0)61 415757
Fax: +353 (0)61 409378

Market Square,
Castlebar,
Co. Mayo, Ireland.
Tel: +353 (0)94 9021401
Fax: +353 (0)94 9021534

2nd Floor, Elgee Building,
Market Square, Dundalk,
Co. Louth, Ireland.
Tel: +353 (0)42 9335107
Fax: +353 (0)42 9331715

Kildare County Council,
Head Office,
Áras Chill Dara,
Devoy Park,
Naas,
Co Kildare

17th June 2008

Re: Waste Licence Review Application for the extension and intensification of the Drehid Waste Management Facility, located at Killinagh Upper, Carbury, Co. Kildare

On behalf of our client Bord na Móna, plc, NOTICE IS HEREBY GIVEN in accordance with the provisions of the Waste Management Acts, 1996 to 2007 and Articles 5 and 6 of the Waste Management (Licensing) Regulations, 2004 (S.I. No. 395 of 2004) that Bord na Móna, plc, Main Street, Newbridge, Co. Kildare, has applied to the Environmental Protection Agency (EPA), Johnstown Castle Estate, County Wexford, for a review of the waste licence (currently licensed under W0201-01) for the intensification and extension of the Drehid Waste Management Facility, located at Killinagh Upper, Carbury, Co. Kildare and including the townlands of Parsonstown, Loughnacush, Kilkeaskin, Timahoe West, Drummond, Coolcarrigan, Killinagh Lower and Killinagh Upper, (Grid Reference E2744, N2315).

The classes of activity concerned are specified in the Third and Fourth Schedules of the Waste Management Acts, 1996 to 2003, as follows:

THE PRINCIPAL ACTIVITY TO BE CARRIED OUT ON THE SITE IS:

Third Schedule, Class 5 – ‘Specially engineered landfill, including placement into lined discrete cells which are capped and isolated from one another and the environment.’

The facility is also covered under the following classes of activity:

Third Schedule, Class 1. ‘Deposit on, in or under land (including landfill).’

Third Schedule, Class 4. ‘Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons’

Directors: D.A. Downes (Chairman) L.E. Waldron (Managing Director) M.F. Garrick R.F. Tobin J. Colleran B.J. Downes S. Finlay P.J. Fogarty
D. Grehan J.P. Kelly B.M. Mulligan B. Murray C. O’Keeffe F. Renkema (Dutch) E.J. Harrigan (Company Secretary)

Associates: T. Cannon P. Cloonan D. Conneran M. Conroy T. Curran O. Downes B. Gaffney B. Gallagher B. Heaney
B. Hutchinson D. Kennedy M. McDonnell C. McGovern E. McPartlin G. Stevenson



Third Schedule, Class 6: 'Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1. to 10. of this Schedule.'

Third Schedule, 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

Fourth Schedule, Class 2: 'Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).'

Fourth Schedule, Class 11. 'Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.'


Fourth Schedule, 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.'

An Environmental Impact Statement (EIS) will be submitted with this application to the EPA.

The Waste Licence Review Application, accompanying Environmental Impact Statement and such further information relating to the application as may be furnished to the Agency in the course of the Agency's consideration of the Application, will, as soon as is practicable after receipt by the Agency, be available for inspection or purchase, at EPA Headquarters, Johnstown Castle Estate, County Wexford.

A Planning Application (Ref PA0004) has been submitted to An Bord Pleanála in relation to this development.

Yours sincerely,


Damien Grehan
TOBIN Consulting Engineers

cc Administration, Waste Management Licensing, Environmental Protection Agency

Attachment B7-Type of Waste Activity, Tonnages & Fees

As defined by the Waste Management Act (1996), the principal activity undertaken at the site is Class 5 of the Third Schedule of the Waste Management Act (1996), namely:

Principal Activity

Third Schedule, Class 5 – ‘Specially engineered landfill, including placement into lined discrete cells which are capped and isolated from one another and the environment.’

The application includes for the following:

- the construction of the permitted landfill in eight distinct lined phases and the proposed landfill extension will be constructed in 7 phases;
- a top cover of low permeability soil on completion of landfilling at each phase;
- the collection and flaring of landfill gas;
- potential utilisation of the landfill gas produced at the site as a means of generating electrical energy; and,
- final shaping of the waste mound and planting to a landscape plan.

Remaining classes covered by proposed activities at the facility

Third Schedule, Class 1. ‘Deposit on, in or under land (including landfill).’

The application includes for the deposition of waste into lined cells on land.

Third Schedule, Class 4. ‘Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons’

The application also relates to the following activities, which are to be carried out at the landfill site:

- the collection and pumping of leachate to leachate holding tanks and tankering to an approved wastewater treatment plant;
- the collection and discharge of surface water via an oil interceptor, and grit trap to a surface water settlement/retention lagoons.

Third Schedule, Class 6: ‘Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1. to 10. of this Schedule.’

The application includes for the potential to carry out the treatment/pre-treatment on-

site of leachate collected from the lined cells on-site.

Third Schedule, 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.’

The application also provides for the temporary storage of unacceptable waste in the waste quarantine area pending its dispatch from the site to alternative waste disposal facilities.

Fourth Schedule, Class 2: ‘Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).’

The application includes for the development of a composting facility with an annual capacity of 25,000 tonnes per annum and the utilisation of the compost on-site for restoration or construction purposes for the facility for instance for landscaping, landfill cover, etc.

Fourth Schedule, Class 11. ‘Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.’

The application includes for the utilisation on-site of the compost produced in the composting facility, for restoration or construction purposes at the facility for instance for landscaping, landfill cover, etc.

Fourth Schedule, 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.’

The application also provides for the temporary storage at the site of compost intended for utilisation for restoration or construction purposes at the facility for instance for landscaping, landfill cover, etc. The application also provides for the temporary storage of unacceptable waste in the waste quarantine area pending its dispatch from the site to alternative waste recovery facilities.

ATTACHMENT C- MANAGEMENT OF THE FACILITY

Attachment C1-Technical Competence and Site Management

A chart of the on-site management structure and management structure is contained in Appendix 4. Details of Quality Control Systems are contained in Bord na Móna's Annual Reports which are also provided in Appendix 4.

Attachment C2- Environmental Management System

Bord na Móna are currently in the process of preparing a new Environmental Management System in line with ISO 14001. Procedures are currently being drafted in this regard and it is proposed that all procedures will be complete by the end of July 2008. It is proposed that Environmental Awareness and Training will be complete by mid August and the legislation review complete by end of August.

Bord na Móna will at this stage engage in one full sweep of internal audits and carry out any resulting corrective and preventative actions, this will be complete by the end of September by which stage a management review will be undertaken.

It is hoped that by November 2008, there should be evidence to show the process of continual improvement is actually happening and it is proposed that at this stage a pre-registration audit could be undertaken with a full Certification Audit in December 2008 or January 2009.

Attachment C3-Hours of Operation

The facility can operate, as permitted, on a daily basis from 8.00am to 6.30pm Monday to Saturday each week. Waste can be accepted at the facility between the hours of 8.00am and 6.00pm. This allows time for the daily cover of the waste at the landfill.

During construction, Heavy Goods Vehicle (HGV) movements to or from the site are confined, as permitted, to between the hours 8.00am and 8.00pm Monday to Friday and 8.00am and 1.00pm Saturday. Refer to Section 3.4, Volume II of the EIS for further details on phasing and site development timeframes.

Attachment C.4-Conditioning Plan

The Waste Licence Review Application and accompanying Environmental Impact Statement are submitted as the Conditioning Plan for the Drehid Waste Management Facility Intensification and Extension.

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ATTACHMENT D-INFRASTRUCTURE AND OPERATION**Attachment D1-Infrastructure****a) Security including perimeter fencing, entrance gates etc.**

Refer to Section 3.3.1, Volume II of the EIS.

b) Specifications for all access roads (main access road, haul roads and service roads).

Refer to Section 3.3.2, Volume II of the EIS.

c) Specifications for all hardstanding areas, including details of drainage.

Refer to Sections 3.3.3 and 3.3.11, Volume II of the EIS.

d) Weighbridge, including capacity, dimensions, record keeping system.

Refer to Section 3.3.4 , Volume II of the EIS.

e) Wheel cleaner, including construction, water supply, arrangements for drainage of contaminated water, etc.

Refer to Section 3.3.5, Volume II of the EIS.

f) Laboratory facilities.

Refer to Section 3.3.6, Volume II of the EIS.

g) Fuel storage, (including details of bunding etc.).

Refer to Section 3.3.7, Volume II of the EIS.

h) Waste quarantine areas, including location, design details, etc.

Refer to Section 3.3.8, Volume II of the EIS.

i) Waste inspection areas, including location, design details, etc.

Refer to Section 3.3.9, Volume II of the EIS.

j) Traffic control, including location and detail of signs, barriers, parking, number of vehicles catered for, etc.

Refer to Section 3.3.10, Volume II of the EIS.

- k) Sewerage and surface water drainage infrastructure, including location and sizes of pipes, outlets, invert details, treatment facilities, etc.**

Refer to Section 3.3.11, Volume II of the EIS.

- l) All services, including power, water, telephone, etc., and any services specific to the site location.**

Refer to Section 3.3.12, Volume II of the EIS.

- m) Plant sheds and garages, including locations, design, etc.**

Refer to Section 3.3.13, Volume II of the EIS.

- n) Site accommodation and compounds, including administration area, site manager's office, staff facilities (e.g. canteen, toilets, showers etc.), equipment compound.**

Refer to Section 3.3.14, Volume II of the EIS.

- o) Fire control system, including details and locations of water supply, etc.**

Refer to Section 3.3.15, Volume II of the EIS.

- p) Civic amenity sites, including location, design, opening hours, location and number of collection receptacles, management methods for waste deposited, drainage, bunding, etc.**

Not Applicable

- q) Any other waste recovery infrastructure**

Not Applicable

- r) Details of composting infrastructure.**

Refer to Section 3.3.17 Volume II of the EIS. and Appendix 3.3.2 Volume IV of the EIS.

- s) Construction and Demolition waste infrastructure**

Not Applicable

- t) Description of Incineration infrastructure (if applicable). Provide information to fulfil Article 4 (2) & (3) of the Incineration of Waste Directive.**

Not Applicable

u) Details of any other infrastructure proposed.

No other infrastructure shall be provided at the site.

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Attachment D 2-Facility Operation**Attachment D 2a-Unit Operations**

Refer to Section 3, Volume II of the EIS.

Attachment D 2b-Flow Process Diagram

A flow diagram for landfilling on site is given in Appendix 5.

Attachment D 2c-Unit Operations Potential Emissions

The potential emissions identified from the activity are detailed in Sections 4.1-4.9, Volume II of the EIS. Details on these are given in Attachment E.

Attachment D 2d-Unit Operations Laboratory Facilities

Refer to Section 3.3.6, Volume II of the EIS.

Attachment D 2e-Unit Operations Incineration

This is not applicable to this application.

Attachment D 3-Liner System**Attachment D 3a-Provide information to fulfill Annex 1 of the Landfill Directive**

Refer to Section 3.5, Volume II of the EIS.

Attachment D 3b-What type of liner system is specified?

Refer to Section 3.5.1, Volume II of the EIS.

Attachment D 3c-Has a Quality Control Plan been specified?

Refer to Section 3.5.4, Volume II of the EIS.

Attachment D 3d-Has a Quality Assurance Plan been specified?

Refer to Section 3.5.5, Volume II of the EIS.

Attachment D 3e-Have independent, third-party supervision, testing and controls been specified?

Refer to Section 3.5.4, Volume II of the EIS.

Attachment D 3f-Have basal gradients for all cells and access ramps to the cells been designed?

Refer to Section 3.5, Volume II of the EIS.

Attachment D 3g-Has a leak detection survey been specified?

Refer to Section 3.5.5, Volume II of the EIS.

Attachment D 4-Leachate Management**Attachment D 4a-Is there a Leachate Management Plan?**

Refer to Section 3.7.1, Volume II of the EIS.

Attachment D 4b-Have annual quantities of leachate been calculated?

Refer to Section 3.7.2, Volume II of the EIS.

Attachment D 4c-Has the total quantity of leachate been calculated?

Refer to Section 3.7.3, Volume II of the EIS.

Attachment D 4d-Have the size of the cells been specified taking account of the water balance calculations?

Refer to Sections 3.7.5 and 3.7.6, Volume II of the EIS.

Attachment D 4e-Has a leachate collection system been specified?

Refer to Section 3.7.7, Volume II of the EIS.

Attachment D 4f-Has a leachate storage system been specified?

Refer to Section 3.7.1, Volume II of the EIS.

Attachment D 4g-Has a system for monitoring the level of leachate in the waste been designed?

Refer to Sections 3.7.9 and 3.15.4, Volume II of the EIS.

Attachment D 4h-Is leachate recirculation proposed/practised?

Refer to Sections 3.7.7 and 3.7.8, Volume II of the EIS.

Attachment D 4i-Has leachate treatment on-site been specified?

All leachate will be treated off-site.

Attachment D 4j-Has leachate removal been specified?

Refer to Sections and 3.7.7 and 3.7.8, Volume II of the EIS.

Attachment D 5-Landfill Gas Management**Attachment D 5a-Is there a Landfill Gas Management Plan?**

Refer to Section 3.8, Volume II of the EIS.

Attachment D 5b-Is there a passive venting system?

Refer to Sections 3.8, 3.14 and 4.1.3, Volume II of the EIS.

Attachment D 5c-Does the passive system cover all of the filled area?

Refer to Sections 3.8, 3.14 and 4.1.3, Volume II of the EIS.

Attachment D 5d-Have gas alarm systems been installed in the site buildings?

Refer to Section 3.15.3, Volume II of the EIS.

Attachment D 5e-Have measures been installed to prevent landfill gas migration (e.g. barriers)?

Refer to Section 4.1.4, Volume II of the EIS.

Attachment D 5f-Has a time-scale been proposed for the installation of landfill gas infrastructure?

Refer to Section 3.8, Volume II of the EIS.

Attachment D 5g-Is gas flaring undertaken at the site?

Refer to Section 3.8.3, Volume II of the EIS.

Attachment D 5h-Is there an active (i.e., pumped) landfill gas extraction system?

Refer to Section 3.8.3, Volume II of the EIS.

Attachment D 5i-Does the active system cover all of the filled area?

Refer to Section 3.8.3, Volume II of the EIS.

Attachment D 5j-Is landfill gas used to generate energy at the site?

If sufficient quantities of landfill gas can be harnessed at the site, and if economically feasible, this landfill gas will be utilised to generate electrical energy.

Attachment D 5k-Have emissions from the flarestack and utilisation plant been assessed for source, composition, quantity and level and rate?

Refer to Section 3.8.3, Volume II of the EIS.

Attachment D 5l-Has a maintenance programme for the control system been specified?

Refer to Section 3.16.2, Volume II of the EIS.

Attachment D 5m-Has a condensate removal system been designed?

Refer to Section 3.8.3, Volume II of the EIS.

Attachment D 6-Capping System**Attachment D 6a-Has the daily cover been specified?**

Refer to Section 3.9.7, Volume II of the EIS.

Attachment D 6b-Has the intermediate cover been specified?

Refer to Section 3.9.8, Volume II of the EIS.

Attachment D 6c-Has the temporary capping been specified?

Refer to Section 3.9.9, Volume II of the EIS.

Attachment D 6d-Has the Capping System been designed and does it meet the requirements of the Landfill Directive Annex 1 (3.3)?

Refer to Section 3.9, Volume II of the EIS. The capping system complies with the requirements of the Landfill Directive Annex 1 (3.3).

Attachment D 6e-Does the Capping System include a flexible membrane liner?

Refer to Section 3.6, Volume II of the EIS.

Attachment D 6f- Have all capping materials been specified?

Refer to Section 3.6, Volume II of the EIS.

Has a Method Statement for construction been produced?

Refer to Section 3.9.2, Volume II of the EIS.

Has a Quality Control Plan been produced?

Refer to Section 3.9.4, Volume II of the EIS.

Has a Quality Assurance Plan been produced?

Refer to Section 3.9.5, Volume II of the EIS.

Has a programme for monitoring landfill stability been developed?

Refer to Section 3.9.6, Volume II of the EIS.

Has a programme for monitoring landfill settlement been developed?

Refer to Section 3.9.6, Volume II of the EIS.

ATTACHMENT E-EMISSIONS

Attachment E.1-Emissions to Atmosphere

Refer to Section 4.1, Volume II of the EIS.

Attachment E.2-Emissions to Surface Waters

Refer to Section 4.4, Volume II of the EIS.

Attachment-E.3-Emissions to Sewer

There are no discharges to the Sewer

Attachment E.4-Emissions to Groundwater

Refer to Section 4.3, Volume II of the EIS.

Attachment E.5-Noise Emissions

Refer to Section 4.1.2, Volume II of the EIS.

Attachment E.6-Environmental Nuisances

Attachment E.6a-Bird Control

Refer to Section 3.14.2, Volume II of the EIS.

Attachment E.6b-Dust Control

Refer to Sections 3.15.1 and 4.1.1, Volume II of the EIS.

Attachment E.6c-Fire Control

Refer to Sections 3.14.3 and 3.3.15, Volume II of the EIS.

Attachment E.6d-Litter Control

Refer to Section 3.14.4, Volume II of the EIS.

Attachment E.6e-Traffic Control

Refer to Sections 3.3.10 and 4.9, Volume II of the EIS.

Attachment E.6f-Vermin Control

Refer to Section 3.15.1, Volume II of the EIS.

Attachment E.6g-Road Cleansing

Refer to Sections 3.14.6 and 3.3.5, Volume II of the EIS.

ATTACHMENT F-CONTROL & MONITORING

Attachment F.1-Treatment, Abatement and Control Systems

Landfill gas is generated at this landfill site. It is proposed to install a gas collection and flaring system, which will collect gas from the waste body. This is detailed in Section 3.8, Volume II of the EIS.

A leachate collection system has been installed for Phase 1 of the landfill and a similar system will be installed for all future stages. This is detailed in Section 3.7, Volume II of the EIS.

Attachment F.2-Air – Monitoring and Sampling Points

Refer to Sections 3.15.1, 3.15.7 and 3.15.8 Volume II of the EIS.

Attachment F.3-Surface Water- Monitoring and Sampling Points

Refer to Sections 3.15.9 and 3.15.10, Volume II of the EIS.

Attachment F.4-Sewer Discharge- Monitoring and Sampling Points

There will not be any discharges to the sewer system

Attachment F.5-Groundwater- Monitoring and Sampling Points

Refer to Section 3.15.2, Volume II of the EIS.

Attachment F.6-Noise- Monitoring and Sampling Points

Refer to Section 3.15.6, Volume II of the EIS.

Attachment F.7- Meteorological Data- Monitoring and Sampling Points

Refer to Section 3.15.5, Volume II of the EIS.

Attachment F.8- Leachate- Monitoring and Sampling Points

Refer to Section 3.15.4, Volume II of the EIS.

Attachment F.9- Landfill Gas- Monitoring and Sampling Points

Refer to Section 3.15.3, Volume II of the EIS.

ATTACHMENT G- RESOURCE USE AND EFFICIENCY**Attachment G.1: Raw Materials, Substances, Preparations and Energy**

Refer to Section 3.13.6, Volume II of the EIS.

Attachment G.2: Energy Efficiency

Landfill gas will be collected and flared during operation as well as after the cessation of landfilling, as gas production can continue for some years post-closure. If sufficient quantities of landfill gas can be harnessed at the site, and if economically feasible, this landfill gas will be utilised to generate electrical energy.

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ATTACHMENT H: MATERIALS HANDLING**Attachment H.1- Waste Types and Quantities – Existing & Proposed****Annual Tonnages of Waste at Drehid WMF**

Year	Permitted to be Landfilled (Tonnes)	Permitted to be Composted (Tonnes)	Proposed Landfill Intensification (Tonnes)	Total (Tonnes)
2008	120,000	25,000	120,000*	265,000
2009	120,000	25,000	240,000	385,000
2010	120,000	25,000	240,000	385,000
2011	120,000	25,000	240,000	385,000
2012	120,000	25,000	240,000	385,000
2013	120,000	25,000	240,000	385,000
2014	120,000	25,000	240,000	385,000
2015	120,000	25,000	120,000*	265,000
2016	120,000	25,000	-	145,000
2017	120,000	25,000	-	145,000
2018	120,000	25,000	-	145,000
2019	120,000	25,000	-	145,000
2020	120,000	25,000	-	145,000
2021	120,000	25,000	-	145,000
2022	120,000	25,000	-	145,000
2023	120,000	25,000	-	145,000
2024	120,000	25,000	-	145,000
2025	120,000	25,000	-	145,000
2026	120,000	25,000	-	145,000
2027	120,000	25,000	-	145,000

* The intensification of the landfilling of waste is proposed to commence in mid 2008 and finish in mid 2015, spanning a 7-year period.

Refer to Sections 3.1.1-3.1.3, Volume II of the EIS for further details.

Attachment H.2- Waste Acceptance Procedures

Refer to Section 3.13.3 Volume II of the EIS

Attachment H.3- Waste Handling

Refer to Section 3.13.4, Volume II of the EIS.

Attachment H.3a Waste Handling at the Landfill Facility

State whether all waste will be subject to treatment prior to landfilling. Provide information as to the quantities of biodegradable municipal waste and how the targets of the Landfill Directive (1999/31/EC) relating to that waste type are to be achieved. In particular describe how the following will be achieved:

- (a) *a reduction by 16/07/06 to 75% by weight of the total amount of biodegradable municipal waste produced in 1995 or the latest year before 1995 for which standardised Eurostat data is available;*
- (b) *a reduction by 16/07/09 to 50% by weight of the total amount of biodegradable municipal waste produced in 1995 or the latest year before 1995 for which standardised Eurostat data is available;*
- (c) *a reduction by 16/07/16 to 35% by weight of the total amount of biodegradable municipal waste produced in 1995 or the latest year before 1995 for which standardised Eurostat data is available;*
- (d) *Evidence should be provided to show that energy will be used efficiently.*

All waste will be subject to treatment prior to landfilling as conditioned under the current licence which states in Condition 8.1.1 that only pre-treated wastes are acceptable for disposal as set out in Article 6 (a) of the Landfill Directive.

Table 3.1.2 in the EIS (Volume II) provides a breakdown of the waste to be landfilled at the Drehid Waste Management Facility. The annual tonnages of waste to be landfilled are as outlined in Table 3.1.3 in the EIS (Volume II). The composition of the waste to be landfilled is provided in Table 3.1.4 in the EIS (Volume II).

The EU Landfill Directive imposes environmental and engineering standards for landfills across Europe. The Directive also requires a progressive reduction in the landfilling of Biodegradable Municipal Waste (BMW) and the pre-treatment of wastes before landfilling, to both reduce waste volume and minimise the environmental impact of disposal.

From a baseline of 1995, the amount of BMW allowed to landfill will be as follows:

- 75% of 1995 levels by 2010;
- 50% of 1995 levels by 2013;
- 35% of 1995 levels by 2020

The future composition of the waste to be landfilled will therefore have a reduced percentage of biodegradable waste, in particular paper/cardboard and organics, due to

the EU Landfill Directive.

The Drehid Waste Management Facility is an integral part of the waste management system for the Greater Dublin Region and specifically provides waste disposal capacity for the region. The management of the waste arising in the Greater Dublin Region is governed by the numerous waste management plans for the region including the

- The Waste Management Plan for the Dublin Region
- The Waste Management Plan for the County Kildare
- The Waste Management Plan for the County Wicklow
- The Waste Management Plan for the North East Region

The various waste management plans set out targets for the recycling and recovery of waste including for the diversion of biodegradable waste from landfill. These targets are to be achieved by the development/expansion of schemes for the separate collection of recyclable waste (including paper/cardboard) and the separate collection of biodegradable waste. Waste recovery facilities are also required in order to achieve these targets and numerous such facilities are already operational or are at planning stage including the following non-exhaustive list of facilities:

- Waste to Energy Facilities (e.g. Indaver's proposed incinerator in Carranstown, County Meath and the municipal waste incinerator proposed by the Dublin Local Authorities at Poolbeg, Dublin);
- Biowaste Facilities (e.g. the biological treatment facilities proposed by the Dublin Local Authorities at Ballyogan and Kilshane Cross; the compost facility operated by Thornton Recycling at Kilmainham Wood, County Meath; the Materials Recycling Facility (MRF)/compost facility operated by Advanced Environmental Systems (a subsidiary of Bord na Móna) in Navan, County Meath; the MRF/composting facility operated by Panda Waste, Beaupark, Navan, County Meath, the greenwaste composting facility operated by Bord na Móna in Kilberry County Kildare; the composting facility at Drehid, County Kildare to be operated by Bord na Móna etc.);
- Material Recovery Facilities for dry recyclables (e.g. the material recovery facility proposed by the Dublin Local Authorities at Ballymount, Dublin; the MRF operated by Thornton Recycling at Killeen Road, Dublin; the MRF operated by Oxygen Environmental at Ballymount, Dublin; the MRF operated by Panda Waste at Ballycoolin, County Dublin; the MRF operated by Greenstar at Ballycoolin, County Dublin etc.)

With respect to progress on the achievement of the targets in the Waste Management

Plan for the Dublin Region, the *Annual Progress Report, 2007* (published 9th April 2008) provides a commentary on the progress made in the first two years of the Waste Management Plan for the that Region. That documents notes:

- A commitment to the landfill target of 16% by 2013;
- A commitment to the overall recycling target of 59% by 2013, notwithstanding the fact that the household recycling rate for 2006 was 28%, with the commercial and industrial waste recycling rate up to 48% in that year (within the context of increase waste generation of 22% since 2003), a municipal waste recovery rate of 40% and a packaging recovery rate of 48%;
- That the region remains reliant on landfill for the disposal of municipal type waste with 74% of waste landfilled in 2003, falling to 60% in 2006.

In that context the report notes that in relation to the provision of large-scale waste management infrastructure the following developments are reported:

- **Biological Treatment Facilities** – two such facilities are being developed at Ballyogan and Kilshane Cross with a total treatment capacity of 70,000 tonnes and an anticipated operational date of 2009;
- **Materials Recovery Facilities** – the construction of a facility for the processing of household recyclables with a capacity of 100,000 tonnes per annum is underway and the facility is expected to be operational from mid 2008;
- **Energy Recovery** – the report notes that an oral hearing was completed by An Bord Pleanála and planning permission was granted by the Board in November 2007. The EPA issued a Proposed Decision for the Waste Licence in November 2007. An EPA Oral Hearing on the Proposed Decision will be held in April 2008.

The report notes that the long-term landfill target of 16% by 2013 remains a *considerable challenge* as does the reduction in the levels of Biodegradable Municipal Waste being landfilled in the region.

It is also reported in the EPA's discussion paper *Hitting the Targets for Biodegradable Municipal Waste: Ten Options for Change (January 2008)*, that based on the most recent waste management statistics target delivery appears to be behind schedule and that in order to comply with the Landfill Directive's 2016 target the country will need to develop new systems and infrastructure to manage in excess of 1 million tonnes of BMW (incl. organics). The paper, while recognising that a number of initiatives are already underway to effect change, many obstacles remain and further active policy intervention is required if targets set for diversion of biodegradable municipal waste from landfill are to be achieved.

The paper recognises that the achievement of the targets is a national issue and suggests ten possible public policy interventions to encourage changes in management practices in order to achieve the targets, namely:

1. Promote at-source composting
2. Expand R&D for at-source composting
3. Ban the landfill of untreated municipal waste
4. Increase the landfill levy
5. Undertake market research for treated OFBMW products
6. Provide a subsidy for the treatment of OFBMW
7. Develop and assign responsibility for a national waste management plan
8. Develop guidance on waste infrastructure and contaminated sites
9. Develop stabilised biowaste standards
10. Encourage green procurement and undertake marketing of OFBMW products.

It is clear from the above that the future composition of the waste to be landfilled at the Drehid Waste Management Facility will have a reduced percentage of biodegradable waste, in particular paper/cardboard and organics, due to the implementation of the various separate collection schemes and waste recovery/recycling facilities which are either operational or proposed in the Greater Dublin Region.

However the future relative percentages cannot be accurately determined at this stage, due to the uncertainty regarding the pace and success of the implementation of waste strategies in the Greater Dublin Region (as recognised in the Annual Progress Report 2007 summarised above). The achievement of the targets is also a national issue and public policy interventions, as proposed by the EPA, are clearly required in order to meet the targets.

Attachment H.4 Waste Arisings

Not Applicable

ATTACHMENT I: EXISTING ENVIRONMENT & IMPACT OF THE FACILITY**Attachment I.1- Assessment of atmospheric emissions**

Refer to Sections 2.2, 3.12.4, 3.15.1, 3.15.7 and 4.1, Volume II of the EIS.

Attachment I.2- Assessment of Impact on Receiving Surface Waters

Refer to Sections 2.5, 3.12.6, 3.15.9, 3.15.10 and 4.4, Volume II of the EIS.

Attachment I.3- Assessment of Impact of Sewage Discharge

Refer to Section 3.3.11, Volume II of the EIS.

Attachment I.4- Assessment of impact of ground/groundwater emissions

Refer to Sections 2.4, 3.12.5, 3.15.2, and 4.3, Volume II of the EIS.

Attachment I.5- Ground and/or groundwater contamination

Not Applicable

Attachment I.6- Noise Impacts

Refer to Sections 2.2.2, 3.12.2, 3.15.6 and 4.1.2, Volume II of the EIS.

Attachment I.7- Assessment of Ecological Impacts & Mitigation Measures

Refer to Sections 2.7, 3.12.8, 3.15.11 and 4.6, Volume II of the EIS.

ATTACHMENT J: ACCIDENT PREVENTION & EMERGENCY RESPONSE

Refer to 3.16, Volume II of the EIS.

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**ATTACHMENT K: REMEDIATION, DECOMMISSIONING,
RESTORATION & AFTERCARE**

Refer to Sections 3.10 and 4.5 Volume II of the EIS.

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ATTACHMENT L: STATUTORY REQUIREMENTS

Attachment L. 1 and L2-Section 40(4) WMA

The activity will be carried out in such a manner so as to comply with environmental standards and legislation and will be carried out by a fit and proper operator; Bord na Móna, as per paragraphs (a) to (i) of Section 40 (4) of the Act;

All site activities will be carried out without the contravention of emission limits values, environmental standards and any enactments.

The Drehid Waste Management Facility is designed, constructed, operated, monitored and will be restored in accordance with European Council Directive 1999/31/EC on the landfill of waste, the EPA Landfill Manuals, BAT guidance notes for waste facilities, environmental standards and with any permitted licence conditions and therefore will not cause environmental pollution.

The Waste Management Plans for the Kildare and Dublin Waste Authorities recognise the need for inter-regional transfers of waste and in respect of the Dublin Plan, note that such arrangements will be essential, certainly in the short-term, to meet deficits in landfill capacity in Dublin. Both plans emphasise the importance of planning for short-term needs while protecting the longer-term objectives of that waste region – which in the case of Dublin means developing additional facilities within the Region. The proposed development complements these objectives providing an immediate solution to an identified short-term capacity deficit as well as protecting the long-term function of this waste management facility and does not prejudice measures taken or to be taken by the relevant local authority or authorities for the purpose of the implementation of any such plans.

Neither the operator, Bord na Móna, nor any of its personnel have been convicted of an offence under the Act

Any person employed to direct or control the carrying on of the activity to which this waste licence relates has and will have the requisite technical knowledge or qualifications to carry on that activity in accordance with the licence and the other requirements of the Act.

As demonstrated in the financial statements (Appendix 6 of these attachments), Bord na Móna is in a position to meet any financial commitments or liabilities that the agency reasonably considers will be entered into or incurred by it in carrying on the activity to which this waste licence will relate in accordance with the terms thereof or in consequence of ceasing to carry on that activity.

Condition 12.2.2 of the current licence requires Bord na Móna to arrange for the

completion, by an independent and appropriately qualified consultant, of an Environmental Liabilities Risk Assessment (ELRA). This ELRA was submitted to the EPA in January 2008. This ELRA includes a proposal for Financial Provision arising from the carrying out the activities to which the licence relates. Specifically Bord na Móna proposes to provide a Company Guarantee to the value of €1,400,000.00 in Year 1. This figure will be reviewed annually in accordance with condition 12.2.4 of the current licence. Based on the present calculation this figure is expected to rise to a maximum of €2,548,000.00 when the void space is fully used.

Bord na Móna is committed to the operation of the facility such that energy will be used efficiently in the carrying on of the activities on site.

Any noise from the activity concerned will comply with, or will not result in the contravention of, any regulations under section 106 of the Act of 2002.

All necessary measures will be taken to prevent accidents in the carrying on of the activity and, where an accident occurs, its consequences for the environment will be limited.

Details of the technical knowledge and qualifications are provided in Section C.1 of this application.

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