



**OFFICE OF
LICENSING &
GUIDANCE**

INSPECTORS REPORT ON A LICENCE APPLICATION

To:	DIRECTORS	
From:	MAEVE MCHUGH	- LICENSING UNIT
Date:	28 JUNE 2004	
RE:	APPLICATION FOR A LICENCE FROM WEXFORD COUNTY COUNCIL, LICENCE REGISTER 191-1	

Application Details

Type of facility:	Integrated Waste Management Facility
Class(es) of Activity (P = principal activity):	3 rd Schedule: 1, 4, 5(P), 6, 7, 11, 12, 13. 4 th Schedule: 2, 3, 4, 9, 10, 11, 12, and 13.
Class(es) of Activity Refused	3 rd Schedule: 2 4 th Schedule: 9
Quantity of waste managed per annum:	80,000 tonnes
Classes of Waste:	Non-hazardous household and commercial waste, Waste for composting, Construction and Demolition Waste for recovery, Household and commercial waste accepted for recovery at the Civic Waste Facility and Materials Recovery Facility.
Location of facility:	Within the townlands of Holmestown Great, Glenduff, Bolgerstown, Muchwood, Ballyeaton, County Wexford.
Licence application received:	19/08/03
Third Party submissions:	24
EIS Required:	Yes
Article 14 Notices sent:	08/04/04
Article 14 compliance date:	20/05/04
Article 16 Notices sent:	08/04/04
Article 16 Compliance date:	20/05/04
Site Visit:	10/12/03 MMcH and JD

1. Facility

The application from Wexford County Council is for the development on a greenfield site of an integrated waste management facility including engineered landfill, Materials Recovery Facility, Civic Waste Facility and Composting Facility. The proposed Civic Waste Facility is for use by members of the public only while the Materials Recovery Facility (MRF) is for use for wastes collected from households and businesses. The landfill will accept non-hazardous household and commercial waste for disposal up to a maximum of 55,000 tonnes per annum. The Civic Waste Facility and Materials Recovery Facility combined will accept a maximum of 12,000 tonnes per annum of household and commercial waste, as well as 8,000 tonnes per annum of construction and demolition waste for recovery. It is proposed that the composting facility will accept a maximum of 5,000 tonnes per annum of suitable materials to be composted in enclosed in-vessel units.

The hours of waste acceptance at the landfill, Civic Waste Facility and MRF are as requested by the applicant and are as follows:

08.30 a.m. and 16.30 p.m. Monday to Saturday

The design capacity of the landfill is 900,000 tonnes i.e. with a maximum limit per year of 55,000 tonnes the lifespan of the facility will be between 16 and 20 years.

2. Operational Description

The proposed development can be thought of as two distinct areas or phases.

- A: - the Civic Waste Facility (CWF)
 - The Materials Recovery Facility (MRF) and
 - Composting area
- B: the landfill and its related infrastructure

Civic Waste Facility (CWF)

In relation to area A, the layout of various components is illustrated in Figure 5.7a (Rev A) of the EIS Addendum. The Civic Waste Facility will contain labelled receptacles for various recyclable materials including the following: glass, paper and cardboard, metals, plastics, textiles and clothing, timber, waste paints, fluorescent tubes, white goods, brown goods, IT equipment, green garden waste used batteries etc. When the various receptacles are full they will be weighed at the weighbridge and recorded and then directed to the MRF for further sorting or storage, as necessary. Non-recoverable/ recyclable wastes, which are suitable for acceptance at the landfill, will be landfilled.

An area for acceptance and storage of construction and demolition type wastes will be located within the CWF.

Materials Recovery Facility (MRF)

Wastes delivered to the MRF will have either been separately collected, collected from houses or businesses or will have come through the CWF. Incoming wastes will be further sorted and processed in the MRF. Sorting will be achieved through manual picking and automatic sieving and screening. The detailed design of the MRF will be agreed under Specified engineering works.

Composting Facility

The wastes, which Wexford County Council proposes to accept for composting, are green garden wastes and organic kitchen wastes. Only green garden wastes will be received via the CWF. The organic kitchen wastes will be collected from households and commercial outlets with a 3-bin (separated) collection system. The decomposition will take place in enclosed vessels. Each vessel will be approximately 30m³ in volume with 4 vessels operation at the outset, increasing to approximately 10 vessels. The in-vessel process consists of forced aeration, and moisture and temperature control. The outlet air will be passed through a biofilter system for the control of odours and bio-aerosols. After the in-vessel phase the composted material will then be cured indoors in aerated piles.

The Schedules of the PD specify the composting process control and monitoring, including monitoring of the biofilters and bio-aerosols. The requirement of Regulations no. 1774/2002 with regard to animal by-products will apply (kitchen wastes are a Category 3 Animal By-Product).

Landfill

The landfill itself will be an engineered lined facility for non-hazardous waste, developed in 10 separate phases. Condition 3 of the PD generally governs infrastructural requirements at the landfill. Leachate produced at the facility will be treated on site and discharged to sewer via pipeline to the Wexford Wastewater Treatment plant. The management of leachate at the facility is discussed in Section 4.2 below. Surface water runoff at the facility will be managed via a series of weirs and ponds ultimately discharging to the River Slaney. The development of the facility will require the diversion of some existing surface water streams. The control of surface water at the landfill is discussed further in Section 4.3 below. Landfill gas produced from the breakdown of waste within the landfill will initially be flared and when sufficient gas is being produced the licensee must submit proposals for the utilisation of gas to produce energy/electricity. Condition 5 of the PD generally governs the operation of the landfill.

3. Use of Resources

- *Fuel*

Using Killurin landfill as an analogy, the applicant states that approximately 35m³ of diesel was used in the year 2000.

- *Electricity*

The applicant states that good operational practices will ensure efficient use of plant and equipment at the facility. The conditions of the PD also require that the licensee submit proposals for the utilisation of landfill gas to generate electricity/energy when sufficient volumes are being produced.

- *Financial resources*

The applicant proposes to set aside a community fund, which will be prescribed, for the local community. They also intend to establish and agree exactly where the local community boundary lines apply and will liaise with the community to determine how the funding will be utilised (Condition 12.5).

4. Emissions

4.1 Air

- Emissions to air will primarily consist of dust, landfill gas, landfill gas combustion products, odours, etc. The conditions of the PD impose acceptable limits on these emissions and require monitoring e.g. the monitoring of gases, PM₁₀ and bio-aerosols from the composting process. Since almost all waste processing at the MRF and composting facility is to be carried indoors air emissions from these processes are not expected to be at nuisance levels.
- As part of the EIS the applicant carried out modelling to predict the levels of various potential air contaminants (NO₂, SO₂, CO, PM₁₀ and benzene) from the landfill gas combustion, at the nearest property. In each case the predicted process contribution represented only a small fraction of the Air Quality Standard (AQS) level (range from 0.02 – 3% of AQS).
- The control of odours will be assisted by various operational practices, such as the covering of waste, as well as the substantial buffer zone of trees.

4.2 Emissions to Sewer/ Leachate

- Wastewater arising on-site, such as canteen and toilet effluent is to be treated at an on-site wastewater treatment plant. Drainage from waste handling or waste storage areas of the Civic Waste Facility, Composting area or Materials Recovery Facility will be discharged to the leachate management system.
- Leachate produced at the landfill facility is to be treated on site. The on-site leachate treatment proposed by the applicant and specified in the PD consists of:
 - Raw leachate storage/ balance tank
 - Sequencing batch reactor
 - Treated leachate balance tank
 - Chemical dosing (e.g. alkali dosing).

Following treatment leachate is to be discharged via pipeline to the wastewater treatment plant in Strandhill, Rosslare Road, Wexford.

- Discharge consent under S.52 of the Waste Management Act was not necessary in this case because the sewer to which the leachate is to

be discharged is under the control of Wexford County Council. The ELVs for discharge to sewer or discharge of treated leachate from the on-site leachate treatment plant are as proposed by the applicant and have been confirmed in writing by a Senior Executive Engineer in Wexford County Council's Water Services Section. The ELV proposed by the applicant and confirmed by the Water Services Section is 10 mg/l BOD. No limit was suggested for dissolved methane. A limit of 0.2 mg/l has been imposed in the PD and the licensee is required to submit proposals for the monitoring of dissolved methane.

- Wexford County Council have confirmed in writing that the estimated spare capacity of the treatment plant at Strandhill is 10,000 PE (population equivalents) or 600 kg BOD/day and they have agreed to accept 80m³/day of leachate from the facility. The plant provides for preliminary, secondary and tertiary treatment. Preliminary treatment consists of screening and grit removal; secondary treatment is an activated sludge process and tertiary treatment is by means of ultraviolet disinfection.

4.3 Emissions to Surface Waters/ Surface water Runoff

- The entire site of the proposed development lies within the catchment of the River Slaney. The river itself is located 2km east of the site and is a designated salmonid watercourse under the EU Freshwater Fish Directive. It is also a candidate Special Area of Conservation (SAC) under the EU Habitats Directive. At present two main streams and several of their tributaries and man-made drainage channels drain the site, including the proposed landfill footprint area. The two main streams join towards the north of the site and flow eastwards towards the Slaney.

Monitoring of background water quality indicated that faecal coliforms are present and that some low level contamination with organic matter has occurred.

- ***Flooding Potential***
Local residents have expressed concern about the potential for surface water to flood the proposed site. The concerns had arisen from flooding experienced during severe weather in Autumn of 2001 when flooding occurred in the stream and fields near Muchwood Farm which lies to the North of the site. The flooding caused water to back up to a point just north of the confluence of the two main streams. The maximum flood level recorded during that event was approximately 6.5m AOD.

- Off-site Runoff

The applicant was required to carry out modelling to determine the potential for out-of-channel flooding from off-site runoff using the 1 in 100 year return period. The results of this modelling suggest that out-of-channel flooding to a maximum level of approximately 7.17m AOD is likely to occur in the vicinity of the confluence of the two main surface water channels (i.e. near Muchwood farm, as observed in 2001) as well as downstream of this confluence. No out-of channel flooding is predicted on the higher ground, further south. The lowest point of the

landfill lining system formation level is approximately 11m (towards the northern end) this provides a flood safety factor of more than 3.5m vertical height. Note that Condition 3.11.3 allows for a possible raising of the formation level of the landfill lining system, but no lowering of the level is permitted.

The EIS refers to the possibility that clogging up of stretches of the surface water channels downstream of the site may have contributed to flooding in the past, therefore the condition of the PD require that the surface water channels, as well as the on-site weirs and drains are checked on a weekly basis and cleared if necessary (ref. Condition 8.9).

- On-site Measures

The applicant proposed that, as a measure to avoid the risk of flooding, storage must be provided for the additional run-off from the site during peak surface water discharge. This storage will be provided within a network of drainage ditches that will be constructed as part of the landfill development. The drainage ditches are to be fitted with weirs, which will have drains to allow normal flow to pass through them. Excess flow will be trapped behind the weirs and the weir system will be connected to a series of surface water ponds, which will provide additional storage capacity. Condition 3.15 of the PD controls the management of surface water.

4.4 Emissions to ground/groundwater:

- Regional geological maps show that the site lies within a geological formation known as the Newtown Formation of Cambrian age, consisting of sandstones interbedded with slaty mudstone. The Geological Survey of Ireland have classified this aquifer as a poor aquifer i.e. bedrock which is generally unproductive except for local zones (PI). The EIS discusses a report, which indicates that sand units within the overburden may have a significant well yield and maybe therefore constitute a Locally Important Aquifer.
- The subsoils thickness across the landfill area is generally greater than 10m. The subsoil type encountered in site investigation works is generally described as sandy or gravelly clay. With increasing depth this seems to give way to a weathered mudstone overburden, as may be expected overlying slaty bedrock. This means that in accordance with the 'Groundwater Protection Schemes' document published by the GSI, EPA and DoELG the groundwater vulnerability is low. This means that the appropriate response is 'R1' or acceptable for landfilling, subject to guidance in the EPA landfill site design manual or conditions of a waste licence.

The proposed decision requires that the base or formation level of the landfill lining system is at least 2m higher than the level of the groundwater table. The applicant in the EIS, which accompanied the application, proposed this 2m level difference.

There is a dearth of groundwater level monitoring data on which to base the assumptions of depth to the ground water table. It is also the case that the monitoring of groundwater levels was largely carried out during the drier summer months when the groundwater table could be

expected to be lower than that of the wetter winter months. For this reason, in order to ensure that the base of the landfill lining system is installed at a level at least 2m higher than the groundwater table I recommend that monitoring of groundwater levels should be carried out throughout a winter period before a final decision is reached as to the formation levels of the landfill lining system (See Condition 8.8.2).

- A number of private wells (12 in total) have been identified in the vicinity of the proposed development. These have been identified as PW1, PW2 etc. on Figure No 5.12 of the EIS Addendum and the applicant proposes, subject to the consent of the well owners to include them in the groundwater monitoring schedule.

4.5 Noise:

- Existing Environment and Predicted Noise Levels
The site itself is a predominantly coniferous-forested plantation and is bounded on all sides by agricultural land. The southern boundary of the site lies less than half a kilometre from the N25 (main New Ross to Wexford road). There are several properties in the vicinity of the proposed development including residential and agricultural properties and a nursing home, and these are discussed below.
Many of the submissions from members of the public expressed concern in relation to the potential of the activities at the proposed facility to generate noise nuisance. Some of the background noise levels measured in the vicinity of the site are quite low ranging from values of 30 – 46 dB LA90.
Nine noise sensitive receptors were identified in the EIS. Of these nine receptors, 2 of them, N8 and N9 lie within 100m of the site access road (which is within the facility boundary). There is a nursing home 230m distance from the facility boundary (at the site access road) but it is less than 100m from the N25. The nursing home will be 420m from the Civic Waste Facility and approximately 700m to the nearest point of the landfill footprint.
The greatest differences between background noise levels and maximum noise levels predicted in the EIS are at NSLs 2, 3, 5, 8 and 9 where the predicted differences range from > 13dB and 18.8dB. In some cases the predicted noise levels exceed the normal daytime noise emission limit value of 55 dB(A) L_{aeq} with levels of up to 64.4 L_{aeq} (at NSL 8). At other NSLs, according to the predicted maximum noise levels the normal daytime noise emission limit value will not be exceeded but the difference between background and predicted noise levels is still significant e.g. more than 17 dB at NSLs 2 and 3 and more than 13 dB at NSL5. As stated in the EIS Addendum it is reasonable to suggest (with reference to the British Standard BS4142) that the difference between baseline and predicted sound pressure level in the vicinity of the facility will be sufficient to cause nuisance or complaint.
- Noise Mitigation
The applicant proposes various noise mitigation measures. These include:

- the erection of permanent acoustic barriers along either side of the access road from the junction of the N25 to the entrance area.
- The erection of acoustic screens or bunds around other parts of the site to provide noise attenuation to the NSLs.

In addition to acoustic barriers tree planting is also required along the access road. This will assist in noise attenuation and will also provide mitigation against the visual effects of the acoustic barriers. The Proposed Decision also requires that low sounds level plant be used on site and that speed restrictions are imposed on internal site roads.

Apart from the requirement that the ELVs for noise are not exceeded Condition 6.2 of the Proposed Decision requires that emissions do not result in significant impairment of, or significant interference with the environment beyond the facility boundary.

The EIS states that the barriers referred to above will provide attenuation of at least 10 dB (A). Testing of the effectiveness of the various acoustic barriers is required and waste activities may not commence until the Agency is satisfied that the noise levels at NSLs are not likely to cause a nuisance. Nonetheless, as stated in British standard 4142 the likelihood that an individual will complain depends on individual attitudes and perceptions in addition to the noise levels and acoustic features present.

The Proposed Decision requires noise monitoring on a quarterly basis (rather than annually, as is normally required).

4.6 Nuisance:

Various conditions of the PD govern the control of nuisances at the proposed development. Condition 7 of the PD specifically refers to litter, dust, vermin and bird control. Noise is a potential source of nuisance at the facility and is separately dealt with under Section 4.5 above. Many other conditions also provide for the control of nuisances, such as the requirement to cover waste, the requirement for waste collection vehicles to be appropriately covered, litter netting etc.

5. Visual Impact

The main areas of visibility of the site are to the north, south and southwest. Of the residences examined in these areas in close proximity to the proposed development it is predicted that the residential property which will be most affected in relation to the change to visual amenity and landscape character is Muchwood Farm, near Muchwood crossroads which lies to the north of the site. It is considered in the EIS that during the operational phase of the facility the effect on visual amenity will be major for the residents of Muchwood farm as the sensitivity of the receptor is considered high (residential) and the magnitude of change will be substantial. Several other properties, as well as views from roads and walks will also be affected to varying extents.

The Proposed Decision requires that throughout the development, operation and aftercare of the facility the amount of forestry plantation within the facility boundary, outside the landfill footprint will be maximised. The applicant proposed to clear-fell a number of landfill phases at a time however, in order to reduce the visual impact of the development Condition 4.1 of the PD specifies that the clear-felling of any one landfill phase cannot take place until the previous phase is operational.

Condition 4 governs the Restoration and Aftercare of the facility and includes the maintenance of the coniferous type forestry plantation within the facility boundary, outside the landfill footprint area. The perimeter of the landfill footprint area itself will be planted with mixed woodland and shrub species including alder, beech, willow, hawthorn, birch, ash, hazel and blackthorn while the footprint area itself will be planted as grassland in fields bounded by hedgerows. Filled cells are required to be permanently capped within eighteen months of having been filled to the required level.

6. Cultural Heritage, Habitats & Protected Species

The EIS describes various habitat types within the boundary of the proposed facility, including grassland, scrub and riparian woodland and coniferous plantation. Notably badger sets, droppings, footprints and pathways were noted during the ecological survey. The EIS identifies the proposed site as a locally and perhaps regionally important habitat for redpoll, an Amber List Species. The displacement of the red squirrel is also identified as a potential impact of the proposed development. As loss of habitat will occur the maintenance and management of the peripheral forestry plantations is thought to be an important mitigating factor.

A submission was received from the National Parks and Wildlife Service staff of the Department of Environment, Heritage and Local Government. The submission outlined a number of recommendations regarding badgers, squirrels, bats and birds at the site. These recommendations have been included as conditions in the PD (see Conditions 3.24, 9.5, and 9.6).

7. Waste Management, Air Quality and Water Quality Management Plans

The Joint Waste Management Plan for the South East regions sets out waste policy for the region and includes the requirement for waste recovery and recycling, energy recovery from waste, waste treatment including thermal treatment, and final disposal. The proposed integrated waste management facility will contribute to these requirements. It also refers to the fact that additional landfilling space within the region is currently required and there will be a need for each authority in the region to provide either new landfills or landfill extensions to fulfil existing demand.

A Water Quality Management Plan for the Slaney Catchment exists, however it was published in 1980 and therefore predates the concept of the current proposed project and waste management legislation in Ireland.

8. Environmental Impact Statement

I have read and assessed the EIS and am satisfied that it complies with the requirements of the EIA regulations and Waste Licensing regulations.

9. Compliance with Directives/Regulations

The Proposed Decision takes account of the requirements of the relevant legislation/Directives including the following: the Landfill Directive, the IPPC Directive, the EIA Directive, the Groundwater Directive and the EU Animal By-Products Regulations – for composting.

10. Submissions

There were 24 submissions made in relation to this application

10.1 Submission from the South Eastern Health Board (SEHB)

The SEHB ask that the Agency notify the Board if during the processing of the application the Agency becomes aware of any risks to public health from the proposed development.

Comment: - as a submitter the SEHB will be made aware of any Proposed Decision to be made by the Agency on the application.

10.2 Submission from the Department of Environment, Heritage and Local Government (DoEHLG)

The submission outlines a set of recommendations from the Heritage and Planning Division of the DoEHLG as follows:

- A licence under the Wildlife Act, 1976 will be required to exclude/ live trap/ relocate badgers from within the development site. This work should be carried out in consultation with the National Parks and Wildlife Service of the DoEHLG.
- An artificial badger set to be constructed within the site where trees are to be retained. This work should be carried out in consultation with the National Parks and Wildlife Service of the DoEHLG.
- Any tree felling should be carried out during the period September to February.
- 30 bat boxes should be erected in trees to be retained around the site. This work should be carried out in consultation with the National Parks and Wildlife Service of the DoEHLG.
- 20 hole nesting and 20 open fronted bird boxes are to be erected.

Comment: - The recommendations above have been included as conditions of the Proposed Decision. See Conditions 3.24 and 9.6.1.

10.3 Submissions from Barntown Environmental Alliance (2) and submission from Dr. Beth Ann Roch (SEHB)

The submission expressed concerns as follows:

1. Health – the group request that the S.E.H.B. (possibly in conjunction with the applicant) carry out a Health Impact Assessment (HIA) on the areas surrounding the Wexford County Council proposed waste management facility – particularly because of the history of waste management facilities in the locality (Carcur and Killurin). The application does not adequately deal with the issue and e.g. makes only a passing reference to Knockeen Nursing Home, ignoring the recommendations of the site selection report, which stated that special consideration was to be given to a nearby nursing home and access.

There is also a lack of information of health related issues in the locality. It is the responsibility of the S.E.H.B. to ensure that the health and wellbeing of the people is protected. In the second submission Barntown Environmental Alliance state that they deem it essential that the EPA require Wexford County Council to carry out a formal Health Impact Assessment.

2. Financial Implications have not been properly addressed in the EIS.

3. The submission from Dr. Beth Ann Roch (SEHB) is included together with the submission from Barntown Environmental Alliance because it addresses some of the health issues raised under the Barntown Environmental Alliance submission.

The submission stated that many of the issues that would be included in a HIA e.g. water noise and air quality are included in the EIS, however baseline health data are not routinely available at local level. A formal HIA would provide means of identifying potential health impacts and recommending ways in which potential negative effects can be minimised and potential positive health effects can be maximised. It would also address the concerns of the local residents.

The submission states that from a public health perspective the main concerns of the SEHB are:

- traffic (road safety, noise),*
- air quality (waste and traffic),*
- water (especially well water),*
- vermin (adequate control)*

The submitter also notes that on some of the drawings of the facility there is an area marked 'dog corpse storage' but no details are given.

Comment: - The Agency has confirmed that the application complies with the EIS Regulations and as such is considered to be adequate. With regard to the question of a Health Impact Assessment the Agency notes the comments of Dr. Roch from the SEHB however the Agency is not the competent authority with regard to the carrying out of such an assessment. In a notice issued to the applicant under Article 16 of the Waste Management (Licensing) Regulations the Agency required the applicant to provide an assessment of the requirement for a formal Health Impact

Assessment of the proposed development. The response from the applicant stated that the applicant has complied with all the necessary statutory processes in provided an EIS and a waste licence application for the proposed development. It also states that the published reports on the health impacts of landfill provide reassurance that any health impacts will be negligible. In my opinion the requirement to carry out a formal Health Impact Assessment is beyond the scope of this licence but it is noteworthy that Wexford County Council propose to discuss the issue further with health care professionals.

With regard to the specific concerns listed in the submission from Dr. Roch (SEHB) the issue of traffic is one, which lies under the remit of the relevant Planning Authority, as the Agency has no jurisdiction over traffic and roads outside the facility boundary. Air quality, water quality and vermin control are governed by the conditions of the PD.

With regard to the area marked 'dog corpse storage' the concerns of the submitter are noted. However the conditions of the licence will govern the acceptance of waste and the appropriate disposal routes for incoming waste at the civic amenity facility. See condition 5.2.

10.4 Submission from Frank Kehoe, local resident

The submitter states that he has a farm at Polehore, which is very close to the proposed site. He is concerned at the potential of the landfill to affect his water supply as the river coming from the site passes through his land on its way to the Slaney. The proposed site lies to the south west of his property and he is also concerned that the prevailing southwesterly winds will carry any odours in the direction of his property.

Comment: - There are many conditions in the Proposed Decision which are designed to ensure the protection of surface waters. See Conditions 3.15 and 8.1. Conditions 7.1 and 3.20 are designed to prevent nuisance caused by odours.

10.5 Submission from Mary Wickham, local resident

The submitter objects strongly to the siting of another landfill so close to where two landfills were sited in the past. She says that in her youth she lived near the Carcur dump and that she was often made ill by the awful stench. Subsequently Killurin landfill was in the locality and now that she lives near Muchwood Cross there is another landfill proposed in the locality.

Ms. Wickham also made an additional submission, as an addendum to the original as follows:

The submitter states that she forgot to describe in her earlier submission the flooding which takes place at the bottom of Badger's Hill. This flooding has happened regularly around winter time, flooding the fields at both sides of the

road and she is concerned at the damage that may be done if the landfill is there.

Comment: - Since the application and EIS have been examined by the Agency and have been deemed to comply with the relevant legislation, including the EIS Regulations (which require that the developer considered alternatives) the choosing of the site of the landfill is a matter for the planning authority to comment on and not the Agency, however the applicant considered approximately 29 sites during the site selection process. The Agency has imposed conditions in the PD which will control odour and other nuisance parameters.

The management of surface water and flood risk is discussed under Section 4.3 above.

10.6 Submission from Michael Galvin, resident of Barntown Parish

The submitter wished to object to the proposed facility on the following grounds:

- *the effect on the health of his family,*
- *effect on the living environment,*
- *effect on the value of property.*

Comment: - The issue of health has been dealt with under section 13.3 above. The effect on the environment is discussed under the various sections of this report. With regard to the value of property in the locality the specific issue is beyond the scope of the licensing process however the conditions of the Proposed Decision are such that the proposed development should not cause nuisance due to odour, vermin, birds, dust etc.

10.7 Submissions from the following local residents: Ms Silvia Rothwell, Mary Doran and Cyril Darcy - Knockeen Nursing Home, Felim and Bernie O'Reilly, Nicholas Fitzhenry, Noel McCormack, Mary Brennan, Tina and James O'Rourke, Sean Kiely, Christopher Hayes, Anthony Whelan, Teresa Cowman, Gerard and Karen Cowman, Margaret Kelly, Adrian Rothwell, Barntown Environmental Alliance.

The following issues/comments were raised:

- *Visual intrusion – they will be looking into the site because the tree cover is very low. The high point of the landfill will be visible beyond the fields in the foreground.*

Comment: The conditions of the PD require that measures be taken which will address noise and odour and they will also assist in mitigating the effects of visual intrusion of the proposed development. Amongst these are the measures described in Section 5 of the inspector's report.

- Odours – *The southerly or southeasterly winds will carry unpleasant odours to their residences. They wonder if they will be able to report bad odours and whether the facility can be closed if the odours are bad. Concerned about odours while this development is (1) being constructed and (2) during its working lifetime.*

Comment: Many of the conditions of the PD have been put in place to ensure that odour and other potential nuisances are adequately controlled including the following: the requirement to use biofilters for the control of odours at the composting facility; the requirement to carry out waste processing at the Materials Recovery Facility and composting facility indoors in an appropriate building; as well as site operational practices at the landfill including the covering of waste. There is also a requirement to submit a proposal for odour monitoring.

- Health and well-being of clients in the nursing home will be affected as these people require a quiet and restful environment, that allows for rest, sleep patterns and relaxed routine. Increased danger of illness and infection. The composting will generate bio aerosols which will result in an increased risk of chest infections, especially in the case of vulnerable members of the community (e.g. a little girl with Down's Syndrome who lives locally and is prone to chest and lung infections and children suffering from asthma). One submission asks for exposure limits for bio aerosols to be included in the conditions of the PD. Any deterioration in air quality could have an effect. No calculation of the effect of toxic gases on the nearest receptors was carried out. Increased risk to farmer's livestock. One submitter believes that the landfill at Killurin was the source of his livestock being infected with leptospirosis, salmonella and coccidial scour. If the new landfill is located at Holmestown it will be the third landfill in the parish of Glynn-Barntown. There is not a lot known about the impact a landfill has on the health of the local inhabitants. One thing is certain I know of no report which says there are no associated risks. So whatever these risks are the people will be subjected to a triple dose. What will be the impact on (a) your life and (b) the lives of future generations) of having to live in the middle of two contaminated areas all your life. Health Impact while this development is (1) being constructed and (2) during its working lifetime. One submitter discussed the fact that member of both her own family and her husband's family have suffered miscarriages and still births and that the siting of the landfill within close proximity to their home is a cause of grave concern and distress.

Comment: See comment in Section 13.3 of the main Inspectors report. With regard to the concern regarding the generation of bio-aerosols the composting process itself will take place in enclosed vessels where the outlet air will be drawn through a biofilter system. All other processing and storage of compostable waste must take place within an appropriate building unless otherwise agreed by the Agency. The monitoring of bio-aerosols is also required. Section 4.1 of the Inspector's report discusses emissions to air.

- Health Impact Assessment – surely a Health Impact Assessment should be carried out before this application is even considered.

Comment: See comment in Section 13.3 above.

- Security at the nursing home will be interfered with.

Comment: The conditions of the Proposed Decision require that security measures be taken at the facility. Security issues at the nursing home however are beyond the scope of this licence.

- Noise and vibration concerns while this development is (1) being constructed and (2) during its working lifetime. One submission stated that vibration from passing traffic on the N25 is currently a problem at their home, which is 150m away and they are concerned that the effects of the traffic at the new site access road, which will be only 75m away will be much worse. Noise will carry because of the shape of the surrounding topography tendency of the area to be foggy etc. The noise limits will be constantly exceeded.

Comment: Section 4.5 of the Inspector's report deals with the issue of noise. The conditions of the PD include emission limit values for noise and they are the same limits, which the Agency imposes on all waste licensed facilities. The licensee will be required to comply with these limits as with all other conditions of the licence. The PD also requires that mitigation measures are taken for the abatement of noise emissions these include acoustic screens. Noise monitoring, which is normally required on an annual basis is required on a quarterly basis on this site. The applicant has provided background vibration readings.

- Farming/ Organic Farming: One submitter stated that he has recently started the process of getting his land assessed for conversion to organic crops. He had been working in the organic sector in the States and had planned to convert his land to the production of organic fruit and vegetables but he has been told by the organic standards organisations that a landfill in close proximity to a proposed organic site can have a negative effect on the granting of an organic cert to food produced on such a site. One submitter expressed concerns about moving his livestock to and from the land adjacent to the proposed facility entrance.

Comment: The purpose of the conditions of the PD is to control the activity within the facility boundary and to control its emissions so that they will not result in environmental pollution. The emissions from the propose development will be monitored and the results of monitoring will be available for public information.

- Flies and insects Vermin birds and Dust

Comment: Nuisances are controlled by Condition 7 of the PD. Weekly nuisance monitoring is required. Condition 11.5 requires a proposal for the control and eradication of vermin and fly infestations at the facility. Site operational practices at the landfill, such as the covering of waste at the end of each working day will discourage birds from being attracted to the facility. The use of birds of prey and other bird scaring techniques is also a requirement of the Proposed Decision.

- *Inconvenience to the visitors to and clients of the nursing home and bad Image portrayed by the association of the landfill with the nursing home. The submitter asks us to imagine the scenario of a relative approaching the nursing home and entering a road with signs indicating both 'Landfill site' and 'Nursing Home'. Unfair. Regardless of the health and environmental hazards either known or suspected, it is unfair to impose the risk and worry on the residents of this area yet again.*

Comment: The comments of the submitter are noted by the Agency. The Agency's remit involves controlling the emissions from the facility and operational practices etc. within the facility boundary. From this point of view the conditions imposed by the Proposed Decision will have an impact on the view of the landfill, emissions and nuisance parameters. The PD also requires that the licensee adopt a communications programme. The issue of public perception of the location of a waste management facility is noted and can best be addressed by management of the facility.

- *Destruction of the Buffer Zone/Screening – Some submitters are concerned that Coillte thinned out and destroyed much of the tree screening.*

Comment: Condition 3.12 of the PD requires that areas of the forest which have been cut down should be reinstated without delay. It also required that a screen of trees be planted at either side of the access road.

- *Illegal Dumping - the submitters fear that waste will be illegally deposited at the entrance to the facility outside of operational hours and this will attract vermin, flies, gulls and other birds.*

Comment: Illegal dumping is an offence and if it occurs outside the boundary of a licensed facility it is under the jurisdiction of the relevant Local Authority.

- 1) *Geology and Topography – Bedrock slopes steeply and there is a risk of the whole waste mountain sliding. There are many springs and sand lenses throughout the site. The water table is high. Hydrogeological Assessment Report by S.M. Bennet & Co Hydrogeological and Environmental Engineers. This report which formed part of the submission*

*form the Barntown Environmental Alliance submission consists of a critical assessment of the hydrogeology of the Holmestown site. The author states that there are four principal hydrogeologically-related issues associated with the Holmestown site that the author considers as giving rise to an unacceptable level of environmental risk in respect of the proposed development. In what the author considers a descending order of importance they are as follows:*The glacial till in the area is underlain by a number of sand horizons 2 to 3 m thick and extending laterally. The existence of such sand horizons within the Quaternary overburden is likely to significantly change the site ranking used by the EPA/GSI Groundwater Protection Schemes report.

- 2) The regional geological map of the area shows a number of faults striking north to south through the area. There is a precedent in the Tipperary South Riding's rejection of the Ballyclerihan site for a proposed landfill due to the presence of a fault.
- 3) The footprint of the site contains numerous springs. Baseflow in the streams is predominantly groundwater fed. Borehole 2 is artesian and lies just on the margin of the landfill footprint. Combined with the existence of sand horizons, the field evidence conclusively determines that groundwater is a significant feature beneath the site and is likely to be extremely difficult to control in the proposed development. Included in this issue is the proposal to culvert and re-direct an existing stream that flows from south to north through the western part of the landfill footprint.
- 4) In respect of the existing topographic contours, the drop in elevation across the proposed landfill footprint from southwest to northeast is 29.5 metres over a distance of 500 metres. The effective collection and control of surface runoff and internal leachate under extreme storm conditions during the construction phase of typical landfills constructed on ground level is known to stress even the best engineering designs. At Holmestown these conditions are exacerbated by the severe gradient and given the proximity of the stream which the fisheries have declared a salmonid waterway, there would appear to a significantly increased level of risk.

Comment: 1) As discussed in Section 4.4 of the Inspector's report the Geological Survey of Ireland have confirmed that the underlying aquifer is classified as a poor aquifer i.e. bedrock which is generally unproductive except for local zones (PI). The subsoils thickness across the landfill area is generally greater than 10m. Even accounting for the possible presence of some sandy lenses of 2 to 3m thickness laterally continuous the vulnerability is 'moderate' and the response is R2¹, which is an acceptable response category for landfills.

- 2) The Agency considers each landfill application on its own merits. The Agency does not take part in the site selection stage of a project but assesses each individual application submitted.
- 3) As discussed in section 4.4 of the IR the licensee will be required to monitor groundwater levels throughout a winter period in order to determine the maximum winter groundwater table. When this level has been determined the applicant as licensee will be required to ensure that the formation levels of the landfill lining system will be at least 2m higher. See Conditions 3.11.3 and 8.8.2. Borehole 2 is outside the landfill footprint area. Condition 3.15 of the PD governs

the management of surface water at the facility during construction, operation, restoration and aftercare.

- 4) It should be noted that no leachate will be generated during the construction phase of the facility as no waste will be allowed to be accepted until the infrastructural requirements of the licence have been met. The onus will be on the applicant as licensee to ensure that the appropriate measures are taken to control surface water runoff during construction etc, in accordance with Condition 3.15.

- Past Performance

I can only judge Wexford County Council's capability of managing a waste management facility on their past performance of managing Killurin, which is often odourous. Can you let me know are you taking this track record into account when considering Wexford County Council for this new application?

Comment: The comments of the submitter are noted by the Agency however it should be noted that any licence issued by the Agency for a new facility will require a high level of engineering and emissions control in line with European legislation. In many cases older landfills were not designed or operated to a high standard and as such cannot easily be compared to a new facility in relation to issues such as nuisance control and the protection of surface and ground waters. The Agency has not to date deemed that the applicant is not a fit and proper person to hold a waste licence.

- Inagh, Co. Clare/ Tralee County Kerry - *there are currently non-compliance issues relating to odour and groundwater pollution with the landfill in Inagh County Clare, which served as a template for the Wexford proposal, as did the landfill in Tralee. We suggest that the current plans should be revisited in this context.*

Comment: The Agency considered the application for the waste licence at Holmestown wholly on its own merits and not in relation to any other landfill facility.

- Inadequate EIS – *the EIS was carried out over too short a time period and did not take account of local knowledge.*

Comment: See comment in Section 11.5 of the main Inspectors report.

- Ash from incinerated waste *will be disposed of at the site and inadequate assurance has been given that dioxins and other toxic residues will not be allowed to become airborne.*

Comment: Only non-hazardous waste types will be allowed to be accepted at the landfill facility for disposal.

- Baled Waste vs. Loose Waste – *Mr. O'Sullivan of Fehily Timoney and Co. the first consultants used by Wexford County Council stated that the only landfill in the country with an acceptable level of complaints is the one at Kill, Co. Kildare. This facility accepts baled waste only. At the site in Holmestown it is proposed to dump loose unsorted waste i.e.*

in essence there could be anything in this waste. Before the Wexford County Councillors voted on a proposal to give the County Manager permission to engage consultants to check the suitability of the site at Holmestown they visited Kill landfill so when they voted it is my contention that they were voting for a similar facility for Holmestown. Surely if the landfill is to be developed the people should be provided with the maximum protection and only baled waste should be accepted. All waste management facilities of this country should be of the same standard.

Comment: To date the Agency has not made a decision that the baling of waste is considered to be best practice. Nonetheless the comments of the submitter are noted and will be considered by the Board of the Agency.

- *National Interest – One of the main reasons for granting permission for such facilities is that they are necessary to sustain the proper development of the country as whole. There is a need for a waste management facility but I object to Wexford County Council waiting until the existing facility is more than full and then trying to get permission to run an equally shoddy facility on the basis that the waste has to go somewhere. Landfill is no longer the preferred method for of disposing of waste that cannot be recycled. Incineration is the method recommended by the consultants who formulated the Southeast Waste Management Plan. It is time that the EPA looked at applications for licences to run waste management facilities in the context of the national or regional waste management strategies and put a stop to the existing go it alone policies. Only the EPA can make the existing waste management strategies of this country a reality.*

Comment: The Joint Waste Management Plan for the South East Regions additional landfilling space within the region is currently required and there will be a need for each authority in the region to provide either new landfills or landfill extensions to fulfil existing demand.

- *Polluter Pays – Under the principle that the polluter pays a proper costing needs to be carried out for the whole proposal. There are no contingencies factored into this proposal. What will happen if as a direct result of emissions from this proposed facility the nursing home has to close or a farmer can no longer supply milk because of quality issues. The surrounding businesses may have real losses for which they would rightly expect compensation. Making this site suitable would be very expensive but I have not heard of any proposal to increase bin charges. If bin charges have to greatly increase in price surely this will encourage more illegal disposal of waste.*

Comment: the Proposed Decision requires that the costs in the setting up, operation of, provision of financial security and closure and after-care for a period of at least 30 years must be covered by the price to be charged for the disposal of waste at the facility.

- Community Gain/ Cost for Relocation - proposal by Wexford County Council to introduce a community gain practice. The submitter states that the provision of money for facilities in the environs will in no way compensate her for the problems she will experience in living beside the landfill. Some submitters feel that they should be paid to relocate their homes and farms.

Comment: The comments of the submitter are noted. The Agency notes however that the purpose of the fund referred to in Condition 12.5 of the PD is for the benefit of the local community and not for the compensation of individual members of that community. The issue of compensation of individuals or families is outside the remit of a licence granted by the Agency.

- Ecological protection - (including damage to red squirrel populations, the woodcock and badgers etc).

Comment: See Section 13.2 submission from DoELG and comment.

- Land Ownership and leachate pumping – The maps in the EIS are incorrect with regard to the ownership of the land extending to the road at Badger's Hill. Also land will be required for pumping stations to pump leachate but this has not been accounted for nor has any mention been made of buying the relevant land or purchasing it by CPO. It will also be practically difficult to install pumping stations for the pumping of leachate.

Comment: The comments of the submitters who raised this issue are noted however a waste licence granted by the Agency refers specifically to the area of land within a defined facility boundary. The applicant and not the Agency decide this defined area. The onus will therefore be on the licensee to deal with any issues arising as a result of land ownership. The proposal by the applicant is to pump leachate to Wexford County Council's main sewerage system via a pipeline. The onus will be on the licensee to ensure that this work is carried out and is in place prior to the acceptance of waste for disposal.

- Process – The process as foreseen by the EPA does not include a control on the first stages of the process before the waste licence application is made. This makes it totally incorrect and unfair to concentrate on the EIS and the documents produced thereafter without first checking that the assumptions in the phase I and Phase II reports are accurate. In this case there are various reasons to suggest that the assumptions in the Phase I and Phase II reports are not accurate e.g. that there was good tree screening. Consultation was inadequate.

Comment: The EIS was assessed by the Agency and was deemed to comply with the EIS Regulations. It is true to say that one of the factors to be considered was that the applicant (see Chapter 3 of the EIS) must have considered alternatives but the Agency have no reason to believe that alternatives were not in fact considered.

- *Protection of Waters – Concern that drinking water and water used for farm supplies could become contaminated. Concern that the landfill is in close proximity to a small tributary of the River Slaney and because of flooding the landfill may overflow into the river causing pollution.*

Comment: The specification of the landfill lining system is in accordance with European standards. The applicant various proposed engineering measures to control emissions of surface water from the site and the leachate will be pumped to the main sewer system. The Agency cannot grant a licence unless it is satisfied that the facility, if operated in accordance with the conditions of the licence will not cause environmental pollution. The issue of pollution risk is dealt with in the Inspector's report.

- *Proximity to landfill - they lives near Killurin and are now disappointed at the prospect of having to live near another landfill.*
- *Proper Planning and Development – one submitter states that the development will have a detrimental effect on the lives of the submitters and that it is therefore not consistent with proper planning and development.*
- *Change of land use – how was it legally possible to change the use of the land from forestry to landfill. The people who sold the land many years ago did so with the understanding that it was for forestry use only, as any other enterprise would destroy agriculture of the area, upon which they were all dependant.*
- *Site Selection – a recent study identifies Gorey as the fastest population growth area in the South East, and the centre of waste will shift in that direction and this seems to have no bearing on the selection of this site.*

The find it astounding that the new access road from the landfill will be close to one of the most travelled roads in Ireland. The site selection report specified that Knockeen Nursing Home should be given special consideration if the landfill site was developed however the submitters feel that the opposite is the case as no consideration whatever has been given to their clients whose conditions will be drastically and unfavourably changed.

The site at Holmestown wood was selected from a list of 29 sites all of which were Coillte sites, no other sites were considered. The people of Barntown believe the site was earmarked for landfill years ago and that the site selection process was only a paper exercise to give the whole process an authentic look. Certainly when you look at how little examination was carried out at the 29 sites before a shortlist was drawn up it is hard to argue with this assertion.

- *Devaluation of Property*

- Height of the Materials Recovery Facility Building.
- Business (nursing home, farms) will be destroyed and employment will be lost.
- Third Dump – this is the third dump in succession within the same parish. Surely it is time that a dump went somewhere else in the county.
- Traffic and Roads – the people travelling to Knockeen nursing home will be expected to use the new proposed access road and they object to this on the basis of extra heavy traffic it will generate. The N25 is one of the most dangerous roads in Ireland and as a frequent user of the junction at Larkin’s Cross I know how difficult it can be to get out onto the N25 safely. The proposed facility and the resulting road layout will make an already dangerous road even more dangerous. It has to be borne in mind that this route has a lot of people using it that are unfamiliar with the road as they have just entered the country at Rosslare Euro Port. Traffic volumes will increase – even after the lifetime of the landfill as the Civic Waste facility will continue to be used if recycling rates increase. The peace and quiet of local roads will be disrupted. What will happen if the roads are damaged as a result of heavy truck traffic.

Comment: The issues raised, as listed above are noted by the Agency and have been commented on earlier in the report however some are outside the remit of the Agency.

11. Charges

The charges amount to a total of €30,339.

12. Recommendation

I have considered all the documentation submitted in relation to this application and recommend that the Agency grant a licence subject to the conditions set out in the attached PD and for the reasons as drafted.

Signed

Inspectors name

Procedural Note

In the event that no objections are received to the Proposed Decision on the application, a licence will be granted in accordance with Section 43(1) of the Waste Management Acts 1996-2003.